Nordic SAMSPEL

Dyslexia as a musical problem

Kai Karma – karma@siba.fi
The Sibelius Academy, Finland:

It has been long known that musical abilites and linguistic abilities are correlated. This is especially evident in language impairments, like dyslexia. Persons with low musical ability often also have problems in reading and writing, and musical exercises often help in training linguistic skills (Hanshumaker 1980). The closer nature of this relationship is not clear, however. This is so partly because both musical aptitude and dyslexia are unclear constructs as such and the mechanisms operating in them are partly unknown or not agreed upon. It is thus pertinent to first briefly describe both constructs to form a basis for later discussion.

Musical aptitude

Hardly any systematic and comprehensive theories about musical ability exist. Different writers emphasize different characteristics assumed to be parts of musical aptitude or perception; different tests and test items are constructed to measure the hypothesized aspects of the construct. The emphasis may be on the cognitive or on the emotional sides of musical perception as well as on more atomistic or holistic ways of hearing. The atomistic way of thinking concentrates on a person's ability to hear the elemental characteristics of sound. This may lead, for instance, to tests where the abilities to hear small differences in pitch, intensity, duration and timbre are measured. The holistic approach stresses the importance of bigger wholes in music; these are often seen as essential from the point of view of the meaning or emotion in music.

The atomistic approach often ignores the structural aspects of music while the holistic approach often uses subjective and culture-dependent structures, such as samples from the music of one culture. These are used as examples or measures of musical principles which are intended to be general in nature. To avoid these extremes, Karma (1973) defined musical aptitude as an ability to structure auditive material or an auditory structuring ability. This means a general ability to relate sounds with each other; sets of these relationships are structures. This definition includes any kinds of sounds, not just "musical" sounds. There is no reason to limit a psychological construct according to culture-dependent and changing ideas about what "music" or "musical sounds" are. The perception is defined by the state of the listener rather than the quality of the stimulus; any sound patterns can be heard "musically". One important class of sounds usually not seen as "musical" are phonemes, the sounds of language.

It is important to understand that hearing sounds separately, unrelated, is not the same as hearing sound patterns or structures. One may hear the pitches, intensitites, durations, or

timbres of sounds very accurately without having a good idea about the structures they form. In the same way, it is possible to have a very good idea about the patterns even if the hearing of the absolute qualities of the sounds is not perfect. The differences between the elements have to be heard, however. Patterns are composed of differences; without differences there are no patterns. Reasonable sensory acuity should thus be seen as a necessary but not sufficient condition for auditory structuring.

Dyslexia

Different cases of reading impairment may have very dissimilar primary causes. Difficulties may be caused by low intelligence, poor linguistic environment, or emotional disturbances, for instance. Even if extraneous variables like these are ruled out, the remaining cases, which may be seen as representing "developmental dyslexia", form a heterogenous group (Tallal 1980, Duane 1983).

The assumed causes of developmental dyslexia may be classified in numerous ways. One basic continuum that dyslexias often can be placed on can be described as linguistic vs. perceptional (Bakker 1983). At one end of the continuum the difficulties would thus be symptoms caused by a broader language impairment, at the other consequences of dysfunction in perception. Even dyslexia that seems to be linguistic in nature may have its origins in perception, however. A hearing deficit, for instance, may lead to an unclear or incorrect memory store for spoken language.

There are many reasons why some cases of dyslexia can be seen as mainly linguistic in nature. According to Tallal (1980), children diagnosed as reading-impaired may often actually be cases of receptive and/or expressive language delay. Duane (1983) lists several reasons why reading disability can be seen as a symptom of a general language impairment: the delay in speech production milestones in reading impaired population, slow rate of speech production, disturbances of body schema that have strong verbal components, difficulty in aquiring a second language and strong and persistent correlations found between reading and language underachievement.

When dyslexia is believed to be mainly a consequence of perceptual impairments, it is natural to see it as primarily either visual or auditory (Hicks & Spurgeon 1982), or as a problem in audiovisual cross-modal functioning (Hicks 1981). Early theories tended to use predominantly visual explanations as depicted by the term "word blindness". The focus of interest has moved towards auditory/temporal explanations, however. There are several resons for this. Purely visual training has often been unproductive (Hicks & Spurgeon 1982). Also, the problem may not be in visual perception as such, but rather in later processing of the perception, like labelling (Crispin et al. 1984).

Auditory reading impairment, again, can be classified in several ways. One classification useful from the point of view of this article is to see the causes in three groups: sensory disrimination, structuring the auditory elements, or the speed of perception. The term discrimination is not used quite consistently, it may mean either hearing the differences between elemental qualities, like different phonemes, or hearing the differences between higher order qualities, like phoneme structures, words and sentences. The writer of this article feels that it is clearer to use the term discrimination in the first sense; this would mean hearing the differences between elemental qualities like phonemes, intensities, and durations. When one is expected to hear the differences between words, sentences, rhythms, or melodies, a *discrimination task* is used to measure *structuring abilities*.

Spoken languages can be decomposed into limited, often rather small, sets of phonemes which are used to form expressions like words and sentences. Hearing the differences

between these phonemes, i.e. sensory discrimination, is not sufficient for understanding speech, however. The semantic content of an expression is mostly conveyed by the way the elements have been put together, i.e. sequential structures of the available phonemes. This means that in order to understand an expression one has to be able to conceive its phoneme structure. Compared with discrimination, structuring is further processing of the perceived sounds. Terms like auditory organisation and rhythmic ability can be understood as meaning approximately the same thing as structuring in the sense it is used here.

In addition to discrimination and stucturing problems, slowness of auditory processing can also be seen as a cause of reading impairments. Many studies, both behavioral and physiological, support the view that it does have a significant share in explaining dyslexic problems (Tallal 1980, Merzenich et al. 1996).

The awareness of speech sounds, phonological or phonemic awareness, has been a central construct in language research for some time. Today it is often seen as one of the most important predictors, or even the most important predictor of reading achievement. Phonological and phonemic awareness are often used interchangeably as describing the same construct. Awareness of speech sounds is not a homogenous thing, however. It seems to consist of parts which have quite different roles in learning to read and write. Onset and rime, for instance, are usually easy for children to perceive and manipulate and are good predictors of learning to read and write. Analysis of words phoneme by phoneme, on the other hand, is usually difficult for young children and is mainly a consequence of learning to read, not a predictor of it. (Goswami & Bryant 1990). Using different words for these different functions would be very desirable. Phonological awareness could mean the general sense or feeling of the sound structures in language; phonemic awareness would then mean the accurate knowledge of the language sounds phoneme by phoneme.

Although the division auditory/visual may be useful and may describe the phenomena adequately, it is also possible that it masks something more basic. Although there are many exceptions, hearing is the most natural sense for temporal and vision for spatial perception. It may be as good or even better to divide the impairments into temporal/sequential on one hand and spatial on the other instead of auditory and visual. Many writers do this or mention the possibility (Payne & Holzman 1983). Karma (1994) studied the possibility to understand musical aptitude as a general temporal structuring ability rather than an ability to process sound.

In addition to being a problem in either visual or auditory functioning, dyslexia may also be a consequence of impairments in auditory/visual matching. Many studies have found problems in this area in dyslexics (Hicks 1981). Some studies, however, have come to the conclusion that the problem is in sequential information processing *per se*, instead of cross-modal perception and processing (Payne & Holzman 1983). Karma (1999) found that the mean of dyslexic subjects was very significantly lower than that of the controls in auditory structuring alone, but that auditory/visual matching still added a significant share to this difference.

Relationships between music and language

The relationship between music and language, especially language impairments, depends partly on how these constructs are defined. The above discussion points at some possible relationships, however. If musical aptitude is defined as a general auditory structuring ability, it may well be used also in analyzing language sounds. Basicly, meaning in language is in how the elements of language (phonemes in spoken language) are arranged to form temporal structures. The ability to hear these structures, phonological awareness, is an important predictor of reading skill. It is not far-fetched to think that *phonological*

awareness is general auditory structuring ability applied to the sounds and patterns of language. This would mean that general auditory structuring would be an important predictor of phonological awareness.

Seen this way, there are many striking similarities between language and music. Both are basically auditory temporal codes which transmit meaning through the relationships between their elements, i.e., their structures. In both, two levels of structure can be discerned. On the first level, the correct elements are arranged in the right succession; in both music and language this level can be written down and it includes the "correct" message in a crude, unpolished form. In both music and language, there is a second, more refined level of structure, however. To perceive the message in full, perceiving also this structure is essential. Certain elements are stressed to add their importance and to direct the listener's attention to them, tempo is varied and pauses are used to create expectations etc. In music, this is interpretation, in language, prosody or suprasegmentals.

Auditory structuring in diagnosing and ameliorating dyslexia

If the above analysis is correct, music or music-like exercises are important in diagnosing dyslexia and training the impaired skills in reading and writing. This kind of exercises would be directed towards the very bases of reading and writing skills. For instance, gaining a better phonological awareness would be easier if the auditory structuring ability were strenghtened. These excercises would focus on the primary causes of the impairment and let the child concentrate on them without the extra stress of having to understand the semantic content of the text. It is very difficult to understand a message if the perception of the sequence of the letters or phonemes is incorrect or uncertain. Adding conventional reading excercises may not be helpful in such a situation.

Karma has devised an auditory/visual matching computer game and test which uses these principles to diagnose and train dyslexic children. An early version already seemed to be successful in these tasks (Karma 1989). The present version (Karma 1998) is an improved variant which uses basically the same principles. The game consists of abstract, nonverbal pattern matching tasks and is thus close to reading music with a simplified notation. There are two versions of the game. Game 1 first draws two patterns on the screen. The patterns represent sound sequences which are composed of either different pitches, or durations, or intensities. After a couple of seconds, the computer plays either of the sequences. The player's task is to indicate which pattern was played by clicking with the mouse on that pattern. Game 2 only draws one pattern on the screen. After a couple of seconds, the computer plays the corresponding sound sequence. The player's task is to follow the pattern as it is played and, as a sign of correct following, hit the space bar simultaneously with the last sound of the sequence. The games pick items randomly from a pool of about 60 while the tests present every item only once and record the results of the testing session. Test 2 has been used as a measure in research; it records hits and misses on the last sound as well as the hit moment for each item in milliseconds. Its reliability has been good in every experiment, between .80 and .90.

The patterns are not random but are designed to train efficient structuring skills. What are considered efficient structuring skills is based on literature in general but especially on the subprocesses in auditory structuring desribed by Karma (1985). These are: anticipating/recognizing, finding subgroups according to good gestalts, grouping against good gestalts, forming expectations, changing expectations, and hearing sequence changes within strong gestalts. To encourage the use of these cognitive operations, various pattern types are used. The simplest ones are three or four tones long sequences drawn and played only once. These may be good gestalts like sequences with an accent in the beginning (for instance: loud, soft, soft) or more complicated arrangements of the same

elements (like soft, loud, soft). These basic patterns are used to build the longer ones. The easiest ones of these are the good gestalts repeated with a pause in between (for instance: loud, soft, soft, pause, loud, soft, soft). If the pause is left off, finding the subgroups is more difficult. These principles can be extended to form patterns of different difficulty levels which consist of repetitions or variations of the basic patterns, with or without the pause.

Empirical evidence

Karma Music Test (Karma 2000) has been devised to measure auditory structuring (primary musical aptitude) as purely as possible. It is entirely auditory, i.e. the subject compares two sound sequences and decides if the latter is a part of the former; no visual equivalences are used. In spite of this, dyslexics as a group tend to get significantly lower scores than controls. Figure 1 describes one such set of data (Karma 1999). In this experiment, the subjects (N=95) represent a wide range of ages (8-56 years). Although the difference between the means of the dyslexic and control group was statistically very significant, there is much overlapping in the distributions. This means that dyslexics tend to get lower scores but that there are many dyslexics with good auditory structuring ability and some normal readers with rather poor auditory structuring.

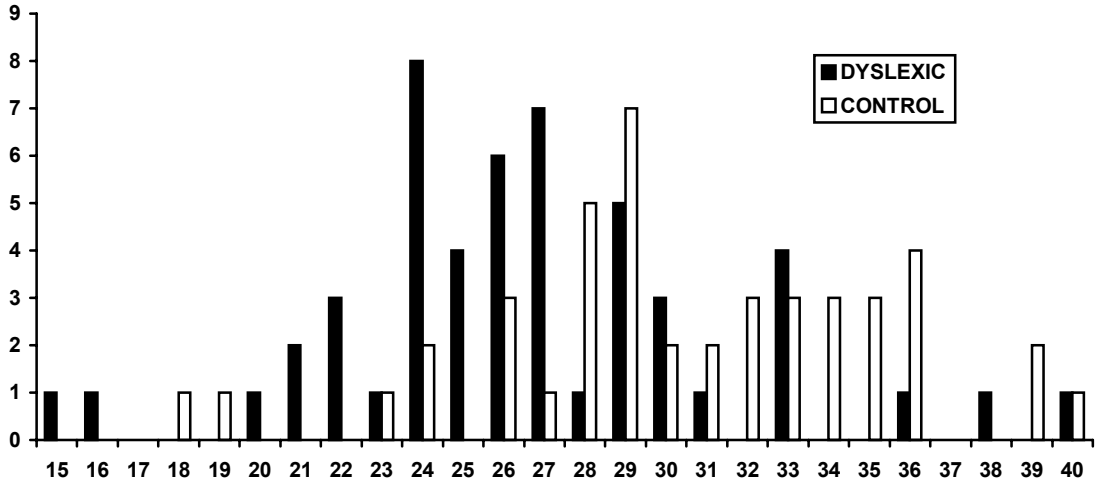


Figure 1. Scores in auditory structuring . Means: 26,7 (dyslexic), 30,5 (control) p<.000 (Karma 1999).

In the computer test, which requires auditory/visual matching, the difference between the groups becomes sharper and clearer. This is evident in the data in Karma 1999, but figure 2 presents another set of data which is partly the same as in Kujala et al. 2001. In this data set, all subjects (N=96) are comprehensive school first graders, most of them 7 years old. The difference between the experimental (dyslexic) group and the controls is again very significant. In addition to this, there is another property in the distribution which does not show in the auditory structuring test above: the distribution of the dyslexic group seems to be bimodal. This can be interpreted so that the distribution is composed of two parts: those dyslexics who have problems in auditory/visual matching and those whose problems are elsewhere. Almost all members of the control group belong to the better part of the distribution. Many of them had no difficulties at all, i.e. they have a full score (30 points).

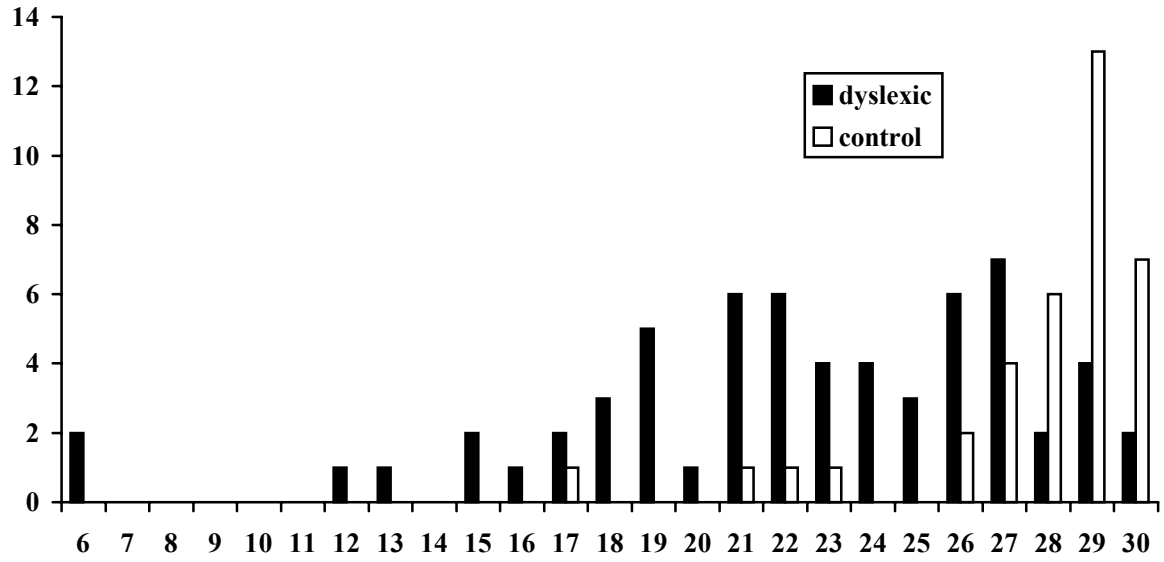


Figure 2. Scores in the auditory/visual matching test. Means: 22,3 (dyslexic), 27,9 (control), p<000.

As was already mentioned, an early version of the matching game produced positive results in training the reading skills of dyslexic children (Karma 1989). A recent study (Kujala et al. 2001) shows the positive training effect both in reading tests and event related brain measures. Reading-impaired first graders were given reading tests and the auditory/visual matching computer test in January. A physiological event-related brain measure for automatic discrimination of sound patterns (Mismatch Negativity, MMN, Näätänen 1992) was also taken. Children with difficulties in the auditory/visual matching test were selected to the final analyses. The experimental group then played version 2 of the auditory/visual matching computer game. Otherwise, the groups were given approximately similar instruction at their schools. In May, the same measures used in the pre-test were taken again. The experimental group showed a significantly larger improvement in word reading, auditory/visual matching and mismatch negativity. The MMN of the control goup had not improved at all.

Discussion

The results show that abstract, non-verbal auditory structuring and/or auditory/visual matching obviously are important in reading skills. These skills can be both diagnosed and trained with music-like patterns. Although music (whatever it is!) was not used in these experiments, the obvious conclusion is that suitable music is also effective in this respect. Approximately 50% or even more of the cases of reading impairments seem to belong to the auditory or auditory/visual type. This supports the view that general auditory structuring is the basis which is used for perceiving any auditory patterns. One can think that for a child who is learning to speak his/her mother tongue and, to some degree, for an adult who is beginning to learn a new language, the spoken language is much like music: abstract auditory patterns without semantic meaning. To learn the language, one must first be able to hear the structures; meaning can be associated to the structures only after they can be discerned from the flow of speech. Hearing language may then branch from hearing music but the level of ability is still affected by the level of structure hearing in the first phase.

More research is still needed to specify the cognitive operations measured and trained. Three types of operation were mentioned earlier in the auditory area: discrimination, structuring and speed. In the experiments described in this article, the effects of discrimination and speed can be relatively safely excluded from the explanation. Although there are some microintervals in the auditory structuring test, there are no small differences to be discerned in the computer game and test. All patterns are composed of clear differences in pitch (visually: placement), intensity (visually: thickness) or duration (visually: length) of the elements. Speed can be excluded as an important factor because the tempi used were rather slow; the difference between dyslexics and controls was significant although the tempo was as slow as one note/second.

This leaves structuring as the explaining factor; the difficulty is in specifying the roles of auditory structuring alone on one hand and auditory/visual matching on the other. Because auditory structuring alone was not trained in these experiments, it is not possible to give a reliable answer before additional research. The effect of training auditory/visual matching can be explained in at least two ways. First, that training simply improved matching skills and these affected reading ability directly. The second possibility is that training in matching actually improved auditory structuring ability and this improved the reading efficiency. There are some factors which support the latter explanation. As was mentioned earlier, some researchers believe that auditory factors are the primary ones and that auditory/visual matching only reflects them. The significant improvement of the experimental group in the MMN means inprovement in auditory functions, not matching. Karma (1982) has hypothesized that spatially able (and often verbally weak) children and teenagers could improve their auditory structuring by transforming their visual skills into temporal operations.

References

Bakker, D.J. 1983. Hemispheric Specialization and Specific Reading Retardation. In Rutter, M. (ed.) Developmental Neuropsychiatry. New York: The Guilford Press.

Crispin, L. - Hamilton, W. - Trickey, G. 1984. The relevance of visual sequential memory to reading. British Journal of Educational Psychology 54, 24-30.

Duane, D.D. 1983. Neurobiological Correlates of Reading Disorders. Journal of Educational Research 77, 5-15.

Goswami, U. - Bryant, P. 1990. Phonological Skills and Learning to Read. Hove: Lawrence Erlbaum Associates Ltd, Publishers.

Hanshumaker, J. 1980. The Effects of Art Education on Intellectual and Social Development: a Review of Selected Research. Council for Research in Music Education, Bulletin No 61, 10-25.

Hicks, C. 1981. Reversal Errors in Reading and their Relationship to Inter- and Intra-Modality Functioning. Educational Psychology 1, 67-77.

Hicks, C. - Spurgeon, P. 1982. Two Factor-Analytic Studies of Dyslexic Sub-Types. British Journal of Educational Psychjology 52, 289-300.

Karma, K. 1973. The Ability to Structure Acoustic Material as a Measure of Musical Aptitude. 1. Background Theory and Pilot Studies. Research Bulletin no. 38, Institute of Education, University of Helsinki.

Karma, K. 1982. Musical, Spatial and Verbal Abilities: A Progress Report. Psychology of Music, Special Issue: Proceedings of the Ninth International Seminar on Research in Music Education, 69-71.

Karma, K. 1985. Components of Auditive Structuring - Towards a Theory of Musical Aptitude. Council for Research in Music Education, Bulletin no 82, 1-13.

Karma, K. 1989. Auditive Structuring as a Basis for Reading and Writing. In: Breuer, H. - Ruoho, K. (eds.) Pädagogisch-psychologische Prophylaxe bei 4-8 jährigen Kindern. Jyväskylä Studies in Education, Psychology and Social Research no 71, University of Jyväskylä.

Karma, K. 1994. Auditory and Visual Temporal Structuring: How Important is Sound to Musical Thinking? Psychology of Music, 22(1), 20-30.

Karma, K. 1998. Audilex. A computer game and test to diagnose and train auditory/temporal matching. Helsinki: Comp-Aid.
<http://www.compaid.fi/english/audilexeng.htm>

Karma, K. 1999. Auditory Structuring in Explaining Dyslexia. In: Mc Kevitt, P. - Mulvihill, C. - Nualláin, S.Ó. (eds.). The Eight International Workshop on the Cognitive Science of Natural Language Processing (CSNLP-8). Galway: Information Technology Centre, National University of Ireland.

Karma, K. 2000. Karma Music Test, research version. Glen Ellyn, IL: The Ball Foundation.

Kujala, T., Karma, K., Ceponiene, R., Belitz, S., Turkkila, P., Tervaniemi, M. & Näätänen, R. 2001. Plastic neural changes and reading improvement caused by audio-visual training in reading-impaired children. Proceedings of the National Academy of Sciences, vol 98 no.18, 10509 - 10514.

Näätänen, R. 1992. Attention and Brain Function. Hillsdale, NJ: Erlbaum.

Payne, M.C. - Holzman, T.G. 1983. Auditory Short-Term Memory and Digit Span: Normal Versus Poor Readers. Journal of Educational Psychology 75, no 3, 424-430.

Tallal, P. 1980. Auditory Temporal Perception, Phonics, and Reading Disabilities in Children. Brain and Language 9, 182-198.

Models of understanding contemporary music on a broad interdisciplinary platform

Bjørn Kruse – bhk@nmh.no
Norwegian Academy of Music

The myth of the eccentric artist, the enigmatic soul with the cryptic titles to his works, the artist who is never really understood by the general public, nor even expected to be understood, is still with us today. Some artists even believe in it themselves, exerting themselves to the utmost to uphold a public image which they know is expected by their social environment.

It may surprise many a layman, however, although few will actually admit to it, that artists do in fact use their heads in a reasonably rational, structured and constructive manner; that writing a novel, painting a picture, composing a piece of music, or acting in a play require such discipline of mind and strategy of thought, that the most learned of scientists or academic researchers would certainly include the artist in their midst at once, had they been aware of this capacity.

It seems that in order to counteract this myth, in an attempt to bring the artists´ work down to earth, as it were, many of the higher institutions of learning within the various fields of fine arts have adopted a method of teaching which has more in common with the field of scientific study and analysis than with the art of creative thinking and aesthetic deliberation.

The situation is, as a result, that the professional aspects of a given discipline of art, and particularly music, have become so uniquely idiomatic as to exclude the possibility of enlightenment from any other disciplines. The institutions nurture this scientific approach to such an extent that they have become blind to the enormous potential of expanded awareness to their own particular expression of art, which may lie just next door, within other fine arts studies. But to suggest that music students, for example, whether performers, composers or music teachers, may learn something about the art of interpretation from a visiting theatre instructor, or about the dynamics of expression from a dance choreographer, or the basics of composition from an architect, is considered to be a genuine threat to the professional integrity belonging to music alone.

So we, the representatives of the professional educational institutions, cultivate our own expression of art as though we were hiding in a secluded monastery, seemingly to avoid being contaminated by foreign influences. Yet we expect our art to communicate and to have our students be able to communicate with others besides their fellow musicians. In short, we expect our students to represent that which we hope art represents: an impulse to stimulate the ability to reflect on experience in retrospect.

What is needed, and what has to be present simultaneously with the narrow focus on the subject itself, is to lay the foundation to develop a way of thinking which generates wisdom about the subject, not just the acquisition of knowledge and trained skills which are unique

to that subject. No single subject can be fully understood or appraised if not put into perspective with regard to the surrounding areas - this is good old hermeneutics. Only then are we able to approach our subject as a phenomenon, relating it to a larger context than the immediate, and seeing how the wisdom of acquired knowledge from one subject may be transposed to the understanding of other subjects, and, ultimately, even to the understanding of our own lives.

One important aspect of this broader level of understanding is to realise that any amount of acquired knowledge or set of skills related to a given expression of art is not an isolated entity. Example: If you are a skilled instrumentalist, you possess a high level of insight into the nature of other art expressions as well. Your level of expertise is not just that of a professional musician, it also represents a broad competence within the field of art in general. And, as such, you posses a high level of understanding into the thought processes of creativity and experiencing of art. I often hear that musicians rarely attend the theatre, or go to an exhibition of modern art, because they feel they don't understand it. This attitude shows how the young professional has not been given the opportunity to reflect upon his own artistic wisdom. I believe that the music student in fact already has an enormous capacity for understanding other forms of art, even though they are «only» musicians. Not to mention a capacity to reflect upon themselves as human beings, relating to other people and to society at large, through their art. We are actually talking about a basic existentialistic philosophy, as it is expressed through the interpretation and expression of music, from the sculpturing of the smallest phrase to the way you handle the drama of the large form. Your approach, or basic attitude, to art itself, and thereby to many of life's smaller and larger secrets, is well developed and of a convincing nature, because you have attained a high level of expressing yourself through an artistic medium, which is playing the instrument. Whether it is the intentions of the composer, or social conventions surrounding the music which constitute the basis of your interpretation, you cannot avoid giving expression to your own personal thoughts in the process. Not being aware of the close connection between life and learning may lead to a situation where existential conflicts hinder a constructive artistic career, not to mention a harmonious way of life. Many students feel intuitively the disharmony of the developing as an artist on the one hand and the feeling of becoming more and more disillusioned with life on the other. This personal situation is a very real factor within our educational institutions, especially within the field of fine arts, so it is important that we as teachers make the effort to try and bridge this gap. I could give you numerous examples of the ultimate catastrophe that may occur, if this aspect is neglected.

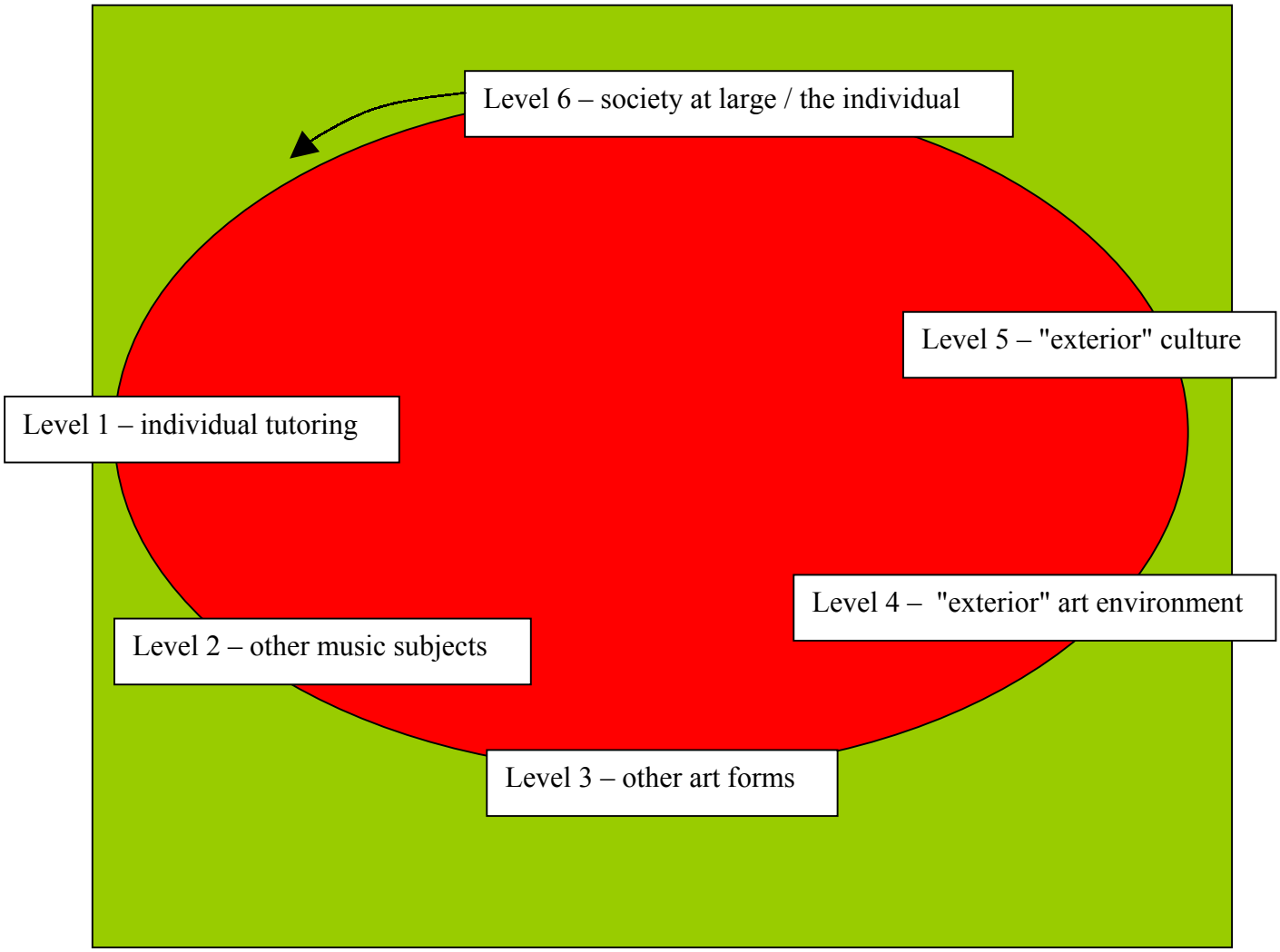
The question is how a broader understanding of any particular expression of art can be supported, considering the enormous amount of work required of a student. Ultimately it's the teachers who have to give the impulse to broadmindedness and create an interest in surrounding phenomena. One expression of art should always be seen in the context of other expressions of art. All that music represents as far as composition and dramatic expression has its parallel in other art forms. All in all, that common domain existing between the various art forms is far more extensive than the small area of specialities belonging to each alone. So why doesn´t the educating of the artist address this common domain to a much greater extent?

A relevant question in this connection may thus also be the following:

How does the individual student at a given school of art experience the relationship between what he performs as an artist and who he is as a person? Or, how extensive is the environment which he considers to be a part of his understanding of his art? The answer may reveal the extent to which his particular subject has been given a perspective value. The broader the perspective, the better the possibility of developing wisdom

surrounding the art, without threatening to diminish the level of professional competence as such in the art.

Here is an illustration of what I have called levels of subject perspective within the field of music performance, the basis being the one-to-one teaching/councelling of the composition student.



Explanation:
Level 1
The music student, learning to sing or play an instrument, experiences the individual lessons with the teacher as the most important, naturally, since the subject is directed towards the student personally.

Level 2
The student also has to take subjects dealing with music in many other ways, like music history, ear training, harmony, and the like, most often concerning music the student has never heard or heard of. How does the student feel that these music subjects relate to the individual lessons on level 1?

Level 3
Music is only one of numerous art forms. How does the music student feel that music performance relates to the activities of other students of arts, be it painting, acting or architecture?

Level 4
How does the student feel that performing music relates to the professional environment in general in society - on the other side of the walls of the institutions of fine arts education?

Level 5
How does the student feel that music performance relates to the cultural environment at large?

Level 6
How does the student feel that music performance relates to the global human society as such, and to each individual human being living «out there»?

Comments:

Levels 5 and 6 may be considered as one. But notice that the gap between level 6 and 1 is small in my illustration, which is the reason for drawing a circle rather than a straight line. Levels 5 and 6 should not be looked upon as being far away in the distance, way beyond the reach of level 1. The fact is that the gap is virtually non-existent.

Each one of these levels of subject perspective belongs to three distinct professional and social environments:

Levels 1 and 2 lie within the respective institutions of learning.

Level 3 lies within the environment constituting the entire body of learning institutions.

Level 4, 5 and 6 lie outside the institutional environment of level 3 - in the «exterior» environment.

Within each of these levels there exists a terminology and a set of concepts that are unique. This represents the most constructive point of departure in an attempt to comprehend the potential common domain of all levels in terms of articulating their specific qualities.

1. The specific professional terminology is to be found on levels 1 and 2.

2. The common professional terminology is to be found on levels 3 and 4.

3. The general public terminology is to be found on levels 5 and 6.

All fields of knowledge are characterised by their own set, or repertoire, of more or less exclusive professional terms, be it that of electronic technology, internal medicine, golf, or trumpet playing. These esoteric languages exist within the individual art forms as well, efficiently excluding the uninitiated soul, just like in the monastic societies of medieval Europe. This situation is perhaps a necessity in the efforts to analyse and classify the components of knowledge constituting the given art form. But a one-sided focusing on the specifics may lead to blindness, hard as it may be to admit.

Of all forms of art, music is the one with the most extensive descriptions of detail, including the systematic analysis of sound qualities, the performance techniques of each individual musical instrument, and theories of interpretation and music listening, history and style. The specific professional language is so thoroughly developed and established, that the need to examine other fields of study pertaining to other art forms seems unnecessary and superfluous: music is, apparently, entirely self-sufficient.

How, then, is it possible to create room for broader thinking without depreciating the level of professional expertise and undermining the quality of important scientific research?

One possible solution is to examine, with a wide open mind, the common professional language in the «cross-over» domain representing all art forms.

What are the terms in question? What does the common domain of concepts look like? What actually constitutes the common language spoken by all artists? How do artists think alike?

We know that everyone dealing with art uses the terms «composition» and, at least to some extent, «drama». These two terms may serve as door openers into the realm of this common language.

The term «composition» is defined as follows: «a putting together of a whole by the combination of parts» (Webster´s New World Dictionary). Naturally, we all know that. But what is «putting together»; what is «a whole»; what is «a combination», and what are «parts»?

Within the field of art, composition is a term most commonly found in music, literature and the theatre, where it refers to the structure of elements as such; how in the composition the musical constellation of elements is arranged; how in litterature the disposition of the elements in a plot is structured; how in a painting the components relate to each, in order to convey a sense of a completed whole. A description of the compositional character does not necessarily involve describing the contents of the elements as such; only the character of their constellation; the ways in which the elements relate to each other.

An element in a composition is a relative entity. If you are standing 20 feet away from a painting, the eye will perceive a different constellation of elements than at a distance of 6 inches. This is why the perspective element - or we can call it the level of detail information - is an important factor in describing the character of a composition. All in all, this aspect of detail versus the whole, micro/macro, quality/quantity, ornament/main structure, etc., is the basis of the approach to creative awareness dealt with in the issue at hand.

The term "drama" refers to the ways in which a composition "works", that is, how it is perceived as an experience. One could also illustrate the term by means of various questions that the artist might ask of himself in the creative process, like "Which form will convey my compositional idea in the best possible way?". Or, "How can I create optimal interest in my work?" Or, more detailed: "How can I achieve the optimal experience on every conceivable level of the art work?" Further, "What can I do to support my artistic intention to the utmost extent?". Or, "Are there elements of any interest at all in my material?" (This last question is one that every artist should ask of himself...)

Drama, as a phenomenon, may be said to be a part of the domain of the experiencer, while composition as such belongs to the artist. But while the listener, f.ex., cannot be expected to relate to the compositional aspects of the music, the musician must be able to relate to the dramatic aspect, as well as the compositional. When describing a composition, one usually refers to the balance of contrasting elements or how the structure "holds up" in accordance with certain aesthetic conventions and preferences. But the moment one mentions the dynamic interactivity that is experienced, relating to intensity of expression, level of excitement, emotional temperatures, and the like, one is describing the dramatic properties of art. This has traditionally belonged to the field of dramaturgy, as related to

"storytelling" and the art of rhetoric. I honestly cannot understand why dramaturgy is not an integral part of the study of all art expressions!

In the context of this presentation I base my approach on the following understanding of the terms: the composition refers to the constellation of elements constituting a given work of art, and drama refers to the way in which a composition is experienced in time and space.

With these two terms as the key, the door opens into a vast area of other terms and concepts, related to the "cold" composition and the "warm" drama. Some of the relevant topics within this interdisciplinary domain are as follows:

- various levels of structural and textural characteristics
- various levels, paths, patterns, and paces (pulse, rhythm, tempo) of events
- levels of contrast between two or more elements, or varying degrees of polarity
- the techniques of variation and transformation
- the relationship between time and space, process and state
- the function of elements in relation to basic and ornamental structures
- the nature of development
- constellations of foreground and background (the phenomenon of collage)
- interaction between foreground and background
- dynamic gestures and patterns of tendencies
- major and minor events of interest, and much, much more.

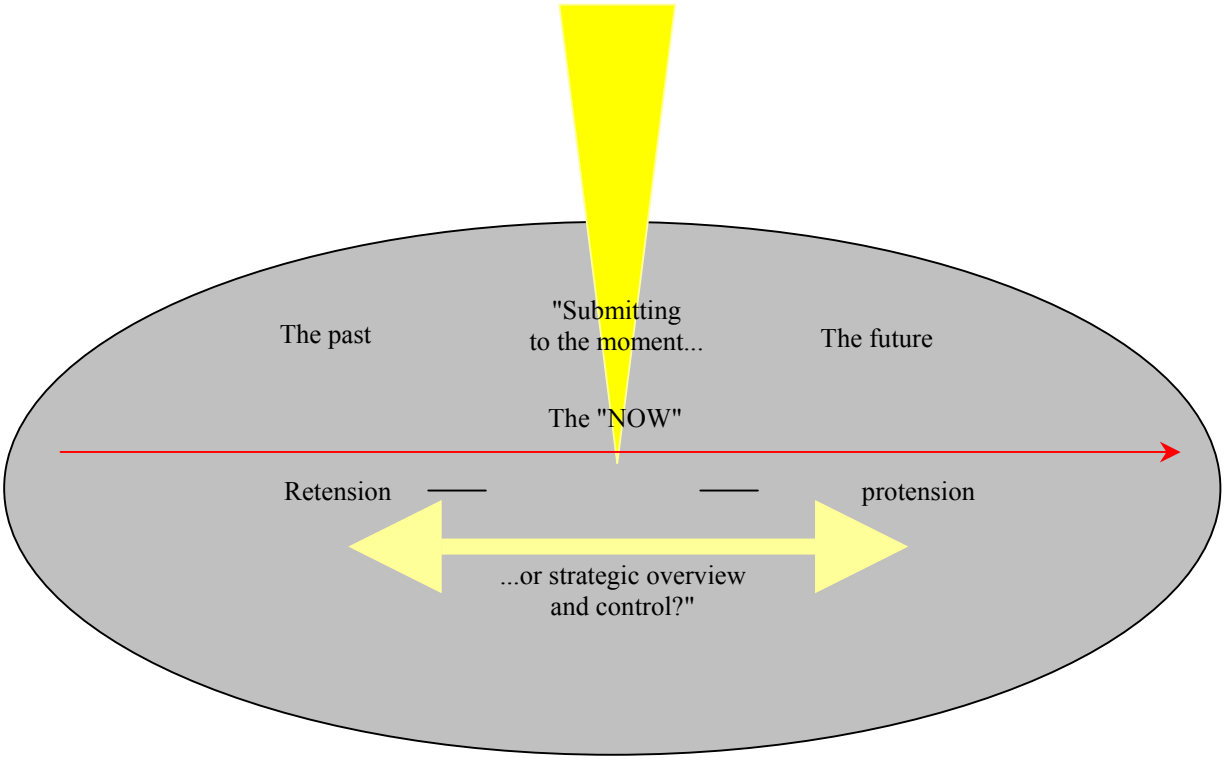
The basic characteristic of these and related topics is that of mobilising the mind to structure the act, or should we say the art of thinking as such. They represent models of thinking, of establishing mental representations of movement and form, structures and textures, which have yet to be made concrete in a given material, whether they are musical sounds or solid rock in the hands of a sculptor. The common instrument, shared by all artists, is the mind, and the common language is the spoken or written word - which in turn is the expression of thought. What I am suggesting in the context of this presentation is a common reference to both the instrument and the language: a common conceptual domain.

Improvisation is the essence of creativity; creativity is in fact improvisation. All artists improvise in some manner or another, and it seems natural to first look into what improvisation actually represents as a common creative process as such. Normally, we distinguish between free improvisation and the act of improvising on or around something else which is given, like a theme or motif. In this context, let's look at free improvisation, where the performer creates spontaneously, based on artistic intuition; in other words, it is first and foremost an exercise occurring in the immediate present. The essential element of the immediate expression, is to «lock into» the intuitive expression and to yield a spontaneous reaction. Once having attained this state of consciousness, one can feel, after a period of training. when one has contact and when one is out of contact, so to speak.

One of the things that sets the experienced improviser apart from the beginner, is his ability to structure an improvisation, that is to be able, while being in contact with the moment at hand, to retain what has immediately been done, and at the same time be able to plan ahead into the immediate future as to what is to come. This perspective, involving the present, past, and future, is the domain wherein creative thinking takes place. The constellation of the intuitive act on the one hand, and the strategic planning on the other, both upheld simultaneously, may seem like a contradiction in terms, yet it is precisely this dialectic situation which constitutes the process of creativity. One might say it is a rhetorical situation; an argumentation of opposing terms, which is essentially the elements

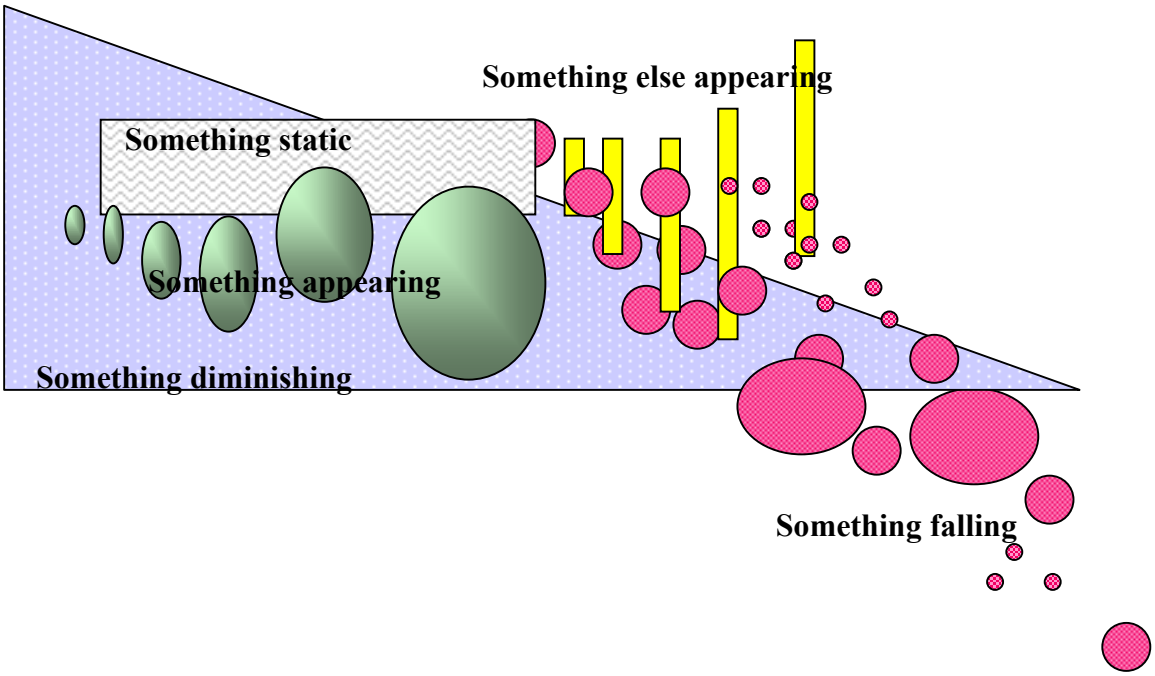
of energy. There has to be a dialogue between the rational and the intuitive, if the improvisation is to be doing more than «doodling».

Illustration no. 2 shows an example of how one might represent this process graphically.



(Ill. No. 2)

The next illustration, no. 3, depicts a situation of various occurring events as they might be represented with terms and visual graphics which any artist would be able to represent in his or her way, i.e. using his or her medium.



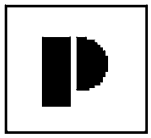
(Ill. no. 3)

When improvisation is performed by more than one person, like in a group of musicians, the situation is analogous to a good conversation among friends respecting the views of one another, and each contributing to the subject at hand, securing its degree of interest at all times.

Now let us examine the concept of variation and development. One can hardly say that no artist has ever been confronted with the choices of alternative ways to create variations on one given element. How can the process of generating variations be structured as a mental model?

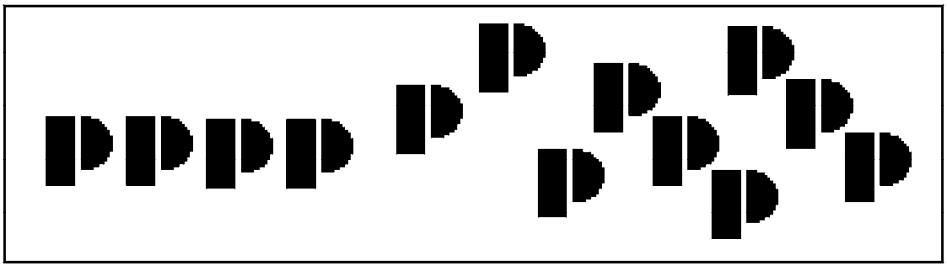
Given something which we believe to represent the one brilliant idea, the inspired motif, or the object of main interest - in short, anything worth pursuing as an object of artistic interest, we can create a set of other objects which are more or less related to the original.

Ex.: The original something



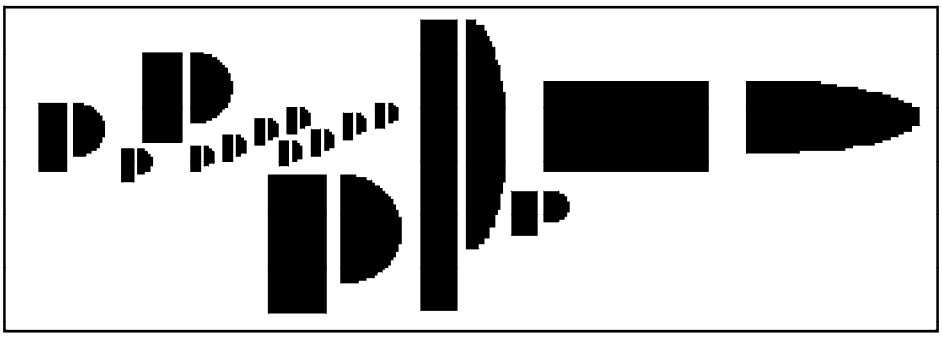
(Ill. no. 4)

On the basic level of variation, we can produce clones, or exact replicas of the original, and use these as compositional elements. On this level one may also employ the possible transpositions of the identical objects, as well as arranging them in sequential patterns.



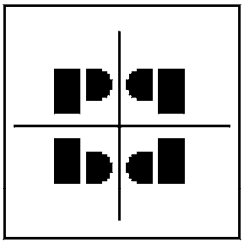
(Ill. no. 5)

On the next level, the original may be augmented or diminished, although still maintaining the structural properties of the original.



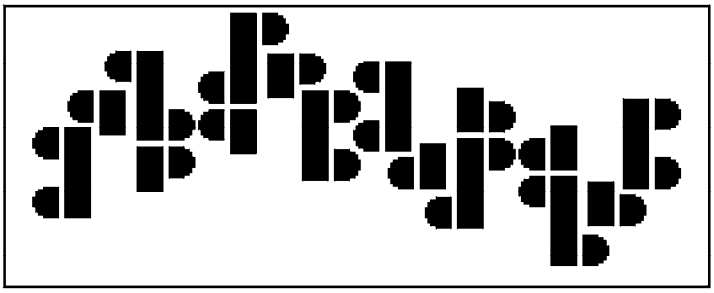
(Ill. no. 6)

The third level involves using mirrored versions, in all directions. The primary model is that of a so-called Modus Quaternion; a representation of the original in relation to a horisontal and a vertical axis, giving us a retrograde version, an inversion of the original and an inversion of the retrograde.



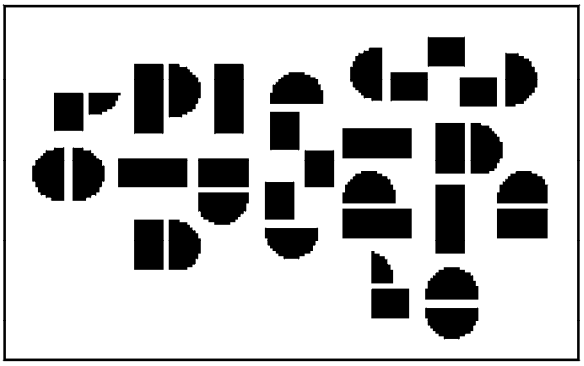
(Ill. no. 7)

Considering the full implications of mirrored versions, employing diagonal, curved, zig-zag and other forms of mirror axis, the alternatives are limitless.
The following example, however, is a composition consisting of Modus Quaternion versions. The second level of variation, using augmented or diminished versions, is not represented.



(Ill. no. 8)

The fourth level is where the original may be dismembered, and its various parts used as compositional elements. This is the level of permutation, mutation and generally a decomposing of the original, perhaps ending up with something quite far related. At this point we have gone through the process of creating a complex composition of elements derived from one single original.



(Ill. no. 9)

Basically, employing these four levels of related originals is related to the techniques of variation found in all forms of art expression.

So the question now is how great a divergence can there be between two varieties of a given original before they are perceived as two non-related elements? What is the difference between variation on the one hand, and transformation on the other? At this point, we enter into the realm of interaction on a different level, where focus lies on models of transitional development, where the evolvement of variations lead to other «originals»; in short, the structural (compositional) aspects of working with the interaction of contrasting elements.

Music is a medium in which the ideas of all art are perfectly illustrated. All art relates to music because music is by its nature pure conception, as perceived in sound. Therefore I feel that the music teacher has an excellent opportunity to show the way into the appreciation of other art expressions through music. And by doing so giving impulses to reflect upon life experience as such.

Chances of moral education in school-music listening at classroom instruction - *What the curriculum reform in Hungary includes*

Zoltán Laczó – zlaczo@axelero.hu
Franz Liszt Academy of Music, Hungary

School-music education (SME) plays a different role in the educational system of different countries. There are countries, where SME cannot be found on the list of the compulsory subjects. There are countries, where it can be found at certain grades, at certain levels of the education. There are countries, where it is organically built into the system of other subjects, though it shows a certain variety by regions.

The aim of SME is different in various countries and various regions, according to the role it plays in the system of general education. Music class between a maths and a history class plans the role of getting away from both of them. The aim of school-music lessons is to teach a lot of songs to enlarge the song-repertoire of the pupils. It may want to teach some theoretical knowledge, too: some scales, intervals, more intensive music-reading, score-reading might be taught. In some countries the moving-do system is included in the curriculum skill, at other places the absolute-do system is preferred. In some cases master pieces and the life stories of great composers are the subject of music lessons. Listening to these masterpieces belongs to the music classes. But it might occur that instead of listening to these masterpieces very contemporary pop-music is sung and enjoyed.

Summarising the above opportunities, we may say, school music lessons develop skills and/or give knowledge. In some cases developing skills is equivalent to developing techniques. Either technique or knowledge becomes the centre of classroom activity of music class, it is to be feared that they make the very aim of music teaching that SME wants to fulfil obscure.

In Hungary SME has taken a reputed place in the system of compulsory subjects with two classes a week for last five decades. In my paper I cannot go into details concerning the changes in the number of music classes but I must admit that this number has decreased in certain types of school and in various grades in the past decades.

There was a significant change in the Hungarian educational system (and its history) when the National Core Curriculum (NCC) was codified in 1993, which did not include individual subjects, but literacy units. These literacy units consisted of different disciplines which were meant to facilitate the integration of different knowledge materials both in the instructions and the acquisition. Consequently following this concept the NCC formed a literacy unit of art, which included music, of course, but visual art, dance, drama and cinematic art, as well. This literacy unit could take 12-16% of the number of lessons a week. It does not mean more than 3-4 lessons for all sort of arts listed before. It is very easy to find out what the consequence of this new concept in practical school music teaching was. Music lessons did not need to melt into the new system, they could keep on in the former framework, but, of course, the number of lessons was reduced to one a week.

Although we have no long experience in this practice, we can already say, one lesson is not the half of the two, but less.

Hungarian music teachers experienced this regulation as losing Kodály's heritage. In their opinion the traditional aims of school-music teaching, like developing skills in singing, sight reading, music writing, giving lessons in music literacy, etc. cannot be realised any more. Although the most recent curriculum, following the NCC in time and concept, defined the aim of SME widely, not every detail of this aim can be applied in harmony with half a century traditions. But there are some sort of musical activities which can be cultivated further on. Among those are developing singing skills, and enlarging the Hungarian and non-Hungarian folksong repertoire. The reduced number of lessons does not make it possible to develop certain skills of hearing and the skill of music writing, however, music reading can be trained further on. Yet, music listening, which became one of the activities at music lessons after the curriculum reform of 1978, can remain a useful part of the reduced music lessons. If Hungarian music teachers want to keep Kodály's spiritual heritage, they have to recognise they need to teach some different material and in some different way than before.

But there are some other factors, which should influence the Hungarian school music educators in handling the music material to be taught. It has already been a bitter experience for us in the recent years to realise that our young people do not like to sing either in or out of school. They do not consider the music material that the school gives them, as their own. They prefer music material transmitted by the mass media than what schools are trying to offer. Hungary cannot avoid globalisation either, and this refers to music material, as well, which can reach almost all parts of the world. Musical preference researches carried out recently[1] show the above mentioned phenomena in Hungary, as well. Young people prefer pop music to folk music, religious music and to masterpieces of high art, disregarding the type and grade of school these young people attend. A new youth subculture has also been formed in the recent decade in music, like in other different areas of behaviour or taste. Classical ideals of traditional knowledge and culture fail their attention.

It must be taken into consideration, that the 45-minute classroom music lesson cannot be competitive with the music listening practice of our youth who consume 20-30 hours of music a week. Or, perhaps can it ? It is possible, if different ways, different contents are experimented to make the best use of today's halved music lessons.

Obviously, there are, there can be, there will be different trials to help schools keep or regain their educational influence. I would like to introduce one way which may draw the attention of the pupils to the music offered by the school. But before doing so, let me refer to one of the basic thoughts of Kodály, where he says, without art, which includes music of course, no human life can be complete. He recall the ancient Greek ideal concept.[2]

The ancient Greeks gave orientation points in several things for the thinking and the thinking experiments of our modern age, too.

Damon, teacher of *Pericles* and *Socrates,* was the first philosopher who wanted to make aware the political and social-pedagogical significance of music. In his consideration music has not an aesthetic content only, but a moral and social one, too. He called this

[1] Haui, Lóránt: A zenei ízlés vizsgálat gimnáziumokban [*Musical preference researches in secondary schools*], in: Parlando, 2002. Nr. 2. p. 14-30.
Pethő, Attila: Két szomszédvár? [*Two neighbours in conflict?]* In: Parlando, 2002. Nr. 2. p. 31-54.

[2] Kodály, Z.: Egy zenepedagógiai folyóirat megindulásához [*To establishing a music educational journal*] (1958), in: Visszatekintés [*Retrospection*] – Vol. 1., Ed. by Bónis, F., Zeneműkiadó, Budapest, 1974. p. 316

nature of music *ethos.* His views were put down in *Plato*'s dialogues "*The State*"[3], where the nature of different music scales (dorian, phrygian) and instruments (kythara, aulos) was also made explicit. Excellent argumentation can be found in "The State" about the social and moral content of music, and like such, how can music contribute to the education of *zoon politicon* (the right citizen).

Aristotle deepened and widened Plato's thoughts. In his philosophy the aim and sense of art is promoting virtue [paideia]. Making, practising music exceeds its own direct practical aim, it serves as aesthetic enjoyment, entertainment and recreation, too. Using another way of sophistication, Aristotle got to the term of *catharsis*, which is an *experience* of purification, moral ascending and harmony coming from restored disharmony in the receiver. Generalising the theory of Aristotle, we can find the individual, who is ascending from his own particular individuality up to the generality through the experience gained from an art piece, meanwhile he can identify himself with the endeavours and life of his wider community. Aesthetics and morality meet in an interaction referring to each other and both of them contribute to the socialisation of the zoon politikon.[4]

Instead of surveying the whole history of philosophy, I suggest focusing on the 20th century aesthetics, that renewed and reconsidered the ancient thinkers' theories and concepts, which are valid in our present time, too.

We can observe a phenomena where the master piece, the composition contributes to forming *morality*. Moral is the summary of unwritten rules of the society through which the individual puts himself into the social environment, that worked out and created the behavioural norms and regulations of the everyday practice and these norms contribute to a better adaptation to community and society in a tacit agreement. It is important to know, moral is variable in different ages and societies. It always has an educational function and promotes the socialisation of the young generation. This axiom can be considered as a starting point to our educational implementation.

The world changed in the past decades enormously much. Development of techniques, transforming economy life, revolution of communication all influenced the life and inner nature of people. It is the world of competition for the information. Who is slow, will be backward. Social positions, getting material possesses, conquest of markets may depend on lost hours, minutes. Competition does not recall politeness, consideration. Drive of acquisition enters into the place of co-operation. Even if there is co-operation, that occurs business based. The pictures recalls the Darwin theory. Our children are born into such an age. Which parent is, who does not want to bring up his/her child for the real life? All practical knowledge is becoming important: computer-skills, downloading information, maths, economy, market knowledge. Muses conceal themselves behind those before mentioned modestly, if some places remain for them at all. The human literacy, education goes out of fashion.

There is an other phenomenon that settles on one of the part of the youth oppressively. The phenomenon is aimlessness, futurelessness, enjoying the present day only, living for the moment only. There are many people who are using drugs. There are a lot of youth in permanent delirium. Are there right human relations at all? Steady-going, looking for life association, settling a family are all old-fashioned terms, what more, old-fashioned life-practice.

And where is the place of music in such a life-feeling? Music is existing, serves the "flying", pleasure-hunting feeling, enhances the effects of drugs from the light up to the

[3] Plato: The State, Book 3., 400/b and /d, 401/e. – in: Complete works of Plato – Vol. 2., Európa Könyvkiadó, Budapest, 1984., p. 185, 186 és 188.
[4] Zoltai Dénes: A zeneesztétika története – I. (Ethosz és affektus), [History of music aesthetics – Vol.1. – Ethos and affect], Zeneműkiadó, Budapest, 1966., p. 29, 41-45

heavy ones. The trance, techno, rap, other sort of very modern pop-music are the object of music consuming and preferred even by the circle of non-drug-user youth. These music provide the being altogether, the companions of night clubs with cohesion, but for appearance only, meanwhile a lot of people remain lonely in mass. Music is going into silence down, the pseudo-communal experience is dispersing, and solitude is paining again.

There are a lot of places in our globe where these phenomena can be experienced. There must be such countries where the before mentioned phenomena are not characteristic. There the local communities may prevent the youth generally, and perhaps also the individuals from the "corrosion".

There are some signs in Hungary, too, which hint, we are far these tendencies neither. Even if these processes cannot be stopped, we try to grasp the tools to slow them down. We suppose, school can do a lot for it. That sort of acceleration can be perceived with our children's and youth's personality that is compelled by our age from the people. Also the intellect is accelerated. But development of emotions do not follow the development of intellect. The traditional tools of traditional education must be changed for making influencing effect to our accelerated pupils.

It would be anachronistic to teach sight-reading and/or music theory in classroom music lessons once a week. Such a material should be chosen to the vocal experiences that can be fitting to the own age characteristic of our pupils. Similar points of view must be taken into consideration with selection and way of teaching of musical material. In order to reach a rather good effectiveness, the newest knowledge of educational and developmental psychology is needed.

German experts in education recognised the importance of implication of early knowledge.[5] That knowledge can be acquired more successfully which is based on the preceding, already acquired knowledge. This recognition has some learning psychology consequences. The outcome of restructuring knowledge must change also the content of material of knowledge.

School-music teachers may account existence of early experience of pupils, with analogy of early knowledge. What is more, early experience have emotionality. Disregarding these early experience would lead loosing the possible effective communication with the pupils.

Children have different sort of experiences. Among those now the *moral experiences* are the most important from our point of view. The moral experiences, the moral mind, respectively, was studied by the great psychologist *Piaget* very thoroughly. He observed the nature of behaviour of children led by external instruction and by interiorised norms. He called this two types of morality heteronomous, autonomous one, resp.[6]

In our recent decades Lawrence *Kohlberg*[7] was who developed, refined and proved by several experiments one of the part of Piaget's theories. In according to both of them the moral development of children can be divided into different phases. However, Kohlberg phases seem to be more definitive: in his results they are pre-conventional, conventional and post-conventional. Inside the phases even there are subdivisions. These phases can orientate teachers to what the pupils, youths are able in judging, in explaining and referring to social context of the right moral behaviour for. These new results of the Kohlberg's investigations support music teachers to select the right music materials fitting to the

[5] Nahalka, István: Konstruktív pedagógia. [Constructiv pedagogy], In: Iskolakultúra, Nr 3. P. 22-40.
[6] Piaget, J: The moral judgement of the child, 1965 (orig.– 1932), New York, Free Press
[7] Kohlberg, L.: The psychology of moral development: The nature and validity of moral stages, 1984. Vol.2. New York, Harper & Row

appropriate phase of their pupils. The effectiveness of teaching can be remarkably enhanced with this implication.

8-10 years old children are already able to filter out the humour from the music piece. They can find out the fairy tail impossibility of the *"Entry of Napoleon"* listening to the Suite "János Háry" by Kodály. It is a depict of talking big of the old soldier who wants to introduce himself as a hero, although he was a servant in his soldier service in his young age.

Similar joy is performed by *Papageno* from the Nr 5 of the Act 1 of the Magic Flute when he cannot say any word, hamming-humming, because he is punished for his telling lies. Talking big, telling lies recall several personal experiences with the young pupils. The moral lesson can/should be discussed by themselves in a public way.

We may find such scenes in the Magic Flute for 13-15 years old pupils which needs similar open discussion. Let's make a comparison in *Papageno-Papagena duet* with the gloomy, serious character of the *"Water-Fire test"* of *Tamino*. The anticipation of the joy about the happy family life brims emotionally over from the first mentioned part from the bright couple. It is the joy of the establishing family, human union and undertaking living altogether is the experience of Papagenos, but this can be suggested to the pupils growing up and more and more matured to understand and plan their own future life. Tamino in his trial must express his faithfulness, even though he seems to be mute to Pamina. It is a power of willingness, what we need in different life situation if we want to reach something important and noble for us. This fate-forming character can be important in the future life of our student. This moral message also should be a classroom discussion.

The *fidelity* is one of the cohesion of human relation, as it is presented at the Fidelio by Beethoven. But the brightness-experience of the deliberated prisoner suggests a good object of a discussion about the restriction and the opposite side, the liberty. Adolescence aged youths are very susceptible about such a topic to be discussed.

The same thought circle can be explored from the *"Mother Russia"* (Iron Maiden: No Prayer for the Dying - 1990. 10. 01.), which is very close to this age group belonging to their musical subculture. In this song the decisive moment of the political system changing of 1991 provoke the sound of liberty and doubt. Analysis of the text can focus on the present feeling of youth. As a surprise we can draw a parallelism with the *Revolution choir* from the Boris Godunoff by Mussorgsky because of the similarity of the musical syntax and the content of the concept of both of the music.

Not only music with text are standing for our disposal to discuss questions of life and death. The "Hiroshima" by Penderecki must awake the consciousness for denying the devastation. We had to experience the extremities of horrors even nowadays, too. Everybody from the better moral part of the world refused these terrifying facts. You know what I mean. – The Second World War was better either. A special musical monument was erected to recall those monstrosities by Honegger in the 3rd movement of his String Symphony. What does the choral mean at the end of it? Is it a real hope? It is an excellent subject to be discussed!

Music literature is abundant, and the huge amount of moral subjects are abundant, as well. We did not touched the opportunity how to apply world music in our teaching work. A video-presentation on a South African funeral can produce an astonishment at first from a European listener-watcher. Then the same scene can be the ambassador of the acceptance of cultural differences. The Australian aboriginal music can lead us to amaze the myths of ancient ages. The music and poetry of national minorities presents the richness of emotional vibration and special mind content deriving from the civil traditions. Christmas has a different meaning to them, it is a different experience of them. Getting acquainted with them may make more flexible our "everything must be in such a way as we

know" stereotype thinking world. And there were no words about the ancient or old values of our national values to be give our student on, which are to *strengthen national identity*. This idea is closely belonging to the **Kodály concept**!

Such different approach of music can contribute to startling, surprising, shaking, changing social relations, changing moral attitudes. It can be criticised: it is not a music analysis. And it is right. In fact, it is different from it. In one hand it is less, in other hand it is more. It is an opportunity to open up thoughts which music includes. It can/must be the catharsis, which is unfolded not only by the artistic value, but in the foundry of thinking and discussing altogether in the community of classroom teachers and pupils.

In our 21st century, in our technically developed age, when the human values may sink into insignificance, *music* and art generally *has a chance*, meanwhile it may be pretence to the art education, *to give thoughts, belief and morality* that growing generation which *we are responsible* to bring up them with the highest level of our best conviction, belief for. The model here presented can be perhaps used beyond, outside of Hungary...

THE INTERACTION BETWEEN ARTISTIIC, PSYCHOLOGICAL, AND EDUCATIONAL ASPECTS OF TEMPORAL EXPERIENCE IN MUSIC: EVIDENCE FROM LISTENERS' TEMPO JUDGMENTS

Eleni Lapidaki, - Lapidaki@mus.auth.gr
Aristotle University of Thessaloniki, Greece

Introduction

Does a piece of music have one and only one inherent tempo (absolute tempo), and if so, does this concept possess an absolute time framework? Or can a piece of music survive a wide range of tempi? The literature is far from consistent on these questions. For instance, Richard Wagner (as cited in Pöppel, 1990) wrote in his essay "On Conducting" with regard to tempo :

> If one wants to summarize what is involved in the right interpretation of a piece, on the conductor's part, then this consists in that he or she always indicates the right tempo, because the choice and determination of tempo makes us realize whether the conductor has understood the piece or not (p. 105, translated from German by E. Lapidaki).

Along these lines, Stravinsky (Stravinsky & Craft, 1980) stated that

> A piece of mine can survive almost anything but wrong or uncertain tempo ... What does it matter if the trills, the ornamentation and the instruments themselves are correct in the performance of a Bach concerto if the tempo is absurd? I have often said that my music is to be "read," to be "executed," but not to be "interpreted." I will say it still because I see in it nothing that requires interpretation (p. 135).

Concurring with Wagner and Stravinsky, in a recorded interview with Tim Page, pianist and composer Glenn Gould (1982, recorded interview) said: "I have come to feel over the years that a musical work, however long it may be, ought to have basically one tempo, one pulse rate—whatever it may be—one constant rhythmic reference point."

Conductor and music theorist Epstein (1985) also embraces Gould's approach to tempo with the concept of proportional tempo, also called theory of continuous pulse:

> So powerful is the element of pulse that if one violates it by distortion of tempo, one runs the risk of an unsuccessful performance. Such a distortion seems to be violating not only a "musical factor," but a biological one as well, one which sets ground limits to our aesthetic perception (p. 37).

On the other hand, harpsichordist Ralph Kirkpatrick (1984) criticized the notion of fixed relationships of pulse and the concomitant belief in an absolute tempo as follows:

> We all have different pulse rates; we all have different chemistry. If one wishes to give to a piece of music a characterization that is different from that of another, to endow it with personality of its own, one may need to avoid, rather than cultivate, common relationships of tempo (p. 47).

Pianist Alfred Brendel (1977) opposes himself to the metronome-conscious interpretation of music which, as he points out, has managed to influence musical thinking "through the experiences of Stravinsky and jazz music" (p. 42, translated from German by E. Lapidaki), but he also disagrees with Kirkpatrick's belief in the dominance of the interpreter's chemistry (nature) that influences the execution of tempo. Brendel superimposes a psychological tempo to the notion of metronomic tempo:

> The interpreter who follows the flow of music as naturally as possible—and hereby I mean the nature of music and not the nature of the player—will always give the "psychological listener" the feeling that he or she plays 'in the right tempo' (p. 43, translated from German by E. Lapidaki).

Similar ideas are expressed by Donington (1963/1973):

> Some movements allow a much narrower margin of tempo than others. Perhaps there is always just one interpretation, and therefore just one tempo, which most musicians will find more convincing than any other; or perhaps interpretation is always relative. In either case, the only way of finding the tempo is by responding to the music itself, with a sensitiveness not given to every musician alike nor to any metronome at all (p. 383).

Moreover, music theorists diverge in their opinions of whether structural relationships in music—formal characteristics, local-level and more global harmonic relationships, rhythmic and metric relationships—are in some way dependent on it (Berry, 1986; Lester, 1982; Piston, 1978) or whether they remain independent of tempo (Forte, 1979; Cooper & Meyer, 1966). To quote Piston (1978), for instance: "The speed of music justifies a broader view of the harmony than would be indicated merely by root changes" (p. 208). Furthermore, Clarke (1985) provided evidence for the psychological validity of modifications of performance tempo demonstrating that these modifications are closely related to the structural characteristics of the music performed. In contrast to Piston's view, Cooper and Meyer (1966) maintain: "Tempo, though it qualifies and modifies [pulse, meter, and rhythm], is not itself a mode of organization. Thus a rhythm or theme will be recognizably the same whether played faster or slower" (p. 3).

Another stark contrast of opinion about absolute tempo may be seen in the positions of Reckziegel (1961) and Reinecke (1974). Reckziegel asserted that

> The perceived tempo of music obviously depends not only on the duration of one or more abstract units but also on the rhythmic structure within this duration. Therefore, we would like to introduce the term of "inner tempo" (Inneres Tempo) which has been already used by ethnomusicology for some time (p. 215, translated from German by E. Lapidaki).

Reckziegel further expressed inner tempo as the equation $b_{\square} = {}^{1}/_{t} \cdot 1d_{t}$ where *b* stands for inner tempo, *t* stands for the duration of the metric unit, and $\square$ stands for the average pulse number within the metric unit. He concluded that "... the attempt to determine an inner tempo results in making measurable the musical time dimension, which is seemingly only comprehensible in a sensory way" (p. 223, translated from German by E. Lapidaki).

Conversely, in an article entitled "On the Development of Research in Music Perception During Recent Decades," Reinecke (1974) stated that "no evidence has been found to prove that one specific musical piece has only one 'right' tempo" (p. 414, translated from German by E. Lapidaki).

Here one may conclude that in a single-movement composition or between the movements of large-scale compositions the relation of tempi to each other may be consistent and in a definite and unambiguous relationship to an "inner" or "base" tempo which, on the other hand, cannot be determined by the musical structure in a precise and

absolute way. This perhaps may be the reason why composers set metronome markings to their music.

Although tempo is considered to be a prominent factor in harmonic rhythm, it is surprising that music theorists have paid relatively little attention to it. Indeed most music theories deal primarily with rhythm and meter and take a somewhat dim view of musical tempo. Rhythm and meter can be indeed structured, grouped, arranged hierarchically, notated, and imagined without exact measurement. Nevertheless, as soon as they are listened to, they gain concrete dimension in a fixed period of time, at a certain tempo. In other words, the rhythmic and metric order of a musical composition cannot be realized and, thus, measured without the parameter of tempo.

Yet there are apparently no theories of music that assert that because all note values are obviously relative to each other, a specific time value can only be determined by referring to the speed of the temporal structure of the music in relation to real (externally metered) time. While Glenn Gould (1982) considered the tempo of a composition to be "one constant reference point", Cooper & Meyer (1966), on the other hand, criticized the notion of constant relationships of pulse and absolute tempo of music:

> And while changes of tempo will alter the character of the music and perhaps influence our impression of what the basic beat is (since the beat tends to be perceived as being moderate in speed), tempo is not a relationship. It is not an organizing force .... It is important to recognize that tempo is a psychological fact as well as a physical one (p. 3).

Concurring with Cooper & Meyer, with regard to the dual nature of tempo—Kramer (1988) stated: "If we consider tempo as both the rate of beats and the rate of information, then we can incorporate into this broad concept both the objectively measured and the subjectively felt" (p. 349). Furthermore, from a phenomenological standpoint, Clifton (1973) maintained that although musical time is an a priori, because it can be perceived immediately, tempo is not an a priori, though it concerns time, "... because we must learn to measure it" (p. 79).

The present study

In the present study tempo will be treated as the primary expressive agent for determining the rate at which the subjective flow of time passes which we connect to music of different styles and genres when we listen to it. At the same time it will be attempted to objectively measure and, thus, relate subjective tempo to real time as if it were a physical entity which ticks off musical time like an internal clock controlled by the nervous system. Thereby, it will be sought to disclose consistencies in its function as well as personal factors that may influence it, such as age, musical background (formal music education), taste, and familiarity, among others, that we bring to bear when listening to music.

Specifically, the hypothesis to be tested was that listeners would show a notable consistency over a period of time regarding the way each of them perceived how musical examples would sound in their right tempo. Furthermore, it was of interest whether listeners would exhibit consistency in their determination of right tempo, although the experimenter systematically changed the tempo with which each example was first presented to them at every session. In other words, listeners were given the active task to explore and, finally, determine by themselves the right tempo, which may be very close to common musical practice. One might put it this way: listeners had to reconstruct the musical work examining the influence of tempo on the music in isolation until they came to the decision of right tempo.

Research Methodology

Research Questions

Six specific questions were posed:

(**1**) Is there a consistent judgment of correct tempo across four separate sessions of the same musical examples using varying initial tempi for each trial?

(**2**) Is the consistency of tempo judgment affected by the age of the listener?

(**3**) Is the consistency of tempo judgment affected by the musical background of the listener?

(**4**) Is the consistency of tempo judgment affected by the style of music?

(**5**) Is the perception of tempo affected by the familiarity with

a) the individual pieces and

b) their overall style?

(**6**) Is the consistency of tempo judgment affected by the listener's preference/liking for a particular musical example?

Apparatus

To answer the research questions, a sequencing program (*Performer* from Mark of the Unicorn) was employed which had the capacity to precisely vary the tempo of the listening examples in real time, without altering any other musical attributes..

Selection of Musical Examples

In all trials subjects listened to the following six compositions: C-major and A-minor *Two-Part Inventions* by J. S. Bach, *Clair de Lune* by Claude Debussy, *Piano Piece* by Michalis Lapidakis, *Yesterday* by the Beatles, and *The Children of Piraeus* (*Never on Sunday*) by Manos Hadjidakis. These works were chosen because they represented a wide range of musical styles (e.g., Baroque, Impressionistic, contemporary idiom, rock ballad, and dance music), familiarity, and preference.

Subjects

Subjects (*n*=90) were recruited from different age groups□30 adults (25-52 years, 30 adolescents (junior and senior high school students), and 30 preadolescents (fifth and sixth grade children). Individuals of each age group were selected on the basis of musical background and willingness to participate. Within each age group, half the subjects were musicians, half were nonmusicians.

Procedures

For the four testing sessions, subjects were asked to listen to each composition and tell the experimenter to alter the tempo upwards ("faster') or downwards ("slower") until the tempo was right; that is, the most appropriate tempo for that composition, in the opinion of the listener. Once the six compositions were judged, the subject was asked to return in at least four days time for the next session. This slow pacing of trials was observed in order to prohibit memory carryover from one trial to another.

Each session for each subject systematically varied the order of the compositions and the initial tempo of the listening examples in order to eliminate the possibility on contextual cues. Two initial tempi have been used: M.M.q=20 (slow I.T.) and M.M.q=200 (fast I.T.); all tempo judgments in the Lapidaki & Webster study (1991) had lain within this range. Each initial tempo was repeated twice: either in the first and third or in the second and fourth trials.

In order to examine subjects' familiarity with the listening examples a questionnaire form was handed to them at the beginning of the first testing session. Subjects had to answer questions concerning their familiarity with the particular example and its relevant musical style, after they judged the correct tempo of each example.

Finally, with regard to the question of their individual preference/liking for a particular musical example, subjects were asked to rate it on a scale ranging from 1 (*least-liked* or *poor*) to 4 (*most-liked* or *excellent*), after they judged the correct tempo of the example at the fourth testing session. This information was recorded and used in later analyses.

Results

Consistency of Tempo Judgments Across Trials

To test the hypothesis that listeners would render consistent tempo judgments, independently from the initial tempi, a one-way repeated ANOVA for each musical example was performed using tempo judgments at each of the four trials as the independent variable. The .05 level of significance was adopted as the alpha level for these tests.

Results for these analyses show that listeners did not exhibit significant consistency in their judgments of the most appropriate tempo of the musical examples across the four trials (Bach I, F=84.43, p < .0001; Bach II, F=86.27, p< .0001; Debussy, F=80.37, p< .0001; Lapidakis, F=139.07, p< .0001; Beatles, F=59.02, p< .0001; Greek dance, F=78.856, p< .0001).

Further examination of the results revealed that both means of tempo judgments for the trials with the fast initial tempi were higher than the means for the trials with the slow initial tempi with respect to all musical examples: the slower initial tempo generally evoked slower preferences, and so on.

Age

To test the effect of age on the consistency, either a repeated measures MANOVA or the adjusted univariate test had to be utilized for each musical example. Both analyses led to the same conclusion, namely that consistency of tempo judgments across the four trials for all examples were significantly influenced by the age group of the listener (p< .02). Furthermore, in order to ascertain which age group exhibited the highest degree of consistency, the individual deviation scores (IDS) averaged over the four trials of each piece were used as an additional measurement of tempo judgment consistency for each musical example (see Table 1). Results clearly indicated that adults were the most consistent and preadolescents the most inconsistent with regard to all musical examples (p< .001).

Table 1

Cell Means for Individual Deviation Scores (IDS) Averaged over the Four Trials Arranged by Musical Example and Subjects' Age Groups from ANOVA Procedure

MUSICAL EXAMPLES	AGE GROUPS						
	PREADOLESCENTS[a]		ADOLESCENTS[a]		ADULTS[a]		
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*
BACH I	51.168	35.200	39.592	35.200	18.592	25.733	8.90*
BACH II	49.654	26.973	37.046	21.557	22.769	23.376	9.37*
DEBUSSY	48.962	23.336	42.058	22.661	15.511	20.434	19.02*
LAPIDAKIS	64.351	28.047	55.758	30.590	37.551	30.765	6.31*
BEATLES	43.466	21.085	15.260	12.264	11.094	17.947	30.44*
GREEK DANCE	41.404	26.969	36.685	20.589	14.613	18.628	12.29*

Note. N=90. [a]n =30.
P< .001

Musical Background

With reference to the third question regarding musical background, a repeated measures MANOVA revealed no group effects, except for the Debussy example. (F=19.02, p<.001).

Musical Style

To answer the fourth question regarding differences between compositional styles, a repeated measures ANOVA using style as the experimental factor (five levels corresponding to the five different musical styles of the pieces) and the mean number of IDS averaged over the four trials of each style as the response variable was performed. Results revealed that the rock ballad style exhibited the highest degree of consistency followed by the styles of Greek dance music, Impressionism, and Baroque, respectively. The tempo judgments for the contemporary piece were the least consistent among all styles.

Familiarity and Preference

A repeated measures MANOVA was performed using tempo judgments for each example averaged over the four trials and the 5 familiarity levels as variables. Results indicated that familiarity with musical examples significantly influenced tempo judgments (p< .001).

Furthermore, a repeated measures MANOVA was employed using tempo judgments averaged over the four trials and preference levels as variables. Results revealed that tempo judgments were significantly affected by subjects preference for the musical examples (p < .05).

The musical ability of 'absolute tempo'

A closer look at the range separating the fastest from the slowest tempo judgments of individual subjects for each piece often revealed strikingly small discrepancies. It appears that a relatively small number of listeners (e.g., adult musicians and non-musicians) possess an exceptional ability with respect to acute stability of large-scale timing in music. This ability to give over time consistent tempo judgments to a piece of music in conditions seemingly devoid of an external tempo reference (a score or the body interaction involved in performance) may be referred to as absolute tempo, analogous to absolute pitch.

It must be also noted that “absolute tempo” has been observed with musical examples that were thoroughly known by the subjects. Nevertheless, this finding should be treated with caution, since these subjects did not exhibit the ability of absolute tempo with respect to all pieces for which they had the same level of familiarity. Contrary to absolute pitch, one might suppose with respect to absolute tempo that the same person seems to follow different cognitive strategies of timing for each individual piece, which leaves one wondering whether the stability in viewpoint is to some extent discrete rather than continuous.

Interestingly enough, these subjects reported that they were surprised when they heard that their right tempo choices were virtually identical across trials. Thus, it would seem that physical, psychological, and environmental factors, such as, fatigue, mood or time of day, did not have an effect on their tempo judgments. One reason might be that music engages and programs psychobiological clocks or neural Epstein, 1985; Clynes, 1986; Pöppel, 1990) which function subconsciously but give conscious read-outs and thereby guide the listeners’ choice of right tempo in an exact and stable manner.

Tempo perception and recommendations for music teaching and learning

This study was based on the premise that tempo is a general cognitive constraint influencing the way we organise long-scale musical events in real time and, thus, make sense of them. Tempo constitutes an important element of music by enabling various sound events to be woven together at a fixed pace in time. In turn, this temporal pacing is

what gives music its unique motional, emotional, and sensuous character, as has been acknowledged in most discussions concerned with music aesthetics, theory, and compositional or performance practice (Lapidaki, 1990).

If this is the case, then the development of a more refined or discerning concept of tempo in students should be considered crucial for a thorough understanding of the expressive qualities of music. Instead of focusing solely on reading of notated structural parameters of music (e.g., melody, rhythm, meter, and the like), music instruction should promote the development of listening skills, especially with reference to the imprecisely represented in conventional notation, motional, and emotional aspects of music, as is the case with tempo (Lapidaki, 1992).

It is somewhat surprising to find, however, that tempo is commonly being treated in music instruction of all levels as if it were solely applied to the metronome or to verbal designations. This leads us to believe that students are not supposed to have an awareness that tempo judgements lie deeply within the human mind which intuitively attempts to supply its own tempo to music in order to ensure the meaningful co-ordination and motion of sound relationships through time. In other words, it is the relation of melody, phrasing, harmony, rhythm, timbre, dynamics, style, and other musical features, to tempo that imbues them with a new and exciting perceptual dimension. Music educators can help students to gain a deeper sense of recognition and mastery of all kinds of relations in a piece of music by showing them the power that tempo exerts on their synthesis.

To help students of all ages find a use for the concept of tempo in music, music educators may consider the task utilised in this research which proposes a fascinating, creative, and—most importantly—an intrinsically musical activity reflecting our need to organise and control the passage of time in music. More specifically, listeners were given the task of manipulating the tempo of a piece of music in real time while examining its influence on the way the music sounds. The ultimate objective was to come up with a tempo in which all elements of the piece would fit together naturally, in a right pace.

On the one hand, listeners were provided with the opportunity to choose the most appropriate tempo in their opinion among a vast number of tempi available to them by means of the computer, something that cannot happen when you perform music due to motor-sensory limitations of the performer. On the other hand, listeners were faced with the technical problem of saying "this tempo is not correct" or "that tempo is correct" which is an important aspect of the creative process in music (Lapidaki, 1992).

However, in a real educational setting, students' musical decisions about correct tempo have to also rest on the teacher's guidance. The skilful music teacher will use musical materials which are appropriate for each particular age level but will attempt to demonstrate how musical parameters are integrated and flow with a rightful pace in all music. The thoughtful use of examples— particularly, from contemporary music and from music of various genres and cultures—may also help students to understand the different roles tempo fulfils within the musical structure, from aesthetic fulfilment, to inspiration of dance and song, to arousal of a certain emotional ambience. In addition, the teacher's recommendation that tempo is the parameter with the greatest degree of variability and possibilities in music will give students the freedom to experiment with music with greater ease and curiosity while focusing on the pacing of musical events.

Finally, by using tempo as a reference point in order to teach other musical elements in their proper motion, we can open a new and intriguing dimension for listening. As Stockhausen (Cott, 1973) said referring to the importance of manipulating tempo in compositional practice:

> "... a person who experiences this music becomes as much slower and as much faster in his reactions and experiential time as the music. This expands man and also his awareness of what music can be" (p. 193).

In this context, the finding that most listeners did not prove to be precisely consistent in their correct tempo judgements over a period of time becomes a secondary issue. Indeed we all vary in the abilities with which our aesthetic perceptions operate.

REFERENCES

Barry, B. R. (1990). *Musical time*. *The sense of order*. Stuyvesant, NY: Pendragon Press.

Brendel, A. (1977). *Nachdenken über Musik* [Thinking about music]. Munich, Germany: R. Piper & Co. Verlag.

Clarke, E. F. (1985). Structure and expression in rhythmic performance. In P. Howell, P., I. Cross, & R. West (Eds.), *Musical structure and cognition* (pp. 209-236). London: Academic Press.

Clifton, T. (1973). Music and the a priori. *Journal of Music Theory*, *17*, 66-85.

Clynes, M., & Walker, J. (1986). Music as time's measure. *Music Perception*, *4* (1), 85-119.

Cooper, G., & Meyer, L. (1960). *The rhythmic structure of music*. Chicago: University of Chicago Press.

Cott, J. (1973). *Stockhausen: Conversations with the composer*. New York: Simon & Schuster.

Epstein, D. (1985). Tempo relations: A cross-cultural study. *Music Theory Spectrum*, *7*, 34-71.

Forte, A. (1979). *Tonal harmony in concept and practice*. New York: Holt, Rinehart & Winston.

Gould, G., & Page, T. (Winter 1982-83). An interview (record). *The Piano Quarterly*, *120*.

Kirkpatrick, R. (1984). *Interpreting Bach's well-tempered clavier: A performer's discourse on method*. New Haven, CT: Yale University Press.

Kramer, J. D. (1988). *The time of music: New meanings*, *new temporalities*, *new listening strategies* . New York: Schirmer Books.

Lapidaki, E. (1992). Time. In B. Reimer & J. Wright (Eds.), *On the nature of musical experience* (pp. 246-248). Niwot, CO: The Universiry Press of Colorado.

Lapidaki, E., & Webster, P. R. (1991). Consistency of tempo judgments when listening to music of different styles. *Psychomusicology*, *10* (1), 19-30.

Piston, W. (1978). *Harmony.* New York: W. W. Norton.

Pöppel, E. (1990). Unmusikalische Grenzüberschreitungen? [Unmusical crossings of limits?].In C. R. Pfaltz (Ed.), *Musik in der Zeit* [Music in time] (pp. 105-124). Basel, Switzerland: Helbing & Lichtenhahn.

Reckziegel, W. (1961). Musikanalyse: eine exakte Wissenschaft? [Musical analysis: an exact science?]. In H. Heckmann (Ed.), *Elektronische Datenverarbeitung in der Musicwissenschaft* [Electronic data processing in musicology].Regensburg, Germany: Gustav Bosse Verlag.

Reinecke, H. P. (1974). Vom musikalischen Hören zur musikalischen Kommunikation [From musical hearing to musical communication]. In B. Dopheide (Ed.), *Musikhören* [Musical hearing]. Darmstadt, Germany: Wissenschaftliche Buchgesellschaft.

Stravinsky, I., & Craft, R. (1980). *Conversations with Igor Stravinsky.* Berkeley, CA: University of California Press.

samspel

Piano Teaching: Expanding the Parameters

Mary Lennon – mary.lennon@dit.ie
DIT Conservatory of Music & Drama, Ireland

Introduction

This paper reports on research which sets out to conceptualise the nature of piano teaching, working towards a professional language of practice which goes beyond the purely pianistic, encompasses the pedagogical and places the discipline within the wider context of music education.

Historically, there has been a lack of structured teacher education within the profession, and I would argue that, as a result, we lack a commonly accepted and recognizable body of knowledge which embraces a pedagogical as well as a musical discourse. While developments in philosophy of music education in the latter part of the last century have had a significant impact on teaching and learning in general music education, instrumental teaching has tended to continue to operate on the basis of an inherited tradition which has been left largely unarticulated.

An examination of the piano pedagogy literature highlights the lack of a coherent conceptual basis or analytical framework within which fundamentally important questions relating to teaching and learning can be addressed. The literature is characterised by its personalised, individualised and eclectic nature, making discussion and comparison difficult. The focus tends to be on isolated issues, including the minutiae of piano technique, rather than on general principles. The failure of the literature to address pedagogical issues in any real depth can be seen as a serious deficiency. This is not to denigrate in any way the work that is being done in instrumental teaching but simply to draw attention to the need for the profession to explore further the deeper structures of the discipline and to examine the foundations from which piano teachers operate. As a group, piano teachers need to conceptualise and articulate the nature of their practice and to consider that practice in the wider context of music education.

Making the implicit explicit

In attempting to "expand the parameters" of piano teaching, this paper draws on the results of a study which set out to conceptualise the nature of the piano teaching learning transaction by exploring piano teachers' critical reflections on their own practice (Lennon, 1996). Based in the teacher thinking/teacher knowledge paradigm the research draws on Shulman's concept of "pedagogical content knowledge" (Shulman, 1987) which integrates the areas of subject matter content and the forms of representation employed. The concept of teachers' tacit knowledge is also highlighted, as is Schon's concept of the "Reflective Practitioner" (Schon, 1983, 1987). The study attempts to bring teachers' theories to consciousness and, in allowing them to be articulated, questioned and examined in the context of practice, the implicit is made explicit and the tacit knowledge underpinning practice is revealed. The research findings give insight into both musical and pedagogical issues, expanding the notion of what constitutes musical knowledge in piano teaching and learning and highlighting the complexity of the transmission process.

The research involved six piano teachers who were chosen to represent a range of piano teaching contexts and included private teachers, College/Conservatoire teachers and teachers teaching on a one-to -one basis in schools. The teachers were observed over a period of time in a range of settings, teaching students of different ages and stages of development, and working on pieces at varying stages of preparation. The lessons were videotaped and seven representative excerpts chosen for each teacher, around which the subsequent interviews were focused. At the interviews the excerpts were played back to the teacher, and they were invited to explain and discuss the purpose and meaning behind their approach. In an effort to 'give voice' to the teachers involved, extracts from the interview transcripts are used below to illustrate the range of views expressed and to give insight into the various musical and pedagogical issues arising from the teachers' interpretations of the transactions.

Expanding the parameters

In view of the limitations of the piano pedagogy literature and in an effort to place piano teaching in the wider context of music education, the study identifies Swanwick's model of musical criticism and the related spiral of musical development as having the potential to provide an interpretative framework within which to examine and discuss issues relating to the content and process of piano teaching (Swanwick, 1988, 1991) Swanwick's theory, along with his treatment of the theoretical paradigms of "instruction" and encounter" and his concept of the teacher as musical critic and musical model, appeared to have relevance for both musical and pedagogical issues.

In presenting his model, Swanwick argues that there are four essential modes of musical criticism which define the nature of musical experience and encounter and represent "the dimensions of the ways we think and talk about music and its performance" (Swanwick, 1991: 140). The four levels of musical criticism are *Materials, Expressive Character, Form* and *Value*. Swanwick suggests that at the materials level we are concerned with the perception and control of sound materials; at the level of expressive character the concern is with perceiving and projecting the expressive character of the music; the next level is concerned with structural relationships and "predicting a future" for a musical work, while "value" relates to the dimension of personal evaluation and commitment.

Swanwick's spiral of musical development traces the development of the four levels of musical criticism and, in developmental terms relates them to the psychological processes of mastery, imitation, imaginative play and meta-cognition, presenting his theory in the form of a developmental spiral. He explains how each level of the spiral of musical development can be seen as "containing a dialectic, a polarity between assimilatory and accommodating tendencies" which are represented by the two vertical dimensions of the spiral. Thus he associates the left hand side, with the sensory, personal, speculative and symbolic modes, and the right hand side, with the manipulative, vernacular, idiomatic and systematic modes (Swanwick, 1991: 141).

An interesting aspect of Swanwick's work, especially in the context of this particular study, is the way in which he aligns the musical with the pedagogical, making connections, for example, between the right- and left-hand sides of the spiral and concepts of 'instruction' and 'encounter'. Encounter-based instruction, defined using Blacking's description of the Venda tribe where "the main technique of learning was by observation and listening, trial and error, and then frequent rehearsal", is linked with the left-hand side, while instruction, equated with "graded exercises, sequential steps, programmed learning, instructional objectives, musical analysis and formal assessment procedures...", is linked with the right-hand side (Swanwick, 1988: 128).

In a similar way Swanwick suggests that "music and teaching form a continuum that runs along the same dimension", arguing that "this continuum between the 'professional musician' and the 'professional teacher' is woven from two fundamental qualities, musical criticism and musical modelling" (Swanwick, 1992: 1). Musical criticism, in both teaching and performance is concerned with "making decisions" and "exercising critical judgements" (Swanwick, 1992: 33). Modelling, he suggests, is more evident and explicit in teaching where it usually has the explict objective of having students imitate, while in performance "a model of the musical work is being offered to the audience, not necessarily in order that they will perform it but that they will internalise aspects of its meaning by imitation of and empathy with the performer" (Swanwick, 1992: 32).

One of the advantages of using Swanwick's theory as an interpretative framework is that it represents a well developed theoretical model which has been shown to have relevance for a variety of musical and pedagogical issues in a way which draws together rather than separates the disparate elements involved in piano teaching and learning. It is suggested that Swanwick's model provides a means of discussing the outcomes of this research in the context of a wider network of ideas than that offered by the piano literature alone. It would appear to encompass many of the issues raised by the piano literature but does so in the context of an overall framework which derives from psychology, philosophy and educational theory, and deals with fundamental issues such as the nature of musical experience and musical knowledge in a holistic rather than an atomistic way. It is hoped that, by placing the issues in this wider context it may help to bridge the gap between mainstream music teaching and instrumental teaching.

Piano Teaching: The Musical Dimensions

Contrary to the view that portrays piano teaching as being primarily concerned with the development of manipulaitve and notational skills it would appear from these teachers' reflections on their practice that their teaching encompasses all four levels of musical criticism.

Working with Materials

At the materials level teachers concentrate on what they sometimes refer to as "the basics", including accuracy of notes, rhythm and articulation, attention to dynamic levels, balance and texture of sound and the "technical" control and facility necessary to achieve these. At this level it is possible to differentiate between observations on the musical materials which are the focus of the teaching and learning, and references to the skills, (notational, manipulative and aural), which are necessary to deal with these materials and to reproduce what is written in the score.

> ...there were two things we were trying to get at in that particular piece. One problem....this business of counting long notes....The other thing was....that we are at that point exploring the difference between staccato and legato... (*Ruth* in Lennon, 1996: 127).

Exploring Expressive Character

Throughout the teachers' comments there is a tension between objectivity and subjectivity, between stylistic conventions and personal responsiveness. The teachers highlight the tension between the inherent expressive character of the music and the personal expressiveness of the student. Thus there is an ongoing concern for the composer's intentions as indicated by tempo, phrasing, dynamic and rhythmic markings, as well as those implied by melodic and harmonic structures, as teachers focus on those aspects of performance that are concerned with and help portray the expressive character of a piece.

> But now really, I was trying to develop her feeling for the essence of the music, for the dance, through articulation, dynamics, understanding the musical progression in terms of counterpoint rather than harmonically (*Ruth* in Lennon, 1996: 138).

However, the teachers also point to the personal dimension concerned with elements of choice and musical judgement. This distinction is similar to the different notions of 'interpretation' in evidence in the piano literature, where there are references to interpretation in the context of the development of musicianship, analysis and an understanding of style, and interpretation defined in terms of intuitive response and 'artistry'. The teachers see it as their role to promote responsiveness by drawing attention to the expressive elements in the music. However, they argue that one cannot teach responsiveness directly but only teach towards it.

> I think great music especially gives opportunity firstly for someone to show in their performance that they are respectful to the composer, that they understand the style, that they know the kind of levels of expression, levels of projection that one plays in for that particular piece. But that's not enough, otherwise we'd have one kind of, perfect image of every piece to put across and I think performance also tells you a great deal about the person who is playing, and I think that's what one wants to hear (*Dave* in Lennon, 1996: 141).

Focusing on Form

With regard to form, the teachers' descriptions of their practice suggest that in the same way as the performer does not always think about form when playing, the teachers do not always teach directly for form. Their concern for form is revealed in their observations on how they were focusing on the "shape", "direction" and "momentum" of the music and their search for continuity and contrast, unity and variety.

> I think he just didn't seem to understand the shape or the direction that it was going in at all....It's just this great long tune that goes from beginning to end in one guise or another....I just wanted him to feel the global thing, the shape of the piece (*Greg* in Lennon, 1996: 145).

The teachers' comments suggest that they see themselves approaching form <u>through</u> the piece, concentrating at the micro level on the individual musical gestures and the relationships between them, in order to convey the overall structure. While the emphasis is on the global aspect of the piece it would appear that a feeling for form and structure 'emerges' from the chaining together of the individual expressive gestures. The focus on form is often implicit rather than explicit, with teachers drawing attention to unifying features such as melody and rhythm and contrasts in terms of mood and character and emphasising the role of the imagination in drawing together the constituent parts into a whole.

> I was talking about, for example, the difference in mood between the beginning with its rather more serious depth and then when it comes back later on with a kind of second violins and a little bit more florid.... I was trying to make her see long paragraphs in the music...(*Dave* in Lennon, 1996: 146)

Making "Value" Visible

The concept of "value" is a difficult one. In discussing this dimension of musical criticism Swanwick uses terms such as "commitment", "attitude" and "meaning". In considering the reflections of these teachers on their teaching I perceive value operating at a number of different levels in the piano teaching-learning transaction. On one level there is the sense of value and commitment, a feeling that music "means something", that something personal is communicated and projected in performance itself through responsiveness to a particular piece of music.

> What was missing in her playing? I just think it was too respectable....I think what I feel with her is she doesn't actually yet project a sense of communication...I was actually trying to get her to think about how she comes across (*Dave* in Lennon, 1996: 148).

At another level, I would suggest that value operates in terms of the student's attitude to, or outlook on music in general and piano playing in particular. The teachers focus on this issue of student attitude both in terms of a general attitude towards playing and performing and also in relation to the attitude projected in performance.

> ...in Cynthia's case, it is a passion. She is tremendously motivated. ...she gets enormous pleasure in performance and it's very interesting to see the change in her personality once she gets up on a platform. She is released in performance....So obviously it is a great love, it is a great need...(*Ruth* in Lennon, 1996: 151).

It is at the value level that the personal input already mentioned in relation to expressive character would appear to be crucial. While it may be possible to teach students to sound expressive in their playing the sense of value would appear to be something that comes from within. In this context the teachers refer to factors such as musicality, personality, the instinctive, intuitive response and innate talent, and in relation to their role as teachers they highlight the importance of fostering imagination, communication, conviction and creativity in their students' performance.

The Dimensions of Musical Criticism

In describing the musical focus of these piano lessons in terms of Swanwick's dimensions of musical criticism the intention has not been to 'label' or categorise each transaction, but rather to provide an orientating framework in which the content of the lessons can be discussed. To argue to the contrary would be to deny the complexity of the process. It is evident from the teachers' comments that the excerpts are rarely conducted exclusively at any one particular level.

While the different layers of musical engagement have been dealt with in a particular order for the purpose of this analysis, there is no evidence of any preordained order in which teachers address these matters when working with the student on a musical piece. It would appear that in learning a piece, while mastery and control of the materials level is seen to be a prerequisite for expressive character, form and value, this does not mean that in approaching a piece for the first time the teachers necessarily start at the materials level and work upwards through the upper levels. There are examples of both holist and serialist approaches. There would appear to be no hierarchical dimension involved either with teachers working at the level they consider to be appropriate in the context of each lesson. The approach is essentially reactive and highly individualised and contextualised, with teachers' views on what is appropriate being influenced by the individual student's performance and ability and by their own views on the demands of the particular piece.

Piano Teaching: Pedagogical Perspectives

The literature suggests that teachers talk too much, and teacher verbal behaviour is often equated purely with "instruction" and "telling" in instrumental teaching, giving rise to the perception that piano lessons are more teacher directed than student centred. In a similar way some condemn piano teachers for an excessive use of demonstration and modelling, arguing that it leads to mindless imitation on the part of the student. However the study suggests that the transaction is more complex than is perhaps always appreciated, and shows that teachers engage in ways which can be defined in terms of both instruction and encounter..

Instruction and Encounter

The role of 'instructor' involves imparting information and skills and these piano teachers can be observed in this role. However, there is a distinction made by all of the teachers in the interview data between 'objective' elements which can be 'taught' through telling or showing, and more subjective elements where the teaching-learning process appears to be more complex, less direct and often less observable. The teachers comments on their

practice point to the importance of both instruction and encounter

> in the beginning stages you can teach someone where middle C is, you can teach them how to move their fingers up and down in a certain way! Of course you can teach certain things, I would like to believe that, on the whole you're more to do with educating. Educating means to draw out and I think on the whole you're more trying to draw something out of people (*Dave* in Lennon, 1996: 372).

> I mean again we're working with Cynthia trying to promote some initiative and a little more thinking about the music from herself, from her rather than me always telling her what to do (*Ruth* in Lennon, 1996: 411).

It would appear that while there may be certain things that teachers need to "tell" students, they do not see their role as piano teachers as being primarily concerned with "instructing" and imparting information and their comments on other verbal behaviours such as questioning and description give insight into some of the different ways in which they engage their students during a lesson.

In commenting on their use of questions teachers refer to how, in addition to having diagnostic functions in establishing students' understanding and in ascertaining particular physical problems they may have, questioning makes students think, encourages listening and helps to develop a more analytical and self-critical approach, thus promoting the students' active involvement in their own learning.

> other questions like "what do you hear?", "how does it sound?" is all to try and encourage listening really, so that they're not just going through an automatic exercise, that by having to answer the questions they are having to take notice of what they're doing. They take responsibility in a way for themselves (*Ruth* in Lennon, 1996: 400-401).

The use of description is depicted as being particularly helpful in giving students insight into aspects of character and mood and in trying to get them to think in terms of expressive character in their playing, while imagery and analogy is used also in connection with the physical movements and states involved in playing. Reference is made to the importance of fantasising and establishing mental images of the music and to the need to "stimulate the imagination in terms of emotion". It is suggested that the imagination can be stimulated also by getting students to think beyond the piano, by describing other musical works and relating piano playing to other instruments and voice, as well as to the other arts.

> Try and cultivate the imagination. I think, apart from anything else, though I wasn't doing it there, sometimes make them think in bigger terms than the piano. Try and make them realise that they have to have the same range of sound that an orchestra has, that an opera has, that there has to be a kind of "dramatic" presence....(*Dave* in Lennon, 1996: 359).

Description is also in evidence as teachers give feedback on students' performances. In the context of piano teaching the issue of feedback is essentially one of musical criticism with the teachers also acting as critics in relation to the musical work itself, drawing attention, for example, to matters of style, expressive character or structure inherent in the work itself.

The Piano Teacher as Musical Critic and Musical Model

The teachers' comments give insight into the meaning of critic and model in the context of piano teaching and to the relationship between musical criticism and musical modelling. One of the problems in discussing criticism and modelling is related to the interpretation of the terms themselves and the problems arising when criticism is equated with verbal behaviour and modelling with non-verbal behaviour. The teachers' comments suggest that the relationship between criticism and modelling is a complex one, operating at many different levels, and they show that critical judgements are communicated in different ways

just as musical models are.

It is true that teachers often present critical judgements on a student's performance through the medium of words, but it would appear to be equally true that critical judgements are operating every time a teacher demonstrates by playing or other non-verbal means. These critical judgements are made explicit through verbal discourse or 'telling' but are implicit in the 'showing', in the model provided by the teacher. Some of the teachers draw attention to how, in addition to demonstrating "specifics" they are also demonstrating by their whole approach, ways of thinking and exploring, and ways of approaching practice and performance. They demonstrate, consciously or unconsciously, "responsiveness" to the particular piece being studied, and in so doing also provide a model of "value" and of "attitude" to music and to performance. A model, not in the sense of something to be imitated, but something which, to use the teachers' own words, will "inspire", "stimulate", "release", or "excite".

The literature on instructional approaches in instrumental music teaching tends to associate modelling with teachers' intentional use of demonstration and draws attention to the effectiveness of teacher demonstration followed by student imitation. I would suggest that the issue of modelling is perhaps more complex than some of the literature might indicate, that modelling encompasses more than teacher playing, that it is not always intended that demonstration should lead to imitation, and that imitation itself is a complex cognitive process involving analysis and selection.

There are varying views expressed by the teachers on the role and function of demonstration and various rationales are provided for specific instances. Reference is made to: providing students with both physical and aural images, appealing to their imaginations, allowing them to experience the sound and appreciate different sound qualities; presenting the mind with different possibilities; providing a model with which students can compare their own playing; getting the student to listen, to compare, to try different ways and to experiment and explore for themselves. The point is made that demonstration does not necessarily lead to direct imitation and that in the end students must make their own decisions as imitation itself is a complex cognitive process involving analysis and selection on the part of the student - the student chooses what to imitate.

> And I would also hope that her ear would pick up the difference between what she's doing and what I want her to do but in the end, if she wants to do what she's doing, because there was a point there where I asked her whether she wanted something or not, then in the end it's for her to do" (*Dave* in Lennon, 1996: 365).

The teachers' comments on demonstration and modelling raise a number of important issues similar to those discussed by Schon who argues that a close examination of modelling suggests that "the obviousness of imitation disappears", describing imitation as "a process of selective construction" (Schon, 1983: 108). In relation to the problem of students being able to reproduce without necessarily having any understanding, Schon draws attention to what he calls a "suspension of disbelief", suggesting that by imitating aspects of the process students actually experience what the process is like, "internalising" it, and by reflecting on the experience itself meaning and understanding will follow. A similar idea is put forward by a number of the teachers who suggest that students "absorb" and develop a "taste" for ways of doing things, and may not always be aware of what they are learning, with learning, it is suggested, occurring through a process of "osmosis".

Conclusion

> Reflection tends to focus interactively on the outcomes of action, the action itself, and the intuitive knowing implicit in the action (Schon, 1983: 56).

This study highlights the role of reflection in stimulating teachers to make that which is in implicit in their teaching more explicit. The process recognises the importance of "the teacher's voice" and contributes to a "language of practice", a professional discourse which is close to and emerges from the reality of practice. It emphasises the relationship between thought and action, between implicit theories and practice.

It has been argued that instrumental teaching emphasises skill development and idiomatic conventions and leaves little room for intuitive response from the student. However, I would suggest that if one takes a more holistic view of the instrumental teaching-learning transaction and looks beyond its merely observable features, there can be a strong commitment to the subjective, individual, personal dimension. It is important not to confuse 'means' with 'ends'. I would suggest that, contrary to the view which portrays instrumental teaching as being firmly embedded in the right-hand side of the spiral, the data suggest that there is a dialectical relationship between left and right, between instruction and encounter. It would appear that teachers focus on skills and idiomatic conventions in order to facilitate and promote personal responsiveness and ultimately value and meaning, and that the piano lesson involves elements of both instruction and encounter with teachers drawing on the repertoire of possibilities available to them and engaging with their students both as musical critics and musical models.

In revealing insight into the nature of the musical and pedagogical transaction involved in the individual piano lesson the study presents a viable means of accessing teachers' knowledge, theories and beliefs, in this way expanding the parameters of the discipline and contributing to the knowledge base for instrumental teacher education. In making connections with other frames of reference, including the teacher thinking and teacher knowledge paradigms as well as Swanwick's conceptual framework, it succeeds in placing piano teaching in a wider context and opens up new avenues for discussion in the world of musical and educational thought.

References

Lennon, M. (1996) *Teacher Thinking: A Qualitative Approach to the Study of Piano Teaching,* unpublished PhD thesis, University of London Institute of Education

Schon, D.A. (1983) *The Reflective Practitioner: How Professionals Think in Action,* New York: Basic Books.

Schon, D.A. (1987) *Educating the Reflective Practitioner: Towards a New Design for Teaching and Learning in the Professions*, San Francisco: Jossey-Bass.

Shulman, L.S. (1987) 'Knowledge and teaching: foundations of the new reform', *Harvard Educational Review*, 51 (1), 1-22.

Swanwick, K. (1988) *Music, Mind and Education,* London: Routledge.

Swanwick, K. (1991) 'Musical criticism and musical development', *British Journal of Music Education*, 8 (2) 139-148.

Swanwick, K. (1994) *Musical Knowledge,* London: Routledge.

The development of tonal hierarchies: A case study of a child's improvisations

Aino Louhivuori, Tuomas Eerola, Jukka Louhivuori
University of Jyväskylä, Finland

ABSTRACT

There is a strong music psychological tradition supporting the research of tonal hierarchies, identified by Krumhansl 1990 (e.g. Krumhansl & Shepard 1979; Krumhansl & Kessler 1982). Also the development of tonal hierarchies has been studied (eg. Lamont 1998; Lamont & Cross 1994; Trainor & Trehub 1992; Trehub, Cohen, Thorpe & Morrongiello 1986), but due to the difficulties to gather material and in the absence of a standard method, studies of the production of tonal hierarchies from the developmental perspective have been rare. The present case study investigates how spontaneous improvisations of a child develop towards tonality from 2 years to 4 years of age. Six improvisations were analysed using a computer application, two from each age (2, 3 and 4-years). Pitch distributions of the improvisations were compared to Krumhansl & Kessler's (1982) results of tonal hierarchies in major and minor, and also the two-tone transitions were compared to typical two-tone transitions used in folk music. Another approach was to study the development of improvisations from the point of view of overall entropy of the various statististical distributions of the improvisations.

The child has grown in a musical environment, and the results indicate that already the first improvisations correlate with Krumhansl & Kessler's key-profiles and typical two-tone transitions. Moreover the correlations increases as the child gets older, and the use of chromatic notes decreases. In the last improvisations the first three notes of a scale begin to appear. By four years of age the child has learned to produce the beginning of a scale in her improvisations. The entropy of the pitch and interval profiles decreases when the child becomes older, possibly exhibiting the transition into relative musical thinking by the child.

1. INTRODUCTION

Children's tonality perception has been an area of interest (eg. Lamont 1998; Lamont & Cross 1994; Trainor & Trehub 1992; Trehub, Cohen, Thorpe & Morrongiello 1986; Davidson & Welsh 1988, Krumhansl & Keil, 1982), but often the participant has had to evaluate a sample and conclusions have been drawn from these evaluations (eg. probe-tone methodology). Also child's spontaneous singing has been studied (eg. Sundin 1998; Swanwick & Tillmann 1986; Fredrikson 1994; Dowling 1988; Davidson, McKernon & Gardner 1981; Pond 1981). However studies about the development of tonal hierarchies from children's spontaneous improvisations have been rare. This is due to the many difficulties involved with this topic. The aim of this study is to investigate how a child's[1] improvisations, which have been recorded throughout different stages of her development, become more similar with the Western tonal structure. The first hypothesis is that as the child gets older also the tonality of her improvisations increase. Another approach was to

1 Hilkka Louhivuori is the child of Jukka Louhivuori and the younger sister of Aino Louhivuori.

study the development of improvisations from the point of view of entropy that is related to the degree of disorder in the probability distribution of the events (pitch and interval distributions, transitions etc.) in the improvisations. Therefore high entropy stands for low order and musical structure with low order can also be characterized as less predictable. This method allows to investigate a second hypothesis that presumes that the interval structures become more clear across time as the child starts to use more and more the relative relationships of the pitch combinations (for example, consistently using thirds and fourths) (Dowling 1988). For example, a study by Krumhansl and Keil (1982) suggests that knowledge of the tonal hierarchy is acquired in stages in which children were first able to distinguish diatonic from nondiatonic tones.

2. METHOD

It is very difficult to gather large material of several childrens' improvisations and yet at different times of their development, and there is not yet a standard method for analysing these improvisations. In the present research a new method was tested. Six improvisations from different times of the child's development were analysed using quantitative methods. A computer application was used to do the transcriptions and the analysis. Profiles of the pitch class distributions obtained from the improvisations were compared to Krumhansl & Kessler's (1982) C-major and c-minor profiles, and profiles of the intervals used in the improvisations (two-tone transitions) were compared to intervals used in Essen's collection of folk songs[2]. The degree of entropy was calculated from each improvisation in order to get a better overview of the changes. Entropy came to be taken as a measure of the information contained in a message, as opposed to the portion of the message that is strictly determined (hence predictable) by inherent structures, like for instance redundancy in the structure of languages or the statistical properties of a language relating to the frequencies of occurrence of different letter or word pairs, triplets etc. Entropy is a degree of order of the interval distribution, i.e. how organized or disorganized the profile is. From this point of view entropy can be seen as a measure of predictability.

2.1 Participant

Only one child was studied. This limits the significance of the research, but some conclusions can be drawn from this case study because, as Blacking (1971) suggests, musicality is as universal feature as is linguistic ability, thus all children go through certain stages of maturation, also musical development. The research participant has grown in a musical environment with two musician parents and four siblings singing and playing. According to Trainor & Trehub (1992) musical environment increases the speed in which a child develops musically and processes the musical culture in which she is surrounded by. Because of the musically stimulating environment, the participant might develop in this area faster than an average child. Still, Trehub, Cohen, Thorpe and Morrongiello (1986) suggest that regardless of the degree of exposure, the encoding of some musical features can only appear in certain stages of cognitive development and maturation.

2.2 Materials

The material consists of approximately 290 minutes of recordings that have been recorded during the years 1994-1996. They are all made at the child's home, and often her father or sister is present at the situation, so the setting is very natural and all possible disturbing factors (strange persons or situations, friends etc.) are absent. Recordings include talking, childrens' songs, variations of songs and spontaneous improvisations. The

2 The Essen Collection (Schaffrath, 1995) contains 6252 folk songs that are mainly from Germanic regions in Europe. See Toiviainen & Eerola (2001) for an analysis of the statistical features of the collection.

situations in which the improvisations were recorded vary; child's father might ask her to improvise, sometimes she experiments with the limits of her voice, or pretends to be an artist, when she is really trying to make up a song. This seems to affect the tonality of the improvisations. When the child is trying to make up a song it is more tonal than improvisations where she is experimenting with her voice.

Six improvisations were chosen from the tapes, two from each age (2-years, 3-years and 4-years). Because child's improvisations can lack tonality, that is, they do not necessarily have a tonal centre and might include microintervals, it is very challenging to make an accurate transcription. The analysing method used in this study is not yet appropriate for songs that change their tonal centre, unless they are analysed in small parts or phrases. Thus an effort was made to choose improvisations, in which the tonal centre is stable and which represents the age under consideration the best. In further research, all the improvisations will be analysed.

2.3 Procedure and equipment

Because we listen to child's improvisations through our tonal ear, we might - even against our will - interpret them and hear intervals that do not exist in them (Sundin 1998). To minimise this error, the improvisations were digitized into a computer and put through a pitch-to-midi conversion[3] that makes a transcription of an audio file and converts it to midi-file. Because many of the tones were ambiguous and the improvisations included glissandos, vibrato etc., the frequencies of the tones were quantized to the nearest chromatic note. This was done as objectively as possible and even if it sounded like the child intended to sing a certain tone but did not succeed, the tone was interpreted as it sounded and not as would be appropriate for our tonal music. It does not do justice to the improvisations to force them into the chromatic scale, but this was done to simplify the results, and because the improvisations were compared to Krumhansl & Kessler's results that are at semitone accuracy.

Midi-files were analyzed using a set of Matlab tools developed for musical content analysis by Eerola and Toiviainen (2003). The pitch-class distributions represent how many times each note of the twelve chromatic notes appears in the example and interval distribution how many times each interval has been used. Also pitch-class transitions were calculated this way. Further analysis involves also summarizing the structure of the profiles using entropy. In order to compare the resulting profiles to existing data, the profiles need to be in a common key. This is performed by Krumhansl-Schmuckler key-finding algorithm that calculates the highest correlation between the improvisations' pitch-class distribution and Krumhansl & Kessler's (1982) profiles for all major and minor keys (24 in all) and choosing the highest to denote the key for the improvisation. All improvisations are transposed according to this procedure so that the tonal centre is c.

3. RESULTS

The results were convergent with the first hypothesis. The child's improvisations are quite atonal and chromatic when she is 2-years old even though some tonality can be seen (the correlation in improvisation 1 is significant, $r = .59$, $p < 0{,}05$). Also Dowling (1986) suggests, that at 2 years of age there seems to be no overall pitch organisation and the song does not stay in one key. Children aquire the sense of key around the age of five and six. In the present study, at the age of 3 years the beginning of major scale (transposed to c) is beginning to appear in the improvisations, but still the correlation with Krumhansl & Kesslers profile is not significant (see Figure 2). When the child is 4-years old she has

[3] Computer program Studio Vision (Macintosh).

begun to use the first three notes of a major scale and the correlation with Krumhansl & Kesslers profile is significant (see Figure 3). One should still interpret the profiles instead of this correlation because the use of dominant and subdominant is yet quite small. The use of chromatic notes decreases as the child gets older.

The correlation between the two-tone transitions used in the improvisations and those in folk music increases. This finding is in line with the supposition (Davidson, McKernon & Gardner 1981; Sundin 1998) that children use small intervals in their first songs. The correlation is significant already in the first improvisation, which might be due to the musical environment in which the subject has lived in. According to Davidson, McKernon & Gardners study (1981) rhythmic and melodic organisation begins to emerge at the age of 19 months and children use small intervals (major 2nd, minor 3rd, major 3rd, occasionally 4th and 5th) in their spontaneous songs. Their interest was in the development of spontaneous and standard songs and children were taught a simple song which they had to reproduce. At the age of 2 and 3 years the children could reproduce the contour, but with varying interval sizes and wandering pitch. As the children got older the interval relationships of major scale began to emerge, but only within phrases. This development can also be seen in the present study although the results indicate that by 4 years of age the interval relationships have started to stabilize not only within the phrases but also between phrases. In the spontaneous songs the correlation with Krumhansl & Kesslers profile is significant and the entropy decreases. Because of the musically very stimulating environment, it can be accepted that participant's enculturation to tonal music is close to the upper limit of how fast this enculturation can happen.

The correlations of improvisations with the Krumhansl & Kessler major profiles (except improvisation 3 that correlates better with the minor profile) are summarized in the Table 1, and with the Essen collection in the Table 2. The profiles of improvisation 2, 4 and 6 are compared with the Krumhansl & Kessler profiles in the Figures 1, 2, and 3.

Inprovisation	r	p
No 1	.59	< 0.05
No 2	.39	n.s.
No 3	.47	n.s.
No 4	.43	n.s.
No 5	.58	< 0.05
No 6	.62	< 0.05

Table 1: Correlations of improvisations 1-6 with the Krumhansl & Kessler major profiles.

Inprovisation	r	p
No 1	.65	< 0.05
No 2	.73	< 0.01
No 3	.67	< 0.05
No 4	.81	< 0.001
No 5	.92	< 0.001
No 6	.94	< 0.001

Table 2: Correlations of improvisations 1-6 with the Essen collection.

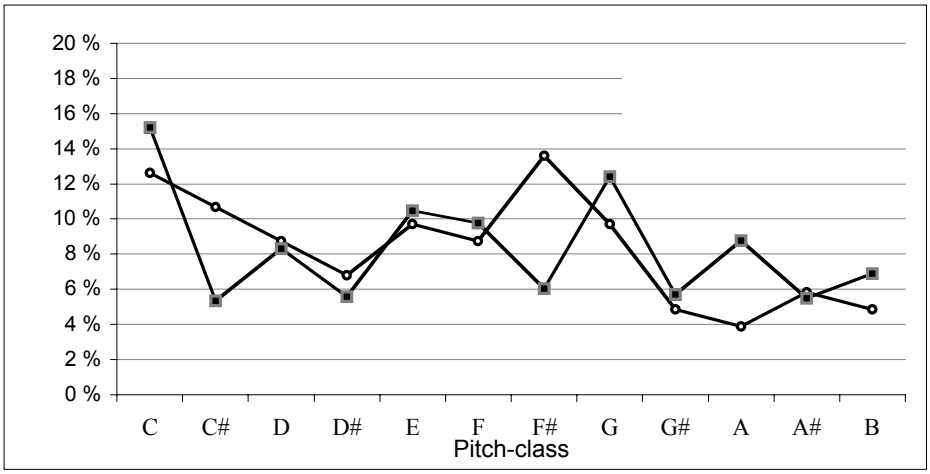


Figure 1: Krumhansl & Kessler's major profile & improvisation 2, r= .39 (n.s.)

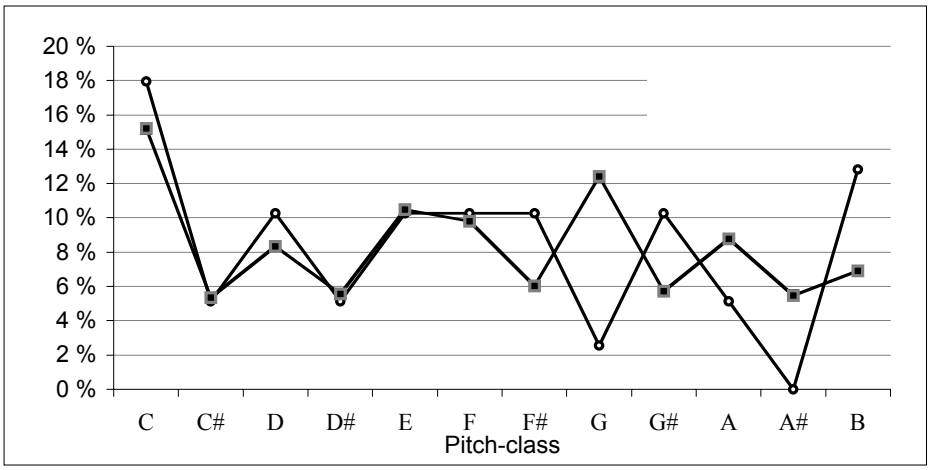


Figure 2 : Krumhansl & Kessler's major profile and improvisation 4, r= .43 (n.s.)

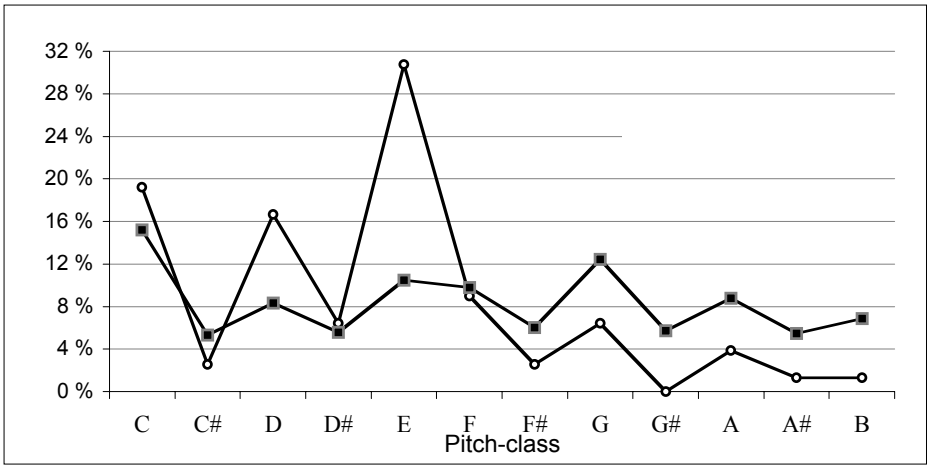


Figure 3 : Krumhansl & Kessler's major profile & improvisation 6, r= .62, p< 0,05

The main difference in the profiles across time is the decreased proportion of chromatic tones and the increased usage of the first three notes of a scale in her spontaneous improvisations.

Another way of looking at the musical structure of the improvisations is to investigate the entropy of the pitch-class and interval profiles. Both of these measures decrease when the

child becomes older (2 years -> 4 years; see Figure 4). Decrease of both entropies supports the idea that changes appear simultaneously in the pitch and interval domain.

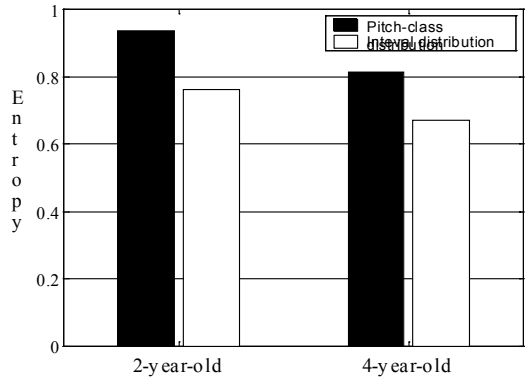


Figure 4. The entropy of pitch class distribution and interval distribution between the age of 2 and 4.

4. DISCUSSION

The results indicate that the participant of this study can produce tonal patterns and phrases already at two years of age even though she uses a lot of chromatic notes in her improvisations. But during a two-year period, the tonality of her improvisations develops closer to western tonal hierarchies. This happens so that she begins to use the first three notes of a scale. The use of dominant is still rare.

It would be appropriate to have a larger group of research participants, but it would take years to collect the longitudinal material and include the challenge to get the same children to improvise spontaneously in the recording session, during their years of childhood.

Only six improvisations were analysed, but the work is continued so that every improvisation will be analysed. Because the material includes improvisations in which the tonal centre changes, the songs will be analysed in short phrases. It will be challenging to analyse the rhythm, three-tone transitions and other aspects of the songs to get a wider perspective of the developmental process. Using a computer makes the analysis more objective and decreases the effect of researchers "musically trained ear", but it can also distance the researcher from the original material, when the songs are changed into numbers and the researcher begins to stare at them only. The researcher has to keep in touch with the original material as well.

While listening to the recordings, it could be heard that the child sometimes tries to sing "correctly", attempting to produce tonal patterns, but due to her young age and lack of control of her own voice, she does not always succeed in this. Thus, she is probably conscious of tonal hierarchies before she can produce them properly. In future research, probe-tone tests and recordings of spontaneous improvisations could be done simultaneously so that the results would apply to both perception and production of tonal hierarchies. This would need years of work and probably a lot of assistance from children's parents, due to the difficulties to record spontaneous improvisations.

5. CONCLUSIONS

The results of this case study show that the participant's spontaneous improvisations develop closer to Western tonal music during a two-year period, and by four years of age the child has begun to use the first three notes of a scale in her spontaneous improvisations. The use of dominant is still rare and the use of chromatic notes has decreased. The decrease in both interval and pitch-class entropy suggests that

improvisations develop towards more predictable melodic structures. Comparing the pitch and interval distributions, entropy provides a new tool for looking at the melodic changes in the improvisations in a more general level.

6. REFERENCES

Blacking, J., The value of Music in Human Experience. Yearbook of the International Folk Music Council 1, 33-37, a reference from Maija Fredrikson's master's thesis *Spontaanit laulutoisinnot ja enkulturaatioprosessi*, University of Jyväskylä, 1994.

Davidson, L., McKernon, P., & Gardner, H. The acquisition of song: A developmental approach. In Documentary report of Ann Arbor Symposium. Reston, V. A: Music Educators National Conference, 1981. A reference in Dowling, W. & Harwood, D. Music Cognition. Academic Press Inc. 1986.

Davidson, L. & Scripp, L., From collections to structure: The developmental path of tonal thinking in *Generative processes in music: The psychology of performance, improvisation and composition.* Oxford: Clarendon Press, 1988.

Dowling, W. J., Tonal structure and children's early learning of music. In J. A. Sloboda (Ed.) *Generative processes in music: The psychology of performance, improvisation and composition*. Oxford: Clarendon Press, 1988.

Dowling, W. & Harwood D. Music Cognition. Academic Press Inc. 1986

Fredrikson, M., *Spontaanit laulutoisinnot ja enkulturaatioprosessi*, University of Jyväskylä, Jyväskylän yliopistopaino, 1994.

Krumhansl, C. L., *Cognitive foundations of musical pitch*, Oxford: Oxford University Press, 1990.

Krumhansl, C. L. & Keil, F. C., Acquisition of the hierarchy of tonal functions in music. *Memory & Cognition*, 10, 325-334, 1982.

Lamont, A., Music, Education, and the Development of Pitch Perception: The Role of Context, Age and Musical Experience. *Psychology of Music*, No. 26. 7-25, 1998.

Lamont, A. & Cross, I., Children's Cognitive Representations of Musical Pitch. *Music Perception*, Vol. 12, No 1. 27-55, 1994.

Pond, D., 1981. A composer's study of young children's innate musicality. *Bulletin of the Council for Research in Music Education*, 1 (68) 1-12, a reference in Bertil Sundin's article Musical Creativity in the First Six Years: A Research Project in Retrospect*, Musikpedagogik: Children Composing*, No 1. 35-56, p. 28, 1998.

Sundin. B., Musical Creativity in the First Six Years: A Research Project in Retrospect, *Musikpedagogik: Children Composing,* No 1. 35-56, 1998.

Swanwick, K. & Tillman, J., A Sequence of Musical Development: A Study of Childrens Compositions. *British Journal of Music Education*, 3 (3) 305-339, 1986, A reference in Gary McPhersons article: Creativity and Music Education: Broader Issues - Wider Perspectives, *Musikpedagogik: Children Composing,* No 1. 135-156, 1998.

Toiviainen, P. & Eerola, T. (2001). A method for comparative analysis of folk music based on musical feature extraction and neural networks. Proceedings of the VII International Symposium on Systematic and Comparative Musicology and III International Conference on Cognitive Musicology, August 16-19, 2001, University of Jyväskylä, Finland, pp. 41-45.

Trainor, L.J. & Trehub, S.E., A Comparison of Infants' and Adults' Sensitivity to Western Musical Structure. *Journal of Experimental Psychology: Human Perception and Performance*, Vol 18, No 2. 394-402, 1992.

Trehub, S. E., Cohen, A. J., Thorpe, L. A. & Morrongiello, B. A., Development of the Perception of Musical Relations: Semitone and Diatonic Structure. Journal of Experimental Psychology: Human Perception and Performance, Vol 12, No 3. 295-301, 1986.

The effects of music education on the personal identities of individuals with special needs

Raymond MacDonald – Raymond.MacDonald@gcal.ac.uk
Department of Psychology, Glasgow Caledonian University &
Dorothy Miell,
Department of Psychology, The Open University, UK

Introduction

The following paper will focus on a range of music interventions used by a particular organisation with individuals who have special needs. We present a brief overview of the type of musical activities, including teaching musical skills, performing music and music therapy interventions, organised by the Sounds of Progress (SOP) company in Glasgow, Scotland. Findings from experimental research demonstrate both musical and psychological developments as a result of taking part in SOP music teaching workshops, and a possible theoretical model for explaining these developments is presented. We then discuss the findings from in-depth interviews with three individuals who have participated in a range of SOP music activities.

Sounds of Progress

The musical activities discussed are focused on the work of Sounds of Progress (SOP), an integrated music production company based in Glasgow which works predominately with individuals who have special needs. In this case the term special needs refers to individuals who have learning disabilities and/or physical impairments. SOP co-ordinates and delivers a range of musical activities including music education programmes, performance and recording-based activities and music therapy interventions.

The company aims:

- To provide access to creative music activities and professional training
- To facilitate integration between disadvantaged and non disadvantaged individuals
- To challenge existing perceptions of disabilities
- To create employment opportunities.

Interaction processes and skills development in music workshops

In a series of studies, MacDonald, O'Donnell and Davies (1999) conducted an empirical examination of structured music workshops for individuals with learning difficulties run by SOP. The typical workshop programme is designed to develop the participants' rhythmic awareness by the use of both conventional and specialised percussion instruments. There may also be a focus on singing and keyboard skills, and there are opportunities for improvisation and exploration of musical instruments within the workshop format. In general, these workshops focus on developing the musical creativity of the participants.

In the MacDonald et al. (1999) studies, one group (N=19) participated in a typical ten week music workshop programme, and were compared on a number of measures with one

control group who took part in no activities for the same length of time (N=16), and with a second control group who took part in cooking or art activities for 10 weeks (N=24). The results indicated significant improvements in musical ability and self-perception of musical ability for participants in the workshop group in comparison with the other two groups. The musical activities seemed to provide an environment that facilitated lasting developments for individuals with learning difficulties not only in their musical skills, but also in self confidence (related to their musical ability) and in general communication skills.

The workshop programme in this particular study involved learning to play a Javanese Gamelan. Gamelan is a generic name for a set of percussion instruments consisting of tuned gongs, metallophones, cymbals and drums. These can be found throughout Malaysia and Indonesia and range in size from four to forty instruments (Lindsay, 1989). An important feature of the Gamelan when working with a special needs population is the instruments' accessibility. Although mastery of the Gamelan requires dedication and perseverance to the same extent that mastery of any instrument does, complicated digital dexterity is not required to commence playing the instrument. Given these particular characteristics, the Gamelan caters for all levels of ability and is therefore an ideal instrument to use for music workshops. Its relative obscurity within Western cultures also makes it an ideal instrument for use with special needs populations as individuals can approach the Gamelan, as both listeners and performers, without any preconceived cultural stereotypes.

MacDonald and Miell (2000) suggest that it is the particular relationship between social and musical variables within the Gamelan workshops that help facilitate developments in communication. For example the Gamelan workshop involved situations that required complex musical and social co-ordination. In order to play the Gamelan successfully in a group context it is important to be able to follow changes in music that are signalled by the drummer. In Gamelan music no conductor is present. Instead all communications are accomplished musically by one drum player leading and co-ordinating all the other musicians (Lindsey, 1989). Sustained effort is required by everyone to follow the variations in tempo that occur so that emphasis is placed on group based communication. The musicians must also be able to integrate their own playing with the overall group in such a way that the individual elements come together to form a convincing whole. This process involves not only intense listening skills but attending to subtle features of the interaction such as non-verbal communication.

Given that this research has provided evidence for the efficacy of the music intervention in terms of improved musical and communication skills, a key question for the next phase of the research emerged: what are the psychological mechanisms that underpin these developments? The relationship between the social and cognitive variables under study led to the development of a research project that focused on joint attention processes (O'Donnell, MacDonald and Davies, 1999).

Joint attention

Joint attention is defined as a shared focus of attention on the same object by two individuals and is similar to the concept of 'shared social reality' (Rogoff, 1990). Both involve the need for a shared focus of activity or definition of the task and an agreed goal to work towards, and these are negotiated between partners or group members. In a development of the MacDonald et al. (1999) studies reported above, a further study examined the interactions between individuals attending the music workshops to explore the possible relevance of joint attention processes in this setting. Independent raters watched short clips of participants in the experimental group and the control group communicating with another individual during the assessment sessions which took place before and after each workshop. They rated each participant on a number of aspects of

communication, measuring the amount of joint attention present. The participants in the experimental group showed significant improvements over the ten week workshop period in joint attention in comparison to the control group (O'Donnell, MacDonald & Davies, 1999).

Developing personal identities

In order to access individuals' own views of their identities we carried out an exploratory study using in-depth interviews with a small sample of participants who have been involved with SOP between 1990 and 2000. The discussion below addresses three of these themes in more detail.

Theme 1: Other people's expectations

There is evidence in several of the extracts below of individuals struggling with the identities which others seek to impose on them, and in many places of active resistance to these attempts to impose what are often seen as 'damaged' or 'spoiled' identities, defined by lack of ability more than anything else. This can take its toll on feelings of self-confidence, as Caroline expresses very directly in Extract 1 when discussing her worries and difficulties with finding accompanists.

Extract 1

C: I think, probably, (.) a lot of my lack of confidence does come from (.) my disability, you know (1) wondering whether people are (.) you know, making a judgement of you (.)
I: mm
C: you know, (.) constantly trying to (.) disprove it before they get a chance to (.) make up their mind, you know

As she implies, she battles to get a chance to perform and be judged on her own merits before having other people's assumptions and expectations imposed on her. Music for Caroline is a powerful tool for helping extending people's perceptions of who she is, playing a central role in her life as a means of establishing her multifaceted identity not only as a person with a particular impairment, but also as a musician amongst other things.

Theme 2: Professionalism

A very important aspect of SOP work is the professionalism of the performances and the work needed to achieve this. The participants felt that the work they did with SOP was 'a complete professional job' and that this became widely known, so that their audience came to expect a 'full professional sound' (from another part of the interview with Theo). In some ways, as Theo expresses in Extract 6, it was this professionalism that warranted the identities of both musician and person with a disability. The social constructionist view of identity as plural is one which in recent years has been drawn upon by disability researchers who argue that 'disabled' is not the only identity open to individuals with a disability, as is often assumed by many in society. As we can see here, other identities such as 'professional' and 'musician' are also made available, and are publicly recognised through participation in these activities (Morris, 1993; Swain et al., 1993)

Extract 2

T: I feel, you know, it's uh (.) SOP did (.) certainly you know, (.) give me (.) the sort of uh, the thing I needed, as I said I'd given up (.), I'd given up trying to be a musician, I'd sort of (.) said, 'no, I'm not doing this any more, I'm not' (.) you know
I: Why'd you, why did you decide that?
T: I just (.) I (unclear) didn't know if I (.) I just used to do the odd spot in the likes of a local (.) local clubs and things (.) and I decided, I decided 'I wonder if they're really thinking 'he's a

singer' or (.) it's just the old sympathy vote?' (.) I just stopped, I just stopped [...] then when things started to get a wee bit professional I thought 'this can't be bad!' (laughs)

Central to his belief in himself as a musician is the sense that he is being evaluated critically as a musician by others, and not being given praise in a patronising way, which he refers to more than once in the interview as 'the sympathy vote'. We can see in this statement the ethos of the company being adopted at an individual level by a musician involved in their activities. SOP takes an egalitarian approach to musical participation which begins from the assumption that everyone is musical, that everyone can access the basics of musical participation and as a result develop their confidence and ability and learn to communicate through music (MacDonald et al., 1999). As Extract 7 shows, Phil is ready to make critical appraisals of his own performance and demonstrates an awareness of the technical skills required to be an advanced player, using other advanced players against which to evaluate his own performance.

Extract 3
P: I've done difficult songs and all that, but, (.) I'm no (.) brilliant, I wouldn't turn and say, (.) I could do a song (.) unless I'd (.) played it a few times (unclear)
I: right
P: I'm no fast at getting round the fret board
I: uh huh
P: so (.) I couldn't (.) I mean I've seen some of the bass guitarists and there's some things I couldn't do (.) like, I can't slap, (.) I've tried slapping the bass but I can not do it (.)
I: aye
P: and I see other people doing it and, I'm like that, (.) I can not do that, I've tried it, but I can't do it

The importance of the views of others is clear from what Phil says here and also from Theo's account in Extract 8 below. They both emphasise the extent to which they build on criticism offered by others or on their own comparison with the abilities of others in developing their emerging identities of musicians, and this is consistent with the social constructionist view of identities as relational. Importantly, for these views and comparisons to be taken seriously, they have to be seen as valid and not, in Theo's terms, purely 'the sympathy vote'.

Theme 3: Responsibility and empowerment

Linked in many ways to the issue of professionalism was the final theme of gaining empowerment and a sense of personal responsibility from performing with SOP. For the people interviewed, taking responsibility for the work involved in doing 'a professional job' was an important factor in feeling able to take on the identity of 'musician', or to broaden their access to different aspects of that identity. As Caroline explains in Extract 9, being given public credit for part writing a song that others critically acclaimed extended her range of musicianship to include that of song writing.

Extract 4
I: Did it [involvement with SOP] change your ideas about what (.) your (.) potential was as a musician or what (.) sort of things you (.) could do?
C: yeah, absolutely, yeah, (.) I mean it made me (.) see that, (.) you know (.) I could sing this sort of music as well, you know (.) kind of, popular music as well, and that, um, (.) one of the songs as well in the show, (.) I kind of (.) helped George write the vocal melody for and I never really kind of (.) thought that I was doing anything at the time when we were just in, in the rehearsal space one (.) interval and we were just trying to write a tune and I never really (.) thought anything about it, and then I remember after the first night (laughs) meeting (unclear) all these press there giving it 'oh, wonderful' and this woman came up and she

was like 'oh, that song, that was amazing' and I went 'yeah, it's a great song, it's beautiful' [....] and, I remember, (.) 10 minutes after I'd spoken to her, looking in a programme and I'd got a credit for part (.) writing the song and I didn't know that! (laughs) and I'd been (.) totally going 'oh it's a lovely song, it's absolutely amazing' (laughs) [...] but (.) I didn't really do anything, I just came up with a bit of the vocal (.) melody and I was like (.) 'so it's that easy at times (.) to do that' and ok it's (.) not always that easy, and George was doing, you know, did most of the work, (.) but (.) it was just the fact that (.) I (.) couldn't believe that my name was there, you know, that (.) you know, I'm not a composer, but, you know, why am I down as having helped compose this? I suppose I did, but it, it took a while to sink in and to realise that (.), you know, I'm, I'm never going to be a composer but, (.) you know, (.) I can (.) have some kind of, (.) you know, hand in that

For Caroline, accessing a "composer" identity further enhances the empowering effect that music has for her. It is something new for her and she is quite tentative in claiming this identity –emphasising how she 'helped George' and explaining that he 'did most of the work' and that she 'didn't really do anything' and just 'had a hand in' the process. She is also at pains to point out her embarrassment when she thought she had been too boastful about 'her' song when talking to a woman after the show, and the numerous pauses and 'hedging about' in the extract above demonstrate that it is important to her to avoid further potential embarrassment. However it is clear that this event was a very significant one for her, and that it was influential in enlarging and elaborating her identity as a musician. Again it is through the relationship with another that we can see new aspects of an identity emerging – through the close and supportive collaboration with George she now has at least some warranted access to the identity of songwriter and knows that she can 'come up with a vocal melody' again, having achieved it so successfully already.

Song writing or composing was a feature mentioned in all the interviews we conducted. The participants had all 'had a hand in' writing lyrics or music for at least one of the shows that SOP had performed, and this was an important feature of endorsing their identities as musicians. In shows such as 'Irreparable Dolphins', entirely structured around personal narratives of disability, this had the effect not only of developing these skills to a professional level, but also of bringing to public attention views of disability from the perspective of those with disabilities, which was an important personal and political achievement for those who took part. As Theo expresses in Extract 10, having his voice heard and being taken seriously had been a long hard struggle against some of those in the training centres who thought they 'knew better'. He talks about how, although drama and music activities had initially been introduced into the adult training centres by the councils, they were later withdrawn when staff felt they were no longer in control:

Whilst these extracts have been drawn from a small scale study of individuals' personal accounts of identity development following participation in music activities, they do identify some important and pervasive themes for understanding the powerful role which music can play in this process. The findings suggest that it would be useful to extend this study and explore the accounts offered by a wider range of individuals.

Conclusions

This chapter has discussed the social roots of personal identity; examining the detail of complex interactions between individuals involved in musical activities and the reflections on these interactions by some of the individuals involved, in particular the impact of such activities on their changing personal identities. We argue that musical activities can be particularly effective as catalysts for identity development because of the high degree of mutual engagement necessary between performers, and because of the impact of being involved in valued activities on their feelings of self-confidence and empowerment.

The results from the first studies reported here highlighted the impact that music interventions can have on discrete personal and social factors. The preliminary analysis of the interview material suggests that involvement in musical activities also has more general effects on the way in which people think about both themselves and their position within society. These two developments are related in that music can be thought of as not only facilitating specific changes in musical and psychological factors, but also as contributing to the identity projects in which the individuals are engaged. Whilst we have been focusing our debate upon the activities of one particular music company (SOP), this has been presented as an example of how any musical participation, suitably structured, can be an excellent vehicle for leading to musical and personal gains for participants. We do not believe that these effects will only be found with participants in SOP activities, but rather suggest that when music is employed for therapeutic/educational objectives in a structured and goal-directed way by individuals with musical expertise and training then outcomes of the type reported here can be expected.

References

Lindsay, J. (1989) Javanese Gamelan: Traditional Orchestra of Indonesia. Oxford: Oxford University Press.

MacDonald R.A.R & Miell D (2000). Creativity and Music Education: The Impact of Social Variables International Journal of Music Education (in press).

MacDonald, R.A.R Murray, J.L., & Levenson, V.L. (1999). Staff attitudes towards individuals with intellectual disabilities and HIV/AIDS. Journal of Applied Research in Intellectual Disabilities, 12(4), 348 - 358 .

MacDonald, R.A.R., O'Donnell, P.J, & J.B., Davies (1999). Structured music workshops for individuals with learning difficulty: an empirical investigation. Journal of Applied Research in Intellectual Disabilities 12(3) 225 - 241.

Miell, D. & MacDonald, R.A.R. (2000). Children's creative collaborations: The importance of friendship when working together on a musical composition. Social Development 9(3), 348-369

O'Donnell, P.J., MacDonald, R.A.R. & Davies J.B. (1999). Video analysis of the effects of structured music workshops for individuals with leading difficulties, In D Erdonmez & R.R. Pratt, (Eds.) Music Therapy & Music Medicine: Expanding Horizons (pp. 219-228). Saint Louis: MMB Music

Phoenix, A. (in press) 'Identities and Diversities' in Miell, D., Phoenix, A. and Thomas, T. Exploring Psychology, Milton Keynes: The Open University

Rogoff, B. (1990) Apprenticeship in thinking: Cognitive development in social context. Oxford University Press: Oxford

samspel

Working Together For Effective Musical Learning: Enhancing partnerships between children, teachers and parents

Gary E. McPherson – G.McPherson@nsw.edu.au
University of New South Wales
Sydney Australia

Abstract
In many communities around the world consumption of music is at an all time high, while active participation continues to drop. This finding provides the springboard for studying the dynamics of learning a musical instrument in contemporary schools, and the need for music educators to view their work within a larger social context. My intention in this presentation will therefore be to focus on how the social environment for learning a musical instrument can be enhanced through the building of partnerships between children, teachers and parents. Drawing on videotape examples of children performing and speaking about their learning, plus transcripts from teacher and parent interviews, the paper will outline results from a three year longitudinal study that was conducted with young Australian children who are learning musical instruments in school music programs. A major aim of the paper will be to provide a framework for understanding how musical learning can be enhanced when children are exposed to environments which support and nurture both their personal and musical needs as individuals.

* * * * * * *

In his book *Bowling Alone,* Harvard University Professor Robert Putnam (2000), provides a powerful account of how American society has slowly changed over recent decades. Citing a wealth of research data, much of which would probably be equally true for other countries, Putnam shows that during the past 25 years, attending club or group meetings is down 58% , having family dinners is down 33% and having friends over is down 45%. According to Putnam, the glue that once bonded and sustained society has slowly become unstuck, with the result that individuals are increasingly becoming strangers to one another. The picture Putnam paints is of societies in which teenagers walk around with headphones on their ears, where the average adult is more likely to talk to someone on a mobile phone than a fellow passenger on a bus or train, and where children spend a great deal of their time playing Nintendo and other types of computer games in preference to participating in outdoor activities and team sports.

Putnam provides evidence showing that consumption of music is at an all time high, but that participation has dropped dramatically. While attendance at pop/rock concerts is up a third, the fraction of households in which only one person plays an instrument has dropped from 51% in 1978 to 38% in 1997 (p. 114-115). Participating as a member of a community band or choir, or even gathering around the family piano, were once exemplars of how people within communities interacted socially. Now however, the percentage of children who play an instrument has fallen to only 20% (from 30% twenty five years ago) and musical tuition on an instrument has also dropped significantly over recent decades. These findings do not mean that societies around the world have lost

their love for music, but they do provide indications of how individuals are increasingly becoming consumers of music rather than active participants.

Summarizing research on children's education, Putnam goes on to point out that:

> A considerable body of research dating back at least fifty years has demonstrated that trust, networks, and norms of reciprocity within a child's family, school, peer group, and larger community have wide-ranging effects on the child's opportunities and choices, and, hence, on his behavior and development. (p. 296)

Putnam suggests that there is ample evidence to show that children will flourish both personally and academically, in communities where their parents trust each other, join clubs and participate in social groups, volunteer, vote and socialize with friends. Educational researchers have known for some time that in school communities where parents are actively involved in their own children's education, children do much better and the schools they attend are generally much better. Parental involvement is therefore a key ingredient for improving schools and individual children's achievement, but this works most effectively in situations where parents are given real decision-making responsibility for their children's education and are placed in positions which they themselves feel are suited to their own unique knowledge and skills (p. 304).

With the above comments in mind, my intention in this presentation will be to highlight a variety of issues which help us to understand the complex social dynamics which either enhance or hinder a child's learning of a musical instrument. Throughout my presentation I intend to draw on video recordings and transcripts of interviews from a group of 157 children (aged 7 to 9), their parents, and their teachers who participated in a longitudinal study which attempted to map out the development of the young beginners' skills, attitudes and understandings across the first three years of their learning in a school instrumental music program. This information will be expanded by citing other researchers who offer valuable comments on this topic, and whose comments enrich our understanding of how learning a musical instrument is best achieved via a three way partnership between the child, their teacher and their parents.

Parental support and the home environment

There is now ample evidence that the quality of the home environment influences a child's musical development in profound ways. Important early experiences for an infant include singing and musical games, which mothers and other family members use to provide for a baby's basic desire for love within a caring, nurturing environment (Gembris & Davidson, 2002).

Studies of traditional forms of instrumental training, reveal that the home environment may be one of the most critical factors influencing whether a young musician will subsequently take on a professional career as a musician or perform as an adult in amateur and community ensembles (Gembris & Davidson, 2002). Parents of successful musicians provide environments for their child that reinforce the positive aspects of learning music, and that help develop the self-regulatory skills necessary for children to channel their interest so that they devote sufficient time for musical activities. Parents of successful musicians are also more likely to believe in their child and provide a learning environment that is conducive to quality learning, such as actively encouraging their child to practice, or making the child feel that she or he is the 'musician' in the house, or in some ways special because of her or his musical participation (Sloboda & Davidson, 1996; McPherson & Zimmerman, 2002). They do this by being patient with their child, and not becoming confrontational when the child does not wish to practice. They also realize the important of encouragement, especially when the child is experiencing difficulties. And they are imaginative in the ways in which they create a musical atmosphere in the home which

focuses their child's attention on the value of learning music and how enjoyable it can be to participate as a member of a musical ensemble. Finally, parents of successful learners use common sense to ensure that their child maintains a balance between doing musical practice to continue improving and enjoying music, while at the same time leaving sufficient time for other activities (Gembris & Davidson, 2002; McPherson & Zimmerman, 2002).

Relationship between the teacher and child

Obviously, the relationship between music students and their teacher is yet another crucial social factor in the learning process. Effective music teachers are able to act as mentors for their students, by stimulating and guiding their cognitive and technical skills in a nurturing but rigorous environment (Hays, Minichiello & Wright, 2000). For successful learners this relationship is often intense and directly effects the developing student's concept of themselves as a musician which in turn impacts on what they perceive as worthwhile musical goals. Davidson, Moore, Sloboda and Howe (1998) suggests that one of the qualities of a good teacher is being able to motivate the learner until she or he has developed an intrinsic love of music. Sloboda and Davidson's (1996) study of 257 young musicians also shows distinct differences in the relationship between student and teacher for students who went on to achieve at a high level, as compared to those who ceased playing or did not progress as rapidly. High achieving students perceived their first teacher as chatty, friendly and a good player in marked contrast to less successful students who regarded their first teacher as unfriendly and a bad player. Their results highlight the extent to which successful student musicians are able to differentiate between the professional and personal qualities of their teacher, in contrast to less successful learners who find it more difficult to distinguish between these two qualities. For Sloboda and Davidson, the most important quality of a student's first teacher are the abilities of being able to communicate well and to convey a love of music. It is these qualities that motivate students to view music as a fun and enjoyable activity, and therefore something in which they might like to excel.

The study I have undertaken with Australian children, who were learning instruments in eight different school music programs helps to illuminate key factors which support and help to facilitate a child's development. During the course of the study, we undertook interviews with the children, their parents and their teachers at regular intervals across the first three years of the children's learning. One of the most illuminating series of interviews I undertook was with a young girl, who in the second year of the study wanted to give up, but was encouraged by her new music teacher to continue:

> I had real problems with my teacher earlier this year because I didn't like what she was giving me. I now have a new teacher and we talk about what I'd like to play and she gives me things I like to play. I like it more now. . . . She talks to me and explains why I need to practice but she asks why I didn't practice and if it's a good reason then she doesn't get mad at me. But she does explain to me why I need to practice in order to improve. . . . It's fun because she gives me new pieces. She's very understanding and really helps. She listens to me and likes me to master the pieces that I want to learn rather than the ones she wants me to learn.. . . . . She's very nice and she's been playing a lot. . . . . We start a lesson by talking about what we did through the week, and she tells me about her music. She's funny and likes jokes. The last teacher we had was more interested in herself rather than us. Our new teacher is more interested in us and what we want to learn. I like my new teacher because she's genuinely interested in what I want to learn to play. . . . . My French Horn is like a good friend, if you quit you lose a friend. I never knew that music could be that interesting, compared to when I first started playing. You learn to love your instrument if you don't quit, and if you've quit then you lose a great chance to love music.

The above transcript provides clues concerning how the child's view of her own music learning, and subsequent interest in wanting to continue, changed as a result of receiving tuition from a teacher with whom she felt she could communicate. In fact, interviews with the young player and her mother demonstrate how the new teacher's ability to communicate with her students while at the same time showing her deep love for music, provided an important means of external reinforcement for the young female French horn player to persist with her learning at a crucial time when she was about to cease instruction.

Social factors – playing music as a group activity

One of the questions we asked parents concerned what they believed were the best and worst aspects of their child's musical learning. A recurrent theme across the three years concerned social interaction, with many parents stating that participating in the music program allowed their child to develop confidence and to enjoy the experience of making music with their friends. Parents also spoke of the personal and emotional qualities that music instruction can offer, especially those concerned with self-confidence, self-regulation and the ability to persevere, even in situations where the child may face difficulties. Indicative comments from parents before the children started learning include:

> I think he'll like the idea of belonging and contributing to the band and the discipline, organization and routine.
>
> Being part of the band is the best thing. It's very important at that school to be in the band. All her friends are there, and it's important to walk around with an instrument case. She'll also enjoy giving little concerts for her parents.
>
> He'll enjoy being part of the group, and with his friends. He'll love the band camps and find playing stimulating intellectually.
>
> She'll enjoy the social aspect of the group, and this will add to her confidence.

Interestingly, the children had clear expectations about why they enjoyed playing their instrument, and, right through to their third year of involvement in the school music program, social interaction through participation as a member of the school's ensemble continued to be cited as the main reason why some children chose to continue playing. Social interaction was clearly an important element which motivated many learners to continue learning:

> Sometimes I think of quitting but every band camp I listen to all the singing and really good pieces and just forget about quitting.
>
> I like playing with my friends in the band. That's the best thing about learning.

In contrast, across the three years, comments by the parents and the children about what they thought were the worst aspects of learning very often focused on personal rather than social issues. A recurrent theme was how the children perceived practicing their instrument by themselves at home. Musical practice was typically seen as a chore or boring rather than an enjoyable experience. In fact, during the first months of learning, around 80% of the children needed to be reminded to practice by their parents (McPherson & Davidson, in press). The parents used a variety of strategies to encourage their children to practice, such as sitting and listening to songs their child was learning to play, applauding at the end of performances, and providing encouraging remarks when the young learner was having difficulty. Some parents were more strict that others about exactly when and how practice would be undertaken. By the end of the first year of learning however, parental reminders to their children about doing practice had dropped to less than 50%, indicating that by this time many parents had made a conscious decision on the

degree to which they were prepared to support their child's practice (McPherson & Davidson, in press).

Interestingly, many of the children who ceased learning had parents who did not intervene, or provide the necessary ongoing support needed for their child to persist with their musical involvement. Two typical comments by mothers include:

> By the time she stopped she was not bothering. Right over the vacation she didn't get her instrument out once. I wasn't going to nag her. I thought: It's her decision, and so I'll respect that.

> Initially I was trying to help her, but as she lost interest I didn't force her to do it. When she lost interest I just went along with it.

Importantly, some parents of children who ceased learning music stated that one of the reasons was that learning the instrument no longer provided the type of social interaction that the child needed to maintain her or his interest in music:

> When she changed instruments, she was separated from a lot of her friends in the band. She was the only French horn player, and had to sit with the boys. She didn't like that.

Creating a Favourable Partnership

I am often asked by parents and teachers to provide advice on the best possible environment for a young child to learn an instrument. Teachers often want to know my thoughts about the types of instructional strategies that might offer the most efficient or effective ways for beginning students to learn to play. Parents typically ask questions about what type of tuition they should arrange, or what type of music program would be best for their child. My suggestions to both teachers and parents are often essentially the same. From what I have learned as a result of my research and by studying results from other investigations, I strongly believe that efficient and effective musical learning is best achieved in an environment in which the child, their parents and their teacher work closely together in a close partnership.

Parents need to be patient when reminding their child to do their practice, as music practice must never be seen as a punishment. They also need to be imaginative in the way that they encourage and support their child's learning. This means taking an active and supportive interest in the child's learning, particularly in the beginning stages of development when children need a great deal of external reinforcement in order to eventually develop the intrinsic desire needed to take control of their own learning (McPherson & Zimmerman, 2002). Praise and support that makes a young child feel special about their learning, or that leads to them developing a sense of self-identity as a musician is of utmost importance (Sloboda & Davidson, 1996). Just as many children need constant ongoing support from their parents, often extending over many years to complete their school homework, they will also require a great deal of support and reinforcement in order to undertake sufficient practice to continue progressing on their instrument. The role of the parent is therefore critical, especially in terms of helping a child cope with the physical, mental and emotional challenges involved in home practice.

For teachers, part of my answer includes suggestions for building better communication between themselves, their students and their students' parents. Understanding how young learners feels about themselves, their music learning and how well they are progressing is just as important as the exercises and repertoire teachers may assign for practice. For example, our research has uncovered large differences in the efficiency of learning when students practice pieces that they are intrinsically interested in and want to learn, compared to normal repertoire that has been assigned by a teacher (Renwick &

McPherson, submitted). Enjoyment appears to be a crucial factor which markedly affects success and persistence. Just as importantly, motivation is inextricably linked to the social and cultural environment (O'Neil & McPherson, 2002), which means that teachers need to foster a sense of personal choice and responsibility for reaching goals that are set by the student themselves. A challenge, therefore, is for teachers to respond to each of their student's as individuals, and to try to understand the complex mix of thoughts, feelings and actions which impact on students as they try to develop the range of skills that are essential for success in music.

Conclusions

One of the most important conclusions from the research I have undertaken with young Australian beginning instrumentalists, is that a deep understanding of how successful learners are able to achieve at a higher level, comes not from analysing how competently they can perform repertoire on their instrument, but from understanding the social interactions that either enrich or hinder their musical education. Understanding this further, in terms of the social dynamics that facilitate partnerships which ultimately benefit the child, will therefore be the focus of my presentation. My intention is to provide delegates with a summary of the key research findings from the studies I have undertaken with Australian school children, and to use videotape examples, performances and transcriptions of interviews in order to stress the key points I wish to highlight during my presentation.

References

Davidson, J. W., Moore, J. W., Sloboda, J. A., & Howe, M. J. A. (1998). Characteristics of music teachers and the progress of young instrumentalists. *Journal of Research in Music Education, 46*, 141-160.

Gembris, H., & Davidson, J. W. (2002). Environmental influences. In R. Parncutt & G. E. McPherson (Eds.), *The science and psychology of music performance: Creative strategies for teaching and learning.* New York: Oxford University Press.

Hays, T., Minichiello, V., & Wright, P. (2000). Mentorship: The meaning of the relationship for musicians. *Research Studies in Music Education, 15,* 3-14.

McPherson, G. E., & Davidson, J. W. (in press). Musical practice: Mother and child interactions during the first year of learning an instrument. *Music Education Research.*

McPherson, G. E., & Zimmerman, B. (2002). Self-regulation of musical learning: A social cognitive perspective. In R. Colwell (Ed.), *Handbook of Research on Music Teaching and Learning* (2nd edition). New York: Oxford University Press.

O'Neill, S., & McPherson, G. E. (2002). Motivation. In R. Parncutt & G. E. McPherson (Eds.), *The science and psychology of music performance: Creative strategies for teaching and learning.* New York: Oxford University Press.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community.* New York: Simon & Schuster.

Renwick, J., & McPherson, G. E. (submitted). Interest and choice: Student-selected repertoire and its effect on practising behaviour.

Sloboda, J. A., & Davidson, J. W. (1996). The young performing musician. In I. Deliege & J. A. Sloboda (Eds.), *Musical beginnings: Origins and development of musical competence* (pp. 171-190). New York: Oxford University Press.

Mother-infant Musical Communication in the 1st Year of Life

Johannella Tafuri – vi11019@iperbole.bologna.it
& Roberto Caterina, University of Bologna, Italy, Donatella Villa, Italy

Introduction

It is very common to see mothers "talking" with their young infants using short and repetitive sentences with an accentuated intonation: the infant "answers" by producing vocal sounds, the mother imitates the infant, infant answers again, and so on.
They are communicating, even if the infant cannot speak yet, and this interaction is very important for the acquisition of social behaviours and language.
The considerable amount of research on parental speech behaviour towards infants has supplied very interesting results with positive educational consequences, but music is quite neglected. Furthermore, such research generally focuses on the perceptual-cognitive processes in infants, more than their vocal sound production.
In this study we would like to present our view about communication and languages, then briefly mention some important findings about infant communication, the didactic role of intuitive parenting and the sensitivity of infants towards prosody and the melodic-rhythmic contour of adult speech. After that we will apply these considerations to musical language and try to verify, through our research, the effects of infant-directed songs and recorded music on infant listeners and their production of vocal sounds in musical communication.

Verbal Communication

Communication is one of the most important types of behaviour in human beings.
In how many ways can we communicate? Verbal language is undoubtedly the most important system for all cultures but is not the only one. There are many other possibilities: music, dance, gestures, images etc. are all different systems of signs more or less structured in order to communicate.
Semiotic studies about cultural processes as communicational processes among human beings have contributed much to understanding their mechanisms (Eco 1975).
Verbal language is clearly the most powerful system: it is considered the most appropriate wav to name objects and states, to indicate really existing things, to allow people to express their own thoughts through a structured system.
But it is also clear that semantic spaces exist that cannot be covered by verbal language. Other systems of signs, generally called "nonverbal" languages, have therefore been invented to express what words cannot say or do not say with the same expressive intensity.
Each language possesses, then, its own originality and specificity; words can try to approach them with a certain approximation (not strictly speaking a "translation", even if people often use this word), and frequently this is necessary in order to share a certain experience, but we know that in doing so we lose part of the richness and uniqueness of the original message.

When do infants start to communicate?

In the first year of life infants do not speak but need, for their affective and mental health, to receive information from and about the world and to communicate their wants and needs. From birth, infants manifest their well-being or discomfort through reactional sounds. After crying, there soon appear different kinds of sounds that become richer and more varied as infants master phonation.
They also communicate through eyes, facial expression, arms and foot movement and, quite early, smiling, but sound communication is the most important and varied. Elicited by their mothers, they imitate facial expressions, gestures and vocalizations adopting at first a passive, then an active role. Through this interaction, infants learn to recognize and share emotions and knowledge of the world (Boysson-Bardies 1999). A special part of this reciprocal behaviour is the exchange of vocalization that occurs towards three months, and only for a short period, called *turn-taking,* where "mother and child respond to each other by taking turns vocalizing. (...) The infant begins to vocalize when the adult stops talking to him, a situation that occurs again several times, giving the impression of a conversation" (Boysson-Bardies 1999, p.76).
The mothers' (or caregivers') interest in vocal interaction with babies, leads them very soon to develop a particular wav of speaking to children called 'motherese' in English (in Italian we don't have a similar word). This term refers to the "modulation of the prosody and voice of mothers (or other adults) speaking to babies" (Boysson-Bardies 1999, p. 82), characterised by high vocal register, exaggerated modulation of intonation contour, syllabic and word repetition, decelerated pronunciation etc. Infants show special interest towards 'motherese' with positive effects on interactive communication.
The importance of this behaviour has been stressed by many authors and Papousek, Bornstein (1992) assigned it a didactic role.
Learning is first and foremost a spontaneous, natural process related to both biological/physiological and cultural factors, and occurs primarily at home where the role of parents is determinant. But learning is generally related to teaching, since they are two interacting types of behaviour: the former as the ensemble of acquired and relatively stable behavioural modifications produced by teaching, the latter as the ensemble of the behavioural interventions of a person that provokes learning in others (Ballanti 1988).
When we say "teaching" we do not necessarily mean a systematic and planned activity, explicitly aimed at the teaching/learning process.
We can distinguish between implicit and explicit behaviour: parents smoking teach children to smoke even if not explicitly; TV broadcasting a song teaches people to sing it etc. In explicit teaching we must distinguish between formal and informal, the latter indicating the ensemble of interventions, intentional or semi-intentional, although casual and discontinuous, given by people living around the child (parents, siblings, peers etc.). From this point of view the theory by H. Papousek, Bornstein (1992) stressing the didactic aspect embedded in intuitive parenting becomes significant. In their opinion "the parent-infant dyad represents a didactic system par excellence" (p.210). It is, obviously, an asymetric relationship where the linguistic competence of the parent is evident and, as a consequence, the communication plays a dual role: "it satiates the infant's need for communication" and "allows the infant to profit from the caregiver's experience" (p. 210).

Prosody, melodic contours and rhythm

The most important aspect for infants in verbal communication, is prosody: parameters such as frequency intensity, rise-time, rhythm etc. are perceived very early, and infants prefer their mother's speech with a sing-song intonation and a high-pitched voice (Fernald 1989, 1992;
M. Papousek 1995). One of the primary aims of maternal speech is to teach language, but the exaggerated prosodic dimensions of her speech also have other purposes: to elicit and maintain attention, communicate and share emotions, and promote social behaviours engaging the infant in social interaction (Fernald 1992; Malloch 1999). The semantic

potential of vocal communication relies on the prosodic patterns of infant-directed speech and, as Fernald (1989) says, "the melody is the message". Mothers, in all cultures, are able to communicate feelings, such as attention, approval, prohibition or comfort, or more generally soothing and arousing, not through words that children do not understand yet, but through the musical aspects of their speech (Fernald 1992- M. Papousek 1995).
This interactive communication, giving and receiving, therefore has important educational, linguistic and social consequences. Fernald argues that "the prosodic patterns of maternal speech serve psychobiological functions central to the development of communication in the first year of life" (1992,. p. 270).
Looking more in particular at melodic contours, it has been demonstrated that they already have a communicative function for infants at 2, 4 and 6 months of age (Stern, Spieker, Mackain 1982). Trehub, Bull and Thorpe (1984) have shown that 8-11 month old infants are able to discriminate the transformation of a melody if the melodic contour is violated or if there is a frequency change of some sounds of the original melody. Investigating the organizational processes used by infants aged 9-11 months in the discrimination of melodies, Trehub, Thorpe and Morrongiello (1987) found that infants categorize sequences on the basis of global and relational properties, while melodic contour plays a critical role.
According to Papousek (1992, p. 245) "melodic contours are in fact, perceptually and acoustically, the salient units of parental speech to young infants". The interest and the perceptual capacities of infants towards melodic contours elicit their answers and mothers and infants engage in a dialogue where they explore the pitch space (Malloch 1999).
Another important aspect of mother-infant vocal communication is the presence of a precise rhythmic svnchrony or alternation of sounds providing "important evidence of the precocity of human sensitivity for the beat and the phrasing of expression" (Trevarthen 1999, p. 176). Studying the "Intrinsic Motive Pulse". that is, the rhythmic and emotionally modulated bodymoving system, Trevarthen (1999) looks at the first manifestations in infants and particularly the timing and coordination they show in favorable conditions. In the first mother-infant dialogues, or *protoconversations,* as Bateson (in Trevarthen 1999) calls them, they try to synchronise their vocalizations and to mould on the beat.
This behaviour has been described and analysed by Malloch (1999) when studying parent-infant communication. The high level of attunement reached by both is a manifestation of a communicative interaction which is co-operative and co-dependent and whose elements lead Malloch to call it Communicative Musicality.
The first dimension of this Communicative Musicality is what Malloch calls *pulse,* that is, "the regular succession of expressive 'events' through time" (p. 32). The spectographical analysis of recorded dialogues shows that infants (from the age of 6 weeks) and mothers tend to vocalize naturally in a coordinated and rhythmic fashion. Sometimes there is a very precise pitch and rhythmic matching by infants to their mothers' vocalization.
A precise temporal coordination in the vocal exchanges is so important for emotional communication that a lack of identity or depression in the mother affects the rhythmic organisation of vocal interaction which becomes less well-timed (Gratier 1999).

Musical Communication

Studies on infant-mother vocal communication generally focus on examples where mothers speak. They sometimes refer to mothers "speaking or singing ", however, only a few authors explicitly study singing communication (Papousek M., Papousek H. 1981; Trehub, Trainor, Unyk 1993; Papousek M. 1995; Stadler Elmer 2000).
Considering the specifities and consequences of vocal communication described above, we wondered whether it might be possible to apply them to musical communication.
Before continuing, we should specify here that authors studying verbal communication normally use musical terms in a broad sense. On the contrary, pitch, melody, rhythm, meter etc. in a strict musical sense refer to specific features like scale sounds, duration

relationship, metrical organization etc. of a concrete musical system. We are interested in studying the effect of music in the strict sense.
We saw that interactive communication promotes linguistic capacities, the sharing of emotions and social behaviours. Does music have the same or similar potential as verbal language? What happens if the mother often sings?
As far as social behaviours and sharing emotions are concerned, we can hypothesize that the mother's singing could have the same effect as her talking. The infants' need to communicate can be equally "satiated" because mothers are in any case interacting with them, trying to elicit their attention or soothe them, showing different emotions according to the kind of song (its melodic/rhythmic aspects and/or its lyrics).
As we know, human communication cannot be exhausted by verbal language and many other ways of communication have been invented. Even if music is less powerful than words, looking at the tonal system, which is considered the musical mother language of the West (Francès 1975), we find quite a structured system with its own grammar (Baroni, Dalmonte, Jacoboni 1999), syntax (Francès 1975) and ways to convey meanings (Meyer 1956; Imberty 1986). Music is not just a language but is also considered and studied as language (Stefani 1976).
As far as the acquisition of language is concerned, "the linguistic model must be presented within a framework of interactive communication" (Boysson Bardies 1999, p. 94). Could we not apply this statement of Boysson Bardies to musical language? During the first year of life, infants progressively manifest different abilities for the processing of sounds and in particular music (see an overview in Fassbender 1995). If they discriminate melodic contours and rhythms in speech, all the more reason why they should discriminate them in songs and music where pitch and duration are organized in a more precise way. We hypothesize then, that the presentation of a musical model in the context of interactive communication should help the acquisition of the basic features of the musical language developed in the culture to which the infant belongs. This does not exclude the presence of "basic principles of perceptual organization that are operative in early life" (Trehub, Trainor, Unyk 1993, p. 24), but in order to mature, these principles need a cultural context in which to operate.
We can suppose that a mother's singing or inviting the infant to listen to recorded music, plays a didactic role: she is teaching infant musical language and in particular how to sing (Thurman 1997). The term 'teach' is obviously used in its broad sense of preparing a learning situation and we hypothesize that infants frequently involved in singing communication learn to sing earlier and better than others. The presence of many musical aspects in 'motherese', on the one hand, and the interest and progressive perceptual-cognitive capacities showed by infants, on the other, should encourage parents and caregivers to make more explicit use of musical communication in a strict sense (M. Papousek 1995).
The ability of infants to distinguish speech from other sounds appears quite early (1-4 months: Eimas *et al.* 1971). due also to the fact that the auditory system of the fetus is functional towards the 24th –30th week of prenatal life (Lecanuet 1995). This means that at birth it has
been functioning for 4 months and several studies have demonstrated the important influence of prenatal listening (Shetler 1989; Woodward 1992; Wilkin 1996; Villa, Tafuri 2000). Nevertheless it is difficult to say if neo-natal sensitivity depends on a genetic predisposition, or on the prenatal experience or on both (Lecanuet 1995; Fassbender 1995). In any case grouping and segregation processes start towards 2 months (Fassbender 1993), and from 4-6 months of age infants are able to group and segment units both in speech and music (Fassbender 1995), and show sensitivity to musical phrase structure based on pitch and rhythmic patterns (Krumhansl, Jusczyk 1990; Jusczyk, Krumhansl 1993).
Infants show the capacity to produce vocal sounds quite early, also through imitation, and before they can produce their first real syllables (not pseudosyllables), towards 6-7 months

(Boysson-Bardies 1999), it seems that in some cases they imitate the melodic and rhythmic contours of what mothers are singing (M. Papousek, H. Papousek 1981; Tafuri, Villa, in press). Contrary to what is commonly said, 'canonical babbling' appears towards six (Thurman 1997) or seven months (Boysson-Bardies 1999), when the vocal tract is able to produce syllables that respect the linguistic constraints of natural languages. Before this, from four months, infants start to produce quasi-consonantal sounds with vowels, similar to syllables and normally called babbling.
Might we speak of "musical babbling"? This is what Moog (1976) suggested when speaking of the production of sounds of most varied pitch that occurs when music is sung or played to the infant (Moog 1976, p.60). In our study we would like to concentrate on the relationship between the mother's singing and the infant's vocal reactions (vowel sounds or musical babbling), believing that infants can be involved in interactive communication even if the mother is singing and not just speaking.
On the basis of what has been said, i.e.:

- the importance of interactive communication and its educational consequences
- the early perceptual capacities of infants and their sensitivity to prosodic elements
- the infant's ready responsiveness to the mother's speech

we investigated the effect of musical interactive communication both on the active participation of infants, as well as on their musical development and in particular their ability to produce musical babbling.

The research project

In order to verify the effects of prenatal musical listening and a music educational program on musical development, we planned a longitudinal study, the **inCanto** Research Project, lasting from the 6th month of prenatal life to the 6th year of the child.
One of the main goals of the project is to develop the ability to sing in tune, but we also try to investigate year by year other specific aspects.
At present we are studying the effects of musical interactive communication, that is, of infant-directed songs and recorded music on infant listeners. We formulated the following hypotheses:
1) all infants musically accompanied during prenatal and neo-natal life react positively when listening to their mother singing or to recorded music which soothes or arouses them;
2) infants involved in interactive communication through music react by producing sounds
3) infants more musically stimulated and engaged in musical communication, produce more
sounds in musical dialogues.

Methods

Subjects. The experimental group consisted of 119 mothers-to-be in their 6th-7th month of pregnancy. The sample was formed on the basis of the mothers' interest, without any specific prerequisites.
Procedure and materials. The mothers-to-be were contacted through medical centers. Groups of 8-10 participated in a weekly course of music activities principally based on singing, listening and moving. These activities were chosen according to the results of educational and developmental research.
Musical material for singing included rounds, nursery rhymes and infant songs. Listening activities involved tonal music of different genres and styles. The moving activity was performed with different kinds of dances.
The mothers-to-be were requested to work daily at home singing and listening to music. They received a diary with many weekly questions, including two Tables relating to the quantity of singing and the quantity of listening performed each day.

Forty days after birth, the mothers resumed attendance of the weekly course (singing listening, moving, musical games) with their infants. They were requested to use music daily at home in interactive communication and other activities, and to fill in the diaries where, besides the Tables about the quantity of singing and listening, they answered a series of questions. We asked about:

- effects of mother singing in different situations, a) when the infant is crying (not for a serious reason like pain), b) when he/she is restless;
- effects of listening to music in the same 2 situations;
- use of singing games;
- production of sounds while mother is singing or when she stops, while listening to recorded music or when it stops;

Mothers returned the completed daily diaries of how much they sang and played musical games at home and their infants' responses to music.

Data analysis and Results

Seventy-seven of the 119 mothers resumed the study after birth with infants; some left after a few months and not all participants gave back diaries completed at all stages. As in most longitudinal studies, missing data are consistent. The number of infants at each stage was: pregnant mothers and mothers-infants aged 0-2 months = 53 couples; 24 = 46; 4-6 = 43; 6-8 = 46; 8-10 = 40; 10-12 = 36; 12-15 = 31.
From the answers given in the diaries, singing and listening activities were analysed for mothers-to-be (Table 1) and mother-infant musical communication (Tables 2 and 3). The three levels refer to the question "How many times per day did you devote about 15 minutes to singing? How many times to listening to recorded music?"
Quantitative differences are present here: listening to recorded music is more frequent than singing during pregnancy, whereas singing is more frequent in the interaction with babies. Most differences are significant according to the Wilcoxon matched pairs test.

Level	Singing		Listening	
	Frequencies	Percentage	Frequencies	Percentage
1 never-once	1107	36.3	553	18.3
2 two-three times	1536	50.4	1601	53.0
3 four times or more	404	13.3	864	28.7

Table 1 Singing amount (mean =1,7657) and listening amount (mean= 2,1051) during pregnancy.
Differences between singing and listening according to the Wilcoxon matched pairs test: $p<.0.001$

Level	0-2 months	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
1 never-once	12.7	4.3	4.7	6.5	5.0	8.3	13.3
2 two-three times	65.5	68.0	62.7	69.6	70.0	72.3	76.7
3 four times or more	21.8	27.7	32.6	23.9	25.0	19.4	10.0
MEAN	2.0885	2.2047	2.2560	2.2008	2.1602	2.0957	1.9161

Table 2. The amount of *singing* with the child ((in %])

Level	0-2 months	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
1 never-once	16.7	19.1	14.0	8.7	7.5	13.9	13.3
2 two-three times	64.8	63.9	74.4	76.1	85.0	75.0	80.0
3 four times or more	18.5	17.0	11.6	15.2	7.5	11.1	6.7
MEAN	1,9991	1,9880	1,9406	2,0458	1,9729	2,0031	1,8634

Table 3, The amount of *listening to recorded music* with the child.
Differences between singing and listening (Tables 2 and 3) according to the Wilcoxon matched pairs test: 0-2 months, n.s., 2-4 months P< 0.01, 4-6 months p < 0.001; 6-8 months p < 0.05-1 8-10 months p < 0.05- 10-12 months n. s; 12-15 months n. s.

Singing and listening activities in mothers and in babies (Table 4) are also highly correlated according to the Pearson bivariate correlation test: people who sing more are the same people who more frequently listen to recorded music.

Correlations	Correlation coefficient
Singing amount mothers - Listening amount mothers	.524**
Singing amount at 0-2 months- Listening amount 0-2 months	.532**
Singing amount at 2-4 months- Listening amount 2-4 months	.372*
Singing amount at 4-6 months- Listening amount 4-6 months	.449**
Singing amount at 6-8 months- Listening amount 6-8 months	.584**
Singing amount at 10-12 months- Listening amount 10-12 months	.750**
Singing amount at 12-15 months- Listening amount 12-15 months	.639**

Table 4 Positive correlations between singing and listening in mothers and in infants
* Significant at level: 0.05
** Significant at level: 0.01

The reactions to singing and listening to recorded music are different: if a baby cries, the mother's singing is a very good remedy while recorded music is less effective (Tables 5, 6); the same can be seen if a baby is restless (Tables 7, 8). The 2nd and 3rd answers are both considered as positive reactions because music can have a soothing or arousing effect. Here too most differences are statistically significant.

Answers	0-2 months	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months
a) he/she continues to cry	8,6	8,5	2,6	3,5	3,6	6,2
b) he/she pays attention	31,9	29,9	19,1	16,6	21,2	25,8
c) he/she becomes quiet	59,5	61,6	78,3	79,9	75,2	68,0

Table 5. Reaction of the child to the mother *singing* when he/she is crying (%).

Answers	0- 2 months	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months
a) he/she continues to cry	16,3	20,1	25,1	21,7	24,0	22,4
b) he/she pays attention	33,0	36,4	39,4	41,5	34,9	36,3
c) he/she becomes quiet	50,7	43,5	35,5	36,8	41,1	41,3

Table 6. Reaction of the child to *listening to recorded music* when he/she is crying (%). Differences between singing and listening (Tables 5 and 6) according to the Wilcoxon matched pairs test: 0-2 months, $p < 0.001$; 2-4 months $p < 0.01$; 4-6 months $p < 0.001$; 6-8 months $p < 0.001$; 8-10 months $p < 0.001$; 10-12 months $p < 0.001$.

Answers	0-2 months	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months
a) he/she continues to be restless	19,0	10,3	7,5	7,2	8,8	10,9
b) he/she pays attention	33,9	34,5	22,8	21,7	27,5	28,2
c) he/she becomes quiet	47,1	55,2	69,7	71,1	63,7	60,9

Table 7. Reaction of the child to the mother *singing,* when he/she is restless (%).

Answers	0-2 months	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months
a) he/she continues to be restless	26,2	22,0	28,8	25,7	27,5	21,2
b) he/she pays attention	30,0	35,5	37,4	41,3	42,4	47,9
c) he/she becomes quiet	43,8	42,5	33,8	33,0	30,1	30,9

Table 8. Reaction of the child to *listening to recorded music* when he/she is restless (%).

Differences between singing and listening Tables 7 and 8) according to the Wilcoxon matched pairs test: 0-2 months, n.s.; 2-4 months $p < 0.01$; 4-6 months $p < 0.01$; 6-8 months $p < 0.001$; 8-10 months $p < 0.001$; 10-12 months $p < 0.01$.

Table 9 shows that mothers often involve children in singing games, i.e. songs performed with gestures, pauses, accelerando/rallentando, movements etc.

Level	2-4 months	4-6 months	Level	6-8 months	8-10 months	10-12 months	12-15 months
No	37,6	30,3	1 Never	19,0	15,7	20,7	14,3
Yes	62,4	69,7	2 Sometimes	44,6	54,6	49,9	57,5
			3 Often	36,4	29,7	29,4	28,2

Table 9 Frequence of singing games (in %)

Looking at 3 possible answers to the question "While you are singing or when you stop, does the infant produce sounds?", we can observe in Table 10 that the amount of sounds produced, considering both 2nd and 3rd answer as positive, is quite high, and only few infants produce a single sound. In order to check a possible effect of the amount of singing and listening on infants production, we separated from the total group (with the cut off points system) mothers who sang more (scored equal or more than 2.5/3) and mothers who sang less (equal or less than 1.9/3). Comparing the results obtained from these two groups presented in Table 11, with the results of the total group (Table 10), we can observe that the percentage of infants producing only a single sound is lower for mothers who sang more and higher for the mothers that sang less, with a strange exception at the stage 6-8 months.

Answers	Stages					
	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
a) only one sound	13,9	13,9	13,8	5,5	12,4	12,6
b) several different sounds	60,6	48,0	29,3	42,6	33,6	56,7
c) one sound repeated several times	25,5	38,1	56,9	51,9	54,0	30,7

Table 10. Percentages of sounds produced by infants during or after mother singing.

MOTHERS WHO SANG MORE (FREQUENCY >=2.5)

Answers	Stages					
	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
NUMBER OF SUBJECTS	13	14	11	10	7	3
a) only one sound	10,0	6,0	19,2	4,6	00,0	00,0
b) several different sounds	61,2	46,5	20,2	34,5	29,1	51,4
c)one sound repeated several times	28,8	47,5	60,6	60,9	70,9	48,6

MOTHERS WHO SANG LESS (FREQUENCY <=I .9)

Answers	Stages					
	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
NUMBER OF SUBJECTS	14	10	8	12	12	14
a) only one sound	17,9	30,1	8,0	6,9	17,8	14,4
b) several different sounds	53,9	54,0	60,0	45,1	26,6	63,3
c) one sound repeated several times	28,2	15,9	32,0	48,0	55,6	22,3

Table 11 Percentages of sounds produced during or after mother's singing by infants belonging to the group of mothers who sang more and mothers who sang less.

Looking now at the effects of listening, i.e. the 3 possible answers to the question "During the recorded music listening or when it stops. does the infant produce sounds?", we can observe in Table 12 that the amount of production of several sounds (2nd and 3rd answer) is still somewhat higher than the amount of production of single sound, and the amount of infants producing a single sound after listening is a little higher than after mothers' singing. Comparing these results with those presented in Table 13 and obtained from the two groups of mothers, separated from the total group as before, mothers who listened more (scored 2.3/3 or more) and mothers who listened less (1.7/3 or less), we can observe that the amount of single sounds is generally higher in infants who listened more and lower in infants who listened less.

Answers	Stages					
	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
a) only one sound	17,4	17,5	12,1	5,7	14,4	22,5
b) several different sounds	54,5	50,0	40,6	38,0	35,8	48,6
c) one sound repeated several times	28,1	32,5	47,3	56,3	49,8	28,9

Table 12. Percentages of sounds produced by infants during or after listening to recorded music.

MOTHERS WHO LISTENED MORE (FREQUENCY >=2.3)

Answers	Stages					
	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
NUMBER OF SUBJECTS	14	8	9	6	8	4
a) only one sound	15,1	27,1	14,8	9,1	00,0	33,3
b) several different sounds	62,3	33,3	50,0	54,5	39,0	21,4
c) one sound repeated several times	22,6	39,6	35,2	36,4	61,0	45,3

MOTHERS WHO LISTENED LESS FREQUENTLY <-1,7

Answers	Stages					
	2-4 months	4-6 months	6-8 months	8-10 months	10-12 months	12-15 months
NUMBER OF SUBJECTS	15	15	11	10	9	11
a) only one sound	00,0	00,0	2,8	1,5	9,7	20,8
b) several different sounds	67,0	64,7	55,5	36,4	32,3	59,7
c) one sound repeated several times	33,0	35,3	41,7	62,1	58,0	19,5

Table 13. Percentages of sounds produced during or after listening to recorded music by infants belonging to the group of mothers who listened more and mothers who listened less with infants.

Conclusions

An interpretation of all the results is not easy, but we will try to offer some comments.
Firstly we would like to mention the testimony of parents that were really delighted with the power of music in their daily life: it helps infants to eat, sleep, wash, take car trips and medical treatment etc.
The results are based on the answers given by mothers in the diaries and we therefore have to trust them. This is the disadvantage of a study based on naturalistic parents' observations rather than conditioning experiments, but there is in compensation the advantage of observing infants' behaviour in the most suitable situations. In any case mothers were continuously asked to be truthful since they were participating in a research.

Looking more specifically at our hypotheses, we can confirm the first: the positive reaction of infants to music sung by mothers or recorded in two critical situations, when infants are crying or restless. Tables 5-8 gave us high percentages testifying to the arousing or soothing power of music, even if the mothers' singing seems to exert more influence than recorded music. The amount of singing and listening, (Tables 1-3) is quite high and the fact the singing is more frequent after birth confirm that mothers, satisfied with the effects, sing more.
Also, concerning the 2nd hypothesis that infants involved in musical communication react by producing sounds, the results shown in Tables 10 and 12 confirm the interactive efficacy of musical communication. In fact the production of only one sound, considered as the result of poor stimulation, is quite low, while the production of several sounds, different or repeated, is abundant.
Therefore, we can say that it is not only the mother's speech that elicits sound production but also her singing and listening to recorded music.
As far as the 3rd hypothesis is concerned, the results are not too clear. Although it would appear that the infants who received more singing did in fact react by producing numerous sounds (different or repeated, see Table 11), with an unclear exception at stage 6-8 months, the results regarding the amount of listening are difficult to interpret: we saw in Table 13 that at several stages infants who listened to more recorded music produced more single sounds than infants who listened to more mother's singing. It is tempting to interpret this as the consequence of the fact that listening to recorded music is less stimulating than the mother's singing, but firstly, this is not so at all stages and, above all, this interpretation does not explain why infants who listened less produced more varied sounds.
We hypothesized that other variables would influence the behaviour of infants, for example the appearance of speech babbling towards 6-7 months, the maturation of the vocal tract, and, in particular, the behaviour of mothers during listening activities, etc. This result needs to be studied more carefully together with musical babbling, its beginning, its musical content and its relationship with speech babbling.
We can conclude that, considering the didactic aspect of musical communication, we believe that it stimulates, reinforces and enriches the communicative capacities of infants. Moreover it could help them acquire the fundamental bases of musical language. By alternating music and speech, it is possible to entertain infants, and in so doing avoid tiredness and saturation, and promote social behaviour and emotional development.

Acknowledgements
We would like to thank Dr. Susanna Felisatti, (University of Bologna) for her contribution in preparing the print-out of data. We would also like to thank the "G. B. Martini" Conservatoire of Music in Bologna and the "Vassura Baroncini" School of Music in Imola for their collaboration.

References

BALLANTI G. (1988), *Modelli di apprendimento e schemi di insegnamento,* Giunti e Lisciani Editori, Teramo.
BARONI M., DALMONTE R., JACOBONI C. (1999), *Le resole della musica,* EDT, Torino.
BOYSSON-BARDIES B. (1999), *How Language comes to children,* The MIT Press, Cambridge (Massachusetts), London (or. ed. 1996).
ECO U. (1975), *Trattato di semiotica generate,* Bompiani, Milano.
EIMAS P. D., SIQUELAND E. R., JUSCZYK P. W., VIGORITO J. (1971), "Speech perception in infants". *Science.* vol. 171. pp. 303-306.

FASSBENDER C. (1993*), Auditory grouping and segregation processes in infancy,* Kast Verlag, Norderstedt.
FASSBENDER, C. (1995) 'La sensibilité auditive du nourrisson aux paramètres acoustiques du langage et de la musique'. In 1. Deliège & J. A. Sloboda (Eds), *Naissance et dèveloppement du sens musical,* pp. 63-99. Paris: Presses Universitaires de France.
FERNALD A. (1989). "Intonation and communicative intent in mothers' speech to infants: is the melody the message?", *Child Development,* vol. 60, pp. 1497-1510.
FERNALD A. (1992). "Meaningful melodies in mothers' speech to infants", in H. Papousek, U. Jürgens, M. Papousek, *Nonverbal vocal communication,* Cambridge University Presse, Cambridge, pp, 262-282.
FRANCÉS R. (1972), *La perception de la musique,* Vrin, Paris.
GRATIER M. (1999), "Expressions of belonging: the effect of acculturation on the rhvthm and hartnony of mother-infant vocal interaction *", Musicae Scientia,* Special Issue, pp. 93-119.
IMBERTY M. (1986), *Suoni Emozioni Significati,* CLUEB, Bologna.
JUSCZYK P.W., KRUMHANSL C.L. (1993), "Pitch and rhythmic patterns affecting infant's sensitivity to musical phrase structure" *Journal of Experimental Psvchologv: Human Perception and Performance,* vol. 19/3 pp. 627-640.

KRUMHANSL C. L., JUSCZYK P.W. (1990), "Infant's perception of phrase structure in music", *Psychological Science, vol.* 1/1, pp. 70-73.

LECANUET J. P. (1995), "L'expérience auditive prénatale", in I.Deliège, J.A. Sloboda (Eds.), *Naissance et développement du sens musical,* Presses Universitaires de France, Paris, pp.7-38.
MALLOCH S. N., (1999), "Mothers and infants and communicative musicality", *Musicae Scientiae,* Special Issue, pp. 29-54.
MEYER L. B. (1956), *Emotion and Meaning in music,* The University of Chicago Press, Chicago and London.
MOOG, H. (1976) *The Musical Experience of the Pre-school Child,* London: Schott.
PAPOUSEK, H. (1995) 'Musicalité et petite enfance. Origines biologiques et culturelles de la précocité'. In I. Deliège & J. A. Sloboda (Eds), *Naissance et développement du sens musical,* pp. 41-62. Paris: Presses Universitaires de France.
PAPOUSEK H., BORNSTEIN M. (1992), "Didactic interactions: Intuitive parental support of vocal and verbal development in human infants", in H. Papousek, U. Jürgens, M. Papousek, *Nonverbal vocal communication,* Cambridge University Presse, Cambridge, pp. 209-229.
PAPOUSEK M. (1992). "Early ontogeny of vocal communication in parent-infant interactions". in H. Papousek, U. Jürgens, M. Papousek, *Nonverbal vocal communication,* Cambridge University Presse. Cambridge, pp. 230-261.
PAPOUSEK, M. (1995) 'Le comportement parental intuitif, source cachée de la stimulation musicale dans la petite enfance' In I. Deliège & J. A. Sloboda (Eds), *Naissance et développement du sens musical, pp.* 101-30. Paris: Presses Universitaires de France.
PAPOUSEK M., PAPUOSEK H. (1981), "Musical elements in the infant's. vocalizations: their significance for communication, cognition, and creativity",. in L. P. Lipsitt (Ed.), *Advances in Infancy Research, vol.* 1, Ablex, Norwood, N. J., pp. 163-224.
SHETLER D. (1989) 'The inquirv into prenatal musical experience: a report of the Eastman Project 1980-1987'. *Pre- andPeri-Natal Psychology,* 3, 3, pp.171-89.
STADLER ELMER S. (2000), *Spiel und Nachahmung: Über die Entwicklung der elementaren musikalischen Aktivitäten,* H. & Schneider AG, Aarau.
STEFANI G. (1976) *Introduzione alla semiotica della musica,* Sellerio, Palermo.
STERN D. N., SPIEKER S., MACKAIN K. (1982), "Intonation contours as signals in maternal speech to prelinguistic infants", *Developmental Psychology*, n. 18, pp 727-735.
THURMAN L. (1997), 'Foundations for human self-expression during prenate, infant and early childhood development', in L. Thurman, G. F. Welch (Eds), *Bodymind & Voice:*

Foundations of Voice Education, National Center for Voice and Speech, Iowa City, pp. 456-474.
TREHUB S. E., TRAINOR L. J., UNYK A. M. (1993), "Music and speech processing in the first year of life", *Advances in Child Development and Behavior*, vol. 24, pp. 1-35.
TREHUB S. E., BULL D., THORPE L. A. (1984), "Infants' perception of melodies: the role of melodic contour", *Child Development,* vol. 55/3, pp.821-830.
TREHUB S. E., THORPE L. A.. MORRONGIELLO B. A. (1987). "Organizational processes in infant's perception of auditory patterns", *Child Development,* vol. 58/3, pp.741-749.
TREVARTHEN C. (1999), "Musicality and the intrinsic motive pulse: evidence from human psychobiology and infant communication", *Musicae Scientiae,* Special Issue, pp. 155-211.
VILLA D., TAFURI J., *'Influenza delle esperienze musicali prenatali sulle reazioni del neonato'.* In J. Tafuri (Ed), La ricerca per la didattica musicale. *Atti del Convegno SIEM, 2000.* Quademi della SIEM. *16, 391-398.*
WILKIN Ph. E. (1996), "A comparison of fetal and newborn responses to music and sound stimuli, with and without daily exposure to a specific piece of music", *Bulletin of the Council Research in Music Education,* 1, pp. 163-169.
WOODWARD, S. C. (1992) *The transmission of music into the human uterus and the response to music of the human fetus and neonate,* PhD Thesis, University of Cape Town.

samspel

The Musical Development of School Age Children in Japan: A Sociocultural Approach following L. S. Vygotsky

Hajime TAKASU – Takasu@hiroshima-u.ac.jp
Hiroshima University, JAPAN

BACKGROUND

In the field of music education, studies of children's musical development have played an important part to date. However, even though music is a compulsory subject in both elementary and junior high school in Japan, studies of children's musical development have tended to focus on the preschool level.

In addition, some psychologists of behavior and of cognition have tried to construct theories of children's development, but their studies have been limited to a part of musical development in children; children's discrimination of pitch, recognition of melody, and so forth (Hargreaves, 1986). In other words they have not constructed or suggested a consistent theory of development. Nevertheless, K. Swanwick and J. Tillman (1986) have succeeded, to some extent, in constructing a consistent theory. They have constructed a developmental model based upon aspects of Piaget's theory and upon analysis of children's musical products (composition). Their theory may serve as a foundation for the music curriculum.

AIMS

The present study aims to show some new viewpoints for the development of children's composing by discussing children's musical development both at elementary and junior high school levels (compulsory education). This paper questions Swanwick and Tillman's spiral model (ST model) from a Sociocultural Approach based upon the works of L. S. Vygotsky. It is argued that the ST model mainly depends upon Piaget's theory which focuses on children's ontogeny. Because there is every likelihood that children's development needs to be affected by not only their ontogeny but also their phylogeny, we have to take into consideration the process of children's socialization which occurs in the interaction among children and teachers at schools. Therefore, the Sociocultural Approach which takes account of the phylogeny seems of value for the present research.

THEORETICAL FOUNDATION

SWANWICK AND TILLMAN'S SPIRAL MODEL

The ST model may be seen to imply three element: children's individual development based upon play (which I call children's logic); steps of musical features according to children's individual development (musical logic); and socialization which children accomplish through activities with others. Children's logic corresponds to the left hand side of the spiral model: 'mastery', 'imitation', 'imaginative play', and “meta-cognition' ; musical

logic to the middle: 'material', 'expression', 'form', and “value'; social sharing to the right hand side: 'manipulative', 'vernacular', 'idiomatic', and 'systematic'. This element corresponds to the right hand side of the spiral model and consists of four stages: 'manipulative', 'vernacular', 'idiomatic', and 'systematic'. Swanwick and Tillman postulate that children develop in the swing of a pendulum between the left side and the right side of their model.

The main problem with their theory is that the motive power of socialization, which is shown as a process from the left to the right hand side of their model, has not been made clear. They collected data from communication among children and teachers, but these data were marginal to the construction of their theory. One reason for this is that their purpose is mainly to define natural development (ontogeny) rather than the socializing process (phylogeny). However, the interaction of the group as a class, and the interaction between teacher and children are definitely concerned with children's musical development. Swanwick and Tillman theory could be advanced from its emphasis natural development theory. Music lessons in schools are social activities. They are external to the children themselves. Therefore, any account of children's musical development has to be defined in their social, historical, and cultural context.

A SOCIOCULTURAL APPROACH FOLLOWING VYGOTSKY

The ST model can be reconsidered from the angle of children's process of socialization. My research mainly depends upon the Sociocultural Approach, which has been developed in the neo-Vygotskian tradition following L. S. Vygotsky. Vygotsky (1978, 1986, 1987) studies higher dimensions of psychological functioning (e.g., language, use of tools, abstract and logical thinking, goal-directed conscious activities which have their aims), and its generation, function, structure, with reference to human history, society, and culture. In other words, he tries to explicate children's development not as a natural occurrence and not as a result of training, but with reference to interaction between children and the outside world, especially between children and human history, society, and culture.

> His theory is termed as the Sociocultural Approach today and is defined as follows: it is the theory that explicates children's development as a result of a shift from a elementary dimension of psychological functioning (primitive and biological) to a higher dimension through moving between children's concepts in ordinary life and socialized scientific concepts, a shift achieved through the medium of language and tools (Wertsch, 1985, 1991). Vygotsky uses the term, 'Zone of Proximal Development', for the gap between children's concepts of living and socialized scientific concepts, and he believes that children overcome the gap by learning to depend upon others' supports. As a result, children can develop their concepts in ordinary life to scientific concepts (Rogoff, et al., 1984).

When Vygotsky postulates children's development as the shift from elementary to higher psychological functioning, he believes that the notion of 'activity' as a member of society is important. For Vygotsky, 'activity' means goal-directed movement toward a certain object, and tools are used in the realization of this movement. These tools work as medium between a child and objects, and a child realizes how the human acts upon his external world. As a result, a child transforms his external world, but at the same time he himself is transformed. In other words, by using tools he can transform both his external world and himself: he can connect his external activities with his inner psychological activities. Tools have been made and used in human history as means to act upon the external would, so tools have been socialized. Because tools have social, historical, and cultural characters, tools can function to connect external with internal activities.

Language is an artocular kind of tool, and Vygotsky pays special attention to the character of language, differentiating it from other tools (Vygotsky, ibid.).

When children act in a certain society, they come under the influence of language activities, for example, conversation with other children or advice from older people. By means of language activities with others, children can come into contact with the external world, and can comprehend scientific concepts and social meanings. Language is a major means of changing the interpsychological functioning (involving communication with others) into the intrapsychological functioning (involving only the inner thought processes of one person). Speakers use language imagining a hearer's response, and hearers respond according to the speaker's context. So language is a social product, which arises as a result of interactions between users of language. Children develop from the level of interpersonal communication using language to another level at which they use language to construct inner cognitive processes, which mirror the relationship between themselves and others.

Hence, I believe that 'tools' and in particular 'language' are key words in further developing Swanwick and Tillman theory.

TOOLS AND LANGUAGE IN THE LEARNING OF MUSIC

When we consider the concept of tools in the Sociocultural Approach in the learning of music, tools are mediums between a child and objects when a child works upon the objects, which are represented by sounds and musical products. Moreover, tools are bridges between children's concepts of their life and socialized musical features. So, children can work upon, comprehend, and modify objects, and at the same time they can change their own way of thinking and their level of thinking.

From the above considerations, we can say that tools in the learning of music mean the musical features that are shown in the second element of the ST model: “materials', 'expression', and 'form'. In this paper, all the musical features will be considered except 'value', because 'value' is an abstract concept which is formed after acquiring concrete musical features.

In the Sociocultural Approach, the study of language has been a primary theme. Luria (1980) explains the change which language has given to the activating of human's consciousness under the following three points. The first point is that language gives a person imagination of the objects which language expresses, and enables him to shape an inner picture of the objects. So humans can think and deal with objects in the abstract. The second point is that language is a basic means of communication, which has been developed in the process of human history and society. A person can learn many human products (e.g., knowledge, skill, experience) that have been accumulated in human history through language. The third point is that language aids human with the thinking process of 'abstraction' and 'generalization'. Humans can grasp objects as an abstract notion and distinguish the essential characteristics of objects by using language, because language has been built up by using categorization and analysis of objects throughout human history. So language fulfills its function not only as a medium, but as it develops human thinking from the superficial sense level to the rational logic level.

These three points indicate that language is an important factor in children's development and socialization. Clarifying children's development in learning music from a sociocultural viewpoint, analysis of children's language in communication is crucial: Especially the analysis of the function of language as a means of communication: the analysis of the function of language to change children's inner thinking level.

RESEARCH QUESTIONS

- How does the use of the tools of language and exchange of musical features among children and teachers influence children's musical products?
- How does this interaction affect children's socialization?

HYPOTHESES

- Children's musical development is affected by the social interaction in the Zone of Proximal Development.
- Musical development may occur in the shift between both the left and right hand side of the ST model.

METHODOLOGY (CASE STUDY)

SUBJECT

In Japan, compulsory education starts from 6-7 years of age and ends at 14-15 years age. I would have liked to deal with all grades of compulsory education but children in lower grades of elementary schools cannot have still use language correctly and consciously. Consequently, I concentrated on certain ages. I chose 2 grades from primary school and secondary school, 6th grade (11- 12 years-old) and 8th grade (13 -14 years-old).

Table 1: Japanese Educational Grade and Age

Grade	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
Age	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18

Elementary School Junior High School High School

Compulsory Education

I chose one elementary school and one junior high school, and from each grade (6 th and 9th), I chose three classes. In total, six classes were examined.

My research is concerned with children's group working, because it does not deal with child development but children's socialization in interaction. Hence, when to implement this study, whole classes were divided into groups of 4-6 pupils. Three groups were chosen at random and filmed by VCR cameras.

PROCEDURE

I co-operated with some teacher practitioners who gave children three music lessons that we planned jointly. At the beginning of each lesson, the teachers set up the children's task and gave instructions. After that the teachers divided the whole class into the groups and supported their activities. At the end of the lesson, the teachers gathered the children and asked them to demonstrate their musical products. All three lessons were conducted in the same way.

As a result, three interaction activities and three musical products in each group could be observed and collected as data in the three lessons.

ANALYSES

It seems that children's internalization can be made clear in terms of the analyses both of interpsychological process ('use of language' and 'use of other tools') and children's musical products.

I collected the following data:

- Elementary school: (3 classes)(3 groups)(3 lessons) = 27 musical products/discourses
- Junior high school: (3 classes)(3 groups)(3 lessons) = 27 musical products/discourses

In terms of the analysis of children's musical products (compositions), I asked four judges who were familiar with the ST model Criteria (Swanwick, 1991a). Although Swanwick (1991a, 1991b) used Spearman's Rank Correlation and Kendall's W-Test (Chi-square Test), I analyzed the results of the children's products with Kappa statistic, Correspondence Analysis, and Page Test to capture the following:

- Changes from the first to the final lesson for each group of both the elementary and the junior high school pupils

(Musical development in the short term)

- Difference and correlation between the elementary and the junior high school pupils

(Musical development from the the 6th grade to 8th grade children)

I have also analyzed the linguistic discourse among pupils and teachers from a transcription of the video-tapes. On the discourse analyses, linguistic and musical discourses have been highlighted. From the analysis of linguistic discourse, it has been proved that the Sociocultural Approach has been significant for the examination of the ST model. In addition, Grounded Theory was appropriate to discover categories and to connect these to the ST model. In addition, data from the field-notes, diary and interview transcriptions were used as support materials. After analyzing both discourses, I compared the quality of discourses with the results of the musical products judgments. Finally, I analyzed the results.

RESULTS AND FINDINGS

MUSICAL PRODUCTS

Kappa shows a significantly high correlation among all judges (K=.0804). The results of Correspondence Analysis show that the pupils' musical products had clearly developed over the three lessons. The results of Page Test for Ordered Alternative supports the result of Correspondence Analysis; Elementary school: L(k=3, N=5)=67, a = .05; Junior-high School: L(k=3, N=5)=67.5, a =.05. In terms of the difference in the progression between the elementary and junior-high pupils' musical products, I was unable to obtain statistical significance.

DISCOURSE

Obviously, the quality of the discourse of the junior high school pupils are better than that of the elementary school pupils: the junior high school students hesitated to express themselves because of their ages. Furthermore, although the conversations of both the elementary and the junior high pupils could not be enough to compose music, they could play 'good' music by the end of each lesson. The pupils had shown certainly many different phases of linguistic discourse, some categories have been identified: e.g., requirement of acts, evaluation, sympathy-antipathy, information, support, and response. In addition, pupils'

relationships and leaderships had affected the discourse. As a result, both linguistic and musical discourses consist of complicated textures.

CONNECTION

According to comparison of the analytical results of musical products and findings of discourses, there is every likelihood that the qualities of discourses have an influence upon the quality of musical products.

CONCLUSION

The research results and findings lead to the following conclusion: Interaction among children and teachers had a definite influence upon children's musical products, namely upon their musical development in their composing activities. The ST model mainly concentrates on children's ontogeny, but 'tools', especially 'language' function as mediums to connect children's logic (ontogeny) on the left hand side with social sharing (phylogeny) on the right hand side of the ST model. The children could develop themselves in the Zone of Proximal Development sharing musical features by linguistic and musical discourses. This means they succeeded in socialization. The children borrowed some musical features from others including the teacher and imitated them. Finally, the children developed their own musical ideas and thinking, and demonstrated these in their musical products. Linguistic discourses were crucial for them to communicate with each other and exchange their musical features. This clearly shows that the musical features (tools) and communication/ support (language) are essential to connect children's ontogenetic and phylogenetic development. By means of tools and language, children can be socialized.

This conclusion does not deny the potentiality of the ST model, rather it reinforces its effectiveness: Swanwick's criteria based upon the ST model have already been confirmed by the result of Kappa statistics. It seems important that how we make good use of the ST model flexibly. The statistical result between the elementary and junior-high school confirms that it is not necessarily for every child to be categorized into a specific level according to their ages. Their developments are dependent upon their social environment. Although the ST model is biased toward ontogeny, practitioners can use it taking account of children's musical and linguistic discourses when they observe and grasp children's status quo. They can direct children into ways of musical leaming appropriate to each child.

My research was a small scale study. However, if with further research, the ST model may be reconstructed, taking into account children's ontogeny and phylogeny.

REFERENCES

Hargreaves, D. J. (1986) *The Developmental Psychology of Music,* Cambridge: Cambridge University Press.

Luria, A. R. (1980) *Contemporary Psychology.* (translated by K. Amano) Tokyo: Bunichisougou.

Rogoff, B., et al. (1984) *Children @ Learning in the "Zone of Proximal Development".* San Francisco: Jossey-Bass Inc.

Siegel, S., et al. (1988) *Nonparametric Statistics for the Behavioral Sciences (2 nd edition).* Boston, Massachusetts: McGraw-Hill.

Swanwick,K. (1988) *Music, Mind, and Education,* London: Routledge.

Swanwick, K. (1991a) 'Musical criticism and musical development' in *British Journal of Music Education.* Vol.8, 139-148.

Swanwick, K. (1991b) 'Further research on the musical development sequence' in *Psychology of Music.* Vol. 19, 22-32.
Swanwick, K., Tillman, J. (1986) 'The sequence of musical development' in *British Journal of Music Education.* Vol3, No3, 305 -339.
Vygotsky, L. S. (1978) *Mind in Society: The development of higher psychological processes.* (translated and edited by M. Cole et al.) Cambridge, Massachusetts: Harvard University Press.
Vygotsky, L. S. (1986*) Thought and Language.* (translated and edited by A. Kozulin) Cambridge, Massachusetts: Harvard University Press.
Vygotsky, L. S. (1987) 'Thinking and speech' in *The Collected Works of L. S. Vygotsky: Volum I Problems and general psychology.* (translated and edited by R. W. Rieber et al.) New York: Plenum Press.
Wertsch, J. V (1985) *Vygotsky and the Social Formation of Mind.* Cambridge, Massachusetts: Harvard University Press.
Wertsch, J. V (1991) Vo*ices of the Mind.- A sociocultural approach to mediated action.* London: Harvester Wheatsheaf

samspel

Rhythm in the work of John Dewey and Emile Jaques-Dalcroze: some educational implications.

Matthew Thibeault - Mthibeault@stanford.edu
Stanford University, USA

ABSTRACT

What might education learn from music education? How might we look at a classroom differently if we made conscious attempts to understand the rhythms that exist there?

Emile Jaques-Dalcroze's life work focused around rhythm as the prime element of music. In his writings and essays, rhythm exists in a rather large sense, evidenced by such statements as "rhythm is life." Jaques-Dalcroze's attempts to extend notions of rhythm led to an expanded role for the music educator and impacted all of the arts.

The American Philosopher John Dewey also explored the role of arts in human experience late in his life through such works as Art as Experience. Within this and other works, rhythm is "rationality among qualities." Dewey's conception, like Dalcroze's, was a generous one with many implications for education and the understanding of lived experience. Rhythm provides insights into the nature of inquiry and an expanded notion of rationality rooted in organic life.

Both Dewey and Jaques-Dalcroze provide work that resonates strongly with today's researchers in the fields of education, situated cognition, and constructivist thought. Little work, however, has been done to examine their legacies in relation to these current trends and the possibilities they offer those working within and outside the field of music education.

This presentation, then, is an effort to explore both thinkers by listening to what they have to say about rhythm. Implications bear not only upon music educators, but upon all researchers and philosophers interested in examining life within schools.

samspel

Musical Meaning
Medium, Communication, and the Musical Symbol

Robert Walker – aw@unsw.edu.au
University of New South Wales, Australia

Few topics are more controversial than the meaning of music, and few are as complex or as resistant to explication. Part of the problem lies, of course, in the most profound issue in the study of the psychology of perception: how we actively invent and impose meaning, and interpret what we receive from the phenomena we encounter. Of course we all to some extent construct the meanings we make, but we do not just invent meanings irrespective of the object we perceive. A Beethoven symphony can only be perceived as an Australian Aboriginal song by the most bizarre twist of mind imaginable, rather like ignoring sense perception to recognize an apple instead of a tin of coffee. There are important mediating factors involved with constructing meaning in music. When we listen to Morse code, or read a shopping list, there is usually no emotion involved, although there can be in certain circumstances. Morse code and shopping lists are not generally thought of as artistic modes of communication; although if the result of some important sports event were to be conveyed by Morse code we might feel emotion and a certain aesthetic pleasure by virtue of our allegiance to a particular sports team, especially if the message tells us that they have won. When dealing with music, however, our emotions enter the picture almost immediately to provide a further complication in perception than merely interpreting information. With music we interpret through our emotions and aesthetical aesthetic sensibility more so than with most phenomena. We tend to perceive musical sounds directly through an emotional and aesthetic sieve because this is the nature of music as a means of communication. And despite the fact that expert musicians tend to use the analytic side of the brain more than non-experts, perception of music is not just about analysing sounds, it involves interpreting and responding to one of the most profound ways in which humans communicate and express themselves. In the traditions of western culture, music not only expresses the very essence of such things as sadness or joy, but also has powers to affect our behavior and general disposition.

When cultures meet each other's music

Our proclivity to impose meaning and generate emotion and aesthetic pleasure or repugnance where musical sounds are concerned can readily be illustrated anecdotally from the diaries of intrepid European explorers of past times. When confronted with the unknown it is clear that we impose the best meaning of which we are capable, but when it concerns music our judgments may be less than rational, wise, or impartial. When Captain Cook's colleague, Captain Vancouver, first sailed his ships up the western coast of what is now Washington State, USA, and British Columbia, Canada, in 1792, he and his sailors heard the sounds of the Coast Salish, the Nootka and the Kwakiutl people who were singing their greetings from their canoes as they paddled around, what to them, were these strange, large, sailing ships full of white faced men in clothes never seen before. On the

other hand, many of Captain Vancouver's sailors were terrified of what they interpreted as alien and aggressive vocal sounds they heard coming from the canoes. Some took these sounds to be signs of war and opened fire, thus precipitating a bloody battle with many casualties, particularly among the indigenous people involved. To both the sailors and the local inhabitants of the Pacific Northwest the other was incomprehensible in their behavior. Neither understood the intentions of the other, and in particular, the musical greetings of the Nootka and Kwakiutl were not perceived as such by the men in the sailing ships from Europe. Doubtless, had the sailors decided to sing a greeting, the Nootka and Kwakiutl people would most probably have been equally mystified, though perhaps less aggressive in their response.

There are countless similar stories from 18th and 19th century European explorers as they encountered different cultural groups in their travels across the Pacific, Asia, Africa and South America. Here it should be mentioned, however, that in Captain Cook's Diaries (Frost, 1998; Grenfell-Price, 1969) he writes of the music of the various cultures he encountered explaining how Europeans must not expect to find European music among the people they encounter, and why they should be prepared to listen and try and understand their difference practices. He mentions how he attempted to persuade his men to take this enlightened view with mixed success: some of his men were clearly not as intelligent or imaginative as he. Captain Cook recognized intuitively one of the basic tenets of our modern understanding of perception where music and the arts are concerned, one which holds, as Richard Wollheim (1970) argues, that there is no such thing as the innocent ear or eye which simply picks up what is there. We impose our interpretations on what we hear or see based on our prior experiences and developed attitudes.

In discussing musical meaning it is essential to realize that music is conducted between humans in social situations, and any meaning perceived is a product of two intentional acts, one of communicating music and the other of perceiving it, both of which take place within the particular intended social contexts of both the communicator and the perceiver respectively. We always intend our responses, whether consciously or subconsciously. This is because of the ways in which we invent our culture with all its symbolic and semiotic functions (Wagner, 1981; Geertz, 1973). Without common ground between the intention of communicating, a commonly acknowledged and understood social context, and the intention of the perceiver in responding sympathetically, no intended semantic contact can occur. Something will be communicated and something perceived, but neither may be what was intended. This pragmatic observation is quite crucial to the quest to understand both what music means and how it means. Theories of meaning and aesthetics can only become alive within the sentience of these forces of intended communication, intended perception, and the appropriate social context for each to occur.

One thing is certain today, music means different things to different individuals and different social groups, each having been formed and conditioned by different contexts and circumstances. That being the case, misunderstanding and misrepresentation is easily rife, particularly if criteria applicable to one situation or intention are applied to another. To illustrate further, and with a more contemporary example from within the Diaspora of early 21st Century western culture, we might compare and contrast the modes of presentation and the musical content of highly trained classical western musicians, who are also experienced professional performers, and those of a proto-typical male "pop/rock" group. The classical western musicians would appear at concerts in formal evening dress, replete with white (or black) tie and tails, immaculately groomed, highly disciplined, alert and responsive to the conductor's movements, and ready to display the fruits of their long training and hard won technique as performers. Their audience would expect the music to be the focus of attention, even if the performers have attained legendary status. They would

be playing music of the classical canon and would be interpreting the particular composer's music rather than just parading their own individuality. The semantic focus of the music would concern its structure, its expressions in musical sounds of cultural ideals concerning attributes such as nobility, heroism, or tragedy, or historical aesthetic ideals of pleasure and perfection. The aim would be to lift the individual above the levels of mundane human existence through the transcendental aesthetic effects of listening to the musical symbolism in the sounds.

In contrast, the pop/rock musician of whatever genre would deliberately present a different image and message, as well as serve a different function culturally and musically. Firstly, it is essential to their fans that they appear in person as their publicity has molded them. And this means that rather than wearing the uniform of the professional classical musician they should look as individual as their "pop" persona demands. Male artists might want to look as though they have just stepped out of a cave after many years sojourn away from contemporary technological culture, hair looking as though it has never been brushed or combed for years, unshaven, with dirty looking and ragged clothes, or fantastical and outrageously extrovert theatrical costumes, often more resembling beings from another planet. Secondly, it might be important to appear as though they have absolutely no recognizable musical technique in the classical sense, no formal training of any sort, even less discipline and control, and they would probably wish to make sounds which more resemble Hollywood imitations of prehistoric cavemen, often devoid of articulate speech and with a complete absence of intimations of western style melodiousness, rhythm or harmony. Their musical semantic focus would likely be entirely and intensely personal, individual, idiosyncratic, almost solipsistic, and all about their own emotional and romantic proclivities, their mental states, situations and experiences. At the time of writing this is 2001, the rap artists Eminem has achieved world-wide notoriety as the archetypal bad-boy. Governments consider banning him, just like they did with Elvis.

The contrast presented by these two scenarios illustrates an extraordinary dichotomy existing in today's entertainment scene, and importantly for educators it reflects in part how the various media today portrays the contemporary cultural scene in music through a deliberate manipulation of images and symbols in order to promote recognition, allegiance, and feelings of affinity, entirely for commercial gain. But in order to understand something of the complexity of today's entertainment scene, it is important to look at some relevant aspects of its history in the 20th century.

The Rise of Mass Entertainment Media in the 20th Century

If we imagine, for a moment, what opportunities there were at the beginning of the 20th century for people to hear music in any form, we can see a stark contrast to what we have available today at the beginning of the 21st century. In the first two decades of the 20th century there was no radio, no television and no cinema. The gramophone had begun to find a niche in some people's lives, but other than that, live performances provided the only opportunity. The church, the concert hall, the opera house and the theatre were the main venues for music performance other than private clubs, mansions and palaces of the rich and aristocratic. A typical profile of a young man who would become an orchestral musician in most European countries and the USA at the time was that of the English conductor Thomas Beecham. His father was a manufacturing chemist who had become rich through the 19th century rise of industrialism. He was born in 1879 and went to an expensive private school in northern England, after which he had some tuition in London and Paris, but was mostly self taught. His father, Sir Joseph Beecham was very fond of music, attending opera and symphony concerts, and even forming an orchestra in his home town of St. Helens, a small industrial town in northern England. The young Sir Thomas was rich

enough to be able to pay for his own orchestra and therefore able to perform what he wanted, when he wanted. In New York, opera was supported by the very rich. Oscar Hammerstein, the inventor of a cigar-making machine, poured millions into his Manhattan Opera House, employing the biggest stars of the time, opening up another opera house in Philadelphia, and forcing the Metropolitan Opera House to spend equally huge amounts (Lebrecht, 1997). The clientele of both symphony concerts and opera comprised the rich middle and upper classes. Others experienced music mostly in church, and sometimes in the vaudeville theatres. For the vast majority of ordinary citizens, classical music was virtually unknown, and popular music comprised only what they could hear live.

The 1920s and 1930s witnessed startling developments in the dissemination of classical music among the masses of the population. These were caused by the development of radio, the gramophone and the cinema. The term "massification" was coined by philosophers and literary critics as a warning against this democratization of the classical traditions of western civilization. In 1920, Oswald Spengler wrote his monumental attack on the democratizing trends in western society entitled "The Decline of the West", where he likened the state of the West with that of ancient Rome during its decline. By the 1930s, many commentators had become horrified at the ways in which the masses had access to high art in popularized versions through the media of radio, gramophone, and cinema. F.R. Leavis (1930) was particularly critical of these trends, forecasting not just the end of high art in the West but western culture itself because of the effects of democratization and increasing access for the masses of the populace. Such writers believed that the traditions of high art in the West were not suitable for the masses and could only be maintained if access was restricted to elite intellectuals in society. To a great extent they were echoing Plato in his Dialogues and the role he assigned for the Guardians in his ideal but hierarchical society.

Socio-economic divisions in modern western societies have traditionally determined access to various types of music until the 20th century. The aristocratic ruling classes of Europe from the 17th to the 19th centuries were the major employers and controllers of musicians outside the church. The rise of the wealthy middle classes during the 19th century industrial expansion resulted in the building of public concert halls along with more public concerts than ever before, many of which were still too expensive for the less well off. This indicated to some (Eagleton, 1990) that aesthetic attitudes towards music were so linked to the rising middle classes of modern industrial Europe that they represented more the social and political power-base of the middle classes than any genuine expression of human sentience. Nevertheless, the increased democratization of society in the 20th century, exacerbated by two world wars and other major economic, social and political upheavals, together with the emergence of technology for mass provision of cheap radios, the cinema, and recordings, made the music of the concert hall and the opera house more available to the masses, irrespective of social or economic status, and these masses were very attracted to such music. Gramophone recordings of the great Italian operatic tenor Caruso sold in their millions at the very beginning of the 20th century; an augur of things to come.

The Gramophone was the first medium to facilitate the wide dissemination of music across all cultural groups and social classes. From its earliest beginnings using Thomas Edison's cylinder in the 1870s and 1880s, to Emile Berliner's disc, first manufactured in 1894, the gramophone gradually entered the lives of people in the western world. During the 1890s recordings were available in public places across many western countries through coin-in-the-slot phonographs where whistlers, various bands, short songs, and even comedy routines, could be heard. The first commercial ventures of the newly invented disc played by a gramophone began in 1901 with recordings of the great Russian bass Fyodor Chaliapin. In 1902 recordings of Enrico Caruso were made in Milan, and they proved to be the major catalyst for establishing the wax disc as a serious contribution to the wider

dissemination of musical art. In London in 1902 the stars of the Covent Garden Opera House were recorded, along with the violinist Jan Kubelik. In 1903, Metropolitan Opera Stars were recorded in the USA on 10 inch discs, enabling longer pieces to be made available on record. By 1910, well over 80% of all record sales were of classical music. The first recording of a work for a large scale symphony orchestra was made in 1909 when Tchaikowsky's Nutcracker Suite was issued in England. In 1910, the first movement of Greig's Piano Concerto played by Wilhem Backhaus appeared, and there soon followed recordings of Beethoven's Fifth Symphony and other major works. During the early 1920s recordings of serious music was big business in both the USA and Europe. Records sold in their millions, along with gramophones on which to play them. In addition to the classical repertoire, popular music in the form of dance music, and Tin Pan Alley songs soon became available and popular. Irving Berlin's "Alexander's Ragtime Band", was a particular favourite, as were recordings of Scott Joplin's rags, particularly in the USA. In European countries, classical music tended to be predominant among available recordings.

By the late 1920s, the radio had emerged as a strong force across the western world. In the USA the American Broadcasting Company (ABC) was founded in 1926 followed by the Columbia Broadcasting System (CBS) in 1928. Similarly in Britain, the BBC was established in 1922, becoming a public broadcasting corporation in 1927. In others countries the story is much the same. Radio broadcasts began in Canada in 1920, in Australia in 1921, in Denmark in 1921 and several European countries, including Germany, by 1923. By the end of the 1920s most countries had a nation-wide system of radio broadcasts in operation. Typical content in all these early radio broadcasts included news, information, concerts, lectures, speeches, weather reports, and general entertainment from the theatres. By the 1930s classical music filled a large part of the broadcasting time in most countries.

The rise to world-wide prominence of the cinema as a major force in entertainment and the arts occurred during the 1930s. The cinema provided further accessibility to classical music and opera for most people in the populations of all western countries, thereby adding considerably to the growing popular awareness of classical music made possible by the gramophone and the radio. The first movie with sound, The Jazz Singer (1927), included Tchaikowsky's *Fantasy Overture Romeo and Juliet*, Al Jolson singing *My Mammy* and "*Toot, Toot, Tootsie*, both Vaudeville favourites, as well as Jewish Cantor singing. Many movies, from the 1930s onwards, starred some of the great contemporary singers from the world of the concert stage and opera. These include Richard Tauber playing Franz Schubert in "Blossom Time: a romance to the music of Franz Schubert", made by Associated British Picture Corporation in 1934; Benjamino Gigli, probably the greatest operatic tenor of the 1930s, appeared in a 1936 film entitled "Forget me not" made by London Films and distributed by United Artists; and Paul Robeson starred in a 1936 British film production of "Showboat". In 1938 the Australian concert and operatic baritone, Peter Dawson, starred in a film called simply "Chips" which was little more than a vehicle for his singing, as well as in the "The singing Cop" (1938), where he appeared as a policeman posing as an opera singer in order to expose a spy who is also a *prima donna.* The plot thus provided a good excuse for lots of opera on the screen. In 1941 Risë Stevens, an American born star of the Metropolitan Opera in New York, appeared in a Hollywood production of "The Chocolate Soldier" with Nelson Eddy and music by Oscar Strauss.

The musical cinema was not confined to singers. In 1937 the great Polish pianist Ignace Jan Paderewski starred in a movie entitled "Moonlight Sonata", a vehicle for Paderewski to play virtuoso Romantic piano music. As well as films showing off the talents of the stars of the concert and operatic stage, there were films about the lives of great composers: " A Dream of Love" was a story about the life of Franz Liszt; the "Life of Chopin"; and the life of

Mozart was portrayed in "Whom the Gods love" starring Sir Thomas Beecham and the London Philharmonic Orchestra.

In the immediate post-war years the pace and scope of music in films increased. The Danish *helden* tenor Lauritz Melchior appeared in a Hollywood movie in 1948, and in 1949 Mario Lanza, a young American tenor with a huge operatic voice for his age, made his first Hollywood film "That Midnight Kiss", appearing with the concert pianists Jose Iturbi and his sister, as well as the renowned film actress Ethel Barrymore. Of particular interest is the fact that in all these films the opera stars sang complete arias, often filmed within the context of an operatic stage and the settings normally found in the opera house, pianists played substantial parts of whole movements or pieces, and orchestras performed symphonic works as part of the film, all to cinema audiences comprising the masses of the public in most western countries.

The portrayal of the highest levels of artistic talent on film was not confined to musicians. Equally rich in technique and talent were the many films starring performers in more popular musical and dancing styles. Highly skilful dancers such as Fred Astaire and Ginger Rogers appeared in many movies dancing to jazz, ragtime, and other popular idioms and styles. Classical ballet was also represented. One of the most popular movies of the immediate post-war period was "The Red Shoes" (1948) starring several of the great ballet dancers of the time: Robert Helpmann, Ludmilla Tcherina, Moira Shearer, and Frederick Ashton. Gene Kelly's films paraded modern dance and his exceptional talents, including "An American in Paris" in 1951, and "Singin' in the Rain" in 1952. Movie versions of the great Broadway musicals also appeared in the 1950s, including Show Boat, South Pacific, West Side Story, Carousel, Oklahoma, and others. Through the medium of film, the three decades of the 1930s, 1940s and 1950s witnessed a most exhaustive and extensive dissemination of the highest artistic levels of performance in music and dance among the mass of the population ever to have occurred. It was an age of relative idealism, where stable values were presented in all types of entertainment. There was a sort of innocence in much of the entertainment world, as though all was well with the world generally, and the presentation of highly accomplished performers, in the classical sense, provided the important glue which held society together. Of course, life was not really like that, but there was a consensus across society from governments to most levels of the social strata that stability and a stable values were important and should be supported. Eventually, the immense social and economic inequalities which existed broke the social consensus during the late 1950s and 1960s. However, as Green (1988) points out, the materially indulgent attitudes during the late 1950s of an older generation, emotionally scarred by the depression of the 1930s and the horrors of the 2nd World War, enabled the younger generation to break free and establish their independence of thought, action, and musical taste. The consequences of which, the western world is still coming to terms with.

Popular entertainment during the 1930s, 1940s, and 1950s included music of both the classical repertoire as well as that of the overtly entertaining styles of popular songs, jazz, and the musical theatre. Popular music was presented as light entertainment, a diversion from the more serious, ethical content of art music, but initially not as an alternative, more as light relief and certainly not as something totally alien in style and content: in any case, popular melodies and harmonies were recognizable in classical music terms. However, the technical abilities of popular musicians were as obvious as those of the classical ones. There was not such a divisive split in terms of technical sophistication as exists today: many popular artists like Frank Sinatra and Bing Crosby were recognizable as good singers and musicians using criteria based on classical music techniques, just as Hollywood's Fred Astaire and Ginger Rogers, and Gene Kelly and Cid Charisse were obviously very fine dancers in the technical sense.

During this period people listened as a family group to the radio or gramophone, or watched movies as a family group as part of a family outing to the cinema, not as individuals. But, importantly, people of every class were made aware of a wide range of music through radio, cinema, and gramophone recordings. There were probably very few who were unaware of the sounds of the "great" western musical canon in some form or other during the period from the early 1930s to the late 1950s. And it must not be forgotten that almost everyone attended some church or other during this period, and particularly in the immediate post-war years membership of church choirs was at its highest among young people. Because of this, regular exposure to church music added another dimension to the experiences of high art found in the various media of radio, gramophone and film.

Of particular significance is the impact of those three decades on the popular image of what music means and how it means. Basically, the mass of the population were fed the traditional meanings of the western classical canon, and through the music performed in the media of gramophone, radio and cinema, as well as from church music, they learned to recognize how music can portray such things as heroic deeds, sadness, happiness, tragedy, loyalty, religious feeling, humour, etc., in the traditions of western opera and symphonic music as they occurred in the musical canon which evolved from the early 17th century onwards. The important point for music educators lies in the fact that in the early 21st century, those aged in their late 50s and older were nurtured musically in this way outside formal schooling and successive generations, up to the present, have been nurtured in radically different fashion by the entertainment media. Nowadays it is difficult for educators to ignore this media whereas half a century ago the media had no such prominence in the thinking of those who were responsible for educating the young. The cultural divide in music by age is dramatic and divisive to a degree not witnessed before in any known society.

The rise of the commercially targeted individual consumer and the instant millionaire

During the 1950s the relatively comfortable symbiosis across entertainment and high art in music began to change largely because of new technology and the expanded marketing possibilities it facilitated and promulgated. An important factor was the general rise in economic well-being in most countries in the West, but in the USA in particular. Suddenly the terrible deprivation which had swept Europe and North America from the Great Depression of the 1930s, to be followed by the Second World War, largely disappeared; the masses of people had money to spend on leisure. The small pocket radio, made possible by the invention of the transistor in 1947 at the Bell Telephones Laboratories in the USA, was produced cheaply and it meant that people of any age could listen as individuals rather than as a family unit. It also meant that individual listeners had a choice of radio station and content, and anyone could choose whatever music they felt inclined to listen to without anyone else being inconvenienced or being compelled to listen as part of a group or, especially when headphones came on the scene, even knowing what another individual was listening to. This situation was new and revolutionary, proving to be the essential factor facilitating the swift rise of the individual pop mega-star to occur. Soon, the individual could be targeted by various commercial enterprises without any interference of adults. The cinema began to target particular age groups rather than be confined to the older established family movie. The mass production of cheap recordings of single songs and the availability of inexpensive reproduction equipment meant that individual popular singers, as well as classical musicians, were accessible to individuals for their own private listening. Individual preference, rather than family taste, now became much easier to sustain and cultivate. Young people could now indulge their own desires as never before, and the commercialization of music grew rapidly.

Elvis Presley was the first popular style artist whom the mass disseminating capability of the new visual media technology was able to exploit massively on a world-wide basis from the late 1950s onwards. The rise of television from the late 1950s onwards had less of an impact initially compared with radio, recordings, and especially the cinema, but by the 1980s television was established as probably the major form of communication for popular entertainment. With all this came, inevitably, the sudden, rapid elevation to stardom of artists of any genre and style. Popular musicians were presented as no different, technically or artistically, from classical performers in the entertainment market place: all who became commercially important were automatically made into stars irrespective of training, technique, persona, or type of music being performed.

By the last two decades of the 20th century ethical distinctions in western music, largely argued by the cultural pessimists of the 1920s and 1930s, had been completely displaced by marketing theory and commercialized categories of musical products. On the one hand differentiation on grounds of technical merit and artistry disappeared and dissolved into merit classifications based on grounds of commercial success. The demands of marketing resulted in invented and sometimes artistically spurious commercial categorizations which facilitated sales. In this way popular taste was manipulated and altered by massive exposure of the commercial product. And along with this came a diminishment of the traditional meanings associated with music which pre-existed the enormous growth and profound social impact of the various mass entertainment media. New popular musical archetypes were encouraged to blossom, many of which deliberately ran counter to western cultural traditions. Rock musicians, particularly males and irrespective of how well they might actually have been educated, deliberately presented personae to the media which made them look to be outsiders, illiterate, inarticulate, and seemingly high on some substance or other. Female "pop" stars inevitably flaunted their sexuality and availability as sex objects as an integral part of their theatrical media persona, and essentially as an inducement to purchase their recordings. Young female classical musicians are now also advertised as sexual objects with similar commercial motivations.

A comparison of images of pop and classical musicians of the 1950s with those of the 1980s illustrates fairly clearly the enormity of the changes which occurred in the images of the popular consciousness. However, it must not be forgotten that the use of efffective marketing techniques have always been prevalent where money and commodities are concerned. The exploitation of the child prodigy in the second half of the 18th century was little different in one sense: prodigious children were trained very hard in order to go on display and earn the approbation, and the rich financial rewards, of the aristocracy across Europe. Then the virtuoso performers of the 19th century embarked on similar journeys for profit. The difference today lies in the sheer scope and ubiquity of the commercial enterprise where millions of dollars can be earned in a matter of days, and the instant "Pop" star can be a multi-millionaire from the sales of just one song.

In one sense the new market place of entertainment has tended to blur the boundaries between different musical genres for commercial gain. Yet in another it has, paradoxically, exposed the dichotomy referred to above. Nevertheless, commercial categories of musical products are all equally important in the market place because they constitute commercial entities with monetary value the only criterion of success. The art component has been replaced by strategies for persuading people to buy. In essence, popular entertainment, of which music is an integral component, was suddenly all about creating an individual and often outrageous persona for attracting and keeping the fans, and music is often just one aspect of a theatrical invention for attracting the money fans are prepared to pay. In contrast, the classical musician comes across as the total opposite in all respects. He or she wears a uniform, formal evening dress, which reduces the impact of their individuality

and personality and instead helps to focus attention on the sounds of the music they play. With popular music, presentation in the form of the promotion of individuality through the image of non-conformity in appearance is an essential backcloth to the music. Both are certainly facades, and quite possibly unrepresentative of what the individual performer concerned might be really like. Some rock musicians may be highly educated and in the general sense some classical musicians may not be, and many classical artists cross over boundaries both musical and sartorial, as demonstrated by the eminent virtuoso violinist formerly known as Nigel Kennedy, now just Kennedy.

For educators, such conflicting images and realities need some explanation and investigation since an important component in an education is the development of a detached, critical understanding of artistic expression and presentation. The point of popular music now is, of course, to be popular, to attract the largest following possible in the shortest time for maximizing profits. This requires extensive promotion as well as carefully targeted presentation and wide dissemination. The capabilities of today's mass media are such that popularity for profit can be readily generated and maintained through highly sophisticated processes of mass marketing. Popular music charts appear daily in newspapers indicating success in terms of sales of recordings. Topping the charts usually only lasts for weeks, sometimes only days, before being replaced in an endless procession of new entertainment sensations whose recordings sell well. Mass entertainment conglomerates invest huge sums of money in popular entertainers. The result is that companies attempt to ensure that their investments in performers pay off well, so they have to find ways to persuade the masses to buy in huge numbers through clever and manipulative advertising. Figures reported in Burnett (1996) give some idea of the massive amounts of money involved. Michael Jackson's contract with Sony was worth $65million to him, Madonna's with Time Warner was worth $60million, and the Rolling Stones signed up to EMI for $44million.

In contrast, some classical historical music has, through entirely different processes of critical analysis, emerged over time as generally considered worthy of being kept alive through repeated performances by virtue of its artistic merit. The commercial processes relevant to engendering sales from pop/rock and classical music performance are each substantially different and reflect the essential contrast in the ways in which pop music and classical historical music are presented in today's media dominated entertainment world, where the instant sensation will always sell more profitably than the reflective experience. However, the danger with marketing is that presenting the reflective experience as an instant sensation is an important commercial aim. The problem for music educators lies in discovering ways in which such distinctions might be explored in the more ethically conscious and scholarly context of education. However, the star system, by means of which huge profits can be made by recording companies, has invaded the classical music scene. Estimates of the earnings of the top classical performers who have entered the commercial arena vary, but Lebrecht (1997) suggests the following figures as earnings for 1995-6 for some of the biggest names: the tenor Luciano Pavorotti, $16-18million; conductor Zubin Mehta $6 million; violinist Itzhak Perlman, $5.5million; conductor and pianist Daniel Barenboim $3 million, and so on. Lebrecht (ibid) reports that the fees charged by the top orchestral conductors in the world are now so high that few orchestras can afford to hire them. The spin-off, according to Lebtrecht, is that classical music struggles for survival in a world which is dominated by the big multi-national entertainment conglomerates where huge sums of money are involved in the marketing and production of all types of music with "classical" music at the lower end of the commercial scale.

In a strictly commercial sense, then, all types of music now are little more than commodities to be sold to target audiences. In dealing with audiences and how to target them, for the most part age and income become the defining criteria in the targeting

process in advertising. Most popular music is aimed at young people below the age of about 25, whereas most classical music is aimed, commercially, at high earners over 40. Nowadays, it is axiomatic that audiences at classical concerts or opera tend generally to comprise the older and more affluent, while rock concerts attract the young generation of all income levels. An interesting aspect to this phenomenon of compartmentalization in musical tastes has emerged over the last 20 or 30 years in the way radio stations, as well as the lay-out of various types of recordings for sale in music stores, target specific age groups and musical taste. "Easy listening" music, melodic and not too challenging, aims to please a particular group aged around 40 or above who have family responsibilities and appear to have little or no interest in the more energetic, the frenetic, or the comparatively wild rhythms and vocal sounds favoured by a much younger age group. "Classic" rock aims at former rockers who are now more settled and want to experience nostalgically the decades old popular rock of their youth. And of course there are radio stations which confine themselves to playing classical music, and others which play "ethnic" music, and some go further to present music specific to certain decades: 1940s, 1950s and so on.

All this is interesting to the educator in that it provides evidence about people's tastes. The evidence is, however, somewhat confusing. On the one hand music it is clear that tastes are not constant throughout life, and that they appear to become more conservative as people get older, or at least people tend to want to hear music which represents something of value to them. Value might be in the form of reminding them of their youthful days and their identification with the popular music of their youth, or in the form of becoming attracted to music which has more substance than the comparative chimera of continually changing popular music stars and styles. The empirical evidence from the market place seems fairly conclusive that age is a significant factor in determining musical taste and preference as demonstrated commercially by listening habits and recording purchases. On the other hand, there is evidence that taste can remain constant in some respects because of the rise of the idea of "classic" rock, which are merely popular favourites from earlier decades. Yet there is also evidence of changes in taste due to age where some types of more serious music is concerned, as reflected in the age groups who listen to light classical music stations, suggesting that there are links between maturity and ability to assimilate more complex and perhaps challenging musical content as well as signifying emotional factors which affecting the ways music conveys meaning to people as they get older. Studies of audiences for the various types of music played on radio stations provides a rich source of data relating to factors of age, preference, and change. The predominance of older people observable at classical music concerts may not be just a product of the state of the popular entertainment media in their youth, but a signal of a desire for more complexity, more intellectually satisfying content, and more profundity in music which might correlate with increasing age and maturity.

This might be important for the music educator in terms of taking a longer term view of the student population they teach. If, as the evidence of radio broadcasting and marketing of recordings suggests, allegiances to popular music are more to do with lifestyle and age than with the actual music, then it must follow that using popular music in education is problematic in that content will necessarily change as each new wave of students comes through and new popular music performers contemporary with them emerge. Educationally, the teacher is dealing with shifting sands in popular music precisely because of the importance of "fandom", and the type of group allegiances to particular performers generating the kind of clannishness and intellectual hostility to supporters of other performers reported by Frith (1996). On the other hand, the more profoundly written, more complexly conceived music of the "classical" traditions of western historical music contain comparatively more stable as well as more challenging elements in content. The same would apply to the music of any cultural tradition, not just that of the West. So despite the fact that the young might see all such music as historical and therefore

irrelevant, as well as too complex, to them at their age, the evidence is that as they grow older their attitudes will change. One important component of education is to prepare young people for adulthood, and to inculcate a sense of what enduring values might be, together with the almost certain fact that their current youthful energy and short-lived attractions will inevitably change into more stable and possibly more profound interests.

For the educator today the task of developing an awareness in students of what they come to value later in life is obviously a difficult one, not least because of the enormous weight of media indoctrination favoring the short-term titillation of the senses especially targeting the young school age segments of our society. But this task is one which must be attempted.

One of the important ways in which the music educator can awake a sophisticated and reflective interest in pupils is to examine how all music creates a fantasy world largely because of the ways in which music acts symbolically. Taking a meta-level view of how all music functions symbolically in society is an important step for the educator, and one which might help the young develop a more detached view of the mass media's attempts to sell entertainment to them irrespective of its ethical content. An education which does not facilitate an ability for a detached critical and ethical analysis of what is happening to oneself as an individual in society at large cannot be worth the name. Or, to put it more succinctly: "The unexamined life is not worth living" (Plato, *Apology* 38a). A critical study of music as a semantic system of signaling and symbolization is an initial pathway to developing a more educated mind where music is concerned. Such a study lies beyond simply acquiring performance techniques and learning facts of musical history and theory.

The Power of the Symbol

In artistic activities in all societies, the creation of illusion and mental transportation to metaphysical realms beyond the mundane and the human daily grind are crucial to the enterprise, whether the motivation is religious, political, or simply commercialized entertainment. Employing sounds as symbols for powerful ideas, forces, objects and states of consciousness is essentially the purpose of all music, and generically its symbolic functions work similarly irrespective of musical genre or context . Many societies have traditionally used symbolism in the form of highly decorated masks, heavy facial make-up, fantastical dress, ritualistic movements which have special cultural significance, specially prepared physical environments which contain significant images, statues and other theatrical props of various kinds, and theatrical effects through sound, fire, and various mechanical means.

The Noh plays of Japan use highly stylized masks and men using special singing techniques so that players are unrecognizable as individuals and only their theatrical persona is on display. In performance they become something else than themselves. Significantly in this regard, all parts in Noh Theatre are played by men. The ancient Greeks used fantastic masks, dance, poetry and music in their theatrical productions. In Indonesia, Africa and India, one can find the same methods of presenting music and theatre by means of fantastical representations of deities or superpowers of nature, devils or evil forces. In all Hindu societies stories from the Ramayana epic are portrayed in elaborate dance using eye, finger, and toe movements, and in music in elaborate combinations of percussion instruments including bells and gongs, and in dress in fantastic costumes. The Christian church evolved its most sacred liturgy, the Eucharist, into a highly symbolic ritual whereby priests wear elaborate but highly symbolic clothes as well as highly symbolic artifacts and music to represent the presence of Christ. In the medieval monastic churches of Europe, stories from the Bible were symbolically portrayed through lavish spectacle, processions and music in enactments of religious drama. In the 17th Century, the beginnings of modern

opera in Italy, and court performance of the Masque in France and England utilized fantastical devices comparable to those of ancient Greece, which they deliberately tried to emulate and reproduce. Somehow, the symbol, in whatever medium, assumes the authority of object symbolized. The symbol becomes the object.

The modern theatre, the contemporary cinema and television, as they evolved from these beginnings in western culture, are essentially displays of symbolic representations, in visual and sonic media, of fantastical forces which lie beyond the realms of every day life. The mass popular entertainment media of today are no different except in the technology employed. The flashing lights, laser beams, fantastic colors and shapes, smoke, and other stage effects at contemporary rock concerts comprise no more than the latest manifestation of the creation of symbols in sight and sound, something which has been important to all cultures in their attempts to portray and understand the metaphysical world, and control the invisible forces of fate, good and evil, which appear to dominate people's lives and emotional states.

It is within this context of the long history of human representation of the products of imagination, stretching back thousand of years and across cultures, that we must view our contemporary media dominated world. A significant difference today lies in the massive intrusiveness of the electronic media. This ubiquity and ability to force penetration into the lives of individuals quite profoundly is one major difference between the western past and that of all other cultures. Until the development of modern electronic entertainment media any rituals or theatrical performances were only witnessed by those present at the same location. Now it is possible to reach millions across the earth from one performance location anywhere on earth. However, the elaborateness of the presentation, the use of device, the employment of deceptive or exaggerated effects, the deception implicit in metaphor or trope, none of these is new. They are as old as the human race. Nevertheless, today by virtue of the massiveness of presentation and especially dissemination, availability and intrusion into all aspects of our daily lives, it seems as though we are in a different era of entertainment when in reality we just have more of it then ever before. Plenitude rather than innovation is now the norm in today's mass entertainment.

We should not, therefore, be seduced into thinking that the theatricality of the media today is new, or that its contents are revolutionary. Quite often, without the elaborate presentation the contents of any media presentation today can be quite mediocre, moribund, even dull. Presentation and media can often serve to replace content, where quick sensation rather than reflective engagement is the end product. This in itself in not new of course, it is as old as humanity itself. From the old *tricksters* of various indigenous societies in the Americas and Africa, to travelling players and minstrels in medieval Europe, as well as pseudo-religious salesmen selling the "bones" of martyrs across the medieval Christian world, trickery and illusion have always played a large part in the creation of meaning and the selling of ideas through theatrical illusion.

It is, therefore, to content that we should look and focus in education. And the aim should be to engage in critical analysis, evaluation, and explorations of the implications of content and its relationship with presentation. In which case, an important point to be made is that such a stark and divisive contrast, as outlined above between the popular and the classical in music, only emerged in western society from the 1950s onwards. Most significantly, it marks the powerful emergence of non-western influences on the popular cultural consciousness and generally on the traditions of the West, and it has provoked strong reaction from some because of this.

Up to the 1950s and the emergence of rock 'n roll in television, recordings, radio and film, the musical elements of popular music had been recognizable in classical music terms

because of affinities in melody, harmony and rhythm. Popular singers like Bing Crosby, Doris Day, Frank Sinatra, and many others sang tunes with recognizable classical style harmonies. Popular Hollywood movies used the 19th century romantic musical repertoire. The best popular song and musical theatre writers were minor masters of melody and harmony definable in the classical sense. People could whistle or hum their tunes. Rock 'n' roll was clearly different. You would not hum the tunes, you had to "groove" and move to the beat, and its context defied analysis except that specially invented to fit such music. It was essentially music for the young in a way that the old style popular songs were music for the whole family, especially the adults. Suddenly, with Elvis, the young had their own kind of music and their own type of performers distinct and free from adult imposition of standards and controls. Young people identified with Elvis's music and its meanings to them were clear and unambiguous: it expressed the angst of their teenage lives in all its complexities and feelings of helplessness in light of their personal biological changes and the domination of the adult population over their lives. Elvis's music expressed and even ***meant*** their lives as they lived them. His music appeared to acknowledge important issues in the lives of this young age group, and gave them an illusion of control over their own destiny which they had never experienced before. This music had an immediacy and a relevance to the angst of being a teenager which the classical traditions in music and the various popular derivations of it could never have achieved, and suddenly to many appeared as a symbol of social and political oppression (Eagleton, 1990; Small, 1998).

The first images of Elvis to appear on American television in the 1950s caused a storm of protest. Both the visual and the auditory images he presented appeared alien and dangerous to an older generation brought up on different imagery, content, and presentation. His swiveling hip movements were seen as little more than overtly sexual and lewd, and cameras were initially compelled to show pictures above his waist only. Attempts were made by various television celebrities in the USA, such as Ed Sullivan, to clean up his image for general consumption, but his whole demeanor was considered dangerous because he assumed the look of an archetype - a renegade and a challenger to established authority. However, his hair style, his sneering lips, his "low class" Southern Afro-American singing style and his sexuality became too popular to control.

The fact that Elvis was doing little more than imitating the Afro-American music with which he and his family had grown up in the churches they attended in Tupelo and Memphis was lost in the confusion caused by his immense popularity among the young and the extremely hostile attitudes of some political and religious leaders of 1950s USA. Elvis was seen as a conspiracy to destroy community standards, and by some as an attack on western culture as a whole. This over-reaction was the result of the ease with which Elvis attracted the young from all socio-economic groups who readily became his devoted fans. Pablo Casals, the cellist, famously described rock 'n' roll as "poison put to sound". Of course, no culture or tradition can remain static or become fossilized, unless it is dead. All cultures are subject to change, modification, growth, decline, and renewal since they all exist within the context of their global environment. In a wider context, western culture, as a whole has been undergoing dramatic change brought on by other forces more powerful than the entertainment industry could conjure up. These included, high levels of economic hardship, two world wars, migration on a huge scale across continents resulting in increased and close contact with other cultures, and controls instituted by political ideologies which precluded certain types of artistic activities.

However, considering the *furore* generated by Elvis in the late 1950s, it was inconceivable that fewer than 20 years later, such was the impact of Elvis world-wide, that rock 'n' roll would appear in churches and cathedrals as musical accompaniment to the liturgy or that

there would be such a genre as the Rock Mass or that some of Elvis's songs, with modifications to the words, became hymns for use in church. With Elvis, western popular music had shifted its focus, and John Lennon famously, and with clear reference to the musical contents, exclaimed that "before Elvis there was nothing". By this he meant that popular music before Elvis was merely a diluted form of western classical music. The social dichotomies were established and clear for all to see: young versus old; popular versus classical; upholders of standards versus the misfits; middle class lifestyles versus working class living; the educated versus the ignorant. Many in western society pitted this new form of non-western popular music against the western classical traditions as though it were a cultural war. The content and function of education itself became divided on similar lines. And all this was due to the impact of media images and their interpretations as symbols, as representations of meanings which were supposedly corrupting the minds of young people.

Music Education caught in a dilemma

By and large, music educators were caught unprepared and most had little idea how to deal with this new situation whereby the minds of the young people they taught had been affected in their attitudes to music by forces against which teachers were largely powerless. The result was an educational division in music marked off initially by socio-economic status, and later, during the 1970s and 1980s, by sociological theories about the exploitative nature of the western middle classes as they rose to power during the industrial and technological revolutions of the 19th and 20th centuries (Eagleton, 1990). Highly educated music teachers, as a rule, taught what they knew, namely the classical traditions, whereas generalist teachers with little or no musical knowledge or musical education found the new popular music easy to teach and relatively easy to perform, all you needed was a guitar and the ability to strum a few chords. Schools for the aspiring middle classes taught classical music and schools for the less ambitious classes introduced current popular music into classrooms. From the 1980s onwards, this incipient targeting of different social groups became something more sinister and important to music educators. As governments throughout the English speaking western world began the trend to fund education on the basis of perceived demand, based on principles of market place rather than on educational ideals for investing in the future of society, it became clear to teachers that attracting sufficient bodies on seats meant they had a job. For some this meant offering popular music content to provide inducements for attracting pupils to their classes. For others, the use of popular musical idioms was seen as a more democratic and less elitist approach which could be more inclusive of all pupils. But by this time, classical music had become the province of the aspiring middle classes, a badge of privilege and an educational barrier to the mass of the population. Popular music became an obvious focus for music education since it was the music of the masses.

Others began attempts at less socially divisive curricula content, introducing both popular music and music of traditions outside those of the West for all students. The reasoning was more political and reactive than educationally argued. Such was the enormity of support among the school age population for rock and popular music that it could not be ignored, and similarly so ubiquitous became the cultural mix increasingly found in urban areas of most countries that some acknowledgement of musical traditions outside those of the West had to be built into the music curriculum. In other words, first social pressures and then financial incentives in the form of payment for bodies on seats drove curriculum change in music rather than scholarship or theory or philosophical ideals. And this is the situation, more or less, as it stands today. Music educators tacitly accept that there should be a degree of eclecticism in content and range, irrespective of the particular musical strengths of the teacher, and administrators and curriculum planners happily and predictably ensure that terms such as multi-culturalism, social relevance, and popular

culture appear regularly in curriculum documents relating to music. Most important, however, is the pragmatic need to get bodies on seats in music classes in order to preserve the employment prospects of the teacher.

The term post-modern has become a key concept in education for explaining why there should be diversity in music content in classrooms, and with it comes the corollary that we can no longer distinguish good and bad music purely on genre grounds – all music can be valuable and whatever the genre some might be good and some bad. The problem with such an attitude is that rarely, if ever, does anyone provide criteria for distinguishing good and bad music irrespective of genre, leaving music educators with the empty rhetorical flourish that "there is only good and bad music anywhere". Basically, this is little more than politicized jargon when viewed logically. Distinguishing between good and bad requires judgmental criteria, and the problems which the rise of mass popular entertainment has thrown up are precisely those of identifying such criteria. Mass entertainment is not about judgment: it is about the creation of uncritical allegiances.

This brings us to the heart of the problem of meaning and it has to do with the intention of the musician and the performance. All music is clearly intended as something, and it is the nature of the intention which determines how we might apply meaning, or how we might interpret the musical act. For the educator this is important because the purpose of education is to engage the mind. In operational terms it concerns how educators might deal, on the one hand, with Madonna singing the words of her late 1980s hit song "like a virgin touched for the very first time" and on the other with the J.S. Bach *Magnificat* where the words of the Virgin Mary are sung: "For He that is mighty has magnified me and holy is His name". Both refer in varying levels of obliqueness to sexual experience. The former is pragmatic, presents the girl's viewpoint of young age sex, and brings out into the open female sensuality in the young, whereas the latter is idealistic and religious, and has connotations made rich by 2000 years of cultural restatement and re-examination of Christian belief and dogma about the procreation and birth of Jesus. Different meanings arise out of such different contexts and it is through discussion of meanings and contexts that one can begin to examine content in a critical and meaningful manner. The Madonna song does not employ complex musical techniques of tessitura, melody, counterpoint, harmony, rhythm, or instrumentation whereas the latter does in all those aspects of musical presentation. In which case the nature of JS Bach's compositional techniques and musical structures become the focus to be compared and contrasted with those of the composers of Madonna's song.

Educating minds involves questioning and discussion of questions and observations arising from debate and questionning. Why should the Madonna song be so musically simple compared with the Bach *Magnificat*? What is the semantic purpose of such simplicity? Is it designed to present naivety, or to present the early sexual urges of young girls as simple? On the other hand, could one not argue that such urges are complex and as such deserve an equally complex representation in music? Is the simplicity of Madonna's song aimed commercially at a musically uneducated young populace which would not respond to greater complexity? Is the musical simplicity merely a way of dealing with Madonna's technical limitations as a singer? Is it art? Does it need to be art? Was Madonna just trying to make money? Or has she got a higher aim with her music and if so what might it be? Do we need a higher aim as such? If so, why? And why is Bach's music for the Magnificat so complex? Is this music aimed at educated middle class adults only? Were there any commercial interests involved in Bach's intentions in writing his Magnificat? Cannot a religious feeling about the Virgin Mary be simple and expressed as such, a belief which needs no complex theorizing or representation? To what extent was Bach at the mercy of the theoretical power of the "Doctrine of the Affections", the 18th century central European view about how to express oneself in music? Or to what extent was Bach expressing his

own sincere beliefs as opposed to merely demonstrating his technique? Can we claim that Madonna's lack of musical technique as compared with Bach's rich accomplishment is helpful in identifying meaning? What is the relationship between technique, expressiveness and meaning? Is Bach's rich compositional technique a sort of offering to God, a sort of testament to his own religious conviction and as such was it an offering he made through his acquired musical techniques?

Is the Bach *Magnificat* better than than the Madonna piece? If so what might the criteria be for making such judgments? These are contemporary issues for discussion and debate, and as the debate becomes more complex one begins to learn more about intention and about musical meaning. In essence, such a debate on the issues mentioned above deals in the business of educating the mind through a thorough examination of the nature, purpose and function of musical expression. But most of all, it is only through a thorough examination of the issues raised above that one can expose the fallacy of the notion of there being only two types of music: good and bad. More relevant and crucial dichotomies exist which worthy of educational attention: culturally situated and relevant versus exploitative; craft and technique versus smoke and mirrors; and finally, all is equally valuable versus nothing is valuable. Out of discussing and examining such issues, we get to the core of meaning.

Samspel on the Internet

Gisle Johnsen – gisle.johnsen@musikk.no
Norwegian Music Counsil, Norway

This presentation is based on our own projects and ICT-based education programs that we have developed.

Why teach music on the internet
The dominating tradition in music education has been the situation where students learn directly from their masters, by reproducing.

- Let us use Norwegian folk music as an example: the young ones sit by the "old musicians", listen to and watch them play and in that way they learn to play and perform the folk music.
- In a rock tradition, I can use myself as an example: I was young in the 60's and this is how I learned to play the keyboard; I bought records, played them over and over again, and listened specially to what the keyboard player did, and so I tried to copy what he did.
- Classical education is much the same; rehearse the music and play it for your teacher, only that you read the music score, and thus work in a visual way, and not in an aural way, as in my two first examples.

In all the three examples the students train to develop instrumental skills. But does this kind of education and learning prosess fit in with the music scene of today? Which skills are needed for participating on the music scene of today?

Lets answer these questions by focusing on the modern music scene:

- There are still musicians that need the instrumental skills that we have desrcibed above. In most music styles one still needs to be able to play an instrument. And playing an instrument requires instrumental skills.
- No music today is made without contact with music technology in at least one stage in the production process. From this we can conclude that modern musicians also need skills in computing.
- It is very important for music teachers to accept that there are musicians today that do not play an ordinary instrument. Their instrument is the computer. They write their own music, record it and perform it. And they don't have any instrumental skills. All they have is a musical understanding and computing skills.

- Since the music video was introduced on the music scene in the 80's, music often interact with other arts; such as pictures, video, tales, poesi, lyrical poetry etc.

From this we can conclude that a modern musician needs;

- Skills on an instrument,
- computing skills for making and arranging music on a computer,
- ability and skills to combine music with other arts.

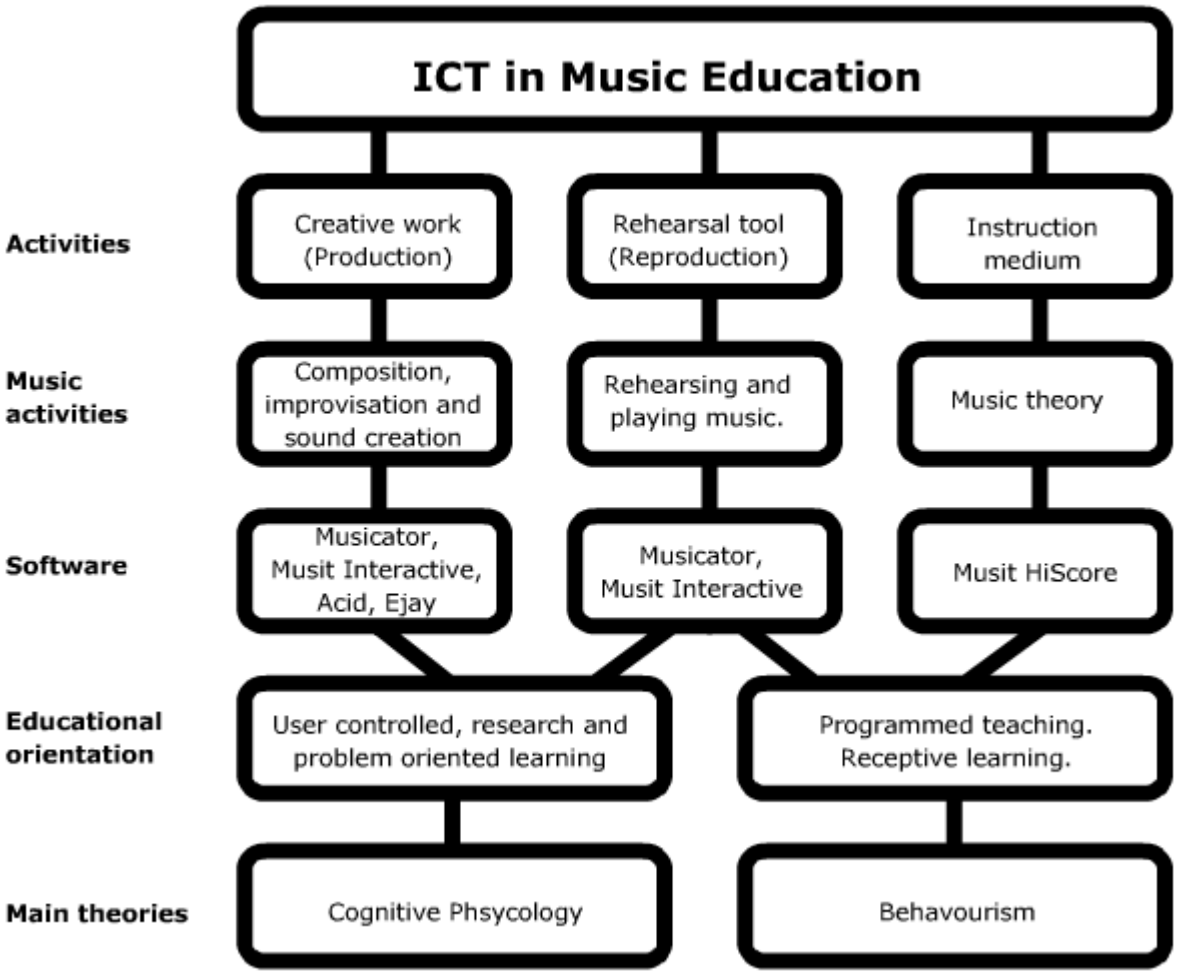
In addition we, as music teachers, need to focus on the following:

- How is the modern settlement? Has everybody today equal oportunities to reach a good music teacher from where they live?

These are the main challenges that we, as music teachers have today. That's why we have to look for new ways of teaching and learning music, and that's why I claim that a modern music teaching prosess has to involve both music technology and theinternet.

How to teach music on the internet

I want to focus on the the following model (Respons Records 1998; Gisle Johnsen; *Musikk som Pedagogisk verktøy*), in which I want to show how ICT and the internet can be used in music education.



The objectives and the main subject elements of the music syllabus are organised around forms of activity: making music, singing, playing, dancing, composing and listening, and ways of perception: experiencing and understanding.

I find that ICT and internet easily can be used within these musical activities:

1. Composing, Improvising and Sound Creating
2. Rehearsing tool when playing or singing
3. Learning music theory.

Lets now take a closer look on how to use ICT and internet when teaching these musical activities:

1. **Composing, Improvising and Sound Creating**

The curriculum for the 10-year compulsory school in Norway says that pupils should have the opportunity to practise composing with stylistic features of contemporary music as starting points, for instance using data processing and digital instruments, and compare their own compositions with such music. Musit has an ISME project Samspel on the Internet in which pupils from Bergen and Alta are composing and performing music together with the help of music technology via the internet.

The pupils (13-15 years old) in Alta, a city in the north of Norway, recieved a music-file via the internet, made by the norwegian dj Bjørn Torske. This music file consisted of small loops produced by the dj. All different rhythm loops. The pupils in Alta used this file to put togehther their own piece of music, based on the rhythm loops.

The pupils in Alta also added traditional instruments to the file; guitar and trumpet. They then sent the music file to the group of pupils in Bergen via the Internet. In Bergen the pupils added drums and keyboard to the file and returned it to Alta. Here they added more trumpet and remixed the file before they returned it to Bergen. In Bergen they added a loop produced by a famous norwegian fiddle player and manipulated the recorded music with the help of plug-ins to make it fit in with what they wanted to present.

You can hear the result on www.musit.no

The music file, which now consisted of both audio, MIDI and written info by the pupils, was now very big, more then 13 Mb. The program compresses the content down to one 11th of it's original size. The MIDI, Audio, text and even pictures are embedded in the compressed file. The file is automatically decompressed when opened

2. **Music technology and the internet as a rehearsal tool:**

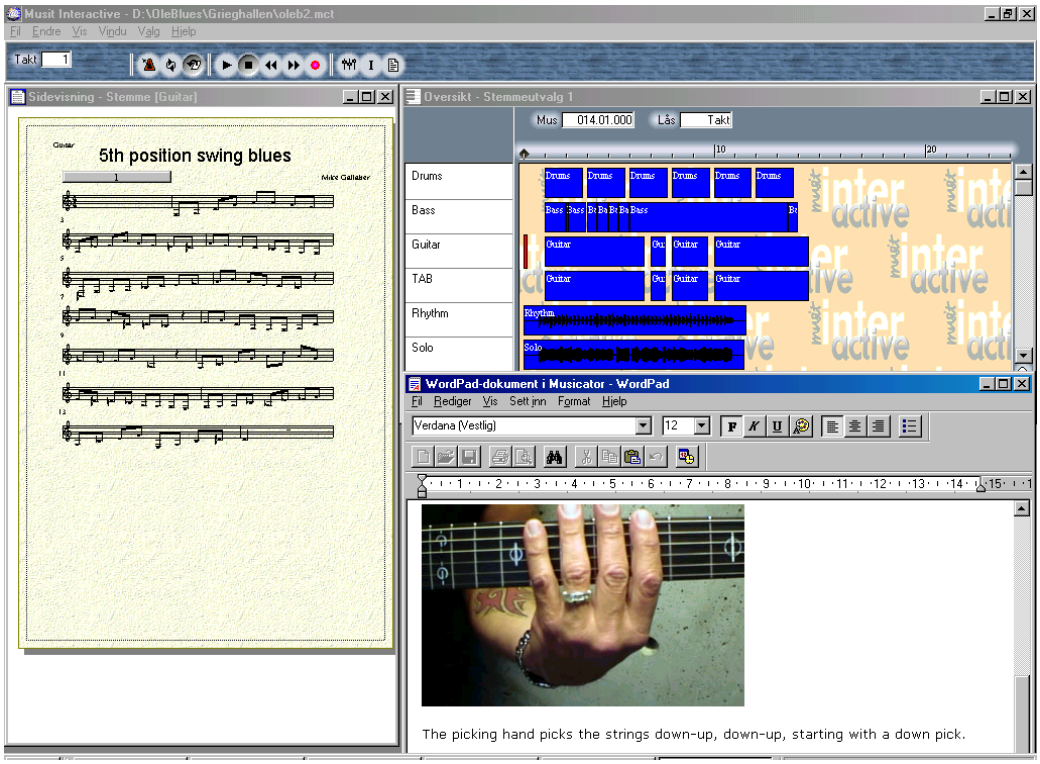
In its prime time, the internet was only used as a source of information. In education it was used as an information channel. Later, the students started to use e-mail to communicate with their teachers and each others. In the US, they started music education programs on the internet, based on MIDI. But when it comes to acoustic sounds, the problem still is the delay of the sound.

We, the Musit company, have developed our own way uf designing music lessons for the internet, based on our available technology. Here we combine MIDI, acoustic music, pictures and instruction text. In addition the student has the posibility to record his music, and e-mail it to his teacher or other students.

Here it seems natural to compare the use of internet with the "old " correspondance courses. These courses were introduced because not everybody was fortunate enough to have a music teacher. In this way they could learn to play an instrument at home, by the use of correspondance courses.

A correspondance course for music, consisted of a written letter and a cassete with recorded music. The step distance from here to our internet – lessons are short:

Our internet-lessons looks like this:



Here the student can listen to what the teacher is playing, read the teachers instructions text and watch pictures of the teacher playing. The student can read the score or just the particular voice, listen to the score or just the particular voice, and adjust the tempo. It is also possible to loop the file and play along in the tempo of his or her choice. A recording can be done on the computer, playing the particular voice. This recording can be returned to the teacher. In the same file the student can add comments, writing about what was difficult with the exercise etc. The teacher will receive the file as an e-mail, and play the file and listen to the recorded music, evaluate the student's playing and return it to the student with comments on the students work.

Teaching music theory

According to my scheme; this is a programmed education and receptive learning, built on behaviouristic learning theories. The internet works here as an instructional medium. Let's use music reading as an example;

Teaching the pupils in compulsory school to read music has always been a problem in Norway, and I would think it is the same all over. In Musit we saw this as a challenge, and we have designed a program that can help the pupils learn to read music. The program **Musit HiScore** is internetbased, and the students use a password which allows them to log in with their own username from wherever they are. The program present the theory of reading music in chapters. After each chapter there are exercises for the students. Here they get score, based on the amount of correct answers and the time they use. In this way they build up their own profile, based on their own HiScore. Each time they log in, they start with their own profile. In this way the program allows them to work with the subject on the

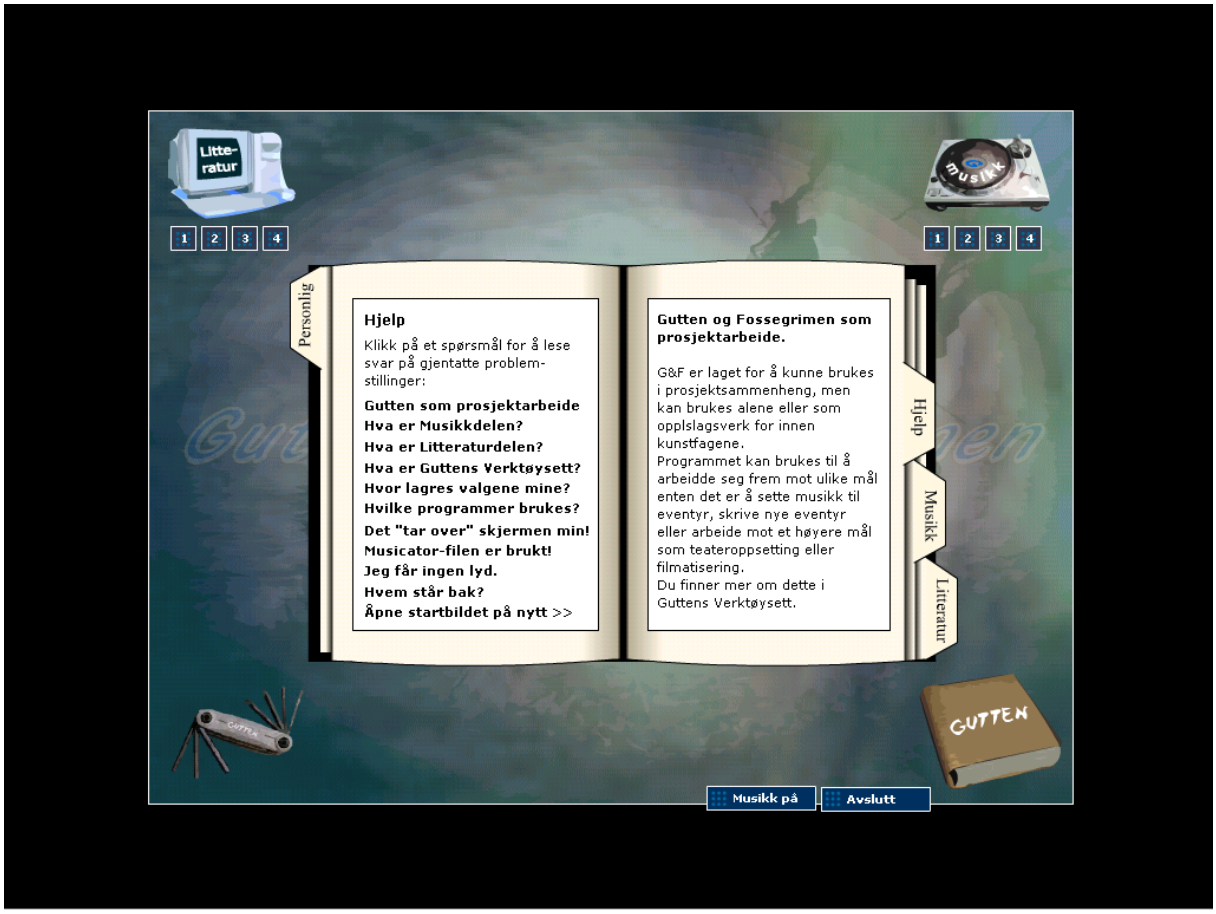
computer at school, as well as on their private computer at home. The teacher can always log in and watch all her student's profiles. In this way the teacher can, not only follow every student's progress, but also look for problems that are common for the whole group of students. Problems that the teacher will have to discuss with the students.

There are other pros by using a program like this;
the student does not only use a visual approach to the subject; Here the student has a visual, an aural, a physical and a spacial approach to the subject; the students is told what happens, they see what happens, hear what happens, and they can move the subject around in the picture. In this way the student achieves a better learning, in that the student can use all the competances / intelligences.

How to combine Music and other subjects as Literature and Drama in education programs

Since the music video was introduced to the music scene in the 80's, music often interact with other arts; such as pictures, video, tales, poesi, lyrical poetry etc.
In Norway we have had a strong focus on Project work in the compulsary school. Project work lends itself to both a single subject and an interdisciplinary approach. With an interdisciplinary approach, music can play an important role in a project work.
MUSIT has developed a learning programme "Gutten & Fossegrimen" that starts with an Art Fairytale and some music loops. The pupils are introduced to the different moods that make up the story, and learn to identify these. Then they learn how these moods can be expressed with music.
Then, with the help of music technology, they add musical moods to the story. They start with the prefabricated loops, but they also learn how to create their own loops. From here the pupils learn, in an interactive way, how to use the computer as a creative tool in music making and production. (from beginners level up to professional standard)

The pupils also learn to substitute the characters and surroundings in the story, and in this way they create a complete new story.
Then they learn to dramatize the story and how to make a theatrical performance or video production of their own story.

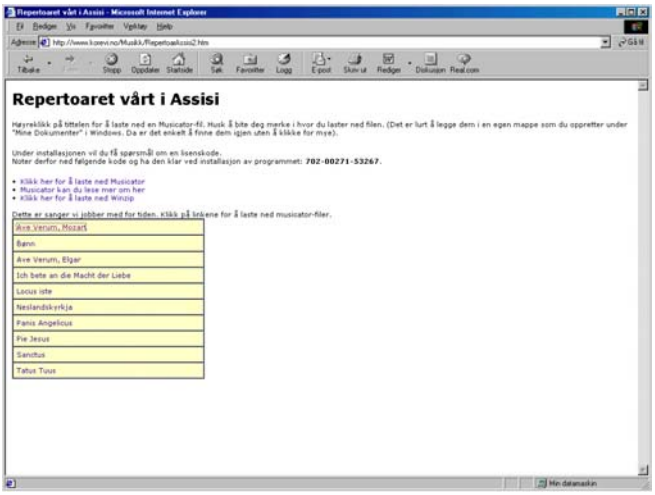


Who needs internet education
Nothing can substitute the human communication in a learning prosess. But every learning prosess can be improved and a good teacher always tries to improve her teaching. Internet education is one way to achive a better learning prosess. As I mentioned earlier; the use of ICT in education allows the students; both children and grownups to use all their intelligences or competances. They approach the subject in a visual, aural, spaciell and physical way. According to the american *pshycologist* Howard Gardner, this is a better way of learning than a learning prosess that only allows you to use one intelligence / competance, f.ex only a visual.
Another advantage with internet education is that the student can decide when to study and where to study. And this is very important in a hectic word.

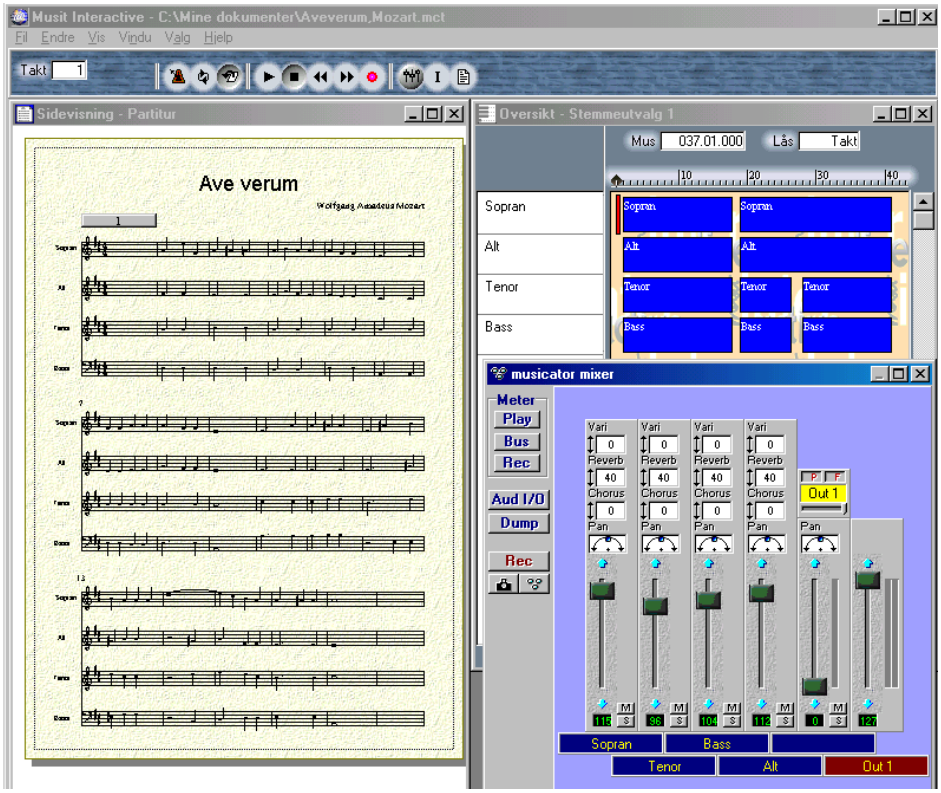
Musit has together with The Stord/Haugesund University College in Norway developed a Study Program in Music Technology that music teachers can participate in. The programme is internet based, and the participants can achieve a formal grade. In this way they can study at home and study whenever they want. This is very important in a country as Norway with a scattered population.

Let's also focus on Adult Education in ordinary music. In Norway we have lots of choirs. The problem for the conductor is often that most of the members don't read music. Some conductors solve this problem by making music cassetes for the members, so that they can listen to what they are supposed to sing. In this case music technology and internet can be a very interesting tool;
Let's focus on the norwegian choir KOR E VI. They have made their own web site, where the members can log in and listen to mp3's of their repertoire.

In addition they can load Musit Interactive files with the songs from the repetoire. These files let them work interactive with the songs.



These are not MIDI-files, but Musit Interactive files, where compressed audio, MIDI, pictures and text all are embedded in one file. With these files, the members are able to listen to and read the score, all the indivindual voices, adjust the tempo and record themselves when singing their specific voice. They can also mix the individual voices that make up the song. All the members have access to Musit Interactive, and they have been trained in using this program. In addition they have access to a training program for Musit Interactive on the internet.



The new teacher role

The teacher role in an internet based education is different from a traditional teacher role. The negative in this new teacher role is that you can not response imidiately to your students. And vice versa; the students don't not get an imidiate response to their works and statements. On the other hand; as a teacher you now have the posibility to reflect over what to say to your students. How often haven't I regret what I told my students in a moment of exitement. A spoken word can never be withdrawn. How good to reflect over my answer for a day or two. As an example, I will use this students instrumental reply to this exercise:

Presentation of Mike Gallaher's exercise
Presentation of Nikolai's reply

In addition this new teacher role require a lot of technical competance of the teacher. But this is the new world...

Internet and music technology should be used in a way that puts the teacher in the instructors role. The teaching aids should contain good guidance for the teachers, -with proposals for teachers planning, organizing, accomplishing, guidance and evaluating of the students learning process.

How does e-learning differ from traditional learning- and teaching-prosesses

Many people claims that the difference between traditional- and e-learning is that e-learning miss the social aspect. And for that reason they reject e-learning. But in some cases I would say that e-learning can be better than traditional learning. Even if it lacks the social aspect. And anyway; what is the social aspect for young people of today; chatting on the internet or sending SMS to each other on their mobiles? This is a new kind of communication which is natural for the young ones, and the kind of communication that easily can be used in e-learning. Therefore I will say that e-learning lack the traditional kind

of communication, but it allows one to use new ways of communication. In this way it has a kind of social aspect, but not the traditional social aspect.

And as I told before; e –learning allows the student to use more than one intelligence/competance in their learning process. This gives a better learning than processes wich only allows one or two competances.

In addition, digital technology allows one to use different working methodes, flexible organication of the training, increased amount of information, different ways of presenting the content of the subject and realistic access to the subject. The possibility of cooperation and communication beyond the classroom increases.

Interdisciplinary teamwork in developing metacognitive software for melodic dictation: Lessons from an Australian National Teaching Development project

Samuel Leong – sleong@arts.uwa.edu.au
University of Western Australia, Martin Lamb & Scott Lewis, Australia

Abstract
Metacognitive software developed as part of an Australian National Teaching Development project has brought together a research team of teacher-educators, software engineers and music students. This paper presents some of the challenges and significant lessons learned from the design and development experiences of this interdisciplinary collaboration. The software incorporates many features deemed important by research, and provides the kinds of feedback requested by tertiary music students. The software's ability to provide feedback and metacognitive guidance for individual learners will be demonstrated.

Computer Software and Aural Training
The advent of digital technology has made possible the production of computer software for aural training purposes, software which is becoming increasingly used throughout the world. Thirty-one programs categorised as 'Aural Training and Music Theory Software' were listed in a 1997 survey by the University of Lancaster, while Spangler (1999) identified over sixty aural training programs available for Mac and Windows. In Australia, *Auralia* is the most widely used aural training software adopted by secondary schools (Jacob, 1999). Of the 209 responding undergraduate institutions in the United States of America (USA), 94% employed computer-aided instruction (CAI) for aural training; and 22 of them had developed their own 'homegrown' software (Spangler, *ibid*). These programs were rated as 'good' by over 70% of instructors who thought that their students found the programs helpful (77%). Students seemed to appreciate the opportunity offered by these programs to work on personal weaknesses individually and at their own pace.

According to Stevens (1994), using CAI to develop musical skills such as aural perception, sight-reading and music theory has ten advantages over traditional classroom teaching. These are: (1) instruction can be individualised; (2) feedback can be instantaneous and confidential; (3) reinforcement can be immediate and positive; (4) test items may be randomly selected; (5) the judging of student responses can be totally accurate and impartial; (6) the level of difficulty may be adjusted in response to student performance; (7) data may be stored about student performance; (8) student anxiety may be minimised by emphasising the joy of learning and de-emphasising the aspect of peer competition usually found in a classroom teaching situation; (9) CAI can be cost-effective for the school or institution; and is usually (10) time efficient for the teacher (p. 53). We explain below how our new software offers benefits 1 to 4 and 6 to 8, while conferring some of advantages 5 and 10.

While there are many potential educational benefits offered by CAI, much commercially available software does not fully address the individual learning needs of students. A recent

review of thirty aural training programs available commercially, found that learners were provided with "very limited" feedback (Spangler, 1999). Apart from requesting more useful feedback for students, the review identified four software features that would require the most improvement. These were: (1) more secure and detailed student records; (2) quicker response methods to keep the focus on aural skills; (3) more instructor customisation options to accommodate different teaching methods and approaches; and (4) more advanced exercises. We explain below how our new software provides all of the benefits deemed necessary by Spangler.

A review of twelve of the most popular commercially available ear training programs in Australia (including those used in many universities and colleges) reveal that none of them go beyond requiring abstractions derived from first order responses, e.g. categorization of chords into major, minor, augmented or diminished (Leong, 1999b). Not only do these programs fail to help students develop metacognitive thinking, they lack features which empower teachers to analyse gaps in the metacognitive processes of their students. According to Schraw (1998), metacognition occurs when students reflect on the effectiveness of their learning, and on the strategies that they use while learning. This can happen before, during or after the learning takes place. While researchers such as Leong (1998) and Braham (1997) have pointed out the importance and effectiveness of employing research-based metacognitive strategies in aural training, none of the existing software does this. None of the commercially available software reviewed enable teachers and/or students to print out step-by-step student 'workings' for diagnostic purposes. Moreover, none of the software includes contextualised examples, i.e. 'real' musical excerpts, rather than contrived ones. This is a major criticism of traditional aural training approaches (see Leong, 1999; Pratt, 1998 and Odam, 1995). Also, the musical sounds used by these programs are usually limited to keyboard or digitised/synthesised sounds. Finally, in practice mode, this software does not provide timely feedback incorporating research-based strategies when common errors are made by students. The next section explains how we redress all of these deficiencies.

A Collaborative National Teaching Development Project

The above section describes the educational context within which a collaborative Australian National Teaching Development (ANTD) project began. Its major aim is to develop an innovative multimedia learning-teaching program. This is to be based on current learning theories and research into aural skills development. It is to be integrated successfully into the aural training programs at three Australian universities. Funded by a competitive national grant over two years (2000-2002), it is now beginning to be used in tertiary institutions and secondary schools across Australia.

The ANTD project comprises two complementary components. The first is non-computerised: it consists of listening exercises that require learners to move beyond the realms of conventional first-order thinking and to apply metacognitive thinking. It provides a model of good practice in aural training by encouraging learners to be self-reflective, to explore and employ metacognitive strategies when solving aural tasks. The package also includes a catalogue of strategies identified by research to be effective for rhythmic, melodic and harmonic dictation.

The second part of the project is to develop multimedia software that makes a significant shift from the traditional application of first-order thinking to applying metacognition in aural training. It attempts to exemplify best practice by extending the work of Lamb (1979, 1984), who applied the confusion matrix (first introduced in aural training by Hofstetter, 1979) as a diagnostic aid which simultaneously provided remedial help. Our software goes beyond the conventional structure that accepts only single answers. It accepts multiple responses, classifies and sorts them before linking them to appropriate research-based

strategies. One of the problems with ear training is that every student hears and solves problems differently. Our software provides immediate feedback that is customised to each individual student, thereby giving better and more efficient support than is available in the traditional classroom. For the first time, our software combines the 'adaptive program sympathy' of Lamb (1984) with the metacognitive techniques developed by Leong (1998).

Our new software was designed according to constructivist theory and practice (NBEET, 1996, p. 84) and focuses on the design of 'learning' rather than 'instruction' (Laurillard, 1993). Details of the ways in which research has informed the design and development of our software are explained in Leong and Lamb (2001).

To illustrate how a user might experience the new software, a typical learning session is described next.

A student begins by logging on – either by choosing her name from a list displayed on the computer screen, or if she has never used the program, by typing in her name and a password of her choice. A new user is then introduced to the program with a simple example for orientation purposes (see Figure 1). A previous user is automatically returned to the point at which she last used it.

Next the user points to 'Play Test Example', and an orchestra playing an unfamiliar melody is heard coming from the computer's speakers. The test melody is always preceded by five metronome beats to establish the tempo (this is to done to avoid indicating the number of beats in a bar). While the music is playing or after the music has stopped, she can respond in three different ways (as shown in Figure 2):

1. She can immediately notate it by dragging, one at a time, quavers, crotchets and so on from a 'palette' containing available notes and rests, and placing them on a stave displayed on the screen.
2. If she is uncertain as to the pitches but confident of the rhythm, she can click on the notes in the palette without dragging them onto the stave. This causes the notes to appear at concert A on the stave. Later, perhaps while listening to the test melody again, she can assign pitches to them by dragging the notes up or down to the desired position.
3. If confident about the pitches but uncertain of the note durations, she can place blobs (solid note heads without stems, like filled-in semibreves) in rapid succession on the stave. Later she can easily assign a duration to each blob.

The student can respond using any or all three of the input modes. She can request a replay of the original tune whenever she wants by pointing to "Play Test Example"'. And as often as she likes, she can hear what she has notated by pointing to "Play Current Attempt". She can also start or stop the playback (of either the test melody or her notated version) at any point.

When she would like an indication of how well she's doing, she points to “Feedback on Attempt”. This causes a smaller version of her music to appear below, colour-coded as follows: BLACK means that the note (or rest or barline etc.) is considered correct. GREEN means the pitch is correct but not the duration. BLUE means that the duration is correct but not the pitch. RED means that it is probably wrong. YELLOW indicates a gap, or that something is missing (e.g. the time signature). A STRAIGHT horizontal line which brackets a group of notes from above (or below) means that the notes are all too high (or too low) by the same amount. A WIGGLY horizontal line which brackets a group of notes means that the notes are all half (or double) the correct durations.

Also, a message such as "Listen for a chord outline" may appear (as shown in Figure 2), suggesting an alternative approach that will help her listen for important patterns in the music that she has missed. Other messages might be: "Try listening for similarities in the rhythm between the first and second phrases?" or "Tap the beat while the music is played."

The student now tries out the suggested strategies, and makes changes to her notation. Notes are edited by dragging them up or down, or by assigning them different durations from the palette. To delete an object (note, rest or bar-line etc.), she simply drags it out of the window. To insert an object, she drags it from the palette and places it between the existing notes, which then obligingly move over to make room. When she has satisfied with changes made to that point, she again chooses "Feedback" and the cycle continues.

When everything is deemed correct, or when she wants to move on to a different example, the student can choose either to notate another melody or to end her session with the computer. Whatever she decides, the melody that she next attempts will be presented according to the competence level she attained in the previous one. If she seemed to have encountered few problems, the next example will be longer, a little faster, and in a key with more accidentals. In contrast, if the previous example caused many difficulties, the next example will be slower, shorter and, if possible, in a simpler key (this is not possible with C major).

As she logs off the computer and leaves the room, she reflects on how patient the computer was, and smiles, knowing that no human need ever know about her mistakes. Immediate help was provided continuously, in a non-judgmental manner, which has given her a better understanding of her own learning processes.
Later, her human aural instructor will review the snap-shots of her work and devise musical examples customised to address her learning needs. The instructor will notate them using the same software and save these examples for her future use with the program.

In a nutshell, the fourteen distinctive features of the software which address recommendations made by Spangler (1999) and Stevens (1994) are:

- immediate playback of the student's notated response;
- immediate, in-depth feedback;
- three different entry modes (blob, duration, regular);
- choice of notating either while the music is playing or after the music has stopped;
- adaptive sympathy (the program responds to the level of difficulty experienced by the student);
- colour coding to indicate notational errors of individual notes;
- boxes and symbols to draw students' attention to specific (aggregate) features;
- three levels of message feedback;
- time-stamped screen "snap-shots" are stored whenever a student requests feedback or playback;
- snap-shots are printed out in colour, with playback of the notation in them;
- comments are collected on-line from students;
- analysis is made of student responses, and metacognitive suggestions made for problem solving;
- customisation of musical examples by the instructor using the software;
- 'contextualised' musical examples from standard repertoire are featured; and
- musical examples from CDs or other audio sources can be added to the software.

Lessons for Software Development

The interdisciplinary and collaborative nature of the ANTD project has taught the team many important lessons. In this section, seven major lessons in software development and

project management learned through experience with two related projects are presented. The first project provided the pre-prototype for the ANTD (second) project. Mistakes made in the first project were avoided in the second, and the pitfalls and breakthroughs of both projects are summarized briefly below for the benefit of colleagues who are interested in developing their own 'homegrown' software.

1. **Formation of software development team.** The team must comprise personnel who have expertise in one field (i.e. music or computing) and at least rudimentary knowledge of the other. Otherwise, much precious time will be expended in explaining very elementary musical concepts to programmers. Moreover, the program structure that is developed can be built on erroneous assumptions that are musically counter-productive. This can lead to short-term gain but long-term pain. It can also consume enormous resources, and severely curtail the opportunity to move forward. In a typical university environment, programmers who are musically trained and are able to work with musicians (i.e. not 'prima donnas') are rare. Hence it is imperative to seek out such an individual and to nurture a working relationship. In addition, a suitable project manager needs to be engaged to oversee the programmer and to act as a liaison between the musician and the programmer. The manager would work analytically with the musician to determine the nature of the ultimate goals, then would divide these into sub-goals that can be arranged in a developmental sequence. Without the expert guidance of the manager, a programmer might be tempted to 'pull the wool over the eyes' of the musician with regard to feasibility, level of difficulty, time to be taken etc.

In the first (pre-prototype) project, the musician had great difficulty communicating the project requirements and needs, because the programmer lacked an understanding of musical matters and the musician lacked an understanding of computing matters. The programmer could not program the software to play back student responses, and no musical 'intelligence' was built into the user interface. Consequently, another programmer with rudimentary musical training was engaged to write a "plug-in" for the playback feature. After struggling for two years, the software that was developed through a process of accretion, constantly broke down and was unusable for extended periods.

With the ANTD project, the musician (project director), armed with the experience of the first project, engaged a user-interface design consultant (manager) who has expertise in designing music education software, to manage the professional programmer who has rudimentary musical knowledge. The musician provided a general description of what was needed and the manager designed and supervised its implementation. However, the team met often and intensely to find solutions to problems and issues encountered. As time went by, the programmer became more confident musically and was able to contribute more to the design process. The manager and programmer tested the software for ease of use, and communication of feedback to students; the musician and the tutors provided suitable students for 'testing' then reviewed screen snap-shots with the manager to identify feedback issues related to students' work.

2. **Implementation of software via the 'design-program-evaluate spiral'.** This involves making the initial design, constructing a prototype, and evaluating the prototype. The findings of the evaluation then result in the redesign, refinement and re-testing of the prototype. This spiral continues until the final goals are achieved.

3. **Project management**. The setting and pacing of attainable sub-goals kept the team motivated and on track. A less effective approach would be to design the finished product in its entirety, program it over a long period (without being able to trial it with users), then test the finished product with users, only to discover that the program does not work.

4. **Selection of software development tools**. The development tools must permit the development of all the features required of the end product. The tools must also be powerful and flexible enough to support a high level of customisation as well as enhance the programmer's efficiency. If the tools are too general, the project will take too long to complete (because the programmer might have to work out every detail of the entire user interface). If the tools are too specific, the programming will be completed more quickly at the expense of flexibility. This means not being able to implement all the features needed, or in the desired way. As we wanted to operate the software on both PC and Mac platforms, we chose development tools which claim to be multi-platform. In reality this was found to be untrue - our software only works on PCs.

5. **Music representation**. Music was represented in the software initially in terms of MIDI protocols, then later as text. This meant that existing editors could be used to create the musical examples quickly and easily. This also made it easy to save and retrieve the music, using standard file formats, and to access these files by off-the-shelf software for playback and debugging. This approach, however, makes the grouping of notes such as in beaming and ties more challenging. Finally, digitally recorded music was stored (in tandem with a textual music representation) for use with the software.

6. Eliciting user comments. Both non-interventionist and interrogatory approaches are needed to elicit user comments. The monitoring of each user by an experienced observer is essential, because melodic dictation makes so many demands on the user's perception and memory. A questionnaire (after the event) is unsuitable as students cannot then remember accurately what they did and/or give reasons for their decisions; hence the need for sensitive and observant monitoring and documentation of student on-line behaviours. User feedback has contributed immensely to the effectiveness and efficiency of the software.

7. **Catering for unexpected student responses.** There were many instances of bizarre student behaviours during the trials. For example, students would ignore on-screen messages that interrupted their attention and required their acknowledgement. The main lesson here is not to expect 'rational' behaviour from all students. Each learner is uniquely different, and the design team should not assume that every student would be 'compliant' by reading stated instructions and consulting the help screens. For this reason, the ANTD software has no help screen and the user interface is self-explanatory. It was gratifying that the first music student who tried out the software needed no external explanation or help whatsoever.

Conclusion

The use of computer software for aural training purposes is becoming increasingly widespread. Recent reviews of many commercially available programs indicate the need to improve software features that would be more educationally beneficial, particularly in developing the metacognitive thinking of learners. We have demonstrated our new software that meets many of these needs. Some educational institutions have developed "homegrown" software but the process is fraught with difficulties. It is hoped that the seven major lessons learned from the design and management of the ANTD software will help educators avoid the angst that often besets such an endeavour.

REFERENCES

Braham, R. (1997). Harmonic perception in tertiary music students: An analysis of the cognitive musical skills associated with harmonic perception. Unpublished doctoral dissertation, The University of Western Australia.

Jacob, R. (1999). Use of technology in Victorian music classrooms. Unpublished master's project, Deakin University.

King, R.V. (1988). The effects of computer-assisted music instruction on achievement of seventh-grade students. Unpublished doctoral thesis, University of Illinois at Urbana-Champaign.

Lamb, M. R. (1984). Sympathetic computerized ear training. Proceedings of the 16th International Conference of the International Society for Music Education, 159-162. Oregon: ISME.

Laurillard, D. (1993) Rethinking university teaching: a framework for the effective use of educational technology. London: Routledge.

Leong, S. (1995). 'Music technological competency and effective teacher preparation'. Australian Journal of Music Education, 1995 (1), 21-25.

Leong S. (1998). 'Meta-cognitive processing strategies employed by tertiary music students in rhythmic dictation'. Australian Journal of Music Education, 1998 No.1, 42-47.

Leong, S. (1999) 'Opening the musicianship umbrella.' In Jeanneret, N. & Marsh, K (Eds.), Opening the umbrella: An encompassing view of music education. Proceedings of the 1999 ASME National Conference, University of Sydney. Sydney: Australian Society for Music Education.

Leong, S. (1999b). Unpublished federal government grant application document.

Leong, S. & Lamb, M. (2001). 'Meeting student needs through computer-aided melodic dictation: encapsulating a metacognitive approach in an educational software'. In In Rosevear, J. & Bourne, W. (Eds.), Proceedings of the 2001 ASME National Conference. University of Adelaide: Australian Society for Music Education Inc.

Merrick, B. (1993).Music computers and their applications by teachers in the secondary school classroom in New South Wales. Unpublished master's project, University of Western Sydney.

National Board of Employment, Education and Training (1996). Education and technology convergence. Commissioned Report No. 43. Canberra: Australian Government Publishing Service.

Odam, G. (1995). The sounding symbol: Music education in action. Cheltenham, UK: Stanley Thornes (Publishers) Ltd.

Pratt, G. (1990). Aural awareness: Principles and practice. Milton Keynes: Open University Press.

Schraw, G. (1998). Promoting general metacognitive awareness. Instructional Science, 26, 113-125.

Spangler, D.R. (1999). Computer-assisted instruction in ear-training and its integration into undergraduate music programs during the 1998-1999 academic year. Unpublished master's thesis, Michigan State University. [http://www.msu.edu/user/spangle9/thesis.html]

Stevens, R. (1994) Technology and music teaching and learning. Geelong, Victoria: Deakin University.

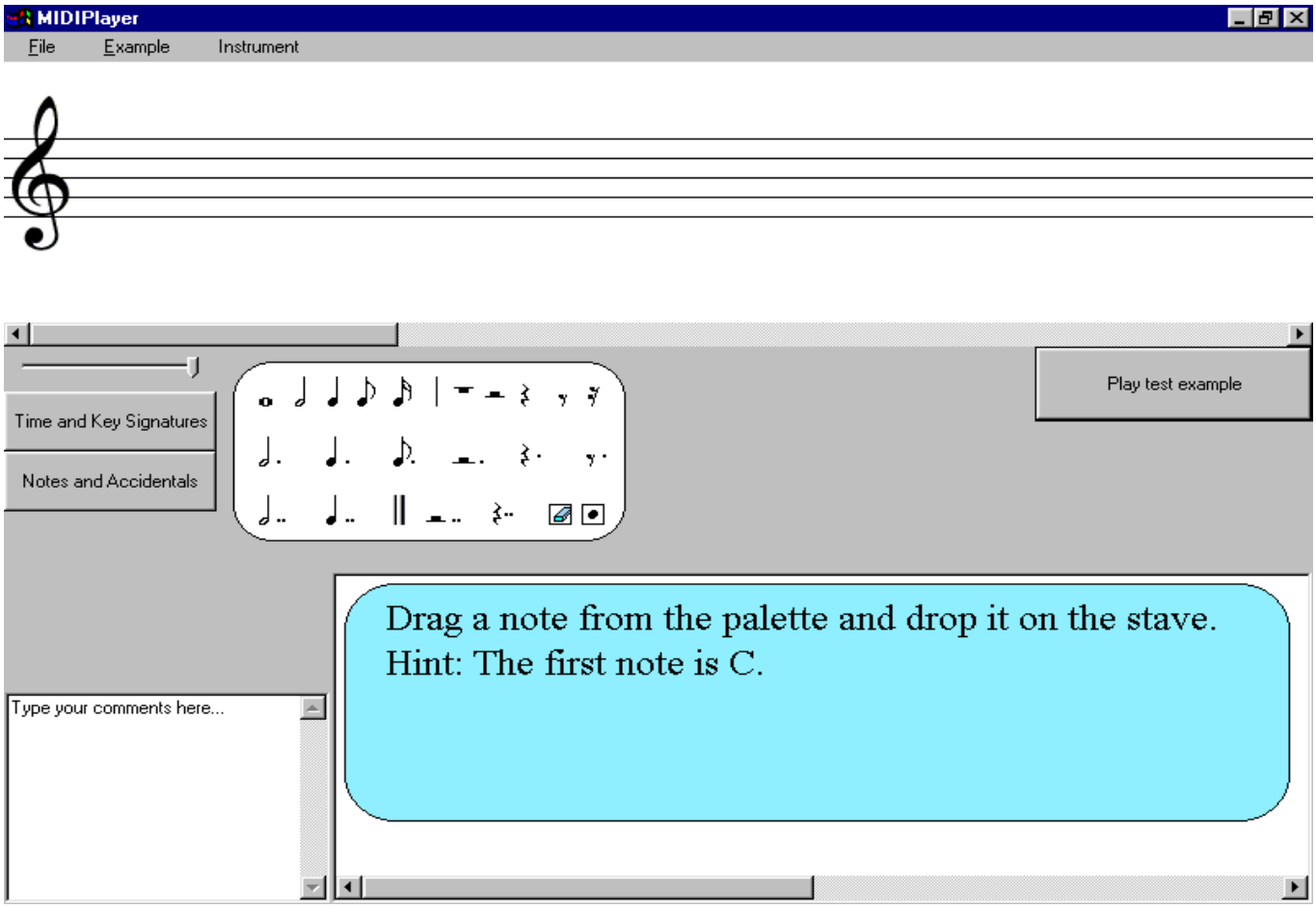


Figure 1: The test example has just been played, and the student may now (i) notate the music (by dragging symbols onto the stave), or (ii) enter only the rhythm (by clicking on the symbols), or (iii) enter only the pitches (by clicking on the note-head at the bottom right of the palette, and then pointing to the pitches on the stave). Alternatively, the student may listen to the music again (by clicking on "Play test example") and write it down (using a combination of (i), (ii) and (iii) above) while the music is playing.

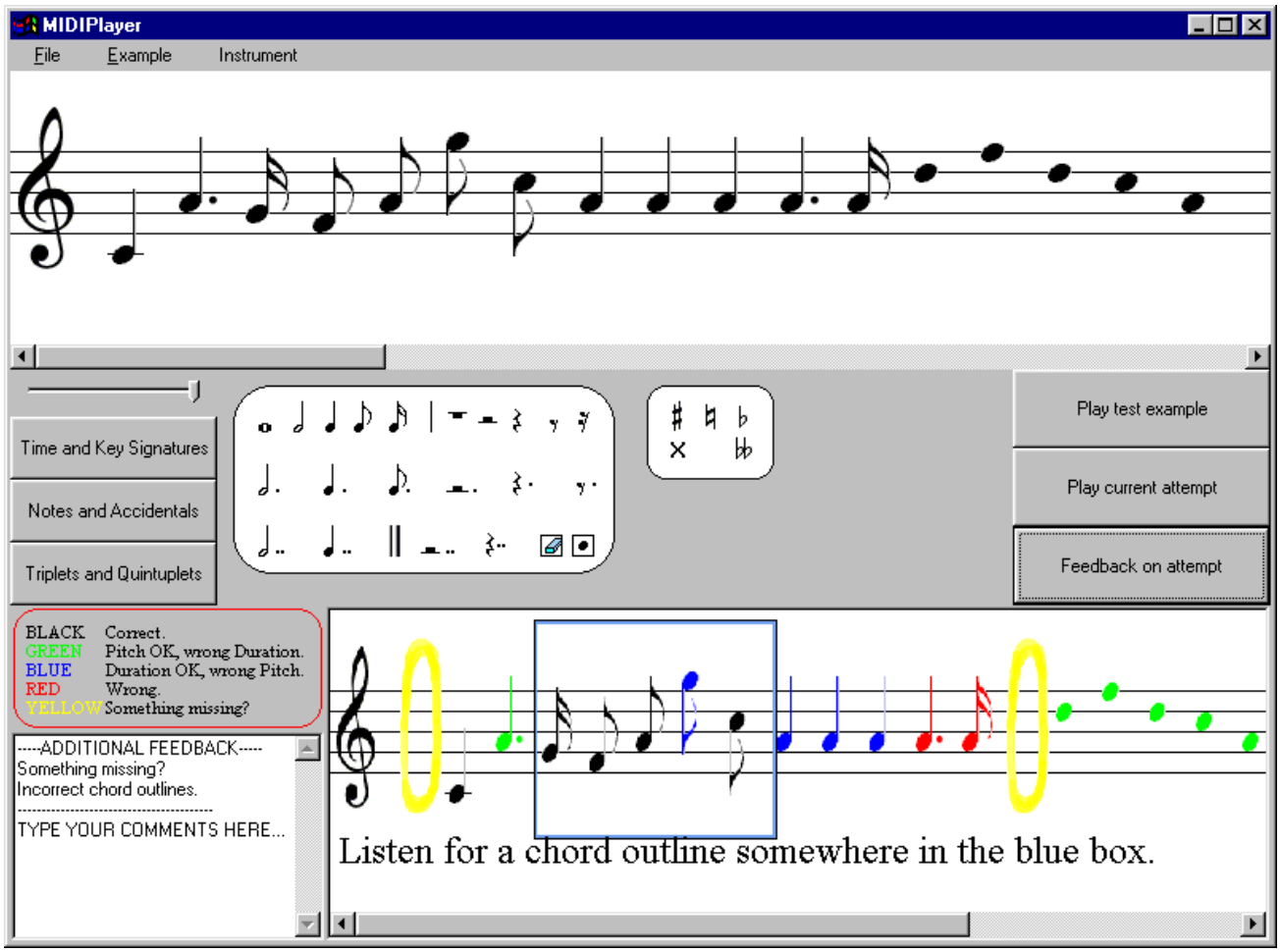


Figure 2: In the textual and pictorial feedback windows at the bottom of the screen, the program is indicating the following: yellow ellipse = missing time signature; green A = correct pitch but wrong duration (it should be a dotted quaver); blue G = correct duration but wrong pitch (it should be D) – the box indicates a chord outline here. After the box, the student has input only the rhythm (correct for the 3 crotchets shown in blue, then wrong for the next 2 red notes). After leaving a gap (shown as a yellow ellipse) the user has correctly input pitches (shown in green) without assigning any durations yet.

Nordic SAMSPEL

Children creating music with digital tools. Teachers and researchers working together.

Bo L. Nilsson – bo.nilsson@lut.mah.se
Malmø Academy of Music, Sweden

Abstract
Creativity can be regarded as a basic human function and not only as a special gift that can produce great artwork. The view that children are capable of spontaneously creating music in different ways is firmly based on empirical research and today widely accepted. In this presentation I will focus on how musical creativity with children can be studied in collaboration between researchers and schoolteachers and how synthesiser and computer can be used to enhance possibilities for young children to express their musical ideas. With the help of musical examples and extracts from interviews and field logs this presentation will outline results from a two year study I have undertaken with young children in Sweden creating music using digital tools.

The purpose of this presentation will be to discuss how musical creativity with children can be studied in collaboration between researcher and teachers in school.

Several writers of today regard creativity as an outstanding feature of our way of living. The famous neurologist Oliver Sacks (1998) maintains that creativity and imaginativeness is available to all of us. Vygotskij (1995) maintains that creativity can be looked upon as a basic human function and not only as a special gift that can produce great artwork. Winnicott (1971) speaks about creativity as something that impacts our attitude toward the world.

There is extensive evidence that children in different ways are able to create music (Sundin, 1963; Folkestad, 1996; Barrett, 1996; Kratus, 1989). It could now be regarded as fully accepted by music teachers and researchers in music education that children are able to, and want to, create music in many ways. Research by Bertil Sundin (1963) shows how pre-school children create songs in different ways. Margaret Barrett (1996) studied pre-school children creating music with musical instruments and found that children as young as five years old were able to compose music with form and structure. The children they were able to make what she defines as *aesthetic decisions*. Still many questions concerning creativity in childhood remain to be answered. McPherson (1998) highlights the need for a broadly based research in order to explore children's musical creativity.

Creative music-making with digital tools

In this presentation I will outline some results from a study I have undertaken with Swedish pupils in Year 2. The aim of the study was to expand the understanding of how young children find meaning in creating music. In this study creativity is regarded as something

present in everyday life and children's musical creativity is looked upon as something evident.

The synthesiser and computer introduce a solution to the problem with instrumental expertise. Using a music keyboard offers a fairly simple way for young untrained children to express their musical ideas. Hence I decided to undertake my study using synthesiser and computer with a professional sequencer program (Cubase Score).

Children are not beginners in music
One of the girls in the class had a very active relation to music. She played a little keyboard at home and sometimes she tried to play the recorder. She preferred playing music by herself to attending lessons and claimed: "if you start to learn and have lessons all of the fantasy goes away". Her dream was to become a singer:
My highest dream is to be on stage, just like Michael Jackson, and there will be one thousand and a million. Then I will sing ... I imagine ... it is really fun. Sing just like Spice Girls.
She also had a firm notion of how to rehearse and prepare:
Firstly I will see which notes I really want, some that are really good. Then I will practise a lot and see if it works. Try with my fingers on the keyboard and if I can manage really fast with my fingers then it can sound good.

This transcript gives evidence that the girl, like most of the children in the study, was not a beginner in music. The children listened to a lot of music on CDs and television in their homes or with friends. Most of also them had opportunity to try musical instruments at home or by relatives or friends. In interviews and conversation the children shared significant episodes related to music, in the study called *musical memories*. Some of these *musical memories* relate to episodes where the children listened to music in public situations, some of these in informal situations like listening to street musicians. Another kind of musical memories relate to music taking place in the family. Some of the memories are about the children playing and learning music with others.

Collaboration teacher – researcher
The study was initiated when I helped two teachers writing an application for the funding of an ICT-project in their class. They also attended an ICT course I held at Malmö Academy of Music. The project then started in collaboration between myself, the teachers and one of my teacher students at Malmö University. We decided to undertake the study with nine children in Year 2. During the study midifiles were collected using the *Save As*-method (Folkestad, 1996) together with observations and interviews that was performed throughout the project.

Erickson (1994) describes how research could vary in a continuum where one pole represents academic research and the other pole represents problems brought up by the practitioners, in this case the teachers. The study I have undertaken took off quite near the teachers pole with some of their questions, articulated from a didactic perspective: Were the children able to control the synthesiser and the computer? How would the creative music-making fit in with a thematic way of working in the classroom?

Right from the start the participants were free to use the synthesisers for practice and experiments in music. This way they soon became familiar with the tools. During the first part of the study the children created music related to pictures and themes used in the teaching in their class. When the music later was played before the whole class the younger children also listened to it.

This project could be described as a combination of two projects taking place at the same time: One project was a teaching project that I was supervising, the other was an academic research project focusing on research questions.

Creative music-making
In order to expand the project toward the research pole and leave the explicit teaching context, the children were given further suggestions to create music. The idea of using pictures as starting points for creative music-making was kept, but developed further in order to make the suggestions to the participants more open. A new kind of suggestions to create music was hence introduced. Instead of using pictures that explicitly belonged to a certain theme, the first suggestion was an invitation to paint a self-portrait in colour paint and to create music that could go along with the portrait. Another consisted of an invitation to create music to an art painting.

During the process the children learnt how to handle the synthesiser and the computer, their tools for composing. At the end of the project they were able to change instrument sounds on the synthesiser from the computer using the mouse. The children handled basic utilities in the sequencer program like record, stop, play and to record on a new track and their musical ideas was facilitated by the digital tools. The learning in various areas during the project could be described as taking place within each child's Zone of Proximal Development (Vygotsky, 1978). The participants created several music pieces and gave by the way they developed their skill to express musical ideas using the synthesiser and the computer evidence of aesthetic decision-making (Barrett, 1996). The children were also often able to discuss their music pieces later.

The children found the synthesiser and the computer helpful for creative music making, "making up music", one of the boys said. And as one of the girls put it:
It is fun, it is just fun. You can choose many "musicians" and you can make your own notes and play them to others!
Almost all participants, especially the boys, mentioned especially the way it was possible to record music and to listen to it later as a positive feature. One of the girls wanted to create music for others to listen to, music that "came out on the town".
The children thought that it was a good thing that the synthesiser had so many instruments sounds: "I have played the sea ... and small animals" as one of the girls expressed it.

Conclusion
I wish to outline two main conclusions, the first regards the children's creative music making and the second concerns collaborate research.

Firstly, children are not beginners in music. Although none of the participants had musical training they already knew a lot about music and had many musical ideas. The digital tools facilitated in a new way the children's composing and demonstrated a great potential to realise musical ideas. The use of digital tools also may stimulate new ways to think about children's musical learning and creativity.

The second conclusion which I will outline is the way the kind of collaborate research described in this presentation opens up a wide range of possibilities both for the teachers and for the researchers. The classroom provides a good environment for a research project to start. At the same time teachers can become stimulated in a rendezvous with a researcher by encountering new ways to look at children's musical creativity. The use of computers in research may challenge teachers to use digital tools more often in their own teaching.

During my presentation I will illustrate the children's creative music making by using musical examples and interview excerpts from the study that I have undertaken.

References

Barrett, M. (1996). Children's aesthetic decision-making: an analysis of children's musical discourse as composers. International Journal of Music Education, 28, 37-62.
Erickson, F. (1994). Where the Action is: On Collaborate Action Research in Music Education. Council of Research in Music Education (Winter).
Folkestad, G. (1996). Computer Based Creative Music Making, Young People's Music in the Digital Age. Göteborg: Acta Universitatis Gothoburgensis.
McPherson, G.E. (1998). Creativity and Music Education: Broader Issues - Wider Perspectives. In B. Sundin & G. E. McPherson & G. Folkestad (Eds.), Children Composing. Malmö: Malmö Music Academy.
Sacks, O. (1998). Inaugural lecture by Oliver Sacks opening the Centre for the Mind in Canberra 1998, [On line (Transcription of Radio broadcast)]. Australia: Radio National. Available: http://www.abc.net.au/rn/science/ss/stories/s10338.htm [2001, April].
Sundin, B. (1963). Barns musikaliska skapande [Musical creativity in childhood]. Stockholm: Liber.
Sundin, B. (1998). Music Creativity in the First six Years: A Research Project in Retrospect. In B. Sundin & G. E. McPherson & G. Folkestad (Eds.), Children Composing. Malmö: Malmö Music Academy.
Vygotsky, L. S. (1978). Mind in Society. Cambridge: Harvard University Press.
Vygotsky, L. S. (1976). The Role of Play in the Mental Development of the Child. In J. S. Bruner & A. Jolly & K. Sylva (Eds.), Play. Its Role in Development and Evolution. GB: Penguin.
Vygotsky, L. S. (1930/1995). Fantasi och kreativitet i barndomen [Fantasy and creativity in childhood]. Göteborg: Daidalos.
Winnicott, D. W. (1971). Playing and reality. Tavistock Publications.

samspel

Music, Technology, Traditions and Pedagogy: Working Together at Play

George Odam – g.odam@virgin.net
Guildhall School of Music and Drama, London
& Sam Leong – sleong@arts.uwa.edu.au -
University of Western Australia

Abstract
Recent technological advances and the popularisation of music in a global network pose unprecedented challenges for tertiary institutions in preparing the next generation of musicians. As we move out of the Age of the Book, Universities and Conservatoires need to continue to ask themselves the question, "what is music?" and to review the balance and design of their training according to the changing answers to this fundamental question.

This paper will discuss the circumstances leading to the evolution of the eye-bound musician. Because of unquestioning adherence to traditional musical paradigms, for many classically trained musicians, playing has become working and the element of play, essential to good health in the early learning process, has been neglected, or is entirely absent. This paper will also explore the phenomenon, paradox and possibilities of 'play' in the context of past and present musical practices. The evidence of unhealthy development when play opportunities are limited will be considered and parallels drawn between general and musical models. As an antidote, we will suggest ways for working together in restoring essential play elements into instrumental teaching within the classical tradition so as to avoid the unintentional creation of disabling handicaps in future musicians.

Technology and The Age of the Ear
In many ways the music profession today is a far more vibrant and professionally active business than ever before in the history of western civilisation. It is now dominated by an orally and aurally-based musical culture, where new trends and developments are promoted through the ear and are entirely bound up with the development of new technology. The technology explosion of the 1990s saw the birth of the worldwide web, dominated by music of the oral tradition and in the vernacular styles and language. Beckstead (2001) noted that popular music (including blues, rock and jazz) via technology was “awakening a new generation of music devotees, even as it challenges the notion of the separation between performer and composer” (p. 45). Whilst mass appeal and marketing through the media characterised twentieth-century vernacular music, the web and the attendant technology promoted a new and dramatic shift from mass media to individual expression. An amateur musician in Australia can now create music files and within seconds they can be heard in England or America. Those same files can be downloaded, edited or added to and returned to the sender. Creative collaboration and customisation have marked the burgeoning of the Age of the Ear. But where do ‘classically-trained’ musicians fit into all this? Do their musical education prepare them to operate professionally in such a global musical market-place?

With such a global environment in mind, Leong (1994) advocated the 'planetary musician' who would be "equally at home with representative forms of *earth music*" including those utilising modern technologies (p. 110). Music making today, from its inception to finished product requires fine aural skills, few of which are yet taught within formal music education except in recent courses newly created to take in the technological advances. The definition of the musician as performer-creator has returned again to our society after some two centuries of absence. To these two definitions we might add a term like 'promoter' or 'entrepreneur'. Thinkers such as Renshaw (2001) have encouraged the cross-fertilisation between the creative arts, technology and multi-media with the goal of developing an artistic language that would relate to wider audiences.

Professional musicians in both western and eastern civilisations have been historically associated with aristocratic, court and religious practices, and the secularisation and democratisation of both societies in their various formats have led to increasing regular employment of professional musicians. More recently, the western ideals of capitalism have promoted the music of the market-place and many have identified the emergence of a new global musical language as part of a new climate. Driven by the dominance of a new world market and its music-focused technology, a process of osmosis is taking place between western and eastern (and all other) cultures. The emphasis on the market has challenged for the first time in western history the locus and nature of musical employment and endeavour. For western musicians it has returned them to a model of music-making that we had begun to lose from the Renaissance on, ie. the musician who functions across all musical disciplines – singing, playing, improvising and writing as the occasion demanded. For musicians in other cultures – the Indian subcontinent for instance – this model has remained paramount (Small, 1996; Shehan-Campbell, 1991). The biggest change in the west was brought about by the invention of printing, inaugurating the Capricornian Age of the Book out of which we are now all moving. The new Aquarian Age, as far as musicians are concerned, is the Age of the Ear, superseding the Age of the Eye. The oral tradition, that has been at the root of music making and remains there across all cultures, now through the power of the market, is becoming once again predominant in western culture. Similar changes also appear to be taking place in eastern culture, although the book/capitalist-driven movement away from it has been less dramatic, and for many people, irrelevant or non-existent.

Evolution of the Eye-bound Musician

During the nineteenth century the western concept of the specialist performer was firmly established. We witness the transition taking place through Beethoven and his contemporaries, and it is linked with the spread of bourgeois culture and its promotion and promulgation of the book as its means of transmission. Beethoven is the most obvious musician among the first of our western 'greats' to make the transition from performer/improviser/composer, which is how he was first employed, to a free-standing composer in constant dialogue with commercial publishing houses. It was only with the construction of and free access to public concert halls such as the Crystal Palace or the Royal Albert Hall in London, in the mid-nineteenth century that there was really any demand for printed sets of parts. As these became available, consuming orchestras sprang up, feeding from them. With this burgeoning market of employed performers driven by the changing needs of society, the separation between composers and performers finally took place.

This coincides exactly with the formation of music specialist schools needed to manufacture such performers to satisfy the music market. In the United Kingdom (UK) the Royal College, the Royal Academy and Trinity College in London were all set up through this new spirit of entrepreneurism. The Guildhall School was actually set up by the envious City Fathers of the Corporation of London who wished to grace their formal dinners with

performances by musicians from their own school. They had accepted the format of Esterhazy and Cöthen, but had no need of composers, since bright new companies such as Novellos could provide them with endless copies of what was being played in fashionable halls across Europe.

The need to be in control, to be able to hypothesise, to ask the vital question "what if?' that is the ability to invent musically, atrophied in these newly employed musicians, who were far too busy learning the repertoire and catching up with the latest imports to improvise and compose. The craving for and appreciation of the new gradually became replaced with a need to explore old repertoire and of historical awareness led by the new notion of musicology.

The new system's music educators formed their curricula to reflect the latest practice and therefore the performing curriculum was born that no longer included improvising or composing. At the beginning of the twentieth century, as state education formed across western society, the first experiments in teaching music within standard state-run schools took place, and followed the same model. By the middle of the century a music curriculum model had emerged both in Europe and the USA that placed the experience of performing at the centre of things together with listening to music; and new technologies began to allow this to happen in a school environment.

The 1963 Yale Seminar faulted performance-oriented programs for failing to increase the overall musicianship of the performing musician (Mark and Gary, 1992). Since then, music educators such as Leong (1999), Stowasser (1997), Odam (1995), Pratt (1990) and Priest (1989) have highlighted the inadequacies of traditional ear training approaches. Most music teachers would agree that the goal of polished performances has produced many musicians who merely acquired performance skills without the concomitant musical insight and understanding, and that the study of a musical instrument has not automatically produced musicians with highly developed perception skills (see McPherson, 1998; Serafine, 1988).

By omitting composing and improvising from music education programs and from the heart of its integrated instrumental teaching program, the essential element of *play* was also removed, turning the occupation of the musician into a completely work-bound and largely cerebral existence. Musicians had to learn only to do what they were told and to ignore what they felt, subsuming their personal reactions within the interpretation of directors or conductors, and to do this with the utmost efficiency. Many of the stresses and problems of current orchestral players seem to stem from this one factor (MCA Music Forum, 1998). Playing is a “life-skill, essential to our mental and physical development and well-being” (Odam, 1995, p. 110). But how do we resolve the tension of opposites between the western practice of performing historically fixed given material and the need for the true artist to *play*?

The Phenomenon, Paradox and Possibilities of Play

In the English language, and in many other European languages the word *play* has a variety of meanings. It is a potent word in so many languages signalling a vital aspect of human experience. Musicians often use the term to mean performing (eg, "which instrument do you play?"; "are you playing in tonight's concert?"; "he's a good trumpet player"; "she can play by ear"). Musicians also *play* together, an experience that calls for use of the word in two different but related aspects. In the best experiences, 'working together' becomes transformed into ‘playing together' and the two forms of activity coalesce. The effect of such a transformation and coalescence can only be felt and not properly captured in words. All musicians know how sometimes a working together can become a playing

together. The sense of fulfilment is not just of a job done, which is a work-related experience, but of actually having transcended the experience and connected with your fellow-beings – both musical performers and those who receive – in a manner that defines the experience of being human unlike any other. This experience, common to most if not all musicians at some moments of their life, is akin to religious ecstasy, and is one of the potent reasons why music and religion have been forever linked. It defines 'working and playing together' in a way that is difficult to reproduce in any other activity.

Such an experience is impossible to formalise and capture in any educational schemata. However, many music educators have been concerned to bring elements of *play* into their curriculum through creative activities. This was the original concern of Carl Orff in his early days as a dance accompanist, trying to find ways to release the musical imagination of dance students and to give them a playful control of the musical medium that otherwise dominated and controlled them. It was the motivation behind Murray Schafer's classroom work in Canada in the 1950s and in the work that Peter Maxwell Davies and John Paynter promoted in the UK. It has produced a completely newly balanced music education curriculum in the UK that is now producing tangible and fruitful evidence of the benefits of a 'playful' approach; and it has even affected the curriculum of conservatoires and universities, led by an initiative started at the Guildhall School of Music and Drama in London (GSMD).

For the last sixteen years the GSMD has been at the forefront of UK music educational experiment through its work that has become known as 'Performance and Communication Studies'. The Conservatoire was an unlikely setting for such a challenging experiment, led by Peter Renshaw with the composer Peter Weigold as Course Director. Effectively this course brought back elements of *play* into the conservatoire curriculum through its non-notation basis and its emphasis on developing the creativity of each of the participants in response to needs within the community in the City of London and its environs.

Peter Renshaw (2001) describes the experience thus:

> For over twelve years, the Guildhall Arts and Community Development Project... include[d] orchestral, jazz and electronic musicians, together with composers and music educators, all of whom are equipped to extend musical boundaries through improvisation and collective composition. Drawing on a wide range of musical influences (including classical, jazz, dance, pop, electro-acoustics, world music and studio production), these musicians have been a catalyst for developing an artistic identity and musical language that resonates with young people and community groups from different cultural backgrounds.
>
> Their work has been further enhanced through performances given by the closely associated 30-piece ensemble, i0, comprising a core of Guildhall staff, graduates and current students. All their activities, including workshops, concerts and community celebrations, are designed to unlock people's creativity and develop a feeling of shared ownership between participants. This helps to strengthen a sense of individual and collective identity, which is central to building up social cohesion in a local community. (p. 5)

In the last five years this work has become systemic within the institution, with all of the students on the current Bachelor of Music course undergoing work in this area. It has not been all roses, and students in certain departments within the conservatoire respond more immediately to the challenges of this work than do some of the others. The 'Performance and Communication Studies' at GSMD has been the chief inspiration for and given rise to a great deal of the education and communication work now undertaken by professional musical bodies in the UK. It has also led to the setting up of exchange links with the Amani

Ensemble of Tanzania whose musical basis, like that of all West African music, is essentially play-based. The musicians play their instruments, sing, use body percussion and dance as one unit. Their materials derive from the oral tradition and are constantly being repeated, imitated, transmuted, elaborated and varied according to the circumstance, mood, skills and needs of the performers and their participants. (Audience is an inappropriate word in this context). There is no real concept of composition in the western sense, yet all the time inventiveness is a fundamental and playful activity. There is little sense of end product in western performance terms but in every other sense the music fulfils a purpose within those who initiate and those who are on the periphery. The goal is satisfaction and personal fulfilment through participation and through being caught up in a form of human artistic endeavour that is far greater than the sum of its parts.

The practices described above embody the richness of *playing*, which is "a fundamental act of self-expression through which each individual grows and is a vital part of our learning process" (Odam, 1995, p. 110). *Play* is "essentially functionless, but has a pleasing effect"; it involves special signals and codes, and subjects rules to creative manipulation (*ibid*, p. 111). Other properties of *play* include its power to captivate its participants, the control vested in its participants and its voluntariness (Addison, 1991, 208).

For many students, however, music practice is perceived as a 'necessary evil' (eg. "I have to miss tonight's party because I need to practise for my flute exam tomorrow"), and/or merely an activity that is a way of passing the time (eg. "I pass my time playing around with themes at the keyboard"). In other words the term *play* is often used as a pejorative. Western society has historically misinterpreted St. Paul's notion of "put[ting] away childish things" (I Corinthians 13:11) in direct contradiction to his Master's description of the centrality of the childlike approach. Like sport, music can easily become work, losing its potency as a holistic human activity and devalues itself as a commodity to be displayed and sold in the commercial world that glorifies the achievement of goals and trophies.

Music education can be notionally active, and remain entirely passive in terms of thinking and creating. Physical activity without mentally creative activity is not truly active *musicing* (Elliott, 1995), for at the heart of musicing is thinking, feeling and doing. At its best, this leads to meaningfulness (Tait & Haack, 1984) and true valuing (Reimer, 1989). Without developing a holistic sense of meaning, value and play, far too many students have elected to drop out of music classes (see Lowe, 2001; Solly, 1986; Brown, 1985).

If one of the essences of *play* in music is invention and creativeness, then teachers must examine the balance of their curriculum, asking themselves how many elements of responsibility and personal decision-making, repeating, making, copying, decorating and varying they provide. This applies to both instrumental teachers in one-to-one and small class lessons just as much as it does to classroom teachers. While the building of improvisation techniques and the challenges and opportunities for both composing and the regular performing of those new works into teaching programs is important, a person-centred, playful and creative approach is particularly needed in instrumental teaching, where the inculcation of the exaggerated work-ethic is most apparent. Because *play* is essentially enjoyment and stops of its own accord once pleasure diminishes, one of the biggest challenge confronting instrumental teachers is the questioning of the common approach to the canon of the received repertoire. They need to remove the iconic reverence, test out theories of 'authenticism', and encourage students to approach the performance of standard repertoire as if composing or re-composing these themselves, rather than the de-composing that many are too often subjected to.

We in music need to re-learn from our sister arts of visual art and drama the vitality of reforming and reinterpreting. We need to put delight in discovery, personal expression and

fulfilment back into the centre of our musical art that is in danger of becoming increasingly re-productive and preservationist. Performers and their teachers need to learn from conservationists and museum designers how to do it well and how to create an environment in which audiences will flourish and grow rather than inexorably diminish, which is presently the case. Lively, engaged and even smiling faces need to return more often to audiences in the classical concert hall. We need to reinstate the experience of being on the edge of your seat and in the presence of something living, such as was experienced by the audiences at the first performances of the piano concertos of Beethoven, vividly researched and described in *The Last Master* (Suchet, 1998).

When we are inwardly dependent, then tradition has a great hold on us; and a mind that thinks along traditional lines cannot discover that which is new. By conforming we become mediocre imitators, cogs in a cruel social machine. It is what we think that matters, not what others want us to think. When we conform to tradition, we soon become mere copies of what we should be. This imitation of what we should be breeds fear; and fear kills creative thinking. Fear dulls the mind and heart so that we are not alert to the whole significance of life; we become insensitive to our own sorrows, to the movement of birds, to the smiles and miseries of others.

The growth of *play* possibilities in music and therefore, creative opportunities, made available through new technology is vast. The popular music industry is, indeed, popular mostly because the element of *play* is paramount and often overwhelming. The vast opportunities opened up to both classroom and studio-based teachers are only beginning to be grasped. One of the essences of this development in music is the challenge that it has provided to the printed word and printed note. It has created an awareness amongst many fine professional musicians that western staff notation is limiting and can be anti-creative. Western music notation has produced an enormous and wonderfully varied repertoire, rivalling the great achievements in literature, architecture and sculpture of the Ancient Classical World. But it inevitably produces only certain kinds of music and therefore severely limits composing vision and consequently the adventure of performance. It is inapplicable to the music of other world cultures, and is, as many music ethnologists have found, inimical to them.

Now that the Age of the Eye/Book is passing, musicians and music educators have the greatest opportunity to harness the powers of what is newly offered and available to reinstate *play* at the heart of the musical experience. This is already happening amongst music-makers of the younger generations all over the world, across cultural and racial boundaries. In the nineteenth century the mass manufacture of keyboard instruments was at the forefront of the spread of western culture, and in the twenty-first, the keyboards are attached to computers. In the Age of the Ear, new skills are needed, enhancing musical memory and aural acuity that is the basis of working with new technology and integrating the thinking and the feeling processes.

Conclusion

The way in which the practice of our western classical music has evolved has diminished or entirely removed essential elements of *play* from common music educational practice. Adherence to notated texts has produced, and still produces large numbers of specialist performers and specialist composers who can only operate through those texts. In the worst cases it has numbed aural imagination and down-graded the development of musical memory that is central to the development of a musical imagination. It has fixed the practices of the last three centuries so that adherence to tradition is in danger of producing too many classically-trained performers who have little or no experience of inventing, re-inventing and creating music for themselves and who can approach it only as a "given". Specialist composers who use only traditional music notation may find their

imaginations narrowly channelled, constricted by the inefficiencies and idiosyncracies of notation. They may also find that there is a danger of the eye leading the ear. Teachers need to be aware of the need to educate the aural imagination of their pupils and to encourage them to develop fine aural discrimination and to enhance their musical memories, balancing their programs and providing holistic experience.

Computer-based music technology is at present largely operated through the application of fine aural skills and demands high levels of aural discrimination, imagination, memory and the ability to create and solve musical hypotheses. In order to prepare all musicians for an ever-developing and ever-changing music market, their teachers need to provide them with these skills, that area more than ever needed to make music in the new century. All music students need to explore and use the tools of new technology with ease so that they become the agents for new thinking and creative endeavour in all musical arenas. New performing and composing parameters, techniques and challenges will continue to present themselves as new techniques and media are invented.

We are not arguing that the 'baby must be thrown out with the bath water'. Many music educators of all kinds have already made these discoveries for themselves, encouraging their students to learn to 'play' in the best sense of the word, and providing insights into the inner workings of music. This may be found in the best individual teacher's studio practice that finds ways of stimulating the decision-making and inventiveness of their instrumental pupils, developing them as sensitive artists rather than merely as efficient technicians. It can be found in the higher education music courses that are concerned about, encourage and teach for creativity in all their disciplines. It will be enlivened and enhanced most by those teachers who carefully analyse the skills needed for success in utilising new technology to make new music and to capture performance. The skills are largely aurally-based.

Evidence will also be found in the best education practices of orchestras, ensembles and companies who are prepared to rethink performance practices, reaching out to their present audiences and vigorously creating new ones. Presentation and communication skills are needed as well as preservation and conservation skills. All this will ensure that old paths can be re-paved, cleared of weeds and made the highroads for new adventurers in music. The essentials of *play*, ie. the elements of personal responsibility, individual expression, and enjoyment must be at the heart of the best music education practice. This applies most specifically to the higher levels of education and training for the profession in universities and conservatoires. As music educators with music in our hearts and with the promotion and best practice of music as our priority, we must do all we can to avoid perpetuating a potentially tired, burnt-out music profession. We must relieve some of the worst stresses and strains of performers and rethink traditional performance practices, revitalising them with 'playful' thinking, feeling and doing.

REFERENCES

Addison, R. (1991) 'Music and play'. British Journal of Music Education, 8(3), 207-218.

Beckstead, D. (2001) 'Will technology transform music education?' Music Educators Journal, 87(6), 44-49.

Brown, J.D. (1985) The Gemeinhardt report II. Elkhart: The Gemeinhardt Company.

Elliott, D. J. (1995). Music matters: a new philosophy of music education. New York: Oxford University Press.

Leong, S. (1994). Music education: a Singaporean/Western Australian perspective. In

M. Comte (ed.). Music education: international viewpoints. ASME monograph series No. 3. Perth, Australia: Australian Society for Music Education and the Callaway International Resource Centre for Music Education.
Leong, S. (1999) Opening the Musicianship Umbrella. In Jeanneret, N. & Marsh, K. (Eds.), Opening the umbrella: an encompassing view of music education. Proceedings of the 1999 ASME National Conference, University of Sydney. Sydney: Australian Society for Music Education.
Lowe, G. (2001) Task design and student attitudes towards class music: a study of Year 7 music students in an English National Curriculum context. Unpublished Master of Music Education thesis, The University of Western Australia.
Mark, M.L. & Gary, C.L. (1992). A history of American music education. New York: Schirmer Books.
McPherson, G. (1998). Musical performance: providing instruction that is balanced, comprehensive and progressive. In C. van Niekerk (ed.). Ubuntu: music education for a humane society. Conference Proceedings of the 23rd World Conference of the International Society for Music Education. Pretoria, South Africa: International Society for Music Education.
Music Council of Australia (1998) 'How orchestral musicians suffer: an international survey'. Music Forum, 4(5), 5-8.
Odam, G. (1995). The sounding symbol: music education in action. Cheltenham, UK: Stanley Thornes Publishers.
Pratt, G. (1990). Aural awareness: principles and practice. Milton Keynes: Open University Press.
Priest, P. (1989). Playing by ear: Its nature and application to instrumental learning. British Journal of Music Education, 4(2), 115-137.
Reimer, B. (1989). A philosophy of music education. 2nd ed. Englewood-Cliffs, New Jersey: Prentice-Hall.
Renshaw, P. (2001) 'Music Cultures in the 21st Century: Globalisation and Local Identities'. Paper presented to the UNESCO International Music Council Symposium Tokyo, Japan.
Serafine, M. L. (1988). Music as cognition: the development of thought in sound. New York: Columbia University Press.
Shehan-Campbell, P. (1991) Lessons from the world. New York: Schirmer Books.
Small, C. (1996) Music, society, education. London: Wesleyan University Press.
Solly, B. (1986) A study of attrition from the instrumental music program in moving between grade levels in Cherry Hill, New Jersey. Unpublished doctoral dissertation, Temple University, Philadelphia.
Stowasser, H. (1997). New sounds for a new humanity. In E. Gifford, A. Brown, & A. (eds.). New sounds for a new century. Brisbane: Australian Society for Music Education (Qld) Inc.
Suchet, J. (1998) The last master. New York: Warner Books.
Tait, M. & Haack, P. (1984) Principles and processes of music education. New York: Teachers College Press, Columbia University.

samspel

ASSESSMENT, TECHNOLOGY AND TEACHER TRAINING - An Assessment Instrument Incorporating the Use of Technology for University Preservice Music Education Students

Catherine A. Mallett – cmallett@ku.edu
The University of Kansas – USA

Abstract
This exploratory study developed and piloted an assessment instrument that incorporated the use of technology. Four music teachers and the researcher developed the instrument and an accompanying website of teaching examples. Seven music education students videotaped, assessed and edited examples of their practicum teaching using the assessment instrument and website. Comparisons of edited videotapes completed early in the practicum and at the end indicated differences in the amount and quality of self-reflection. Based on those differences, it appeared the use of technology embedded within the context of music teacher training enhanced student reflection and assessment.

An Assessment Instrument Incorporating the Use of Technology for University Preservice Music Education Students

In the School of Music at the University of Nebraska–Lincoln (UNL) the music education faculty recently implemented a revised curriculum. Inherent in this revision was the acknowledgement that university preservice music education students benefit most from music methods classes that are presented within the context of "real" practica experiences in the schools. During the curriculum revision process at UNL, music teachers in the schools who had served as cooperating teachers for various practica and student teaching experiences were asked for their insights and suggestions regarding the feasibility of providing extensive practica opportunities. As a result, music education students at UNL now complete four teaching practica in the schools that are embedded within various blocks of method classes before their final semester of student teaching.

The music education department at UNL also determined that the role of technology in music teacher preparation needed to be more fully explored. It was believed that finding ways of incorporating technology within music methods classes and practica would provide additional insight into the teaching process while providing a model for using technology in music teaching and learning. In recent years the School of Music website has provided materials to cooperating teachers who have worked with UNL students in the schools. Both the teachers and the UNL students have been encouraged to communicate via Email with university faculty and supervisors. Such uses of technology have been extremely successful in increasing the amount and quality of communication between teachers, practica students and university faculty.

It was suggested by a number of experienced cooperating teachers that the information regarding the competencies required and expected of the university students for the various practica should be included in the website. Specifically, the addition of visual examples of representative teaching activities for each practicum was recommended. In addition to the teachers, it was noted that university students and teacher educators would

also benefit from this information. University methods professors would be able to show visual examples to students who could initiate self-assessment at anytime during the practicum. Consequently, the assessment of teaching competence would become more systematic and consistent.

Therefore, the purpose of this exploratory study was to determine and identify examples of exemplary elementary general music teaching that would help cooperating teachers, music education students and supervisors *see* what is expected during fieldwork. It was also important that the visual examples coincided with a written assessment instrument that clearly identified the competencies to be observed and assessed. The following specific objectives were identified for this project:

1. Identification of observable elementary general music teaching competencies based on the National Standards for Music (Music Educators National Conference, 1994) and specific general teaching competencies (e.g., planning, classroom management) and the incorporation of those competencies into a written assessment instrument.
2. Procurement of exemplary visual examples for a website to be used in conjunction with the above competencies.
3. Availability of the assessment instrument and website visuals provided to practicum students, cooperating teachers and university supervisors.
4. Technology training provided to the practicum students regarding the compilation of a DVD videotape on which they would reflect and assess their teaching.
5. Pilot testing of the assessment instrument with website visuals.
6. Comparisons of teaching videotapes obtained early in the practicum and at the end.

Method

Participants

Four elementary music teachers worked with the researcher to develop the observational assessment instrument. The teachers were asked to participate because of their work as cooperating teachers and their years of teaching experience. They were also chosen because they were considered master teachers who had taken leadership roles in various music teaching organizations (e.g., Orff, Kodaly). The one male and three female teachers had taught in a variety of school districts (e.g., rural, suburban, urban) and had ten to twenty years of teaching experience.

Seven university music education students enrolled in a junior level general music methods class also participated in the study. The professor for the general music methods class in which the practicum students were enrolled served as the university supervisor for the project. Four cooperating teachers (3 female and 1 male) who taught in the local school district agreed to provide the practicum placements for the university students. The teachers were asked to participate because of their teaching abilities, experience and willingness to work with university practicum students. Additional participants included a test consultant, website developer and technical assistance from the UNL College of Fine Arts.

Assessment Instrument

The assessment instrument (see Appendix) was based on observable teaching competencies derived from the following National Standards for Music: (a) singing; (b) performing on instruments; (c) improvising; and (d) reading and notating music. General teaching competencies also identified were: (a) classroom management; (b) planning; (c) assessment of students; (d) enthusiasm for teaching; and (e) professionalism. For the various subcategories of each Standard the students were rated as demonstrating the identified competencies on the following scale: (a) most of the time; (b) some of the time; or (c) hardly at all. In addition to those ratings, an overall rating of “emerging,” “developing,” or “progressing” for each Standard was also indicated.

Website

In conjunction with the written assessment a website was developed with visual examples of exemplary teaching for each of the Standards included on the instrument (see: http://www.tc.unl.edu/dschmit/mallett/). The website also included examples of teaching that were designed to stimulate discussion regarding the differences between "good" and "exemplary" music teaching.

Equipment

The following equipment and facilities were used:

1. Apple iBook laptop computer and iMovie 2 computer software
2. Two Canon ZR-10 cameras with accompanying tripods and dollies
3. Two microphones and stands and four body microphones and receivers
4. DVD videotapes, extension cords, firewires, batteries, cables and equipment bags, and
5. Use of the UNL Music and Technology Lab.

Procedures

Financial support for this study was received from the Nebraska Department of Education PT3 Catalyst Grant Project. The purpose of these federal grants is to develop projects that focus on the use of technology in university teacher preparation programs. Support from the grant provided equipment, technical support and the expertise of a test consultant. Permission to proceed with the study was received from the University of Nebraska Institutional Review Board. All of the participants signed informed consent forms. Permission was also obtained from the school districts and the individual practicum school sites based on parent/legal guardian consent forms.

Phase I: Instrument and Website Development. Over the course of a semester the four elementary music teachers who agreed to participate in the development of the assessment instrument met with the researcher several times. During those meetings the teachers were encouraged to discuss, suggest and determine those competencies they believed were most necessary for successful teaching in an initial elementary general music practicum. The only criterion given was that the National Standards for Music would serve as a reference for determining the observable teaching behaviors. The researcher purposefully avoided giving additional suggestions or guidelines to the teachers. This approach was intentional because the researcher wanted the instrument to reflect the perspectives of the teachers. At the end of the semester a draft was sent to a test consultant who provided suggestions and comments regarding the format and usability of the instrument.

After determining the content of the assessment instrument the researcher videotaped the teachers in order to obtain visual examples for the website to be used in conjunction with the written instrument. The researcher worked with a technology consultant who developed and prepared the website for use. A technology resource person assisted in ordering and obtaining the equipment needed to complete the project.

Phase II: Pilot Project. During the following semester the assessment instrument and accompanying website were piloted. Eight university music education students enrolled in a general music methods class that included a five-week practicum in the schools were asked to participate. The students were placed in elementary general music classes for one hour a day five days a week. Of those eight, seven completed the project. The students (four female and three male) had completed an introductory practicum in the schools the previous year and, in general, did not have extensive experience teaching young children. Approximately half of the students indicated they had worked on various projects in the music technology lab on a regular basis. The others expressed some apprehension regarding the level of technical expertise they would need to participate in the study. The

students were assigned to the practicum schools in pairs in the following manner: (a) female and male, and (b) a student with a background in technology with one who expressed concern regarding the technical requirements of the project. The students were assured their grades for the class or practicum would not be affected by their participation in the study.

The students were asked to attend an information and training session. During that session they were given specific information regarding the purpose of the project and how they were to use the assessment instrument and website examples to reflect on their teaching. They were also trained to use the iMovie computer program to edit their teaching examples (Apple Computer, 2000). In a subsequent session they were shown how to use the taping units, which included a camera, tripod, dolly and microphones. The students were instructed to videotape each other and to rely on their partners for both technical assistance and additional observations regarding their teaching.

After the university supervisor secured the practicum placements the researcher contacted the cooperating teachers and elicited their collaboration. The assessment instrument and accompanying website information were provided to them along with a timeline for completion of the study.

The researcher met with the practicum students after receiving and viewing the videotapes recorded during the second week of the practicum. The purpose of the meeting was to share preliminary observations and to elicit comments from the students regarding the assessment instrument and taping experiences. The cooperating teachers and university supervisor were also contacted and asked to provide their assessments and any additional feedback they considered pertinent. During the last week of the practicum the students recorded and assessed their teaching again. Final assessments were also received from the cooperating teachers. After comparing and analyzing the final videotapes and assessment instruments to those completed earlier in the practicum, the researcher met with the students, the teachers who developed the assessment instrument and the university supervisor. The purpose of the meetings was to obtain their comments regarding the preliminary findings of the study.

Results

Written Assessments and Edited Videotapes: Week 2

The written assessments provided after the second week of the practicum by the university students, cooperating teachers and university supervisor were compared and contrasted to gain information regarding the use and applicability of the instrument in providing feedback. The students used the assessment sheets in conjunction with watching their videotapes and reflecting on their classroom experiences during the first two weeks of the practicum. All of the students indicated that of the teaching activities listed on the instrument, teaching songs and pitch matching were the primary activities in which they were engaged. In general, they rated their abilities to model appropriate singing and teach songs as evident "most of the time." However, three of the students indicated their singing accuracy was apparent "some of the time." These observations were corroborated by the examples and comments included on their edited teaching videotapes.

Although the ability to teach songs and match pitch was a primary focus for all of the students in their practicum settings, four indicated they were also teaching classroom instruments. Overwhelmingly, the students rated their abilities in this area as evident "most of the time." Four students also indicated they were teaching improvisation. The most common activities noted were clapping/playing echo patterns and the use of solfege. The students engaged in these activities also marked they were successful teaching them "most of the time." Only three of the students were teaching music reading and notation on a regular basis. The ratings they gave themselves were a combination of "most of the time," "some of the time," and "hardly at all." With regard to general teaching competencies

(e.g., classroom management, planning, etc.) the students consistently rated themselves as demonstrating such abilities "most of the time."

During a meeting with the researcher the students suggested that the instrument worked best as a planning organizer because it provided a list of teaching "reminders" to which they could refer. Specific comments included, "It's helpful to see just how often we do or say the same thing during a lesson . . ." and "Very specific things to evaluate, split up into categories. It was helpful to have examples/explanations given under each point." The following comment appeared to summarize their assessment of the instrument's format and rating levels:

> This is a big form . . . could it be more efficient (or at least smaller!)? The rating system was too vague, and there should be something higher than "most of the time." To me, the words "emerging, developing and progressing" all mean about the same thing. I don't feel like the definitions given reflected my idea of what those words would mean.

The university supervisor observed each student and used the assessment instrument during the observations. In concurrence with what the students had reported, the supervisor primarily observed the students teaching songs. In general, the supervisor reported the students exhibited the identified teaching behaviors for appropriate singing and song teaching "most of the time." In conjunction with some of the student observations, the supervisor indicated four of the students demonstrated singing accuracy "some of the time." The supervisor indicated the students demonstrated competencies associated with planning, enthusiasm for teaching and professionalism "most of the time." For classroom management and assessment of students, half of the practicum students were rated as exhibiting those abilities "some of the time."

In addition to receiving written assessment instruments the researcher elicited comments and suggestions via Email and phone contact from the cooperating teachers. The majority of the teachers' observations were also based on the students' abilities to teach songs and model good singing. In general, they rated abilities in those areas of teaching as evident "most of the time." They agreed with the students that the rating levels were difficult to determine. The teachers also stated that the form was most useful as a reminder of good teaching. The following comment reflected the collective view of the teachers in this regard:

> The inclusion of the National Standards in the assessment tool works very well because it demands that the students focus on what is most important to teach. This approach will give young teachers a better idea of how to manage instructional time more effectively.

The students' videotapes indicated that their primary concern at this point in the practicum was how they looked, sounded and appeared in front of the class. However, it was also evident they had watched and identified various aspects of their teaching in relation to those listed on the assessment sheet. During a meeting with the researcher the students discussed how they had carefully watched and reflected about their teaching on the videotapes because of the required editing process. Unlike previous videotaping assignments, they admitted they had to thoughtfully process and prepare the videotapes rather than rely on memory.

Final written Assessments and Edited Videotapes

The final written assessments of the students revealed little change in their ratings. However, they did write more comments that included specific insights regarding not only what they needed to do to improve as teachers, but how:

> Make sure that the students are focused on *reading* rhythms and *not guessing* them! Maybe change how I introduce them before we start? Make sure you give *all* starting pitches and sing *some* in falsetto.
>
> Having them write their own rhythms on their piece of paper really reinforced things for them. The next time I taught, I modified so that not every kid's name went on the

board so it didn't take so long! And I gave them choices based on their syllables. That worked much better for the class.

Although their ratings did not change much from their earlier assessments, the cooperating teachers also included more written comments that focused on specific aspects of the students' teaching. In particular, they commented on general teaching competencies and made suggestions regarding the preparation of the practicum students:

> With this practicum the students need to have more feedback on *general instructional techniques* and *planning activities* that will engage the students in the lesson. They seem to have a good grasp of musical knowledge, but they need practice on being creative in structuring lessons and *delivering* the material. Perhaps this tool can reflect those needs.

Comments regarding the application and use of the assessment instrument included, " I think the format is quite clear. I am curious about why this was limited to Standards 1, 2, 3 & 5?" and "The form doesn't address movement or listening." and "Perhaps there should be 4 categories? 'All of the time,' 'Most of the time,' 'Some of the time,' ' Hardly at all.'"

The students' final edited videotapes revealed a shift from focusing on them to focusing on the children they were teaching. In general, their examples emphasized what the children could or could not do in relation to specific lessons or activities, instead of on behavior (e.g., talking, not paying attention). The students' reflections used terms such as modeling, process, modification and assessment more often and in appropriate contexts. In a subsequent meeting with the researcher, the students noted that making the videotapes helped clarify their overall understanding of the teaching process. They also indicated that referring to the assessment sheet and website examples while editing the videotapes was helpful. The students agreed that the use of technology enabled them to focus on those aspects of their teaching that needed improvement the most. They concurred that the project had provided valuable experience with technology and that they were looking forward to more opportunities to use what they had learned.

Discussion

The development of systematic approaches for identifying and observing effective music teaching behaviors has received much attention from various music educators and researchers (Bowers, 1997; Duke & Blackman, 1991; Froehlich, 1995; Madsen & Yarbrough, 1985; Price, 1992; Yarbrough & Price, 1989). According to Sink (2002):

> During the past 30 years, numerous studies have contributed to understanding the applications of the principles of behavioral psychology to music education . . . Many of these studies have been designed to systematically observe identifiable components of music instruction, control specific teaching behaviors, and determine effects of teacher behaviors on student attentiveness, attitudes, and at times, achievements. (p. 315)

The primary purpose of this exploratory study was to develop and pilot an assessment instrument based on observable teaching behaviors. According to the students and cooperating teachers who participated in this project the assessment instrument appeared to be most useful as a planning check sheet. All agreed that having the teaching competencies clearly identified and explained was extremely beneficial. The teachers in particular expressed gratitude for knowing "up front" what was expected of the students and how they had been prepared to teach. However, specific comments regarding the format of the instrument indicated the rating levels were not clear and difficult to interpret. In order to clarify the rating levels, future users of the instrument will be asked to count how many times they observed the various teaching behaviors during a specific lesson or activity. After compiling the results the researcher may be able to identify ranges for the different rating levels. For example, "most of the time" may indicate the observed teaching behavior occurred five to seven times during the lesson. Based on those ratings it may also

be possible to develop ranges for the overall ratings of each Standard. Consistent rating levels would enable the researcher to focus on the reliability of the instrument using more quantitative methods.

In addition to developing the written assessment, this project also emphasized the use of technology. The role of technology in music teacher education programs is a more recent focus of music educators. Bauer and Daugherty (2001) suggest that a constructivist approach to using technology in music education classes emphasizes "that the best way for students to gain appropriate technological skills is for them to experience and use technology, not under a separate agenda, but as part of their own knowledge construction" (p. 28). All of the students in this project indicated they enjoyed and would continue to use the iMovie program. Even those who expressed some initial apprehension were enthusiastic about the possibilities of using such programs in their music classrooms. These results support the approach proposed by Bauer and Daugherty regarding the inclusion of technology within the context of music education classes.

The videotaped examples provided by the students in this study showed an increase in both the amount and quality of their self-reflections and assessments. Therefore, it would appear further refinement of the assessment instrument and website examples are warranted. One of the teachers who helped develop the assessment instrument suggested some of the "before" and "after" teaching examples provided by the practicum students should be added to the website. The students agreed that watching peers would make the examples more interesting and relevant.

Significance of the Study

University students studying to become school music teachers have been exposed to the use of technology throughout their educational experiences. As a result, their learning styles and strategies have been greatly influenced by technology. However, the degree to which technology has been used to facilitate their abilities to teach music is not clear. What is evident is that as music teachers they will be *expected* to use technology to facilitate their students' musical learning. This study provided information toward the development of a model for embedding technology within a music teacher preparation program that does not require technical expertise, equipment or facilities beyond the means of most institutions. In addition, because this project evolved from the successful use of technology to enhance communication and understanding, a primary focus should remain on the potential of technology to strengthen the human connections among all those involved in music teacher education.

References

Apple Computer, Inc. (2000). iMovie 2 [Computer software].

Bauer, W. I. , & Daugherty, J. F. (2001). Using the internet to enhance music teacher Education. *Journal of Music Teacher Education, 11*(1), 27-32.

Bowers, J. (1997). Sequential patterns and the music teaching effectiveness of elementary education majors. *Journal of Research in Music Education, 45*(3), 428-443.

Duke, R. A. , & Blackman, M. D. (1991). The relationship between observers' recorded teacher behavior and evaluation of music instruction. *Journal of Research in Music Education, 39*(4), 290-297.

Froehlich, H. C. (1995). Measurement dependability in the systematic observation of music instruction: A review, some questions, and possibilities for a (new?) approach. *Psychomusicology, 14,* 182-196.

Madsen, C. K. , & Yarbrough, C. (1985). *Competency-based music education.* Raleigh, NC: Contemporary Publishing Company.

Music Educators National Conference. (1994). *The school music program: A new vision.* Reston, VA: Author.

Price, H. E. , (1992). Sequential patterns of music instruction and learning to use them.

Journal of Research in Music Education, 40(1), 14-29.
Sink, P. A. (2002). Behavioral research on direct music instruction. In R. J. Colwell & C. Richardson (Eds.), *The new handbook of research on music teaching and learning*: *A project of the music educators national conference* (pp. 315-326). New York: Oxford University Press.
Yarbrough, C. & Price, H. E. (1989). Sequential patterns of instruction in music. *Journal of Research in Music Education, 37*(3), 179-187.

Appendix

Observational Music Teaching Assessment Instrument

Cooperating Teacher_____ **Date**_____

University Supervisor_____ **Date**_____

Practicum Student_____ **Date**_____

Please check the appropriate boxes to indicate the degree to which the practicum student demonstrates the teaching competencies as listed for each of the National Standards and the General Teaching Competencies. If specific competencies are not observed, write NOT OBSERVED in the corresponding comment areas. Provide comments as needed. Also indicate an overall rating for each of the Standards and the General Teaching Competencies based on the following:

1. Emerging: demonstrates minimal competency and has limited success with the children.
2. Developing: demonstrates basic competency and is somewhat successful with the children.
3. Progressing: demonstrates competency consistently and is generally successful with the children.

Standard 1	**Singing Model**	**Singing Accuracy**	**Song Teaching**	**Song Accompaniment**	**Other?**
Singing alone and with others a varied repertoire of music.	•Model's a child's voice •Sings in falsetto (male) •Uses appropriate ranges •Uses expression, dynamics, and appropriate diction	•Sings note values/rhythms accurately •Gives consistent and accurate beginning pitch and tempo cues	•selects and develops singing activities based on appropriate songs and literature •Uses an appropriate note reading system •Uses an appropriate rhythm reading system •Uses a variety of song teaching techniques	•Uses instrumental accompaniment appropriately (e.g., piano, autoharp, recorder, etc.) •Uses appropriate recordings	
Most of the time	☐	☐	☐	☐	☐
Some of the time	☐	☐	☐	☐	☐
Hardly at all	☐	☐	☐	☐	☐
Comments					

Overall rating	Emerging ☐	Developing ☐	Progressing ☐

Standard 2	**Instruments Modeled**	**Instrument Teaching**	**Other?**
Performing on instruments, alone and with others, a varied repertoire of music	•Can play and teach non-pitched percussion, barred instruments, and soprano recorder	•Transfers short rhythmic/melodic patterns via body percussion and/or speech to instruments •Uses materials that are age/developmentally appropriate, and represent a variety of cultures •Uses a variety of teaching methods/techniques •Teaches sequentially •Uses keyboard/recording accompaniments appropriately	
Most of the time	☐	☐	☐
Some of the time	☐	☐	☐
Hardly at all	☐	☐	☐
Comments			

Overall rating	Emerging	Developing	Progressing
	☐	☐	☐

Standard 3	**Improvisational Models**	**Improvisation Teaching**	**Other?**
Improvising melodies, variations, and accompaniments	•Uses question/answer phrases •Uses rhythmic/melodic ostinati •Uses rhythmic/melodic variations •Uses short melodies and/or patterns	•Uses voice/body percussion •Uses pitched/unpitched percussion instruments •Uses wind instrument (e.g., soprano recorder) •Uses materials that are age/developmentally appropriate, and represent a variety of cultures, styles, and techniques	
Most of the time	☐	☐	☐
Some of the time	☐	☐	☐
Hardly at all	☐	☐	☐
Comments			

Overall rating	Emerging	Developing	Progressing
	☐	☐	☐

Standard 5	**Music Readinig**	**Music Notating**	**Other?**
Reading and notating music	•Uses a notation system (e.g., solfege, rhythm syllables, numbers, letters, icons) •Uses sequential activities for developing music reading skills •Uses notational examples that represent a variety of sources and cultures	•Provides opportunities for reading/writing rhythms independent of melody •Provides opportunities for reading/writing melodies independent of rhythm •Provides opportunities for reading/writing rhythmic and melodic combinations	
Most of the time	☐	☐	☐
Some of the time	☐	☐	☐
Hardly at all	☐	☐	☐
Comments			

Overall rating	Emerging	Developing	Progressing
	☐	☐	☐

General Teaching Competencies	**Classroom Management**	**Planning**	**Assessment of Students**	**Enthusiasm for Teaching**	**Professionalism**
	•pacing, monitoring, etc.	•prepared, organized, appropriate materials/activities/ sequential, etc.	•ability to adapt as needed, consistent, etc.	•engages and enjoys students, inclusive, etc.	•appearance, attitude, etc.
Most of the time	☐	☐	☐	☐	☐
Some of the time	☐	☐	☐	☐	☐
Hardly at all	☐	☐	☐	☐	☐
Comments					

Overall rating	Emerging	Developing	Progressing
	☐	☐	☐

Please make any comments or suggestions you may have regarding this assessment instrument:

What worked well?
What should be changed or modified?
Other?

Thank you for taking part in this project.

Please return to:
Return by:

samspel

ACROSS VIRTUALITIES AND REALITIES: THE ROLE OF AUDIOVISUAL MEDIA IN SONG ACQUISITION AND PRESERVATION IN OUTBACK AUSTRALIA

Kathryn Marsh – kmars@mail.usyd.edu.au -
Sydney Conservatory of Music, Australia

Within the global realm of music education we are confronted by virtual and real distances which are manifested in a number of ways. Local, regional and national settlements are separated by spatial distance. Cultural distance can also be identified between national groupings of people and between different subgroups within communities, determined, for example, by age and ethnicity. Time may also be constituted as a form of distance, with musical traditions from previous eras being preserved, changed and sometimes lost in the process of transmission within a framework of changing social and political conditions.

This paper discusses the role of audiovisual media in the negotiation of forms of spatial, cultural and chronological distance in relation to the learning and transmission of songs by children in a number of locations in Australia. More specifically, it examines the use of audiovisual technologies in assisting with the preservation and dissemination of traditional songs, games and languages of the indigenous Aboriginal people in collaboration with Aboriginal communities in remote parts of central Australia.

Background

Several major contemporary approaches to classroom music education, those initiated by Carl Orff and Zoltan Kodály, are based on assumptions regarding the 'universal' nature of children's playground singing games and chants. From 1990 to 1996 I conducted an ethnomusicological study (Marsh, 1997) which involved the audiovisual recording of more than 600 performances of playground singing games and concurrent interviews with their performers in a multiethnic Sydney primary school to establish features of the music, text and movement, their interrelationship and their meaning to the performers. This study was undertaken in order to examine assumptions regarding the nature of children's playground singing games and chants and the underlying paradigms of musical evolutionism and universalism which continue to influence contemporary music education practices, despite profound changes to the sonic environment in which children now play and learn. In this context, the influence of material acquired from the media and the classroom and the effects of immigration on singing game repertoire and performance practice were also examined.

The study found that children consistently generated new variants of games using formulaic construction methods in accordance with theories of oral transmission (Edwards & Sienkowicz, 1990; Lord, 1960; Ong, 1982; Treitler, 1986). In their quest for innovation, children drew upon textual, musical and movement resources from their environment, including those provided by television and other audiovisual media, and by children from a variety of ethnic groups. While some international studies indicate culture-specific forms of musical play focussing on normative behaviour (Campbell, 1991; Harwood, 1992; Merrill-

Mirsky, 1988), this study showed that children in the focus playground were actively engaged in cross-cultural exchange of games.

Findings have been disseminated in publications pertaining to a range of disciplines. However, the study, though extensive, was limited in its single context, that of a multiethnic school in a large city. In order for findings to be generalised to any degree, there was a need for a larger comparative study to be undertaken.

Although aspects of cross-cultural and media-influenced transmission of games have been reported on a limited basis in other contexts (Curtis, 2000, Doekes & van Doorn-Last, 1993; Harwood, 1994) there has been little research undertaken in this area, either in Australia or internationally. In particular, while studies of Australian Aboriginal children's play exist (for example Berndt & Berdt, 1952; Haagen, 1994; Johns, 1999; Woenne, 1973), there has been no recent research into the musical play of Aboriginal children. Kartomi's (1980, 1981) studies of Aboriginal children's musical play in remote non-school settings in 1969 show evidence of bicultural influences, including song material transmitted through the media but no further studies in this area have been undertaken.

In 2001 I commenced a study of the musical play practices of Aboriginal and non-Aboriginal children in several contrasting school settings in the vicinity of Tennant Creek, in a remote region of central Australia. The aims of this study were multiple. Firstly, it would enable comparison between the characteristics of Aboriginal and non-Aboriginal children's playground games in these settings and the characteristics of children's playground games identified in the Sydney study (Marsh, 1997) in relation to transmission, generative practices, musical, linguistic and kinesthetic features and influence of the media and other adult sources. Secondly, results would be used to inform music education practice and to challenge pedagogy which is based on limited and culture-specific assumptions regarding children's learning in music.

However, in initiating this study, I was also mindful of the timely message of Nyomi (2001), reflected in the recent work of many ethnomusicologists (for example, Feld, 1994), that researchers from affluent western countries have an ethical obligation to work collaboratively with members of less economically powerful communities both to provide a public voice for the culture-bearers of their traditions and to facilitate reciprocal exchange of knowledge which will assist in the preservation and dissemination of cultural traditions within these communities for their own benefit. Therefore, the study has aimed to provide information of value for members of the Aboriginal communities in the selected locations. It is intended that collected game material and information pertaining to game traditions may be used by the Aboriginal Language and Culture Centre in this locality to assist with language and cultural maintenance programs in the schools and by teachers to create child-focussed music and language programs. Moreover, the study may show ways in which Aboriginal and non-Aboriginal children negotiate cultural difference in playground settings, such techniques having possible application within the classroom and wider community.

The Project in Context

Ethnographic fieldwork commenced in June, 2001, with video and audio recording of children's play interactions in the playground of selected schools and recording of other significant school events. This was supplemented by unstructured interviews concerning play practices, conducted with children in the playground and with school teachers and other adult community members. Also recorded were discussions with Aboriginal elders regarding remembered traditional play practices, with the assistance of Aboriginal community language translators where necessary. In addition, field notes were compiled by the researcher as a non-participant observer.

The field sites included schools in two small towns, Tennant Creek and Elliott. These schools were selected for variety in relation to the extent to which Aboriginal and non-Aboriginal children are represented in the population; in the languages spoken at home and in the school; in school size and facilities and in relative ease of access of the population to media sources. Tennant Creek was also chosen because of a relationship previously established between the researcher and members of the Aboriginal community associated with the local Aboriginal language and culture centre, through ongoing work on Warumungu culture by affiliated linguists and ethnomusicologists. This association enabled appropriate permission to be obtained from the relevant Aboriginal communities and created some points of initial personal contact.

Tennant Creek, with a population of 3500 people, is the fourth largest settlement in the Northern Territory, the most remote and sparsely populated state of Australia. The town, at the edge of the Tanami Desert, is located on the Stuart Highway which links Alice Springs, the nearest city 511 kilometres to the south, with the city of Darwin, approximately 1000 kilometres to the north of Tennant Creek. Built on land traditionally owned by the Warumungu Aboriginal people, the town developed as a result of white pastoral and mining interests, although tourism is now a significant industry. There are seven Aboriginal camps on the edge of the town and many Aboriginal people live within the town itself.

Tennant Creek Primary School is a school of approximately 300 students aged from five to twelve years, with equal numbers of non-Aboriginal students and Aboriginal students from Warumungu and Warlpiri language backgrounds. The non-Aboriginal population of the school is predominantly Anglo-Australian, though there are a small number of children from Thai, Filippino, Greek, Papua New Guinean and other non-Anglo backgrounds. With the exception of the Aboriginal education assistants, all members of the teaching staff are non-Aboriginal.

Elliott, with a population of less than 500, was built to service an army depot during World War II and provides services for nearby cattle stations and travellers traversing the Barkly region of the Northern Territory. It is located on a remote section of the Stuart Highway 288 kilometres north of Tennant Creek (the nearest town of any size), the other principal town of the region, Katherine, being 458 kilometres further north. The majority of the population is housed in two Aboriginal camps at either end of the town. Town facilities comprise two petrol stations which also sell provisions, a clinic, a police station, a small hotel and caravan park and the school. Elliott school is classed as a community education centre, a school catering for children from preschool to secondary school ages, with almost all students being Aboriginal children of Jingili and Mutpurra language backgrounds. There are about 120 students enrolled in the school, though only half of this number would attend school regularly. There are two Aboriginal and three non-Aboriginal teachers in the school, and each of the classes (except the secondary class) has an Aboriginal teaching assistant.

In both Tennant Creek and Elliott the traditional languages spoken by Aboriginal people are in decline. School lessons are conducted in English and most of the children of school age speak Aboriginal English (a dialect of English) or, at Elliott, Kriol, originally a pidgin language which was developed as a result of colonisation of Aboriginal lands further north and which has now become a lingua franca among a growing number of Aboriginal people in northern Australia (Walsh & Yallop, 1993). Following European settlement, removal of Aboriginal people from their tribal lands, which have both economic and religious significance, has resulted in social, cultural and spiritual dispossession. While aspects of traditional Aboriginal culture remain, for example in relation to complex kinship systems and forms of related social obligation, language and belief systems are gradually being lost. As a result of

this and high levels of unemployment, poverty, poor health, substance abuse and domestic violence are endemic problems in these communities. For many reasons Aboriginal families in both of these towns travel frequently (for example, to meet family, social and ceremonial obligations or to go hunting or visit outstations on tribal lands). This, in addition to the other social problems, results in poor school attendance rates by Aboriginal children.

Traversing Space and Culture: Some Initial Observations of Song Transmission

For Aboriginal children in these areas western views of life are disseminated through school, the medium of television and through music commodified in the form of tapes and CDs. Despite the remoteness of their locations, both Tennant Creek and Elliott have television reception, although in Elliott this is limited to two channels and there is no radio reception. Country and western music is popular with older generations, both Aboriginal and non-Aboriginal. Younger people are more readily susceptible to changes of fashion in popular music, with the adolescents at Elliott school currently favouring rap and hip hop genres, partly, it seems, because of an identification with an image of "black" music styles. CDs and tapes of favourite artists were purchased by Elliott students on trips to Tennant Creek and Katherine and then avidly shared with other members of their families and friends. Families at Elliott also tuned into a popular music program, Rage, screened once a week by the ABC (the national Australian television network).

While I was at Elliott, the school held a disco evening, with the proceedings being conducted by "Fat Cat", an Aboriginal man who occasionally fulfilled this role in the community, providing a continuous stream of music, mostly comprising recent or current popular hits. This was a communal event, with parents sitting observing on the edge of the dance floor and children taking turns to dance. Several things were notable during the evening. One was the way in which these children, with remarkable style and agility, emulated dance styles from models provided by television viewing. In accordance with the traditions of break dancing transmitted through the medium of television, each child would take a short turn on the dance floor, then return to the edge, to be replaced by another child "performer". Another feature was the marked change in response evoked by dance mix tracks, which seemed to energise the whole dance floor. Even more interesting was the sudden breaking out of spontaneous group singing in response to a number of ballad-style songs which had been learnt entirely through a process of mediated listening to television, tape or CD but which galvanised a form of whole group singing which I had not experienced anywhere else in the school context. It was clear that, despite the relative isolation of this community, mediated popular music was a principal source of musical learning for young people, older musical traditions having been displaced along with many other cultural traditions.

At Tennant Creek Primary School, the role of the media in disseminating popular music was also clearly evident. Teachers told me that children enjoyed listening to current popular hit songs as a treat in class and during my fieldwork period a lunchtime disco was attended by the majority of the school population. The influence of television had also permeated the playground, where playground clapping games were played both by non-Aboriginal and Aboriginal children. As in the Sydney school in which I had conducted my previous study, a well-known game was Down down baby, learnt by a number of children from the American children's program Sesame Street, broadcast on national television by the Australian Broadcasting Corporation network. However, unlike the versions played in Sydney, and in other international locations which I have discussed in previous publications (Marsh, 2001), the Tennant Creek versions were derived from a more recent Sesame Street variant of this game, which invoked various Sesame Street characters performing different actions, for example: "Down down baby, Elmo shakes his body", performed with an ever-present American accent. This game was played by Aboriginal and non-Aboriginal children alike, generally in mixed inter-racial groups. Another clapping game, Apple on a stick, played by a

group of ten year olds, had also been learnt from a children's television show called the Saddle Club. In the Tennant Creek playground virtual forms of play had taken on a real existence, transmuted from their original sources thousands of kilometres distant.

There were some other observed similarities in transmission processes between the children at Tennant Creek Primary School and those in the Sydney school. Game transmission and skill development were achieved by observation of and participation in modelled performance of the whole game, facilitated by physical proximity to, and physical contact with other performers. Song acquisition was therefore achieved by aggregative "catching" of musical, textual and movement formulae within a musical whole. Skills were also gained within an holistic framework and were never fragmented to be taught in isolation from the game as a whole. Similarly, in both contexts, improvisation of new texts, music and movements was part of game practice, demonstrating the composition in performance attributes of many orally transmitted forms (Edwards and Sienkowicz, 1990). This was true of both Aboriginal and non-Aboriginal performers. Cross-cultural transmission was apparent, but the Anglo-Australian culture was dominant.

However, there seemed to be some specific features pertaining to Aboriginal children's transmission of the games. Perhaps the most important factor was the role of kinship in the transmission of playground clapping games. Although there was some observed playing of clapping games between Aboriginal and non-Aboriginal friends at Tennant Creek, Aboriginal children frequently cited members of their extended families (most commonly sisters, "cousins" and "aunties", encompassing a wide network of kinship relations), rather than friends, as the source from whom they had learnt games, and as the people with whom they usually played the games. This was especially true of Aboriginal children who lived in the camps at the edge of the town.

Kinship affiliations were linked with another factor, that of the travel patterns of Aboriginal families, to further affect the transmission process. Games were reported by some Aboriginal children at Tennant Creek to have been learnt from cousins during family visits to distant towns, for example Borroloola, some 700 kilometres north of Tennant Creek. There was therefore a constant source of new game material provided by long distance travel which was a regularly occurring part of life.

At Elliott school, where almost all students were Aboriginal, the effects of kinship and travel on game transmission were starkly illustrated. The majority of children in the school did not appear to play clapping or singing games of any kind in the playground. However, a small group of players was eventually discovered. This group comprised three sisters, who had recently migrated from Camooweal (another isolated outback town in the neighbouring state of Queensland), with a lengthy sojourn in Tennant Creek en route. They played clapping games with each other and one or two children with whom they had formed close friendships, including another girl who had also recently moved to Elliott from Wyndham in Western Australia and a teacher's daughter who had come from Sydney (on the eastern seaboard). This small group of children had all learnt the games in schools with non-Aboriginal children. It seemed from this, and from traditional game practices reported in interviews with older Aboriginal people, that clapping games had never been part of traditional Aboriginal play in these areas. The importation of the games to Elliott school had thus involved this group in traversing both spatial and cultural distance, within the social safety which kinship affiliations provided.

Aboriginal Traditional Play

Although clapping games appeared not to be represented in traditional Aboriginal play practices of Aboriginal people in central Australia, there was evidence of traditional play

songs and rhythmic chants. One game type reported by several older Warumungu women in Tennant Creek was a game of jumping to the full moon. In this game, learnt many years previously when they had been living in the Aboriginal community of Alekarenge, girls jumped rhythmically, while vocally taunting the "sister" or "brother" moon, also rhythmically.

A similar kind of boys' game involving singing and dancing to the moon was recounted by an old Alyawarre man who had also lived in the vicinity of Alekarenge. This game, like the Warumungu girls' game, was no longer played, but the song was recorded by an Aboriginal television group, Warlpiri Media, for a children's program to help maintain the Alyawarre language. Both the Warumungu moon chant and the Alyawarre moon song were musically different from the traditional adult songs of both of these Aboriginal language groups. Another reported game genre involved a form of "counting out" where the names of totemic animals from the Dreaming (the beginning of time, which is central to the Aboriginal belief system) were chanted, accompanied by a finger play culminating in tickling.

One old Warumungu man retold a children's story which he had been told as a child. This involved two animals, an emu and a frog, both of which sang songs. Again these songs were perceived to be different from adult songs, though they were sung by adults to children and contained special song language. The story with its accompanying songs was told by adults to children for fun. Through repeated tellings it had remained in the memory of this old man for more than half a century.

Traversing Time: Preserving and Disseminating Aboriginal Traditions

Aspects of traditional Aboriginal culture are still remembered and practised in Tennant Creek and, to a lesser extent, Elliott, in spite of the social forces which have irrevocably changed the lives of Warumungu, Warlpiri, Jingili and Mutpurra people. Among the older and middle generations of these people there is a strong desire to maintain the culture and the languages through which that culture is expressed. A number of institutions in the Northern Territory provide training programs for indigenous teachers and linguists. The Papulu Apparr-kari Aboriginal Language and Culture Centre at Tennant Creek has provided another mechanism through which members of local Aboriginal communities can collaborate with non-Aboriginal linguists and ethnomusicologists to record and preserve their languages and traditional songs. Some of these songs, recorded on digital equipment, are now produced commercially and are for sale in Tennant Creek and in the wider community.

As a music educator and ethnomusicologist I have been able to participate in this process of learning about culture and assisting in its dissemination. Although I am only at the beginning of the process, copies of my field tapes of traditional songs, games and stories remain in the hands of the Aboriginal people with whom I collaborated and will also be held in central Australian Aboriginal archives. It is anticipated that the digital tapes will be edited and made into CDs and cassette tapes for use in the school Aboriginal language and culture programs run by the Language and Culture centre at Tennant Creek.

I have also recorded and transcribed new play songs incorporating the Warumungu language which were created by a Warumungu linguist and writer with the intention of using them in an educational context. It is clear that television, CDs and cassettes form viable media for transmitting songs among Aboriginal people. The Central Australian Aboriginal Media Association (CAAMA) has used this to advantage in disseminating Aboriginal popular music, some of this in Aboriginal languages. It is hoped that the publication of these traditional songs and stories and specially created songs in language will assist in changing the transmission process from one dominated by the Anglo culture to one which goes both ways.

An anecdote from my field experiences gives me hope that this might occur. I was replaying my video recording of the old man's rendition of the emu and frog story in the library of Tennant Creek Primary School when a class entered the room. Aboriginal and non-Aboriginal children alike sat in rapt silence as the old man told his story and sang his songs on the television screen. The old man's grandson, a member of the class, also watched and listened, aware that his grandfather's stories, songs and language were being accorded the respect which they deserved from all who were present. In this case, the medium of television, so frequently maligned for its pernicious delivery of monocultural banalities, had created a familiar frame through which the cross-cultural power of story and song could be transmitted and received.

Acknowledgements

I wish to acknowledge the assistance of Papulu Apparr-kari Aboriginal Language and Culture Centre, Rosemary Narrurlu Plummer, Day Day Jakkamarra Frank, Kathleen Fitz Nappanangka, Dora Nangali Dawson and the children and staff of Tennant Creek and Elliott schools in the preparation of this paper.

References

Berndt, R. M. & Berndt, C. (1952). A selection of children's songs from Ooldea, Western South Australia, Mankind, 4 (9), 364-369.
Campbell, P. S. (1991). The Child-song Genre: A Comparison of Songs By and for Children. International Journal of Music Education, 17, 14-23.
Curtis, M. (2000). Zig Zag Zoo and other games: The oral tradition of children of Asian origin in Keighley, West Yorkshire. Folklife, theJournal of Folk Life Studies, 38, 71-82.
Doekes, E. & van Doorn-Last, F. (1993). Music and movement in the children-streetculture (4), De Pyramide, 47 (1), 11-12.
Edwards, V. & Sienkowicz, T.J. (1990). Oral cultures past and present: Rappin' and Homer. Oxford: Basil Blackwell.
Feld, S. (1994). From schizophonia to schismogenesis: On the discourses and commodification practices of "World Music" and "World Beat". In C. Keil & S. Feld (Eds.), Music grooves (pp. 257-289). Chicago: University of Chicago Press.
Haagen, C. (1994). Bush toys: Aboriginal children at play. Canberra: Aboriginal Studies Press.
Harwood, E. (1992). Girls' handclapping games; A study in oral transmission. Bulletin of the International Kodály Society, 17 (1), 19-25.
Harwood, E. (1994). Miss Lucy meets Dr Pepper: Mass media and children's traditional playground song and chant. In H. Lees (Ed.) Musical connections: Tradition and change. Proceedings of the 21st World Conference of the International Society for Music Education, Tampa, Florida, USA, pp.187-194.
Johns, V. (1999). Embarking on a journey; Aboriginal childen and play. In E. Dau (Ed.) Child's Play. Sydney: MacLennan and Petty.
Kartomi, M. (1980). Childlikeness in play songs - A case study among the Pitjantjara at Yalata, South Australia. Miscellanea Musicologica, 11, 172-214.
Kartomi, M. (1981). Songs of some Aboriginal Australian children's play ceremonies. Studies in Music, 15, 1-35.
Lord, A.B. (1960). The singer of tales. Cambridge, Massachusetts: Harvard University Press.
Marsh, K. (1997). Variation and transmission processes in children's singing games in an Australian playground. Unpublished PhD thesis, University of Sydney. (782 pages).
Marsh, K. (2001). It's not all black or white: the influence of the media, the classroom and immigrant groups on children's playground singing games. In J.C. Bishop & M. Curtis (Eds.),

Play today in the primary school playground (pp. 80-97). Buckingham: Open University Press.
Merrill-Mirsky, C. (1988). Eeny meeny pepsadeeny: Ethnicity and gender in children's musical play. Unpublished doctoral dissertation, University of California, Los Angeles.
Nyomi, S. (2001). Heritage: The viewpoint of an African committed to intercultural exchanges, International Journal of Music Education, 37, 64-66.
Ong, W. (1982). Orality and literacy: the technologizing of the word. London: Methuen.
Treitler, L. (1986). Orality and literacy in the music of the European Middle Ages. In Y. Tokumaru & O. Yamaguti (Eds.) The oral and literate in music (pp.38-56). Tokyo: Academia Music.
Walsh, M. & Yallop, C. (1993). Language and culture in Aboriginal Australia. Canberra: Aboriginal Studies Press.
Woenne, S. T. (1973). Children's games. In R. M. Berndt & E. S. Phillips (Eds.), The Australian Aboriginal Heritage. Sydney: Ure Smith.

samspel

"I've never heard anything like it before": the development of assessment tasks for students in the music classroom

Ros McMillan – r.mcmillan@music.unimelb.edu.au
University of Melbourne, Australia

INTRODUCTION

The three focus areas of the 2002 ISME conference provide the opportunity to reflect on ways that music educators can make positive changes in an increasingly troubled world. Focus Area 3 – across virtualities and realities – can be interpreted in many ways. The virtual world of technology that allows a seven year old to compose her own Piece for Peace is one interpretation. Another is the concept of celebrating a nation's century through sound, realised in a concert with a thousand children ringing bells. A third could be a collaboration between curriculum planners (often seen as remote personnel in a government department) and teachers and students in the classroom. It is this last interpretation that is the subject of this paper, one that will describe a recently completed landmark Australian project.

BACKGROUND TO THE PROJECT

In 1989 a decision was made by the ministers of education in all states and territories of Australia, including the federal minister, to endorse, for the first time, ten common and agreed national goals for schooling for the nation. It was intended that an outcome of this agreement would be a national curriculum for Australian students but a federal election in 1992 saw the defeat of the government that initiated the project. Although the concept of a national curriculum was abandoned, the work of the previous years was not lost, however. It culminated in the production of two documents – a statement and profile – for each of eight key learning areas (KLAs), including the Arts, that provided a foundation for courses designed to meet students' needs and advances in the knowledge of each KLA as well as how students learn (Curriculum Corporation 1994).

Each of the eight states and territories of Australia reacted differently to these documents. Victoria, the second largest state, adopted the format, activities and much of the language of the documents, producing its own publication titled Curriculum and Standards Framework (BOS 1995). Seven levels of achievement were identified, covering eleven years of schooling from Preparatory grade (5 year olds) to the end of compulsory schooling (approximately 16 years). Within the Arts document six key strands were identified - dance, drama, graphic communication (secondary school only), media, music and the visual arts. Although these are not a complete list of arts forms, they were seen as the major forms of arts activity both in schools and the wider community.

The music document was a landmark work. As with all the arts forms it divided teaching and learning into three sub-strands – Creating, making and presenting, Arts criticism and aesthetics, and Past and present contexts. Within this outline the most significant

introduction was the mandating of creative activities, with improvising, composing and arranging becoming major aspects of the core music curriculum.

Curriculum statements were provided for each level, outlining the major content to be covered as well as the expected outcomes that students should attain. Importantly, the statements did not constitute a syllabus with details of what should be taught. Rather, teachers were expected to design and implement courses in ways that took into account individual needs of their students. Thus, at upper primary level students were expected to "build on their music experience as they explore, use, describe and classify sounds made by a variety of sources" (curriculum focus). The outcome of this would be an ability to "experiment with ideas and explore feelings to find satisfactory solutions to music tasks" (standards). This was deliberately broad to allow a range of teaching material within a variety of musical genres.

In 2000 a review of the Curriculum and Standards Framework document was undertaken, resulting in the production of CSF 2. Following this, the Victorian Curriculum and Assessment Authority (the government body in Victoria responsible for the curriculum) called for tenders "to develop assessment tasks and annotated work samples to illustrate measurable progress in student achievement against the CSF" specifically in music. The successful bidder was a team that included music education staff and assessment experts from the University of Melbourne and a project manager with experience as a consultant in the Arts.

A RESEARCH PARADIGM

Although the project was initiated by the government for pragmatic reasons, the collaborative nature of the work, with alliances between University teaching and research staff, a government authority, and teachers and students in schools, provided an exciting opportunity to conduct a large study in formative research. Bresler (1996:8) has described this as "disciplined inquiry conducted in the context of the development and/or implementation of an educational product or program", inquiry that is also known as development research. She has written that disciplined inquiry is often sidelined in curriculum development because of the realities of classroom music making. Another problem, Bresler believes, is that there is also a lack of "close, collegial relationships between researchers, developers and practitioners" in much curriculum development. The study, thus, was seen as one that could not only produce valuable curriculum material, but also help build bridges between the curriculum authority and schools.

An example of formative research was that initiated by Magne Espeland, who led a two year project titled *Music in Use* (1987) based on music listening in three Norwegian primary schools. This program was designed to encourage children in a classroom program to listen to music of different genres and was led by a research team that included a similar range of personnel to the project discussed in this paper. An important outcome of the study was how the teachers involved in the project were able to outline teaching practice in a way that other teachers could adapt for their own needs. The final report provided a conceptual and theoretical framework to the project, interlinked with observation of the musical behaviour of the students involved in the work. It was clear, even from the outset, that the Australian project could produce a similar report and that the nature of the project would provide an excellent example of cooperative work.

As this project was the first of its type to be undertaken in Australia, a search was made for other international projects that could usefully inform the writers. A project undertaken in the USA by the National Center for Education Statistics in 1997 that tested the musical knowledge of year 8 students provided a perspective on assessment tasks. While the final

report (Persky, Sandene & Askew 1998) provided some interesting results in relation to the level of commitment to arts education in the United States, it was so heavily focussed on the testing of students that it was of limited use to the Australian writers who had been commissioned to provide both teaching materials and a means of assessing that work.

Notwithstanding the lack of models it was evident that the project team was embarking on a journey of discovery, one that if successfully carried out could fit Walker & Bresler's (1993) concept of a 'good' study. This is "where the most important features of [a]...program can best be observed in action" and where the research is undertaken "for the explicit and immediate purpose of change and improvement" (1996:13).

ESTABLISHING THE PROJECT

The invitation to submit for tender identified the major objectives of the project as providing teachers with resources to enable them to make well informed judgements about the standard of students' achievement against the CSF2 (the state's curriculum document) and also produce annotated samples of student work at three specified levels. These levels were upper primary (approximately 11-12 year olds), lower secondary (13-14 year olds) and middle secondary (15-16 year olds usually taking music as a specialist subject). Five sets of resources were required:

* the assessment tasks
* a description of the teaching and learning context for each task
* marking criteria to be drawn from the relevant learning outcomes and indicators for each task in the curriculum document
* student work samples produced in response to the tasks
* annotations to the work samples

The tender we submitted outlined the stages inherent in the process and project methodology. These included the establishment of an Expert panel, including the writers and three classroom music teachers. Following the writing of the tasks, trials of these were to be undertaken in twelve schools, followed by evaluation of the work using a set of marking criteria devised by the writers. The schools would include a range of government, independent and Catholic schools with consideration for gender balance and a variety of social-cultural settings. Three more rounds of assessment, using a variety of personnel, were to follow to provide validity.

The ratings would then be analysed using Rasch model analysis. This would consider the calibrated difficulty and fit to the model (for the tasks and student responses) and harshness and fit to the model (for the assessors). A report summarising the data and conclusions from the analysis would follow from which a final selection of appropriate work samples would be made. The final task would be the development of annotations for each work sample, identifying how well the work met the requirements of the outcomes and indicators of each task.

WRITING THE TASKS

Immediately on receiving confirmation of its successful bid, the writing team began a process for developing the assessment tasks and student work samples. Six generic 'task types' were identified:

1. Creating music
2. Interpreting the music of others
3. Documenting the processes of creating and interpreting music works
4. Performing and presenting music works

5. Listening and responding to music
6. Developing contextual understanding of music

At each of the three CSF levels, six interrelated tasks were designed, reflecting the types of activities and experiences students typically engage in at different levels. At Level 4 (upper primary) the tasks were designed around the theme 'Space', while at Level 5 (junior secondary) the theme was 'Patterns'. At Level 6, where music is usually an elective subject, the choice of material was to be made by the participating schools but it was expected to include genres as diverse as Rock, Baroque and 20th century Australian art music.

In addition to identifying the teaching and learning processes for each task, a set of marking criteria was also devised by which teachers could assess the student work. One of the strengths of the CSF is that students are engaged in learning processes that lead them to different outcomes, unlike other models where the expected 'products' are much the same. Thus, the writers' task to provide marking qualities that measured both how the students worked through the processes inherent in the curriculum foci, as well as a variety of outcomes, was particularly complex.

With this in mind, the writing team met with one of the assessment experts, a mathematician and international authority on school evaluation. Although a music lover, this person had little knowledge of music curricular and no knowledge of the musical abilities of students. A fascinating morning was spent brainstorming ways of measuring student outcomes on a range of tasks. How does one assess the ability of an 11 year old to interpret a score? What measures are used to evaluate how a 15 year old documents the use of elements in her original composition? And what marking qualities can be identified when judging how a 13 year old uses skills and techniques in performing a piece? The assessment expert pointed out that it was essential that marking criteria should cover a complete range of abilities in order to accurately calibrate the student work against the full range of curricula levels. Thus, it should be possible to demonstrate student work that was working 'towards', 'at' and 'beyond' the required standard of every task. It would also be through this means that the accuracy of the teachers' marking of the work could be assessed.

We began simply by suggesting levels of quality in the singing of a song. In regard to pitch these ranged from 'sings out of tune' to 'sustains melody accurately'. Differences in expression ranged from 'harsh' to 'makes your hair stand on end'. There was much laughter during our early efforts but over time the language became more sophisticated and accurate. Finally the 18 tasks were all given between three and five criteria with each criterion allocated four or five marking qualities, covering the full range of beginning work to advanced musical thinking.

THE TRIALS

A major problem in the entire process was the time line in which the work had to be completed. The entire project was expected to be completed in twelve months, with one of the most critical time allowances being six weeks only for the material to be taught and assessed in the schools. Indeed, the trialing of the tasks proved to be extraordinarily stressful and it was clear that at times the teachers felt that the term 'trial' was being used in more ways than one. Coordinating the classroom timetables of twelve schools so that a member of the Expert Panel could be present to assist teachers was a logistical nightmare as was the juggling of professional quality mini-disc recorders and digital video cameras between the schools. Given the vagaries of school timetables, unexpected excursions, absent students and wet weather lunch hours that altered afternoon lesson times, it was surprising that so much student material was gathered. To the relief of the project team,

however, wonderful examples of student work were taped and videoed, ingenuous reports were written and enchanting art-work produced as students responded in their own ways to a listening task.

An example of a Level 4 Listening and Responding task involved the performance of Holst's *Jupiter* from 'The Planets' and a virtuoso panpipe solo, titled *Sea of Stars,* incorporating percussive articulation by the Australian improviser, Brian Brown. Describing the texture of *Sea of Stars* Carrie wrote: "It sounds busy and the texture is bubbly, fizzy and effervescent". Asked to describe the feeling being expressed, she wrote: "Happiness, elation and joy. Allegria (sic)." As for her preference between Holst's *Jupiter* or *Sea of Stars,* Carrie chose the latter, writing: "The pops - they're original and interesting and because I've never heard anything like it before." This response was scored 'at the level' in relation to the three criteria: Use of Appropriate Musical Terminology ('describes use of all elements'), Understand Musical Meaning ('develops an understanding of the purpose and meaning of works') and Make Judgements ('evaluates and describes the effectiveness of the music').

In Sam's response to *Jupiter* he thought the planet being depicted was "like Noah's Ark. In the busy part of the song it's all the animals going on and the slow sad bit is the unicorns being left behind. At the end the ship is leaving and it's starting to rain". These comments were rated as working 'towards' the level in relation to the criterion: Make Judgements. Although Sam's words were picturesque, he merely explained his response to what he heard rather than taking the next step of evaluating and describing the effectiveness of the music.

Another example of student work was a composition devised by Ella, a 13 year old Level 5 student. Ella, playing viola, directed an ensemble consisting of tuned percussion, trumpet, flute and tambourine. The piece began in D minor but throughout its development an F# was added and C# disappeared so that the final piece was in D lydian (a fact that was probably unknown to the performers!). This happened because the flautist was a beginning student and F# was one of the few notes known to her, while the trumpeter had a great deal of trouble playing C# (her B natural).

The piece began as a bright march in common time but gradually adopted an Irish flavour, as Ella added a riff from a piece by the Celtic group, the Corrs. Under the criterion of Develop Ideas, Ella was judged to be working 'at' the level because she used perception and imagination to develop ideas. She was not considered to be working 'above' the level, because this criterion involved the use of innovative approaches to explore issues, feelings and ideas and the work, while at a very good standard, was not considered innovative. Under the criterion of Use of Skills and Techniques, Ella was also judged to be working 'at' the level because she 'accurately and expressively articulated meaning through sound technique' but did not combine this with improvisation, the marking quality for working 'above' the level.

However, under the criterion: Collaborate in Groups, Ella was deemed to be working 'above' the level as she had 'assisted in the generation and application of soundly conceived ideas' throughout the development of the piece. She had directed the decision that the beginner flautist should play F# rather than F and the trumpeter avoid playing B natural, which allowed the piece to sound 'right' in the key of D lydian.

At Level 6, where most of the students were working at a fairly advanced level, two contrasting examples caused some dissent amongst the assessors, providing an interesting perspective on the evaluation of music. One example was a piece titled *Fantasy for Flute and Orchestra.* Ben, the 15 year old composer, in fulfilling the task of Documenting the Composing Process noted that the idea for the work came after listening

to music by Debussy and Ravel. The work was originally for flute and piano but Ben decided that "a small orchestra" would sound "more realistic in the respect of recreating impressions". He noted that the piece contained a two bar melody that "signifies perhaps the passing of a breeze". Ben's work was rated by his teacher and all subsequent assessing groups as working 'above' the level in the two criteria of: Document Development of Ideas ('documents aesthetic considerations in developing stimuli into personal music expressions') and Document Use of Elements and Techniques ('documents the choice of elements and techniques and the ways in which these choices reflect a personal style').

The second piece, composed by 14 year old Will, was a song with lyrics about drinking paint stripper. For the task of documenting the composing process under the criterion of Document Development of Ideas, Will stated that he had tried "to create a chorus that sounds different and still fits in with the rest of the song". Although his teacher had rated this as working 'towards' (one level below working 'at') some of the next round of assessors regarded the topic with such disdain that they evaluated it two levels below this – the equivalent of the expected standard of a ten year old. Vigorous debate ensued over the question of taste, musical standards and societal values but subsequently Will was given an overall rating of working 'towards' the level. The process proved, as if anyone doubted it, that assessment of musical products is indeed a complex matter.

THE VALIDATION PROCESS

Following the completion of the trials and the marking of tasks by the classroom teachers of their own students, the marking sheets were collated and the scores processed to establish their efficacy as a useful tool. The assessment consisted of 18 performance tasks (six at each level), each task consisting of several components with every part scored using a behavioural-anchored rating scale. These scales were established by the assessment expert and lent themselves to direct independent interpretation, one of the strengths of the entire process.

For the writers, waiting for the validation results was something of a nerve-racking experience. A great deal depended on these being deemed reliable, not the least being six months' work by a large number of participants as well as the credibility of the entire process. Indeed, it was a real test as to whether the 'virtuality' of the curriculum authority's brief could be translated into the 'reality' of a workable school-based curriculum.

Fortunately, the validation process proved that the work was 'on track'. The detail of the validation process is complex and it is not appropriate within this paper to explain it further. Nevertheless, after applying the Rasch model to the classroom teachers' initial ratings, the assessment expert noted that the assessment task bank was "performing well" and demonstrated construct validity, high level of reliability and separation of the three levels of the curriculum. The items had "behaved" as expected and the scoring rubrics appeared to be providing "the type of instruction that most teachers can use consistently". Further, he noted, the tasks discriminated between students operating at different levels of the curriculum, a vital aspect of the validation process.

ANNOTATED WORK SAMPLES

All twelve teachers involved in the project were asked to select two samples for each of the six tasks their students completed, from which a final selection of 74 was made by the project team. The writing of the annotations then began, a process that proved to be extremely complex and difficult, due to the varied nature of the samples and the need for this material to be continually cross-referenced. In addition, it was necessary to choose our

words carefully, not only to do justice to the students' wonderful music-making but also to make it clear why work was rated at working 'towards', 'at' or 'beyond' a specific level. Thus, when explaining why a student's work was not quite 'at' a required standard, that is, still working 'towards' that standard, it was essential that there be no implication that the work was deficient but rather that a criterion had simply not been addressed. (Every single student in the project was aware that they might appear on a publicly available CD rom and we were mindful that undoubtedly-doting parents would expect their children to be seen in the best light!)

The project is now in the process of publication, and a CD rom and small text are due to be completed in the latter half of 2002. The samples will appear in a range of formats, including written work, verbal responses and in-rehearsal, individual and group performance.

THE PROJECT IN RETROSPECT

The documentation of the project appears as a rosy picture but it would be dishonest to imply that everything ran smoothly or that egos were not bruised at times. There were many difficulties associated with the project and times when we wondered whether the work was justified in terms of effort and financial reward. Nevertheless, the spirited way that the students created their music, discussed its development with classmates and generally enjoyed the communal experience of music-making was a strong incentive to continue the project to its conclusion.

Despite the difficulties, the exciting material produced is indicative of a major step forward in curriculum development in music. Not only has detailed teaching material been produced, unlike anything previously realised in Australia, but the project is also groundbreaking in its establishment of musical tasks, the assessment of these and their subsequent annotations.

This has truly been a journey, from the 'unreality' of an invitation to produce a music curriculum to the 'reality' of excited 12 year olds, performing their own reggae composition, their faces painted for no other reason than the possibility of appearing on a CD rom. For the many hundreds of participants the project has been an inspiring effort in working together, a true outcome of SAMSPEL.

References

BOS ([Victorian] Board of Studies). (1995). *The Arts Curriculum and Standards Framework,* Carlton, Victoria, Australia.

Bresler, L. (1996). Basic and Applied Qualitative Research in Music Education, *Research Studies in Music Education,* 6, 5-17.

Curriculum Corporation. (1994). *A Statement on the Arts for Australian Schools* and *The Arts – a Curriculum Profile for Australian Schools,* Carlton, Victoria, Australia.

Espeland, M. (1987). Music in Use: Responsive Music Listening in the Primary School, *British Journal of Music Education,* **4**, 3, 283-297.

Persky, HR, Sandene, BA & Askew, JM. (1998). *The NAEP 1997 Arts Report Card. Eighth-Grade Findings from the National Assessment of Educational Progress,* US Department of Education, Washington DC.

Walker, D & Bresler, L. (1993). Development research: definition and criteria. Paper presented at the American Education Research Association, Atlanta, USA.

"Welcome to the Dance Machine": An investigation of children's ICT composition responses using the CD Rom *Dance eJay*

Dr. Liz Mellor: l.mellor@yorksj.ac.uk
York St. John, A College of the University of Leeds , UK

This paper contributes to SAMSPEL: focus area III by considering one particular application of Information Communication Technology (ICT) in music education - investigating computer-based composition using the CD Rom *Dance eJay.* The work derives from an exploratory pilot study which is intended to inform further research plans. The over-arching aim was to develop an appropriate methodology in order to investigate whether the software could be used effectively for learning in primary school .

The first part of the paper sets out some key considerations which informed the thinking behind the pilot study. The first consideration is the popularity of the programme as 'entertainment'. Commercially *Dance eJay* is billed as Europe's leading interactive music brand with over 1 million copies sold in 15 languages, distributed over 50 countries. It has recently launched its own international website and magazine, including MTV 'ejay of the week', VIP Chat and DJ Workshops and has its own website: www.eJay.com.The programme can be readily purchased from high street software suppliers and comprises several versions of increasing complexity , for example *Dance eJay*, *Dance eJay 2*, *Dance eJay 2+* and *Dance eJay 3*. In considering this study, the original version was selected on the grounds that it presented an accessible introduction to 'mixing' sound. Recent publicity about this particular version states:

> 'Fancy yourself as the next Judge Jukes or Fatboy Slim? This easy to use addictive title allows you to become your own music producer in seconds, without having any talent, musical knowledge or experience. Providing a simulation of an 8 track recording studio and using professionally edited and original sound samples; you can produce your own personalised dance floor hits in full Stereo CD quality'.
> Focus Multimedia Limited, PC CD Rom ESS226
>
> 'Unbelievably easy to use, and great fun too'. PC Guide

One argument for considering the programme was its 'real music appeal'. These 'real' qualities are presented as :

- professionally edited sound samples
- an interactive simulation of a recording studio
- the style specific genre of 'Dance' music

For these reasons, it was considered that the programme might appeal to the primary school age group. Whilst some research claims that style and genre are not a feature children's musical preferences until adolescence (Green 1997), it was an area of interest to explore how children of this age group responded to 'dance' music. The title is of this paper, " Welcome to the Dance Machine" is taken from one of the Rap sound samples

from the software. Also, the purpose of using the programme to create a 'DJ mix' involves a clear commission for the task, which research considers to be important for setting the context for composing in school (Glover 1999).

Another consideration to take be taken into account was how the children with no formal instrumental music tuition, knowledge or experience could use the programme. The study set out to find out if the programme was equally accessible to a number of pupils with a range of backgrounds irrespective of their experience of music tuition. This notion of 'inclusivity' is a theme which the National Curriculum for England, UK (2000) is keen to address in order to provide effective learning opportunities for all pupils. The music national curriculum for England, UK suggests that inclusivity can be fostered by setting suitable learning challenges in order to give every pupil the opportunity to experience success in learning; responding to pupils' diverse learning by creating effective learning environments; and by securing pupils' motivation and concentration (DfEE 2000:26). In considering using *Dance eJay* in the primary school it was therefore important to explore the extent to which this software embraced the notion of 'inclusivity', to explore its 'pupil currency' and investigate how pupils with a range of backgrounds could use the programme effectively in terms of the musical learning outcomes.

The increasing pressure for teachers to deliver an ICT based curriculum in each subject area was another key consideration for this study. This is reflected in the Programmes of Study for music which are statutory for all pupils within the UK National Curriculum Framework. Included in the breadth of study for this Key Stage, the statutory requirement is to use 'ICT to capture, change and combine sounds' (QCA 2000:19). In working with generalist teachers of music in primary schools where confidence to teach music is low (Hennessy 1998), it would seem appropriate to investigate how an application such as *Dance eJay* might not only capture the interest and motivation of the pupils, but could also prove a valuable tool for non–specialist teachers in order to fulfil the ICT requirements of the Music National Curriculum. The research acknowledges that the non – specialist teachers' perceptions of using *Dance eJay* is an area for further investigation, beyond the scope of the present study.

A central focus is how the use of *Dance eJay* can be regarded as an educational tool in the primary classroom to further *music learning* and *music thinking skills.* This is congruent with recent guidelines for teachers in training where they are required to consider not only *what* ICT resources might be used but also *how* they might be used to further learning within respective subject areas. From this document, two statements have been selected which are particularly relevant to the thinking of *how* the application of the software might contribute to creative development, exploration, experimentation, user skills and strategies and the ability to make explicit what has been learned:

> 'use ICT to support pupils' creative development through the use of the computer ... encourage them to explore and experiment with pattern, shape, pictures, sound and colour'
> (DfEE 1998: Annex B: 22)

> 'know how to use ICT to try things out, make things happen and understand how they happen as appropriate for the subject (s) and the age of pupils to be taught;
> i exploring alternatives
> ii modelling relationships
> iii considering cause and effect
> iv predicting patterns and rules, recognising patterns and hypothesising
> vi sequencing action'
> (DfEE 1998: Annex B: 27)

Finally, in considering setting up this pilot study the responses by colleagues, teachers and trainee teachers who have had the experience of using *Dance eJay* with children were taken into account. Statements which supported the potential use of *Dance eJay* referred to its 'fun factor' and to the fact that it sounded like 'real music'. Some teachers could see a potential value for programmes like *Dance eJay* but could not see how they could be used in the music curriculum. This illustrates the need for further research to be placed 'in the hands' of practitioners in the classroom (MacFarlane 2000). Statements which did not support the use of *Dance eJay* in the classroom referred to the notion that as a 'mixing' programme, it could not be considered as 'real' composition. One statement by a music specialist referred to it as making music like you were 'painting by numbers'. This refers to an aspect of the software design which uses pre-composed soundblocks. These are selected by mouse clicking and mouse dragging onto the 'mix'. A further argument mitigating against the use of *Dance eJay* in the classroom was that the design of the programme was 'too fixed for creativity to take place'. This alludes to the fact that in some versions of *Dance eJay* there is a limited opportunity for creating 'original' and initial musical ideas, for manipulating dynamics, pitch, tempo and volume for example. It remained a central thought throughout the pilot to consider just what 'creativity' might mean in the context of this study.

The Development of the Design of the Pilot Study

The next part of the paper draws on the theoretical background which informed the development of a methodology for the pilot study in order to explore children's responses to *Dance eJay* in the primary school. The theoretical background to the paper draws from recent research literature in the field of research into creativity in the context of computer-based music composition (Webster 1996, Folkestad et.al.1998, Hickey 1999, Seddon and O'Neill 2000, 2001), and research which investigates the pupil's perspective on composing by Mellor (1990, 2000), and Burnard (2000).

One of the aims of this exploratory study was to research *how* children interacted with the software design. The design of the study follows the work of Miell and MacDonald (2000), and Seddon and O'Neill (2000). One of the purposes of this pilot study was to establish whether this methodology could be further adapted in the context of using *Dance eJay*. The principle behind the methodology is to investigate the *process* of composition without producing a 'surveillance effect' (Hickey, 1997). In this context 'surveillance' is explained in terms of a researcher presence or a video camera presence. The adaptation by Seddon and O'Neill (2000) avoids the 'surveillance effect by utilising the technology to capture the ongoing process of composition by recording the onscreen 'mouse'manipulations. Whereas Seddon and O'Neill used a video card installed in the computer for this purpose, I achieved the same effect by using an external device called the Corio Scan Converter Unit. This device is designed to intercept the signal from the computer monitor to the computer tower and convert it to a video signal. By using this device and linking it to a normal video recorder, positioned away from the computer, I could therefore video record the onscreen 'mouse' movements in an unobtrusive way, thereby eliminating the 'surveillance effect'. As Seddon and O'Neill (2000) state, the advantage of this methodology means that the children taking part the research may be more at ease in the process of composition as they are not being observed/recorded by either a video recorder or a researcher. The technical problems of using this technology were overcome in the course of the pilot study and a checklist of procedures established for the researcher.

Following my previous research (Mellor 2000), which was interested in pupil's *written* appraisals of their own compositions, I was interested to investigate whether the pupils in the primary age range could provide a retrospective *verbal* commentary on their own process of using *Dance eJay*. In the course of the pilot work I experimented with a range of approaches using retrospective verbal protocols following Richardson and Whitaker

(1996). In doing so, it was found that the children were much more fluent in talking about their process of composition when prompted by watching the video of their own onscreen manipulations. In the course of exploring this technique, I refined the design further by asking the children to 'take control' of the process by literally 'taking hold' of the video remote controller and fast-forwarding/stopping the video playback as they felt *appropriate* and *significant*. For this part of the research a script was developed in order ensure the children knew what was expected of them, to control for variation and to develop a consistency of approach in preparation for further investigations. Throughout the course of working with the children in the pilot study a set of further questions were developed. These included:

Can you tell me if you had a favourite soundbank using the programme?
Can you tell me if you had a favourite soundblock using the programme?

Can you tell which was the best part of your piece and why?
If you enjoyed using the programme can you tell me why?

What do you think you learned using Dance eJay?

Interview Methodology : Critical Incident Charting
Interviews were conducted with the pupils in order to gain some insights into their personal music biographies. The interview methodology develops my own interest in Personal Construct Theory (1999) and follows the development of Critical Incident Charting, developed by Denlico and Pope (1990) in non-musical fields, and by Burnard (2000) within the field of music education. This interview technique invited the children to reflect on their own memorable experiences of music at home, with friends and family and in school. In this way their own 'musical stories' emerged and were notated along a continuum. Once the critical incidents were charted the technique allowed the participants to reflect on each in turn. In this way the incidents were elaborated to include attitudes, values and feelings about their memories. The interviews were sketched in 'real time' and transcribed at a later date

Participants
The participants involved in the study were children in their final year, (Year 6), of their primary schooling. The school was situated in the North of Engalnd, UK. The participants were aged between 10-11 years old. The first phase of the study involved trying out the technology and developing the techniques and procedures for the Retrospective Verbal Protocols (RVPs) and Interviews with four children. It was then decided to proceed in phases. Each phase included four children with a mix of gender and experience of formal instrumental music training (FIMT). At this stage the study has included a total of eight participants.

Procedure
As described above each participant has taken part in:

- **A short training session using *Dance eJay.*** This was scripted to control for variation and ensure consistency across the sample
- **A Composition Task.** This was set on an individual basis in area outside the classroom. Each participant was given fifteen minutes to use *Dance eJay* following the instructions (Table 1).
- **A Retrospective Verbal Protocol (RVP).** This was undertaken using the procedure described above. All the participants' retrospective verbal protocols were recorded on to video tape using a free-standing video camera positioned discretely in the

room. Included in the frame was the participant, the television and the video of the playback of the onscreen mouse manipulations.

- **An interview** using the technique of critical incident charting.

Table 1

Instruction to start composing your MIX
• You are now ready to starting creating your piece or 'mix'. • Compose a piece or 'mix' **that sounds good to you.** • Use the programme in the way that feels comfortable to you. • How you arrange the soundblocks on the score is up to you. • You should finish your session by **replaying** your mix. • When you have finished your mix let the visitor know. • If you have a problem with the programme the visitor will help

Data Analysis

One of the main ideas of undertaking this exploratory piece of research was to try to produce a rounded view of the process of composition using *Dance eJay*. By developing this multi-method approach, it was hoped not only to have a range of sources of data on the process of composition but also to see how the data triangulated. In other words, I was interested to see how the data interrelated, to see whether one view informed another and to investigate similarities and differences between *what* the children did and *what they said they did*. It was hoped that critical incident charts could provide further background and contextual information which could inform the researcher's perspective on the decision making processes involved in the composition process.

Following a qualitative research paradigm, the procedure follows aspects of analysis of text developed in this context for music and ICT from Seddon and O'Neill (2000).

Analysis of the onscreen manipulations or mouse movements

A detailed written description of each video was made. At this stage of the study, the coding scheme is being developed with the aim of providing an event analysis to include:

(a) Construction

This refers to how the soundblocks are selected and positioned and whether they are aurally referenced or not .

(b) Replay

This refers to whether the individual soundblocks are replayed, sections of the 'mix' are replayed or whether the whole mix is replayed from the beginning as a global replay.If the replay is stopped then this is also coded.

(c) Editing

This refers to whether sound blocks are deleted, moved, inserted and overlaid

(d) Mouse Movement

Periods of mouse inactivity longer than 4 seconds are coded and seemingly 'random' mouse movement over the screen which is longer than 4 seconds is coalso coded.

(e) Errors using programme

These refer to problems which the participants encounter using the programme and which result in mouse movement which is not part of the constructing process.

- **Analysis of Retrospective Verbal Protocol Analysis**

At this stage of the analysis the text is being 'explored'(Green 1996), in terms of themes, patterns from which issues can be developed and coded.

- **Analysis of Interviews**

At this stage the process personal constructs are being elicited from the critical incident data as a way of revealing how each of the children represent their musical identities in their own individual way.

Examples
In the presentation for ISME 2002, I have selected one moment from one pupil's composition process viewed through 4 examples of the data collection in order to show not only how the data interrelated, but also to illustrate issues emerging in the analysis as a whole to inform further research.

The first example shows the process of composition through the event analysis and coding of the on screen mouse manipulations (Table 2).

Table 2 : Example 1: Event Analysis

Event 43: SEL/AR/ED/DSB **Event 42: SEL/AR** Selects* and replays and moves Xtra : Soft Chord Version 2 to screen (track 2:5) and back to soundblocks to delete **Event 44: SEL/NAR/2** Selects* and moves Xtra : Soft Chord Version 2 to Track 2:4 **Event 45: EUP** Marker at 18 : Clicks section replay **Event 46: RP/GL** Clicks rewind /beginning and plays from the beginning **Event 47: RP/GL** Clicks rewind / beginning and plays from the beginning

This gives a written coded account of how the soundblocks in *Dance eJay* have been selected, positioned on the *Dance eJay* mix, edited and replayed etc. For further analysis to procede, it is recognised that this coding scheme needs to be validated by an independent researcher.

The second example takes the same moment in the composition but shows the corresponding **video data** of the recording of the on screen 'mouse' manipulations proceding from Event 46, where the section is being replayed from the beginning. By 'internally' tracking the onscreen 'mouse' manipulations one perspective on the composing process is documented. For the researcher to comment on this process might be considered interpretation or conjecture. In order to take this into account and to address this limitation of previous studies, the **pupil's perspective** on the process is documented.

The third example is taken from the 'think aloud' or the transcription of the retrospective verbal protocol of one of the pupils in the study called Jack. Again it refers to the same moment as in Examples 1 and 2, but importantly it is the part of the composing process which Jack **selected** as being particularly significant.

> *'This is where I was building something up...I really felt like I had something...and then that happened ... I felt 'wow', 'wicked' now what can I do ...*
> *... this was ... when I thought how long can this go on for ... I was thinking I can really extend this and make this ... something really long that could go on ...and just build up*

and build up and keep building up and then just die down again … and I thought that would sound really good' .

This tells us something about the composing strategy and acknowledges an awareness of a construction phase in the process of composition. This differs for example from more exploratory strategies where sound blocks might be played but not selected, or selected and then deleted. It shows us how he feels in the process and illustrates how significant this moment is in terms of the composition as a whole. The transcription illustrates us how he is able to think about a strategy to continue his mix.

The final example shows the same example through the video data of the Retrospective Verbal Protocol. Whilst this cannot be presented in the context of this paper the analysis reveals additional data to include Jack's skilful use of the video controller, his animated and engaged non-verbal communication, his interaction with the events on the video playback of his onscreen 'mouse'manipulations and his involvement in the process.

By examining these examples we start to see the potential which the research offers for developing a rounded view of the composing process.This could be extended over subsequent composing sessions. The interview material interview also contributes an additional perspective but which has not been documented in this particular context.

The final part of the paper flags up some further issues emerging in the analysis of the data as a whole. One issue is the **language** the children use to talk about the process of composing. For example some comments refer to style and mood:

'Oh yeh these red pieces … its good if you've got a bit of groove in there or something'.

Some comments refer to the process of construction using technical language: *'so I moved the chord next to it and added another'* whilst others use and non-technical language:

'it just sounds alone really .. I just built it up as I went along really and I added these two because I wanted some company for .. that one (points to screen)'

Another issue arising from the study suggests that the children could make **explicit** what they thought they had **learned** using Dance Ejay in different ways. For example, referring to structure and texture: *'I think I've learned a lot about putting the sounds together - just putting the sounds altogether all the time doesn't sound very good'.* The transcriptions reveal further dimensions, for example reference to structure in terms of the parts within the whole piece as well as the participant's identity as a composer :

'you didn't just think .....oh no composers just have it naturally ….they just have it come to them you know …but <u>you</u> can use different pieces of music, short bits of music to make up a long piece'

Discussion

To conclude, whilst this research is still in its preliminary stages it suggests that from a methodological perspective:

- **technology** facilitates both the **recording of data** and provides a way of helping the children to **talk** about their own **composing processes**
- children can identify **significant moments** in the process of composition where critical decisions are made

- RVPs provide evidence to suggest **how** and **why** these decisions are made and **whether** they can be considered to be examples of **creative musical thinking**

In order to realise the educational potential of this type of software in educational terms the menu for further investigation might include:

- how the process of **'mixing',** which involves **selecting, listening, editing , constructing** can develop 'composing skills'
- how the evidence corroborates recent work on **composing strategies**
- how using computer packages like Dance Ejay can contribute to **user 'musical confidence** – especially for children with no formal instrumental training
- how this impacts on **motivation, ownership** and **identity** when the culture of dance music interfaces with the school music culture in the primary school

This is particularly pertinent at the moment in the light of the recent UK, NFER Report: The Arts Education in Secondary Schools: Effects and Effectiveness (2000), which reported that out of all the arts subjects, children were least able to say *what* they learned in music. As this exploratory study suggests so far, children as young as 10-11 years are capable of being able to state what they have learned in **musical terms,** but also what they have learned in **personal terms**. It is in this quality of the learning experience, that a child may have the chance of building an authentic understanding 'with a degree of authorship of their own understanding' (Bonnett, 1994). I suggest that this paper addresses the theme of how interaction with this application of ICT can be meaningful and have an impact young people's identity. I conclude with a comment from one of the children which suggests the **value** for the place of this type of work in the music curriculum:

> *'I just felt like I was in charge, that I could create something and decide how I wanted it to sound'*

REFERENCES

Bonnet, M. (1994) Children's Thinking. London:Cassell.

Department for Education and Employment (1998) Teaching: High Status, High Standards, Requirements for courses of Initial Teacher Training 4/98, Annex B, Initial Teacher Training National Curriculum for the use of information and Communications Technology in subject teaching. London: DfEE

Department for Education and Employment (2000) The National Curriculum for England and Wales, Music. London: QCA, DfEE.

Denlico, P. and Pope, M. (1990) Adults learning-teachers thinking, in: C.Day, M.Pope and P. Denlico (Eds.) Insight into Teachers Thinking and Practice, Basingstoke: Falmer.

Folkestad, G., Hargreaves, D. J., Lindstrom, B. (1998). Compositional strategies in computer-based music making. British Journal of Music Education (1998) 15:1: 83-97.

Glover, J. (1999) Primary Music: Later Years. London: Falmer Press.

Green, L. (1997) Music, Gender and Education. Cambridge: Cambridge University Press.

Hennessy, S. (1998) Coordinating Music Across the Primary School. London: Falmer Press.

Harland, J. Kinder, K., Lord, P., Stott, A., Schagen, I. Haynes, J. (2000) Arts Education In Secondary Schools: Effects and Effectivieness.Slough: NFER

Hickey, M. (1997). The Computer as a tool in creative music making. Research Studies in Music Education No.8 July 1997.

Burnard, P. (2000) How children ascribe meaning to improvisation and composition: rethinking pedagogy in music education. Music Education Research, 2,1: 7-23.

Miell, D. and MacDonald, R. (2000) Creativity and Music Education: The impact of social variables. International Journal of Music Education, 36:58-68.

Mellor, L. (was Gilbert)(1990) Aesthetic development in music: An investigation in the use of personal construct theory. British Journal of Music Education, 7: 173-90.

Mellor, L (2000) Listening, language and assessment: the pupils' perspective. British Journal of Music Education, 17,3:245-261

Richardson, C. and Whitaker, N (1996) Thinking about *Think Alouds* in Music Education Research. Research Studies in Music Education. 6:38-49

Distance Education: The Expanding Universe-ity

Jennifer Mishra, University of Northern Iowa, USA

Introduction

Sharing ideas and experiences has become increasingly easier through the use of technology. E-mail and the world wide web are now commonly used in education to discuss and present ideas to others around the globe. Education has now begun to take this interaction to a new level in the form of distance education. Distance education allows students who are displaced geographically to work together as a class and to share knowledge and experiences.

In this session, I will discuss a music program that has successfully utilized web-based and interactive television models of distance education. I will also discuss software packages such as WebCT that host web-based courses. These course-tools can be used as supplements to traditional classroom lecture format as well as to host entire web-based courses. In addition to web-based courses, I will describe the Iowa Communications Network and how it has been utilized in a Master of Music program in the United States.

Growth of Distance Education

Distance education has been in used for decades. Correspondance courses utilized the mail service to disseminate readings and assignments. Feedback was slow and interaction between the teacher and student was minimal and generally limited to written comments. Television has also been used as a way of disseminating information to an audience or a class with projects like Open University in England. While visual, as well as written, information was available to the student, interaction between student and teacher was still limited to written correspondance.

With the increase in computer technology, the possibilities for distance education became more numerous. Feedback was much faster using e-mail rather than the postal service, and the world wide web opened up many possibilities. Courses no longer had to rely soley on written communication as with correspondance courses. Video and audio clips could be added to on-line courses to allow the students to observe the teacher and classroom materials. Streaming made video and audio clips more efficient and of better quality. Though video on the web is not yet the caliber of televised courses, web-based classes have an advantage over televised courses. Web-based courses are able to utilize sychronous communication.

Sychronous communication allows students and teacher to interact in real-time. Web cameras allow for video conferences and while still limited to the written word, chat rooms can be utilized for immediate feedback and discussion not only between a student and a teacher, but between the students in the class. Real-time class discussion between students, separated geographically, at last became possible.

A Model of Distance Education

In today's educational world, the term "distance education" is often equated to web-based courses. While web-based courses and course software such as Blackboard or WebCT are the most common means of disseminating courses at a distance, there are other alternatives. One alternative is the Iowa Communications Network (ICN). This system ambitious program of interactive television was put in place all over the state of Iowa in the United States. Hundreds of specially equipped television-studio classrooms were built into public schools, community colleges, universities, hospitals, libraries, national guard armories, and govenment offices across the state. In the ICN format, the teacher broadcasts from one location and students can see and hear not only what the teacher broadcasts, but can also see and hear other students in the other classrooms receiving the broadcast. Verbal discussions in real-time are possible without the annoying delay that still often accompanies web-video.

The University of Northern Iowa began offering a Master of Music degree in Music Education over the Iowa Communications Network or the ICN in 1992. This degree consists of the required courses in music theory, history, and research and bibliography taken by all graduate students at UNI, regardless of whether they are on- or off-campus students. The music education courses taken by the students include: Research Methodologies in Music Education, Studied in Music Learning and Behavior, School Music Administration, Foundations of Music Education, and Developments and Trends in Music Education. Students who participate in the distance education program at the University of Northern Iowa are generally teachers in the public schools. the teachers are able to pursue a masters degree while continuing to teach. This luxury is now no longer reserved for teachers who happen to teach within a comfortable driving distance of the university campus.

While web-based courses would be limited to lecture format, the ICN is not so limited. It is possible to utilize the ICN for master classes and classroom observations since the video is not obscured by the delay often accompanying web-video.

———
Segment of ICN class on video
———

While the ICN captures the classroom environment to a large extent, there are negative aspects to participating in a degree program offered over the ICN. One of the disadvantages is a lack of communication and socialization between the students outside of class. Broadcast times are limited and do not allow students to interact without teacher management. Acknowledging this drawback in distance education, the Master of Music in Music Education program includes on-campus summer sessions. During two summers, students come to the University of Northern Iowa for one month to take intensive courses in music education. Students live on campus and have access to the library.

Reduced library access is also one of the drawbacks of distance education courses. The University of Northern Iowa has worked hard to enable students to have remote access to the library for research. Students are allowed access to library databases and on-line catalogues and are able to request that books and articles are sent to their home.

Requested articles are photocopied for the students at a photocopy fee not much greater than that paid by students who are on-campus. With increasing number of articles being placed on-line, students have

greater and greater access to research materials. There are still many sources that are not easily accessible by distance education students. These primarily consist of reference and reserve materials. Thus, the Research and Bibliography course required for the degree program is always offered over the summer when students have full library access. Another option for presenting materials that would otherwise be restricted for remote students is software such as WebCT or Web Course Tools.

WebCT allows a teacher to create a password protected environment on the web either to host an on-line class or for use in conjunction with a more traditional class. Because WebCT is a password protected environment, readings that, because of U.S. copyright issues cannot be posted directly on the web, can be disseminated on-line. Articles are simply scanned into a computer and formatted for web viewing and printing. WebCT can also be utilized to overcome some of logistical difficulties in tasks that are commonplace in a traditional classroom, but become difficult with students who are distanced from the teacher. Everyday occurrences including handing out assignments and course materials, collecting assignments, giving tests and quizzes, and allowing for after-class discussions and questions become tasks that need extensive planning when students are geographically separated from the teacher.
Assignments as well as readings can be hosted on the web so that students can print the assignments or readings straight from the web-page. The postal service no longer must be relied on to disseminate course materials. Collecting completed assignments can be accomplished in a number of ways using WebCT.

One of the easiest ways of collecting assignments from a distance is the use of e-mail. WebCT has an e-mail tool which can be used by students to contact each other either privately or as a group or to contact the teacher. Assignments can be completed and attached as a word processing file to an e-mail. WebCT also allows for a separate Assignment tool which is used exclusively by students to up-load written work. The assignment can either be printed out or graded on the computer and attached to the student with teacher comments. The Discussion tool (in previous versions of WebCT this tool was called the Bulletin Board tool) on WebCT can also be used to collect writings from students. The Discussion tool allows students to easily submit writings to the WebCT for class and teacher viewing. Other students and the teacher are also able to respond to the writings either privately or publicly. Public responses are threaded to allow others to follow the line of discussion. Multiple assignments can be designated by the teacher and are kept in separate files. The Discussion tool allows for the posting of written assignments, but also allows for additional discussion outside of the classroom setting.

The Chat Room tool on WebCT also allows for additional discussion. This discussion has the advantage in that it is sychronous rather than asychronous as with the Discussion tool. The Chat Room feature can also be used in situations where class discussion is absent, such as with an entirely web-based class.

Testing is another obstacle with distance education. Though the ICN allows the teacher to monitor students during testing, disseminating the test can be problematic. It is possible to display short tests on the television screen. Longer tests can be faxed straight into the remote classrooms, but this process is time consuming. WebCT has a testing tool that can be utilized. The Testing tool has multiple features that allow the teacher to customize the test in many different ways. Not only can the teacher develop various types of tests using

this tool, such as multiple choice and essay exams, but can also, in many cases, ask the computer to grade the

test as well. Grades can be submitted to the teacher via e-mail and can, at the teacher's discretion, be disseminated to the student. The teacher can restrict any test by date or by student as well as limiting the test so it can be used only with certain identified computers. The test can be timed and it can be formatted to allow students to change previous responses or not. Thus the teacher has great flexibility in test development as well as the ability to safeguard the testing to a great degree.

WebCT also has the ability to host an entire on-line course. While only in the beginning stages of implementing web-based courses into the program, isolated courses in the Master of Music in Music Education degree at the University of Northern Iowa will be totally on-line within the next year. Though not intending to replace the ICN, web-based courses allow for more flexibility in the program and address one of the greatest drawbacks to the ICN – that of scheduling classrooms.

Though hundreds of ICN classrooms have been built across the state of Iowa, degree programs offered over the ICN are limited to students who live in or on the boarders of Iowa. More and more students are contacting UNI from as far away as Singapore inquiring about distance education programs in music. Unfortunately, the ICN program can not accommodate students outside of Iowa. The inclusion of web-based courses will allow students outside of Iowa to participate and allow students within Iowa to have a greater choice in the courses included in their program. Currently, students participating in the ICN program follow a fairly regimented course sequence.

While the ICN format is difficult to implement without considerable financial backing, it is an alternate way of approaching distance education. As more and more universities consider offering distance education courses, the positive and negative aspects of various models should be considered. The ICN format does have drawbacks in comparison to a traditional classroom setting, it does allow for face-to-face, interactive communication between teacher and the students and between the students in the class. The following web-pages include further information concerning the ICN program in general the University of Northern Iowa's Master of Music in Music Education program in particular:

http://www3.iptv.org/iowa_database/default.cfm

http://www.uni.edu/mishra/gradweb.html

E-mail Jennifer Mishra mishra@uni.edu

New Virtual Learning Environments: How they meet the goals and practices of music education.

Miikka Salavuo - samiju@cc.jyu.fi
University of Jyvaskyla, Finland

Internet and its service, World Wide Web (WWW) have become a part of everyday life particularly in many western societies. The Web's services are used for a variety of purposes from entertainment to banking and stock trading, from chat-rooms to genealogy. It is possible to find almost any information and often from various sources with multiple perspectives. Although not always reliable in terms of the content and functioning, WWW's easy accessibility, dynamic nature and more or less endless amount of information make it a form of media beyond anything we have ever experienced. The Internet has also become a part of modern learning environment that is utilized today in several ways both in classroom and distance education. Rapidly developing technology allows delivery of multimedia elements, such as video, audio and interactive applications. This presents new possibilities for education, especially in those areas of learning where audiovisuality has a significant value.

A learning environment may consist of different elements, such as school, home or work environment. New technology can extend a learning setting and fuse different elements in to a unified learning environment. (Jonassen 1991.) Network-based environments are often called *virtual learning environments* (VLE's). In this paper the concept is narrowed to consider environments that are accessible through a WWW interface. These environments are comprised of different, usually network-based tools, applications and content but they can also include students, tutors, teachers, experts, different kind of references and for example musical instruments. WWW-browsers are familiar, relatively easy to use and are found in every computer with a network connection. By utilizing networks, hypermedia and different communication tools, these environments create possibilities for the presentation of elements and learning methods that otherwise would be hard or impossible to fabricate. (Collins 1996; Jonassen 1991; Land & Hannafin 2000.)

In this study virtual learning environments are divided into three categories on the grounds of their content, available tools and purpose. The three types are *information based WWW pages*, *pedagogically designed WWW pages* and so called *learning platforms*. WebCT, Blackboard and Knowledge Forum are popular examples of such learning platforms.

Environment type:	Metaphor	Examples of content	Characteristics
Information based pages	Encyclopedia, reference book.	Composer biographies, presentation of musical genres, lyric sites.	Not necessarily structural, no clear learning goals. Suitable for reference material. Collaboration achieved with external tools. Requires self-directive learning skills when used solely.
Pedagogically designed pages	Course book, manual.	Guitar lessons, music theory courses.	Usually structural, learning goals established, multimedia used to add interaction and contextuality. Requires self-directive learning skills when used solely.
Learning platforms	Course module, lesson.	Content built separately or linked from WWW-pages.	Discussion forums, tools for building and distributing content, scaffolding collaborative knowledge construction, managing learning and tools for assessment and reflection.

Table 1. WWW –based learning environment types.

Music Technology

For years digital technology has been utilized in recording and producing music. With cheaper and user-friendlier applications music technology is now applied in computer-based amateur desktop studios and music classrooms. In the context of music education, the term *music technology* is limited to mean digital equipment, such as computers, music software, soundcards, recording devices and synthesizers. The purpose of technology is to assist in performing tasks that otherwise would be hard or impossible to carry out. With digital technology it becomes possible to integrate different musical actions, such as composing, arranging and performing under one action (Brown A.R. 1995). In playing music, different processes such as technical and artistic training can be separated in to parts, so that resources can be released to concentrate on one specific process at a time. Most importantly music technology can add *audiovisuality* into the learning process in situations where it previously has not been present.

Ideal properties of virtual learning environments

Constructive learning theories emphasize active, contextual and collaborative properties of learning. Learning is not seen as a process of directly transferring and storing information but as producing and interpreting meaningful knowledge on the grounds of prior impressions. (Resnick 1989; Land & Hannafin 2000.) Many virtual learning applications have been developed upon these constructivist properties. Within constructivist environments, technology is used to model and scaffold actions and thinking in order to achieve deeper understanding and meaningful learning. The term scaffolding refers to

suitable support of the learning process, where a teacher constantly observes learning and gives feedback but does not just pass information directly to the student. (Land & Hannafin 2000.)

Information technology and VLE's can be argued to support student-centered, self-directed *and* problem based collaborative learning that is not dependent on time or place. An ideal learning environment, whether virtual or not, should support the following properties of successful learning (Jonassen 1995; Resnick 1989):

Support for intentional and self-directed learning

When learning in virtual environments without direct guidance, a student should have clear goals in mind as well as the motivation to achieve these goals. Learning can be more effective when the students have responsibility on their own learning and have knowledge of their abilities and learning strategies. The responsibility of learning and its outcomes is shifting from the teacher to the students. Instead of being "a sage on the stage", the teacher has become more like "a guide on the side", who observes and decides how much and in which way to support the learner. In this kind of *student-centered learning* teacher provides gradually fading scaffolding as the student gains new understanding. It is important to note that self-directed learning does not necessarily mean isolated and independent learning. It implies that student has the control on learning and is engaging in individual active thinking and knowledge construction. (Resnick 1989.) Learning is seen most effective as an active problem solving operation performed by a self-directed and motivated student. Both the available tools and the learning setting determine the need for problem solving skills, intentionality and self-directiveness. They can also determine the need for outside guidance. (Bereiter & Scardamalia 1989.)

In an open environment students should have increased freedom to choose their own pace and individual learning paths. Intelligent environments have *potential* to guide learners to learn according to their prior skills and knowledge and also by using their personal learning styles. Intentionality is very important in the learning of more theoretical issues. One has to have clear understanding why he or she is studying for example Bach's inventions or jazz chord progressions. Self-directed learning in open environments such as WWW demands more motivation and metacognitive learning skills. The overall environment should provide sufficient support for interaction, reflection and problem solving to keep the learner motivated and in charge of the learning process. That is why learning platforms are more suitable environments for virtual learning since they offer better possibilities for scaffolding and interaction. Nevertheless WWW-pages can offer the required information and the content, which may be integrated into environments with communication properties.

Contextuality and support for situated learning

In the new research literature, learning is understood to be optimal in authentic and meaningful contexts. Knowledge can seldom be isolated from its domain. Skills and knowledge are not independent of the contexts in which they are or will be used. (Resnick 1989.) A well-designed learning environment should be as authentic as possible or it should try to simulate authenticity in order to tie knowledge to its uses. Hypermedia provides possibilities for creating environments where the context is as close as possible to the actual situation for which the participant is learning. Situations which otherwise would be hard or impossible to construct can be created through simulations using different multimedia elements and interactive applications. A contextual learning environment can enhance the *transfer effect* so, that the student can use the learned knowledge and skills in the actual situations.

Modern digital technology has *potential* to bring contextuality to learning. Authentic situations can be simulated with different multimedia techniques. Students are able to learn for example about the operation of a symphony orchestra and about phases of the composition process from actual composers and professional orchestras. They can also learn of different cultures easier and more profoundly than with some conventional learning methods. Authentic examples can be attached or linked to concepts, which can deepen the understanding of the subject. WWW-pages with hypermedia content can offer this kind of contextuality. Pedagogically designed pages often contain simulations or small interactive applications, which can clarify for instance a musical problem. In the future virtual reality applications can change the learning event by increasing the authenticity to new levels.

Collaborative learning and interactivity

Social interaction plays an important role in learning both in concrete and virtual environments. Through *shared expertise*, *reciprocal teaching* and *distribution of cognitive load,* collaborative learning can be argued to achieve successful results. When learning collaboratively, a group shares the responsibility for learning by dividing tasks, learning from each other and correcting impressions by reflecting on their peers. Students can also learn from experts like an apprentice learns from a master. In this *cognitive apprenticeship* model the student is learning from expert's actions and mental models. (Brown & Palincsar 1989; Collins et al. 1989.)

VLE's should create surroundings in which the networks, computers, teachers and learners form a learning system, where learning is achieved by solving *sociocognitive conflicts* and building new understanding. Interaction is no longer dependent on time or place. Learning environments can provide two kinds of interaction: Social and content interaction (Gilbert & Moore 1998). The need for social Internet based interaction increases as face-to-face interaction declines. In *Asynchronic interaction* learners have time to construct answers and perhaps attach some media components, such as midi- or audio files to clarify the subject. In *synchronic interaction* knowledge building can be more spontaneous. Through active dialogue own assumptions can be corrected or clarified. In learning platforms both ways of communication are possible with chat applications, videoconferencing software, e-mail and discussion forums. Information based and pedagogically designed pages require additional tools for real collaboration to take place.

Active learning and learning by doing

Constructivism emphasizes active and mindful processing of information, active problem solving, knowledge construction and performing complex tasks based on their prior knowledge. Learning becomes active when students interact with each other or with applications and simulations in adaptive and structural environments. Multimedia and hypertext form a hypermedia environment, which allows students to actively determine their learning paths. Game like environments can be created using different multimedia techniques to keep students active and motivated. (Bereiter & Scardamalia 1989; Jonassen 1995; Land & Hannafin 2000.)

Technology based environments offer possibilities for active musical problem solving, such as audible online music theory assignments and instrumental exercises. This kind of interactivity can be built in to web based environments or learning platforms with applications like Macromedia's Flash and Director. Learners can take advantage of different kind of music software to make music that can be distributed and discussed about in virtual environments.

Achieving goals in the various fields of music education with virtual learning environments

According to the popular so-called praxial philosophy of music education, music is learned and internalized in authentic situations through active music making. Musicianship develops through progressive musical problem solving in real-life situations or in learning environments, which have been designed to resemble authentic musical cultures and musical situations. Different musical elements, concepts and styles are learned through active problem solving with the actual goals and purposes in mind. (Elliot 1995; Regelski 1996; 2001.) As an abstract and symbolic form of art, music has different meanings to different people that are sometimes rather hard to verbalize. Music learning can often be described as a personal discovery of these abstract issues. A music-learning environment should provide means for this creative and self-directive learning with proper methods, tools and scaffolding. The goals of music education are categorized here according to praxial and aesthetic philosophies as well common practices in music education.

Holistic cultural education

One of the prime universal purposes of schooling is to educate civilized and culturally informed citizens. According to Eisner (2001) it is important for students to understand music genres that have preceded the styles to which they listen. Entertainment industry, society and school have mutual impact on student's universal musical conceptions. It is left to the institutionalized music education to provide a broader perspective on different music cultures, genres and history. Through multicultural music education students learn to view the music of their own culture more critically. An extensive knowledge of the musical world can also create a solid foundation for all musical activity.

Cultural literacy can be achieved in general music education by studying, listening and learning to understand music history and different music cultures. Virtual learning environments are suitable tools and a supporting resource in educating culturally aware citizens. Information-based WWW-pages adapt well for seeking information and building musical knowledge. They offer a variety of perspectives with the help of multimedia for the presentation of more authentic cases. For example a Norwegian student can learn about the music of India from an Indian scholar and hear and see music played by authentic instruments. Internet also creates possibilities for interaction with students from India and exchange of ideas or even joint musical projects.

Students can collaborate locally by taking roles of people from different music cultures or eras of music history, researching these cultures and teaching each other about them. With VLE's role-play can seem more authentic and learning is not confined to class hours. Hypermedia can be utilized to present ideas musically and audiovisually. Students can demonstrate their thinking by marking learning paths or by creating mind-maps to deepen understanding. New learning-styles require of course more self-directed learning skills, ability to search and filter information and to use the new technology.

Development of musical skills

In western cultures music education has consisted primarily of training musical skills that can improve musical performance. Traditionally this has meant harsh training of technical skills and music theory. These skills are not to be undervalued, however presenting them without connection to real musical contexts the student can relate to, may lead learners away from music. Knowledge and understanding of musical concepts provide a solid foundation to develop musicianship but they cannot be the sole purpose of music education. Technical expertise is an important quality for a world-class concert pianist but not necessarily to an eager young musician wanting to create music.

This applies also to the knowledge of musical notation, which is still very highly valued in western schooling. It is a skill that is appreciated as much or more as the ability to improvise or compose music. Although useful, it should not be learned out of its contexts,

which, of course, is audible music. When a student's attention is focused on reading notation, he or she cannot fully concentrate on the creative actions in music making. (Gordon 1997.) As Gordon explains, it is like speaking a foreign language without understanding a word. Music learning experience can seldom be optimal if it is not audiovisual or capable of activating the learner.

Musical skills and knowledge can be developed through explorative problem solving also by case studies through searching, filtering and attaching information in a web-based environment. Music technology and hypermedia environments allow students to get a more "hands-on" feel to musical knowledge by actually experiencing authentic problems and encouraging them to solve these problems by trial and error. With midi- and audio technology, notation can be made audible and the learners obtain an audiovisual conception of a piece of music. Students may hear a whole orchestra with somewhat authentic sounds in different tempos and instrumentations. This helps a student to outline for example the structure and the instrumentation of a piece of music. The possibility to instantly create and hear such material relates the situation to real life performance contexts.

In instrumental education virtual environments can function as tools outside the face-to-face learning situation. Students can practice with more-or-less intelligent accompaniment software, they can seek information on the composer whose music they are playing or find original audible examples of the piece. There are several information based or pedagogically designed WWW-pages with music theory courses and exercises, many containing guitar tablatures, not to mention hundreds of sites with lyrics and chords for popular songs. Students can also find various approaches to music theory problems or different methods for developing musical analysis. Virtual learning environments can thus individualize the learning of musical skills according to learner's prior skills, learning habits, musical culture and musical competence.

Development of creative expressiveness

Creativity is a highly valued quality in different sectors of today's society. Creative people have well-developed problem solving and planning skills. (Weisberg 1988.) Music education of course, has a unique position in enhancing creativity. It can be developed through musical problem solving and performing, producing, verbalizing and improvising music. The essential goal of music education should be to teach and encourage self-expression and provide an open learning environment with suitable tools for free expression and intuitive creativity.

With the help of technology one doesn't have to master a musical instrument in order to compose. Virtual environments are probably not the ideal medium for enhancing and engaging a creative process. But they can successfully function as tools to assist in making music by first of all providing material, such as chords, lyrics, midi- or audio files and notation. New intelligent systems become more and more responsive and humane in nature. Web-based applications can also function as accompaniment partners that let permit learners to reflect on their playing and singing whilst composers may listen and fine-tune their piece in throughout the composition process. Interaction that takes place between the student and computer can lead to expression without restraint or fear of revealing internal feelings to others. Learning platforms can be used as meeting places or virtual spaces for different kinds of musical activities, such as collaborative musical projects.

Providing experiences

Musical skills and knowledge are often internalized through a musical experience. It is important to provide a learning environment, where students discover music that they can

enjoy and relate to, and which also encourages them to be creative. Enjoyment can be achieved by listening to music but also through successful creative processes. Through experiences gained from personal musical actions and activities, students learn to better understand music. Deeper experiences can lead to deeper learning, and collaborative experiences can develop social skills.

Music technology can help students who are technically less skilled at music making to obtain unforeseen goals. Internet can also be used as a medium to distribute music and receive feedback globally. This can lead to unique learning experiences and can motivate students towards musical specializations. New possibilities to discover and acquire music that is not necessarily found in local record stores can provide positive experiences.

Development of social skills

Whist creating music *is* a personal experience the musical event itself can be very social and music *can* be created in collaboration. Along with verbal language music is one of the most important means of communication. Musicians can learn by exchanging ideas with band mates and by listening each other's actions. Playing together is a model example of a collaborative learning, where music is created through real-time collaborative processes, not just by exchange and attachment of personal ideas. In many cultures music is closely tied to collective rituals, such as religious ceremonies or war-chants. Often in choir music or marching bands the social occasion itself is more important than the music being made. Collaborative musical actions can improve problem solving and development skills, which are useful in other areas of life.

World Wide Web is certainly not the most desirable environment to develop social skills due to the lack of real-time face-to-face interaction. But in collaborative environments students can solve musical problems through dialogue and reciprocal teaching. Teachers and co-learners can support the learning process, when the cognitive load becomes too heavy. The Web's asynchronic and synchronic communication properties bring more added value to the creative musical activities. Students may use web-based environments as virtual spaces, where they exchange musical ideas in the form of verbalized messages, midi-, audio- and notation documents. For instance students from Canada can collaborate with Finnish students in creating of a piece of music. Through videoconferencing equipment, musical interaction can actually occur in pseudo-real-time. Using applications such as Microsoft Net Meeting, a teacher may play a midi-device or use a notation program located at the students end, even from a different continent.

With faster Internet connections both verbal and non-verbal communication have become possible. Nonverbal communication possibilities have advantages and disadvantages. Facial expressions and body language are an important part of communication and they are not always present in virtual learning settings. Music is a nonverbal form of communication, so hypermedia environments allow new ways of musical communication.

Supporting lifelong interest in music

Formal schooling usually does not offer a sufficiently broad musical education for all students. One of the schools' missions is to create lifelong interest in music and the necessary facilities for practicing it outside school and throughout life. Thomas Regelski applies a golf term "breaking one hundred" to music education. According to golf equipment manufacturers, people start to buy their products more after they score below 100. Same kind of interest should be developed with music students, so that they could continue their interests in music after school. (Regelski 2001.) This means that schools should provide general musical skills, the necessary abilities in self-directed learning, skills to use different self-directed tools and a foundation for lifelong appreciation of music.

When students learn in collaborative, but still self-directive environments, they gradually become slowly more independent and responsible for their own learning. They gain new self-directive learning skills, which can aid them in life-long learning. Teachers guide students in developing these skills and aid them in gaining the required skills and motivation to maintain their interest in music. The virtual environments really become important tools *after* the formal schooling. For adult learners who lack geographical opportunities or time to acquire formal or informal musical instruction these environments bring new possibilities to pursue versatile musical interests.

Conclusions

Institutionalized music education alone is not always capable of providing the extensive schooling needed to achieve the goals of music education. When utilizing new learning methods and tools in education, clear added value should be established to justify the change in learning and instruction. Compared with textbooks, the web has potential to offer more authentic learning situations and fast access to information especially when possibilities for face-to-face instruction are insufficient. Information may be presented in different angles and to a greater audience than with conventional methods. Music technology and presentation of information in multimedia formats can create means to deepen understanding, activate learning and direct learning processes into a more compact environment. Networks may initiate new kind of interaction and collaboration among students or between students and experts. The Internet creates potential for self-directed and explorative learning more equally for everyone despite their location.

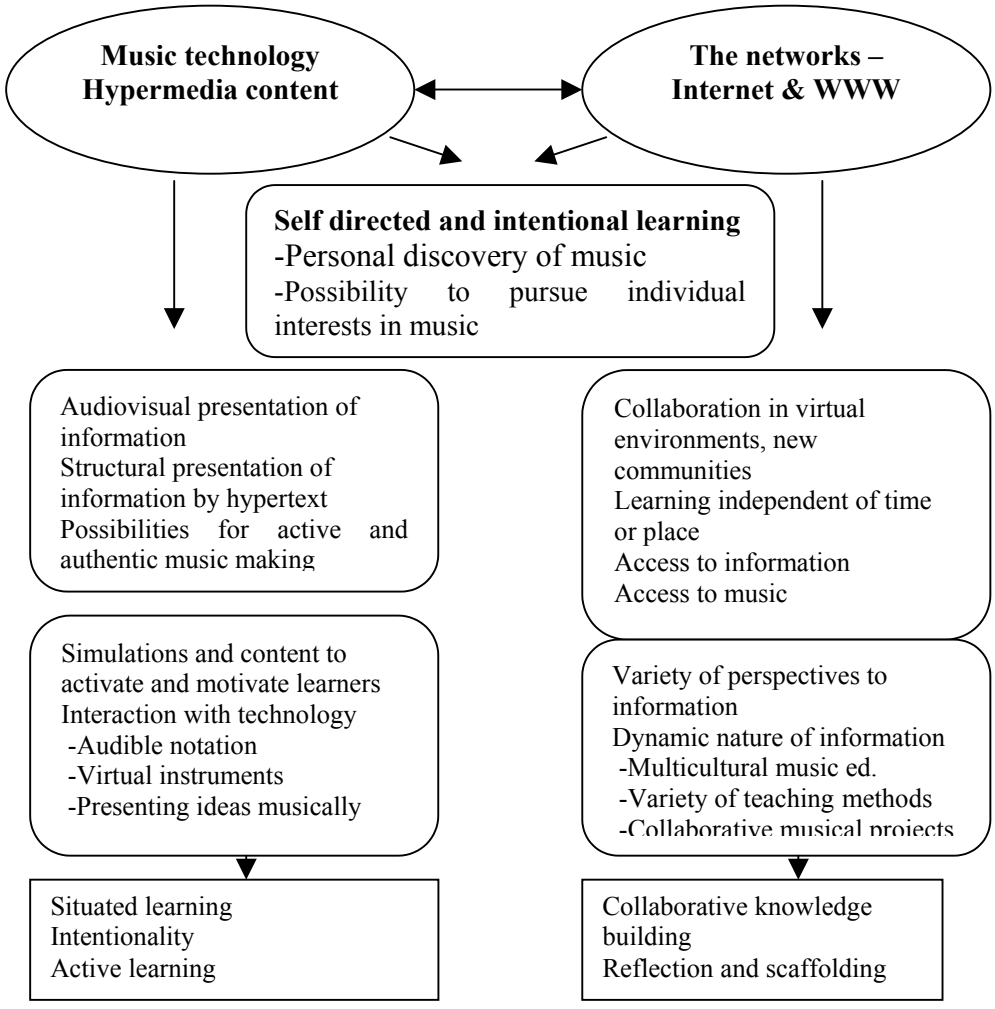


Figure 1. The added value of VLE's for music education.

Copyright issues, limitations on connectivity and hardware, lack of funding and reliability of information are among the problems faced by today's technology aided instruction. An evolving learning environment and new learning styles demand new skills, especially in the use of technology and also taking more responsibility on one's own learning. It is important to note, that VLE's and music technology are seen as resources and supportive elements within the fuller context of music education, rather than independent entities. They cannot fully replace the inter-personal interaction of music making or adjust to the unique nature of musical expression. At least not yet...

References

Bereiter, C. & Scardamalia, M. (1989). Intentional Learning As a Goal of Instruction. In L.B. Resnick (ed.) Knowing, Learning, and Instruction (pp. 361-392). Essays in Honor of Robert Glaser. New Jersey: Erlbaum.

Brown, A.L. & Palincsar, A.S. (1989). Guided, Cooperative Learning and Individual Knowledge Aquisition. In L.B. Resnick (ed.) Knowing, Learning, and Instruction. Essays in Honor of Robert Glaser (pp. 393-451). Hillsdale, New Jersey: Erlbaum.

Brown, A.R. (1995). Digital Technology and the Study of Music. International Journal of Music Education 1995 (25), 14-19.

Collins, A., Brown, J.S & Newman, S.E. (1989). Cognitive apprenticeship: Teaching the Crafts of Reading, Writing and, Mathematics. In L.B. Resnick (ed.) Knowing, Learning, and Instruction. Essays in Honor of Robert Glaser (pp. 453-494). New Jersey: Erlbaum.

Collins, A. (1996). Design Issues for Learning Environments. In Vosniadou, S., De Corte, E., Glaser, R. & Mandl, H. (ed.) International Perspectives on the Design of Technology Supported Learning Environments (pp. 347-362). New Jersey: Erlbaum.

Eisner, E. (2001). Music Education Six Months After the Turn of the Century. International Journal of Music Education 2001 (37), 5-12.

Elliot, D. (1995). Music Matters. A New Philosophy of Music Education. New York and Oxford: Oxford University Press.

Gilbert, L. & Moore, D.R. (1998). Building interactivity into Web courses: Tools for social and instructional interaction. Educational Technology 38(3), 29-35.

Gordon, E.E. (1997). Learning Sequences in Music. Skill, Content and Patterns: A Music Learning Theory. 1997 Edition. Chicago: GIA Publications.

Jonassen, D. H. (1991). Evaluating Constructivistic Learning. Educational Technology 31(9), 28-33.

Jonassen, D.H. (1995). Supporting Communities of Learners with Technology: A Vision for Integrating Technology with Learning in Schools. Educational Technology 35(4), 60-63.

Land, S.M. & Hannafin, M.J. (2000). Student-Centered Learning Environments. In Jonassen, D.H & Land, S.M. (ed.) Theoretical Foundations of Learning Environments (pp. 1-24). New Jersey: Lawrence Erlbaum.

Regelski, T.A. (1996). Prolegomenon To a Praxial Philosophy of Music and Music Education. Finnish Journal of Music Education 1996 (1), 23-38.

Regelski, T.A. (2001). Musicianship Laboratory: An Action Learning Approach to Intermediate and Middleschool General Music. Rewrite #2 Finland. Manuscript.

Resnick, L.B. (1989). Introduction to Knowing, Learning and Instruction. Essays in Honor of Robert Glaser (pp.1-24). Hillsdale, New Jersey: Erlbaum.

Weisberg, R.W. (1988). Problem Solving and Creativity. In Sternberg, R.J. (ed.) The Nature of Creativity. Contemporary psychological perspectives. Cambridge: University Press.

samspel

An interpretation of composition strategies adopted by adolescents with and without prior experience of formal instrumental music tuition (FIMT) engaging with computer-based composition

Dr. Frederick A. Seddon - f.a.seddon@open.ac.uk
The Psychology Department, The Open University, Milton Keynes, U.K.

ABSTRACT

The advancement of technology such as interactive websites makes global collaboration during computer-based composition possible. However, students engaging in such activities will have different levels of prior musical experience that may influence their approach to computer-based composition. Previous research revealed adolescents adopted different composition strategies when engaging with computer-based composition (Seddon & O'Neill, 2000; Folkestad, 1998). The current study was designed to investigate the influence of formal instrumental music tuition (FIMT) on the process of adolescent engagement with computer-based composition. The computer-screen manipulations made by 48 adolescents were videotaped as they engaged in a composition task using a researcher-modified music composition program. A qualitative observational analysis of the data indicated that the adolescents adopted 12 discrete strategies of composition, which were combined to form three meta-approaches interpreted as 'Crafting', 'Expressing' and 'Immersing'. More adolescents with FIMT than without FIMT were found to employ the 'Crafting' meta-approach, which was characterised by relatively low levels of exploration. Practical implications for music education are discussed.

Background

A previous study with 11 year olds found no difference in teachers' ratings of computer-based compositions by children with and without experience of formal instrumental music tuition (FIMT). However, the two groups of children appeared to adopt different strategies when engaged in the computer-based composition task (Seddon and O'Neill, 2001). Past research suggests that during computer-based composition, musically trained adolescents experiment less with possibilities offered by the computer (Seddon and O'Neill, 2000; Folkestad, 1998; Scripp, Meyaard and Davidson, 1988) and produce compositions with more 'fixed ideas' (Folkestad, 1998) and less originality (Webster, Yale & Haefner, 1987). Further research is needed which examines these differences. Additionally, the growing use of computer technology in music education makes it necessary for teachers to be

aware of the different ways in which adolescents might engage with this technology based on their prior musical experience. The main aim of this paper is to offer an interpretation of the analysis of process of composition data collected during an investigation into composition strategies adopted by adolescents while engaged with computer-based composition.

Investigation of the process of composition may be conducted by observing the composer while composing (Sloboda, 1985) or by the composer giving a verbal report during or after composition (Richardson & Whitaker, 1996). Past studies have used either or both of these approaches. Observation, even through the use of a video camera (Odman, 1992; Daignault, 1996) runs the risk of interfering with the process of composition by producing a 'surveillance effect' (Hickey, 1997). Concurrent 'verbal report' runs the risk of interfering with the composition process, and retrospective 'verbal report' relies extensively upon memory. In addition to these disadvantages 'verbal report' assumes composers are: a) aware of the process they are engaged in and, b) able to articulate full and accurate accounts of the process. These methodological disadvantages may be particularly significant in relation to novice or relatively inexperienced composers such as adolescents.

Computer technology has made it possible to record the development of compositions by saving 'midi files' at different points in time crafting 'snapshots' of the composition process (Hickey, 1995; Folkestad, 1998). This data collection method is analogous to methods adopted in a study by Getzels and Csikszentmihalyi in 1976 where photographs were taken every six minutes recording the development of visual artwork. However, recording the composition process by saving 'midi files' may still omit important data (e.g., ideas experimented with but never reaching the recording stage). Our aim was to develop a method of data collection which would reduce 'surveillance effects' whilst at the same time enabling the full compositional process to be examined.

Method

Participants

Forty-eight adolescents (aged 13-14 years) from a secondary school in Cheshire were selected by the Head of Music and invited to participate in the study. Twenty five (Female=12, Male=13) had between 2-4 years prior experience of FIMT and twenty three (Female=12, Male=11) had no prior experience of FIMT.

Procedure

Participants were invited to engage with a computer-based composition task after two scripted thirty-minute training sessions. The training sessions were scripted to control for variations in training and focused on how to use the composition program but did not provide any instruction in the compositional process itself. No musical examples were given that could have implied 'correct models' to copy. Having been instructed to 'compose a piece that sounds good to you', participants worked with a Yamaha PSR 530 music keyboard connected via MIDI to a computer with a researcher modified version of Cubase Score composition software program installed. Following on from the two training sessions, participants had three individual 30-minute composition sessions on three consecutive days in order to complete their composition. The composition sessions took place in a room designated solely for the use of the participant to ensure privacy. Participants were

asked to choose three sounds from ten sounds made available during the training sessions. During the composition sessions all 'on screen manipulations' of the program were unobtrusively recorded to videotape through a 'video-card' installed in the computer. In addition to this videotape data, 'midi files' were saved using different name references via the 'save as' method (e.g., David 1, David 2 etc.) for each participant at the end of each composition session. The resulting data was 48 videotapes revealing all 'on screen manipulations' of the program during all three composition sessions for each participant and 3 midi files for each participant (n=144) making it possible to cross-reference the videotape data with the 'midi files' at three specific points in time.

Data analysis

The analysis of the videotapes was adapted from the procedure used for the qualitative analysis of text. This method of analysis is based upon 'grounded theory' (Glaser & Strauss, 1967) where categories emerge through a process of inductive reasoning rather than being specified in advance with the data being allocated into predetermined categories. The aim of qualitative research is to (1) explore/elaborate on the significance of a phenomenon by examining it with the context in which it exists, (2) to represent the meaning. Since our research questions involved these aims, we adopted a procedure known as the constant comparative method (Glaser & Strauss, 1967; Lincoln & Guba, 1985). This method involves five main stages: immersion, categorisation, phenomenological reduction, triangulation and interpretation (McLeod, 1994).

Stage one: Immersion

In this stage the researcher intensively studies the material, assimilating as much of the explicit and implicit meaning as possible. In the current study, a detailed descriptive transcript that aimed to capture the rich descriptive nature of the process observed was made of all 48 videotapes.
(See http://www.open.ac.uk/socialsciences/psychology/research/fseddon/ for examples of transcripts).

Stage two: Categorisation

This involves systematically working through the data assigning coding categories with the various segments. In the current study this process produced 19 different analysis codes identifying different composition activities. The analysis codes and procedure for assigning segments to different codes were verified during a validation process undertaken by an experienced independent researcher.
(See http://www.open.ac.uk/socialsciences/psychology/research/fseddon/ for details of rationale, analysis codes and validation process).

Stage three: Phenomenological reduction

This involves examining the sequence and nature of the data to frame a description of events revealing 'themes' emerging from the data. In the current study, composition strategies are grouped together with similar strategies. When a composition strategy emerges that cannot be included in an existing group, a new group is formed to accommodate it leaving room for a continuous refinement in the grouping. 12 discrete 'composition strategies' were revealed through this process.

Stage four: Triangulation

This stage involves sorting through the themes deciding which are recurring and central and which are less significant. In the current study, two participant videotapes were selected from each of the 12 identified composition strategies to represent each of the 12 strategies (except in two cases where only one participant adopted that particular composition strategy). The selected videotapes were re-transcribed and coded. The coded transcripts display coded 'events' in numerical order. Each participant engaged with three instrumental sounds making it possible to colour code according to the instruments used. Subsequently, using copy/paste techniques 'construction of parts' documents were produced revealing the sequence of events leading to the construction of each of the three instrumental parts. In addition to these documents music scores were produced from the midi files that that trace the development of each individual instrumental part at the end of each session. These music scores can verify what is described in the coded transcriptions and construction of parts documents. Propositional statements were then prepared for each of the 12 composition strategies aided by cross referencing videotapes, coded transcripts, construction of parts documents and musical scores. The 12 propositional statements describe events that 'characterise' each composition strategy. An examination of the propositional statements revealed 3 'meta-approaches' (temporarily named A, B, & C). Rules of inclusion were written for each meta-approach to which propositional statements must conform to be included in that meta-approach. The 12 composition strategies were then allocated to appropriate meta-approaches by applying the rules of inclusion to the propositional statements (For a modular representation of the analysis process see Appendix A). A proportion of the videotapes have been analysed during a validation process undertaken by an experienced independent researcher who was blind to the prior musical experience of the participants. (See http://www.open.ac.uk/socialsciences/psychology/research/fseddon/ for examples of coded transcripts, construction of parts documents, music scores, propositional statements and rules of inclusion. Details of the process and results of the validation process are also available on the website).

Stage five: Interpretation

This stage involves making sense of the data from a wider perspective, constructing a model, or using an established theory to explain the findings of the study.

Literature investigating the process of composition reveals a general consensus in the identification of various phases in the process of composition (Webster, 1988; Hickey, 1995; Daignault, 1996; Younker, 1997). There are differences in the number and naming of these phases but most researchers broadly describe the following activities:

1) Exploratory phase: this is experimental in nature where divergent activities are displayed
2) Rehearsal phase: this is when performance of parts are practiced but ideas may also be developed displaying both divergent and convergent activities
3) Construction phase: this is when the focus shifts to constructing the composition and displays exclusively convergent activities.

It is not suggested that composers move neatly from one phase to another at specific points in time. Indeed, analysis of the data in the present study reveals that

participants may move back and forth between the above activities throughout the process of composition.

The author proposes the following interpretation of meta-approaches A, B & C as types of 'creative behaviour' based upon the relative amounts of time spent in each of these composition activities as revealed by rules of inclusion formulated for the meta-approaches.

1) Meta-approach A (interpreted as 'Crafting'):

By comparison to meta-approaches B & C, this meta-approach displays a greater focus on rehearsal and construction activities with relatively little exploration. This relative balance between the three activities could be described as focusing on 'crafting' a composition based on a pre-determined framework the participant brings to the task.

2) Meta-approach B (interpreted as 'Expressing'):

By comparison to meta-approach A, this meta-approach displays a greater focus on exploratory activities with the rehearsal activities also being used to develop ideas. This relative balance between activities could be described as 'expressing'.

3) Meta-approach C (interpreted as 'Immersing'):

This meta-approach focuses almost exclusively on the exploratory activities with little or no engagement with rehearsal or construction. This relative balance between activities could be described as 'immersing'.

Results

Based upon this interpretation of the meta-approaches A, B & C as 'Crafting', 'Expressing' and 'Immersing' it is interesting to examine the distribution of the participants in relation to their prior experience of FIMT. The meta-approach associated with the composition strategies used by each of the participants was identified (see Table 1).

Table 1. Distribution of participants into meta-approaches

Meta-approaches	Participants with FIMT	Participants without FIMT	Total
Crafting	**18**	**6**	**24**
Expressing	**4**	**8**	**12**
Immersing	**3**	**9**	**12**

Of the 24 participants falling into the 'Crafting' meta-approach: 18 have prior experience of FIMT and 6 have no prior experience of FIMT. Of the12 participants falling into the 'Expressing' meta-approach: 4 have prior experience of FIMT and 8 have no prior experience of FIMT. Of the 12 participants falling into the 'Immersing' meta-approach: 3 have prior experience of FIMT and 9 have no prior experience of FIMT.

Much of the general creativity literature and musical creativity literature identifies exploration (divergent thinking) as an important phase in truly 'creative' behaviour. Two of the meta-approaches 'Expressing' and 'Immersing' were characterised by higher levels of exploratory behaviour than the meta-approach 'Crafting'. The distribution of participants who showed higher levels of exploratory behaviour according to prior musical experience (FIMT) was as follows: Low exploratory behaviour, n =24 (18 FIMT, 6 non-FIMT); High exploratory behaviour, n =24 (7 FIMT, 17 non-FIMT). A chi-square analysis indicated a significant difference between these groups (see Table 2).

Table 2. Results of chi-square analysis for high and low levels of exploratory behaviour according to FIMT/non-FIMT

Meta-approach	Participants with FIMT N (%)	Participants without FIMT N (%)	Total
Low Exploratory Behaviour	**18 (72%)**	**06 (26%)**	**24**
High Exploratory Behaviour	**07 (28%)**	**17 (74%)**	**24**

Chi-square $X^2 = 10.10$, $p < .001$

Summary:

The results of the current study reveal:

1) These adolescents adopted different composition strategies when engaging with computer-based composition.
2) There were links between the composition strategies adopted and the adolescents' prior experience of FIMT.
3) The main area of difference was the relative periods of time engaged in 'exploratory' behaviour.

A qualitative approach to the analysis revealed this difference, which could subsequently be investigated by returning to the data and carrying out a quantitative analysis calculating the amount (%) of time spent in 'exploratory' behaviour, possibly coupled with a musical analysis that identified the number and variety of 'musical ideas' engaged with.

Interpretation

Webster proposes the acquisition of performance skill focuses on convergent thinking processes and that composition and improvisation focus on divergent thinking processes (Webster, 1996). This may result in children with prior experience of instrumental tuition adhering to musical parameters associated with traditional notions of musical form and structure. This could explain why participants with prior experience of instrumental tuition display less exploratory behaviour than participants without this experience as they may bring a preconceived framework to the composition task.

An interpretation of the results could be that instrumental tuition influences the composition process as a result of the participant's self-image as 'a musician'. This self-image results in participants who have instrumental tuition engaging in less exploration in favour of producing an 'appropriate' composition because they feel under pressure to confirm their 'musician' status.

Another interpretation could be instrumental tuition gives participants additional musical skills, which enables them to develop musical ideas away from the computer. This would mean the data collection process does not record their exploration. Even if this were the case, the data still reveals a difference in the process of computer-based composition based upon prior experience.

Practical implications for music education

As computer technology and music composition software becomes more widely available in schools, music teachers will be able to employ these resources to make it possible for pupils with and without prior experience of FIMT to engage in music composition in a global world. Computer technology makes the production of sophisticated compositions possible without the pre-requisite of learning to play a musical instrument. It also makes it possible for the process of composition to be revealed and to become part of the evaluation process. Teachers would then be in a position to create a supportive environment in which students could develop their own strategies of composition. In this supportive situation, the role of the teacher becomes one of 'facilitator' rather than 'instructor' where students explore composition in an environment where there is no 'right' or 'wrong' way of composing (Folkestad, 1998). Given that most specialist classroom music teachers will be highly trained instrumentalists rather than trained in composition this facilitating and co-operative composition-learning situation would probably be a more 'comfortable' situation for both the teacher and the student.

References

Daignault, L. (1996). A study of children's creative musical thinking within the context of a computer-supported improvisational approach to composition. Unpublished doctoral dissertation. Chicago, U.S.A.: Northwestern University.

Folkestad, G. (1991). Music composition in the upper primary school with the help of synthesisers-sequencers. (Report No. 1991:19), Stockholm: Center for Research in Music Education.

Folkestad, G., Hargreaves, D. J., Lindstrom, B. (1998). Compositional strategies in computer-based music making. British Journal of Music Education (1998) 15: (1), (pp 83-97).

Getzels, J., & Csikszentmihalyi, M. (1976). The creative vision: a longitudinal study of problem finding in art. New York: John Wiley.

Glaser, B.G., & Strauss, A.L. (1967). The discovery of grounded theory. 'Chicago, Il: Aldine.

Hickey, M. (1995). Qualitative and quantitative relationships between children's creative musical thinking processes and products. Unpublished doctoral dissertation. Chicago, U.S.A.: Northwestern University.

Hickey, M. (1997). The Computer as a tool in creative music making. Research Studies in Music Education No.8 July 1997.

Lincoln, Y. & Guba, E. (1985). Naturalistic enquiry. Beverly Hills, CA: Sage.

McLeod, J. (1994). Doing Counselling Research. Sage.

NFER, (2000). Arts Education in Secondary Schools: Effects and Effectiveness. Berkshire, NFER.

Richardson, C.P., and Whitaker, N.L. (1996). Thinking about think alouds in music education research. Research Studies in Music Education, No. 6. June 1996, pp. 38- 49.

Odman, P. J. (1992). Didactical/phenomenological aspects of creative music making with the help of computers. In Datorer I musikundervisningen (11-21), Stockholm: Center for Research Music Education.

Scripp, L., Meyaard, J., and Davidson, L. (1988). Discerning musical development: Using computers to discover what we know. Journal of Aesthetic Education, 22 (1), 75-88.

Seddon, F.A., & O'Neill, S.A. (2001). An evaluation study of computer-based compositions by children with and without prior experience of formal instrumental music tuition. Psychology of Music Vol.29, No.1, 2001 p. 4-19

Seddon, F.A. and O'Neill, S.A. (2000). Adolescent engagement in computer-based composition: an analysis of the process of composition. In C. Woods,
G.Luck, R. Brochard, F. Seddon, & J. A. Sloboda (Eds.) Proceedings of the Sixth International Conference on Music Perception and Cognition. Keele, UK: Keele University Department of Psychology,August 2000.

Sloboda, J. A. (1985). The Musical Mind: The Cognitive Psychology of Music. Oxford University Press.

Webster, P., Yale, C., & Haefner, M. (1988). Test-Retest reliability of Measures of Creative Thinking in Music for children with formal music training. Paper presented at the poster session, 1988 MENC National In-Service Meeting, Indianapolis, Indiana.

Webster, P. (1988). New perspectives on music aptitude and achievement. Psychomusicology, Volume 7 (2), 177-194.

Webster, P. (1996). Creativity as creative thinking. In G. Spruce (Ed) Teaching Music. London: Routledge/Open University.

Younker, B. A. (1997). Students' thought processes while engaged in musical composition. Unpublished doctoral dissertation. Chicago, U.S.A.: Northwestern University.

Website http://www.open.ac.uk/socialsciences/psychology/research/fseddon/

Appendix A

Distribution of Participants into Composition Strategies (*1-12*) and of Composition Strategies into Meta-approaches (A-C)

Distribution of compositional strategies and meta-approaches according to FIMT and gender

Distribution of Participants into Composition Strategies (*1-12*)

Distribution of Composition Strategies into Meta-approaches (A-C)

Participants (1-48)

Female/FIMT (n = 12)

1-12

Male/FIMT (n = 13)

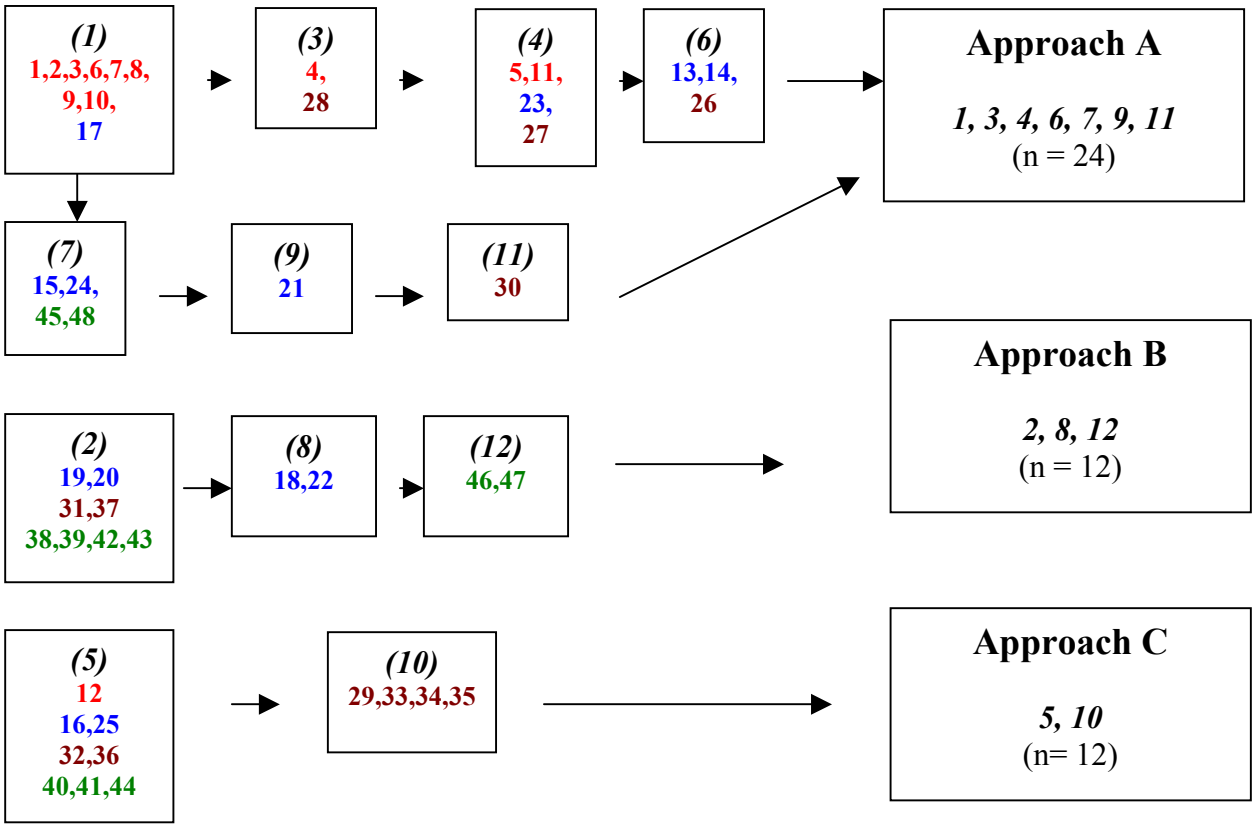
13-25

Female/Non-FIMT (n = 12)

26-37

Male/Non-FIMT (n = 11)

38-48



Beyond Classroom, University or Political Boundaries: Using Javascript to Enhance Teaching Music Fundamentals to the Global Community

BACKGROUND

By means of diagnostic examinations, significant numbers of incoming college music students at this regional public university are determined to have less than adequate preparatory knowledge of Western European music theory. To enroll in and successfully pass the first semester of four sequenced levels of music theory courses, a vast majority of students first need remedial help in such fundamental concepts as constructing scales, labeling intervals, counting simple rhythms, naming key signatures, broadly defining the most basic terminology and recognizing common notation symbols. A course called "Introduction to Music Theory and Aural Skills" was designed and implemented on campus to meet that need in the fall of 1991.

Although the creation of the course fixed the problem of remedial skills at the college level, students with a weak theoretical background continued to enroll as music majors in increasing numbers. In seeking further resolution to the problem, two options became the focus of attention when the decision was made to develop an internet version of the fundamental music theory course. An interactive web course had to be made available for: 1) anyone with a computer without help from an instructor, or 2) anyone who has paid the fees to be officially enrolled allowing for minimal help from an instructor. Establishing that audience base meant that the course could be completed by college music majors who are diagnosed as being "border line" in music theory preparation. It could also be completed by off-campus high school students being supervised by a music instructor; high school students on their own initiative (to prepare for college level diagnostic exams); or anyone with an interest in the fundamentals of music theory.

With the above criteria established, all course materials developed were made available to anyone who was interested in accessing them. Further, should a student officially enroll for and successfully complete the course, credit would be granted by our degree granting institution.

INITIAL DESIGN CONSIDERATIONS

Practical design considerations for an internet music theory fundamentals course involved recognizing the need to create musical examples as images, musical examples as sound files and an interactive environment as an enhanced learning tool. Creating images and audio files for use on the internet is, of course, commonplace. To create an interesting learning environment, certain programming objectives and considerations had to be established as high priority.

First, reading from the computer screen can be naturally interactive. A user can be asked to react to written text by pointing and clicking the mouse. By passing the mouse over text or images, instructions can be highlighted, essential points can be clarified and questions can be answered. Second, hearing the examples is of paramount importance. If the sound bytes are small enough to be downloaded quickly, the computer is an adequate tool for providing audio examples. Many software titles, such as "SoundEdit" and "Deck", are designed to expedite the creation and revision of audio examples. When discussing scales, students are able to experience the difference between major and minor by listening to examples of each. When determining the characteristic sound of a particular interval, no verbal explanation can replicate the actual sound of that interval. Third, the course had to be cross-platform and current (but not "cutting-edge"). Most public school systems in our region do not have the funding to maintain technological currency, so remaining behind the "state-of-the-art" by one generation seemed a practical consideration. Fourth, internet students must have the same ability to put pencil to paper as the students who take the parent in-class course. For that reason, Adobe Acrobat files were created and made available for download. Such files include manuscript paper for drawing symbols, practice tests that include musical examples and glossary files, which can be downloaded, printed and studied.

CREATING INTERACTIVITY

Interactivity was deemed at the outset of development as being very important. The course author/developer is not a programmer and was initially confined to writing in HTML (Hypertext Markup Language) code. To create the interactive element, some public domain javascript was adapted to suit the instructional needs of the course.

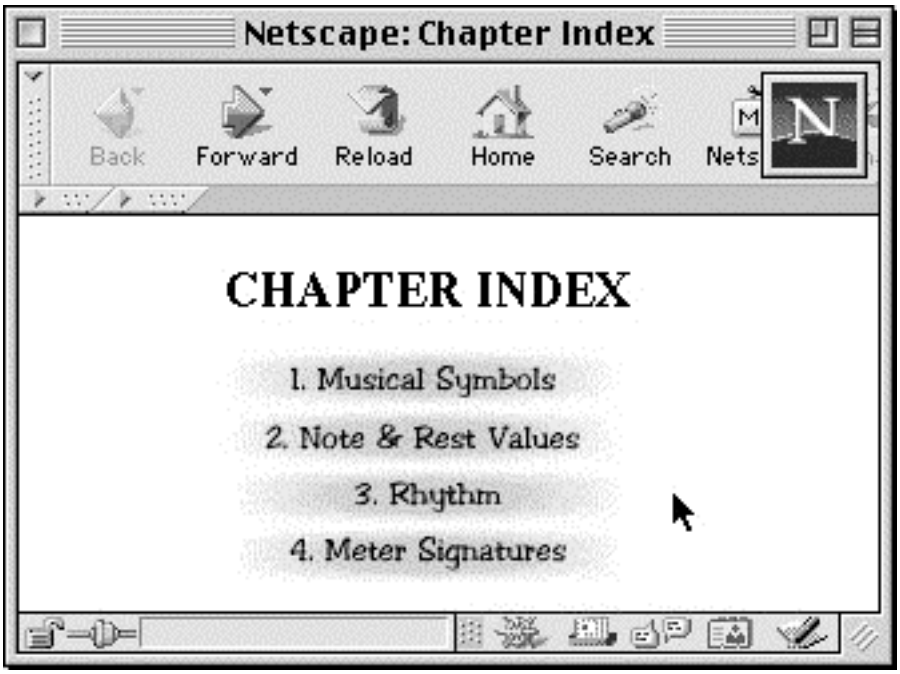


Figure 1: The Chapter Index

The following basic HTML code is all that is needed to create a web document that prints CHAPTER INDEX in the middle of a white page and places four clickable images below that. Figure 1 shows the first four chapter titles on the Chapter Index page. When the user clicks on any one of the titles (an image source shown in bold below), he or she is taken to the appropriate URL.

```
<HTML>
<HEAD>
<TITLE>Chapter Index</TITLE>
</HEAD>
<BODY BGCOLOR="#ffffff" ALINK="#000000" VLINK="#595c5e">
<P ALIGN=CENTER><B><BR>
<FONT SIZE="+2">CHAPTER INDEX<BR>
</FONT></B></P>
<P ALIGN=CENTER><A HREF="../chapter1/ch1page1.htm",window.status='Chapter One:
Musical          Symbols';return true" ><IMG SRC="pix/ch1off.gif" BORDER="0"
NAME="toc1" ALIGN="MIDDLE" WIDTH="151" HEIGHT="22" NATURALSIZEFLAG="0"
ALT=""></A> <BR>
<A HREF="../chapter2/ch2page1.htm",window.status='Chapter Two: Note and Rest
Values';return true"><IMG     SRC="pix/ch2off.gif" BORDER="0"
NAME="toc2" ALIGN="MIDDLE" WIDTH="151" HEIGHT="22" NATURALSIZEFLAG="0"
ALT=""></A> <BR>
<A HREF="../chapter3/ch3page1.htm",window.status='Chapter Three: Rhythm'; return
true"><IMG     SRC="pix/ch3off.gif" BORDER="0"
NAME="toc3" ALIGN="MIDDLE" WIDTH="151" HEIGHT="22" NATURALSIZEFLAG="0"
ALT=""></A><BR>
<A HREF="../chapter4/ch4page1.htm",window.status='Chapter Four: Meter Signatures';return
true"><IMG     SRC="pix/ch4off.gif" BORDER="0"
NAME="toc4" ALIGN="MIDDLE" WIDTH="151" HEIGHT="22" NATURALSIZEFLAG="0"
ALT=""></A><BR>
</P></BODY>
```

To add interactivity to the images, such as "rollovers", javascript is necessary. The following added code (in bold) allows each of the above images to change as the mouse passes over any one of them. In short, this works the way it does because the new code loads several images when the page is accessed. Only one image is displayed until the user moves the mouse over a designated hotspot at which point a second image takes the place of the first.

```
<HTML>
<HEAD>
<TITLE>Chapter Index</TITLE>
  <SCRIPT LANGUAGE="JavaScript">
{       toc1on = new Image();
                toc1on.src = "pix/ch1on.gif";
        toc2on = new Image();
                toc2on.src = "pix/ch2on.gif";
        toc3on = new Image();
```

```
            toc3on.src = "pix/ch3on.gif";
        toc4on = new Image();
            toc4on.src = "pix/ch4on.gif";
        toc1off = new Image();
            toc1off.src = "pix/ch1off.gif";
        toc2off = new Image();
            toc2off.src = "pix/ch2off.gif";
        toc3off = new Image();
            toc3off.src = "pix/ch3off.gif";
        toc4off = new Image();
            toc4off.src = "pix/ch4off.gif";
    }

function img_act(imgName) {
{       imgOn = eval(imgName + "on.src");
            document [imgName].src = imgOn;
    }
}

function img_inact(imgName) {
{       imgOff = eval(imgName + "off.src");
            document [imgName].src = imgOff;
    }
}
  </SCRIPT>
</HEAD>
<BODY BGCOLOR="#ffffff" ALINK="#000000" VLINK="#595c5e">

<P ALIGN=CENTER><B><BR>
<FONT SIZE="+2">CHAPTER INDEX<BR>
</FONT></B></P>
<P ALIGN=CENTER><A HREF="../chapter1/ch1page1.htm"
        onMouseover="img_act('toc1')",window.status='Chapter One: Musical Symbols';return
true"   onMouseout="img_inact('toc1')"><IMG SRC="pix/ch1off.gif" BORDER="0"
NAME="toc1" ALIGN="MIDDLE" WIDTH="151" HEIGHT="22" NATURALSIZEFLAG="0"
ALT=""></A> <BR>
<A HREF="../chapter2/ch2page1.htm" onMouseover="img_act('toc2')",window.status='Chapter
Two: Note      and Rest Values';return true" onMouseout="img_inact('toc2')"><IMG
SRC="pix/ch2off.gif"   BORDER="0" NAME="toc2" ALIGN="MIDDLE" WIDTH="151"
HEIGHT="22"
        NATURALSIZEFLAG="0" ALT=""></A> <BR>
<A HREF="../chapter3/ch3page1.htm" onMouseover="img_act('toc3')",window.status='Chapter
Three:  Rhythm';return true" onMouseout="img_inact('toc3')"><IMG SRC="pix/ch3off.gif"
BORDER="0"  NAME="toc3" ALIGN="MIDDLE" WIDTH="151" HEIGHT="22"
NATURALSIZEFLAG="0"       ALT=""></A><BR>
<A HREF="../chapter4/ch4page1.htm" onMouseover="img_act('toc4')",window.status='Chapter
Four: Meter    Signatures';return true" onMouseout="img_inact('toc4')"><IMG
SRC="pix/ch4off.gif" BORDER="0"    NAME="toc4" ALIGN="MIDDLE" WIDTH="151"
HEIGHT="22" NATURALSIZEFLAG="0"         ALT=""></A><BR>
```

</P>
</BODY>

These are also called “mouseover” events, a term you may find in the HTML portion of the above script. The result of the added javascript allows the image to change, providing confirmation that the user is making the correct selection. The figure below illustrates that the user is preparing to click on the title for Chapter Three.

Figure 2: Rollover Images

Part of the code (window.status='Chapter Three: Rhythm';return true) also allows for an additional message in the status bar at the bottom of the window. Figure 2 also demonstrates the use of the status bar providing, in this case, additional confirmation that the user is about to go to Chapter 3. This is a device particularly useful in revealing answers to questions that may be posed in the main body of the document.

The code that creates the javascript rollover was the primary source code for creating most of the interactivity required for this course. Rollover images may be used for revealing answers, animating examples and manipulating images as the user passes the mouse over a picture or clicks on a designated spot within an image map.

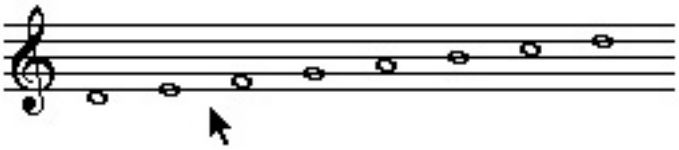


Figure 3: Dorian

For example, in a discussion about interval content in major scales, Figure 4 represents an image as it is seen when the page is initially loaded. This exercise follows a discussion about basic scales or modes.

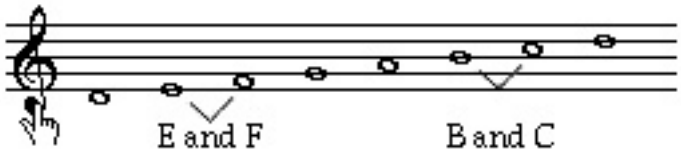


Figure 4: Dorian Mode Half-Step Identification

When the mouse is passed over the treble clef as instructed, the code responds as shown in Figure 4 by replacing the old image with a new one, revealing the half steps as they occur in this modal scale.

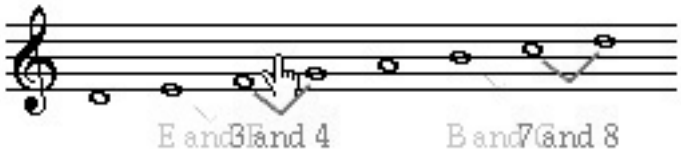


Figure 5: Major Scale Half-Step Identification

Next, if the user is instructed to search with the mouse for the "correct" placement of half steps for this to be a major scale. The code responds as in Figure 5 with a visual confirmation that half steps should be between the third and fourth scale degrees.

The next sequence of events requires the student to change the image of the mode into the image of a major scale. The student is instructed to "CAREFULLY and SLOWLY MOVE YOUR MOUSE from the lowest note in the scale to the highest". When the mouse correctly moves from note-to-note, intervals are revealed and correct sharps are shown for the scale in question. Figure 6a represents the beginning of the sequence of mouse movements and Figure 6b represents the final image of the sequence.

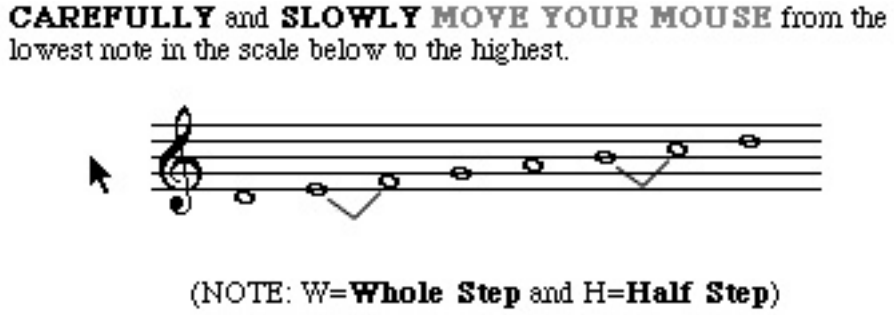


Figure 6a: D Dorian to D Major

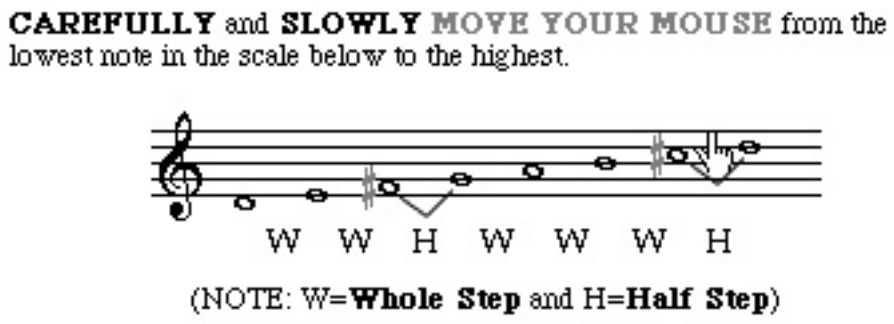


Figure 6b: D Dorian to D Major

Most examples of this type originated from a single basic javascript code that was copied and pasted into pages of HTML code at appropriate places. It was edited and adapted to the instructional objectives of individual pages.

COURSE CONTENT

Course content is very similar to the on-campus version of the course. It also follows the same content outline as many textbooks that deal with similar subject matter and could be used to supplement most of them. The chapters include:

Chapter One: Musical Symbols

Chapter Two: Note and Rest Values

Chapter Three: Rhythm

Chapter Four: Meter Signatures

Chapter Five: Intervals

Chapter Six: Modes

Chapter Seven: Major Scales

Chapter Eight: Minor Scales

Chapter Nine: Key Signatures

Chapter Ten: Triads

Near the end of most chapters there are several introductory eartraining exercises. Some of the exercises include interval, rhythm and melody identification. All melodic and rhythmic exercises consist of very brief audio excerpts that allow for relatively fast downloads. The visual examples can be created with software like Finale and exported as image files with a fair amount of ease. The audio examples can be recorded as audio files and saved as Quicktime (or other cross platform format) documents.

For those enrolled in the course, cues to request tests are provided periodically throughout the course. At appropriate times, four major exams are emailed to students. Instructions are given to download the Adobe Acrobat file (in PDF format), print it out, fill it out and FAX it back to the instructor within 24 hours. A final exam may be taken anytime during the university's final examination week.

ADMINISTRATION ISSUES

Users may access the course without any restrictions or they may formally enroll to take the course for college credit through this university. Only enrolled students are able to email requests for tests at appropriate times and to ask for help from the instructor.

The involvement of the instructor in `course administration is quite minimal. The university registrar completes the enrollment process and handles all fees and records, the Office of Continuing Education promotes the course and disperses information regarding enrollment procedures and course requirements, and the Department of Music handles referrals and

answers departmental questions. The maximum enrollment for the course is officially set at one student so that all students above that number must seek special approval to register for the course. Enrollment in the course is the highest it has ever been at 14 students during the semester of this writing (Fall, 2001). The initial contact with the instructor is usually nothing more than an email request to get started on the course.

SOME FINAL OBSERVATIONS

A new edition of the course is currently underway and involves reprogramming the content using Macromedia's Director. The principal objective in the revision is cosmetic: to make the material more appealing to the eye and easier to navigate. The first two chapters have been completed and some initial observations can be made, comparing and contrasting the two developmental methods.

Using software, such as Director, to create an interactive learning environment seems to save no time when comparing that development method to writing in javascript-enhanced HTML code. For the inexperienced programmer, both writing methods will require a research period, whether to learn how to use the software being employed or to learn the language of HTML (and how to adapt javascript

Java is a programming language that is nearly universally understood by newer browsers. Downloaded documents created with Director will not be understood by a browser unless the appropriate helper software (available for free) has been installed.

Each chapter has between 15 and 25 pages of content. Each page written in HTML is a separate document and is loaded individually to the local computer for use and each takes only a few seconds to load. Using Director, the entire chapter is written as a user-controllable document and each chapter requires a substantially longer loading time. However, after the entire chapter has been downloaded to the computer, each page is nearly immediately accessible.

Using HTML, certain special effects require more extensive programming skills than this author has acquired. Many of those same effects are readily available using Director. Some of those effects include animating images and dissolving and wiping between pages and graphics. Of particular note, clicking on an image to activate an audio file was a programming problem with javascript. Using Director, the image was imported as a cast member, given a behavior (on mouseDown) and the task was no problem.

Since graphics are treated as sprites in Director, images, unusual fonts, backgrounds and banners are not a problem to incorporate onto a page. Controlling such elements, using motion, color changes and fades is quite easy. Using HTML to program content, control over those individual elements is difficult to impossible without the aid of Java.

Finally, an observation about security should be noted. An HTML document contains code that, without encryption, can be viewed by anyone. If a student wants to find an answer to a question that is posed (on a practice test, for example), he or she can, with most browsers, view the document source. Documents created with Director may be saved as Director files

which, in turn, may be referenced by HTML documents. The student (or user) is not immediately accessing the Director document - only a reference to it. That means the code is not immediately accessible and a greater degree of security is achieved.

Since the implementation of "Introduction to Music Theory and Aural Skills" in the Fall semester of 1998, over 60 students have been serviced by this course. A tracker has shown that visitors from over 40 countries from around the world have found this site to be useful in some way. Several colleges and universities in the United States have provided a link to this course as a valuable resource for their students.

CONTACT

The course

Introduction to Music Theory and Aural Skills (the complete HTML course)

http://www.murraystate.edu/qacd/cfac/music/MUS109entry.htm

The author

Dr. John Steffa, Associate Professor

Department of Music

304 Fine Arts Center

Murray State University

Murray, Kentucky 42071

Office: 502.762.3142

FAX: 502.762.6335

Email: john.steffa@murraystate.edu

http://www.murraystate.edu/qacd/cfac/music/jsteffa.htm

John Steffa, Murray State University, Kentucky, USA

'Using electronic technology in the music curriculum: the case of *Soundbeam*. If it's so easy, how much is there to learn?

Tim Swingler – tim@soundbeam.co.uk
Bath Spa University College, The Soundbeam Project, UK

ABSTRACT
Since its launch in 1990, the applications of the *Soundbeam* device - a 'gestural' controller which uses ultrasonic sensor technology to translate physical movement into electronic music without the need for tactile contact, or traditional instrumental ability - have been quite rigorously researched and evaluated in the context of special education. In 1999 an advanced version of Soundbeam was designed which dramatically expands the expressive and compositional power of the system. This paper will include an overview of the performance and operation on the machine, an assessment of the potential of the system as a 'serious' musical instrument enabling collective composition and performance in schools, and an examination of some of the challenges involved in integrating new technology into the curriculum and in evaluating students' work. It will be suggested that new kinds of collaboration between the disciplines of music, dance and IT are needed. Video material of pilot projects involving composers using the technology in primary schools in the UK will be included.

INTRODUCTION
How is the process of choosing a musical instrument for a child undertaken? Typically, some fairly basic questions might be asked: What does it sound like? What kind of musical 'personality' does it have? How big/heavy is it? What does it look like? What are its qualities as an aesthetic object? How easy or difficult is it to play? How many months or years is it likely to be before the learner becomes motivated by his or her own progress?

In the context of some types of new electronic technology these traditional considerations are rendered unhelpful. Soundbeam, for example, is an instrument which can be used by up to twelve individuals at a time, can be played with some facility and expression more or less immediately, can sound like anything, and is (to the player) invisible.

Inspired by the *Thereminvox* developed in Russia in the 1920s, Soundbeam was originally conceived by composer Edward Williams as a tool for dancers, giving them a redefined relationship with music: the soundtrack being created in real time by the dancers' expressive movements and gestures in performance. It has also proved to have dramatic significance in the field of special education and music therapy (Russell, '96, Perry *et al.* '97) because even with profound levels of impairment the most minimal movements can instigate and shape interesting sound effects, trigger rich and exotic aural textures, or effect soaring improvisations. Individuals especially difficult to stimulate can benefit from what may for them be a first experience of initiation and control. This feeling of *agency*, and the sense of immersion in what can be a profoundly aesthetically satisfying world,

results in sustained periods of contemplation, learning and joy (Ellis, '95,'96,'97,'00, Hillman, '98, Rickson, '98).

HOW IT WORKS

Soundbeam's sensors send out streams of pulses of ultra-sound in conical beams which increase in diameter - like an (invisible) torch beam - the further they get from the sensor. In suitable acoustic conditions, the range of the beam - i.e. the furthest distance from a sensor within which information about interruptions of its beam will be detected - can be varied from 0.5 metres up to 6 metres.

An interruption of any part of the beam will cause "echoes" of the ultra-sonic pulses to be reflected back to the sensor. Using these echoes, Soundbeam offers continuous information about

- any interruption of the beam at any place within the specified range;
- the distance from the sensor - and all subsequent changes of distance - of a moving object ;
- the relative speed of a moving object in the beam

Soundbeam converts these three categories of information into MIDI, the binary code used for controlling electronic musical instruments - samplers, keyboards, sound modules and sound processors. The total length of the beam (at any range control setting) can be divided into up to 64 equal sections or 'divisions'. When one beam division is selected, an interruption of the beam at any point in its whole length will generate the same note. With two beam divisions each half of the beam's length - again at any range setting, from 0.5m to 8m - will generate a different response - and so on. As the length of the beam increases or decreases, so the size of each individual section increases or decreases proportionately. For example, in a beam divided into 8 divisions, at a range setting of 0.5m, each section will be 62.5 mm long - while, at a range setting of 8m, each of the 8 sections will be 1 metre long.

100 scales and note sequences of up to 64 single notes or 2, 3 or 4-note chords can be held in the Soundbeam's memory. There are 30 preset pitch sequences - 64 note scales and arpeggios and other single pitch and 2, 3 or 4-note chord sequences. In addition, 70 user-defined pitch sequences of any number up to 64 notes or chords can be played in from a MIDI keyboard and recorded.

There are various ways of starting and ending sounds generated by movements in the beam; *On-Off* - a single note for the length of each interruption (but no longer); *Re-trigger* - a flurry of notes generated by an interruption moving within the beam; or *Sustain* - holding on the notes resulting from a series of interruptions to build up a chord or cluster - are all possibilities. The pitch of any selected sequence can be semitonally transposed up or down by up to three octaves. Information derived from each of the sensors and switches can be assigned a MIDI Channel number and can also be sent to any of the standard MIDI Controllers, e.g. velocity, pitchbend, modulation wheel, etc.

The Soundbeam's non-volatile memory can hold 128 Setups - i.e. complete sets of parameter settings for all 4 Sensors and 8 Switches. 30 factory setups are contained within the machine's software alongside 98 empty memory locations for user-designed compositions.

WIDER ISSUES

Debates about 'new technology' can be problematic because of the question of definition, and it is perhaps interesting to see some of the broader generalisations sometimes made about music technology in the context of the hostility encountered by Theobald Boehm when he introduced his redesigned fingering system for the flute in the early 1800's. It may be helpful to think of new music technology not in terms of trying to define what it is, but rather in the form of a question: *what does it make possible in music which wasn't possible before*? We can propose four defining criteria in answer to this:

- Designing sound

- new technology makes possible the discovery, or invention, of new timbres and acoustic worlds.

- Articulating sound

- it provides players with new means of accessing sound - of *playing* - without the need for specialist skill in fingering, bowing, plucking etc.

- Organising sound

- it allows processes of composition to occur either as an individual or as a collective activity, without the need for traditional notation or theoretical knowledge.

- Recording sound

- it allows a high-quality record of the music to be saved either as a finished product or for subsequent modification and improvement.

Good quality music technology makes it possible for the musical imagination to realise a creative idea without the traditional prerequisites of instrumental proficiency or formal training. Intelligently handled, it can make highly sophisticated processes of musical conception, exploration, composition and performance accessible to new groups of creators. Samplers, for example, allow genuinely new and original timbres to be discovered or invented; sequencing programmes and *MIDI* controllers such as Soundbeam allow these sounds to be articulated and performed in complex and exciting ways; and sound processors, mixers and portastudios allow each contribution to be made into a recording of a quality which would only have been available to the wealthiest artists 30 years ago.

There is an openness to the idea that music might be *played* in new ways, but there exist deeply held assumptions about how music should sound (or - on an even more basic level - what music 'is'). As Phil Ellis (1995) has noted, this backward looking approach to music in education sees music as comprising predictable melodic, rhythmic and harmonic structures, with an emphasis on correctness. One of the most beautiful elements of Ellis' research into the applications of new technology is its demonstration of the ways in which children are able to compose and perform with it without being anchored to these traditional standards, and of the crucial importance of *sound* as a creative and educational motivator.

Fig. 1: Looking back / Looking forward

LOOKING BACK	LOOKING FORWARD
Duration	
Usually in strict proportion, with a beat or pulse. Most often written with 3 or 4 beats to a bar.	May have irregular or constantly changing beats. Some music may not have any beat or pulse at all.
Volume	
Used expressively, often very subjectively. No absolute control or measurement. Contrasts tend not to be extreme.	Carefully, sometimes precisely controlled, with extremes of contrast being possible. May contribute to the structure of music.
Timbre	
Often not very important; many pieces have been arranged or re-arranged.	Often pieces are composed specifically for the actual sounds (sometimes even players) themselves.
Location	
Not a high priority, with little emphasis given to where performers should be placed within an ensemble.	The location of players/sounds, and how these may move around the auditorium during performance can be an important expressive element.
Pitch	
Most often confined to one form of tuning - 'diatonic', fixed in 1722. Other forms of tuning often ignored. Music usually melodic/harmonic, with memorable sequences.	Can use diatonic tuning, but may use non-standard intervals. Concord and discord may not be relevant concepts. Often difficult to remember at first.

From Ellis, 1995

However, in the context of mainstream education, some serious issues need to be investigated as to the potential of the system as a 'serious' instrument. To what extent is the sense of achievement engendered by an evolving mastery and refinement of technique on a musical instrument crucial to the learning process? In a sense, it is the very immediacy of the experience of making music with Soundbeam which is problematic. How far is it possible for players to develop and refine their skills? What kind of long-term learning is possible? Ellis' 'Looking back/Looking forward' model (fig. 1) is an attractive one, partly because it seems to allow the intended rendition of virtually any sound or combination of sounds to be validated as 'music'. Is this a convenient justification for technology which is impossible to 'play' in the traditional sense of the accurate and intentional rendering of chosen notes, chords and phrases, or is it a necessary advancement of our understanding of what might be musically possible?

CONCLUSION

Judging the usefulness of devices like Soundbeam - which allow musical expression to happen almost immediately - presents many challenges. With conventional instruments the time gap between musical *imagination* and musical *realisation* takes years to develop. Good technology radically shortens this gap. It extends the limits of selected-scale or percussion based work, and it asks the player to learn not the technical skills of the traditional instrumentalist but the freedoms and disciplines of improvisation. This kind of music poses problems in a traditional educational context because it is difficult to evaluate. If there is no 'correct' way to play, how can we tell if a performance is any good? There is, as yet, little or no repertoire for Soundbeam. The evolution of the new musical languages which electronic devices make possible needs to happen in parallel with new ways of teaching and learning, and although it is already clear that the attainment of significant milestones in the physical, cognitive and social development of individuals with a range of disabilities can be radically assisted by the use of technology like Soundbeam, we are only in the foothills of understanding its potential (or otherwise) in the wider world of music education.

It may well be that the original catalyst for Soundbeam - composer Williams' twin passions for dance and electronic music - will offer the most fruitful direction for thinking about and using this technology. In the spirit of *Samspel*, it demands new kinds of collaboration, and a blurring of the traditional boundaries, between music and dance, between composers and choreographers, between art and technology, and - perhaps most significantly - between musicians and 'non-musicians'.

REFERENCES

ELLIS, PHIL: 'Incidental Music' video with booklet, The Soundbeam Project, 1996.

ELLIS, PHIL: 'Special Sounds for Special Needs: Towards the Development of a Sound Therapy'. *International Society for Music Education* 1994 Conference proceedings.

ELLIS, PHIL: 'Developing Abilities in Children with Special Needs - A New Approach' in *Children and Society*, '95,9:4, pp.64-79.

ELLIS, PHIL: 'Incidental Music: a case study in the development of sound therapy' *British Journal of Music Education*. (1995), 12, pp. 59-70

ELLIS, PHIL: 'The Music of Sound: a new approach for children with severe and profound and multiple learning difficulties'. *British Journal of Music Education*, 1997, 14:2, pp. 173-186.

HILLMAN, MICHAEL: 'Introducing Soundbeam' in Tomaino, Concetta M. (Ed.) *Clinical Applications of Music in Neurologic Rehabilitation*, MMB, 1998, chapter 6.

PERRY, BETHANY G. and WOLSLEGEL, WENDY M.: 'Assessment of effectiveness of Soundbeam to Elicit Movement and Social Interaction'. University of Wisconsin Eau Claire, 1997.

RICKSON, DAPHNE: 'Soundbeam'. New Zealand Conference on Technology for People with Special Needs. <http://nz.com/webnz/ability/csn_papers:html>

RUSSELL, KATHRYN: 'Imagining the Music, Exploring the Movement: Soundbeam in the Sunshine State'. *Queensland Journal of Music Education*, 4,1, 1996. Pp 41-48.

www.soundbeam.co.uk

Encouraging Creative Thinking in Music Instruction: A Basis for International Collaboration in a Technologically Connected Age

Peter R. Webster – pwebster@northwestern.edu
John Beattie Professor of Music Education, School of Music
Northwestern University, Evanston, IL USA

The last fifteen years of scholarship and practical efforts in music education have resulted in a steady growth of interest in "creative thinking"[1] as a force in music pedagogy. Interest in creative thinking as pedagogy in music education has its roots in the earliest music teachers in many cultures who have asked their pupils to practice making aesthetic decisions about music for themselves in the context of performing, improvising, composing, and music listening. However, it has been only in recent times that researchers and practitioners have begun to think about "creativeness" as a more formal aspect of music pedagogy (Webster, 1992).

Examples of this can be seen in several places of the literature, both in the United States and in other parts of the world. In 1987, some 15 years ago, I published a first draft at a model of creative thinking in music (Webster, 1987a) which helped to solidify some of my work on a measure of creative thinking in music for children aged 6-10 (Webster, 1987b). This measure has recently been completely revised and is now administered independently by interactive computer and MIDI technology (Hickey and Webster, 1999).

Recent interest in the study of children's composition can be noted in the United States (Wiggins, 1990; Kratus, 1991; and Hickey, 1997), Sweden (Folkestad, 1996), Australia (Barrett, 1997), and the UK (Paynter, 1992; Burnard, 2000). Campell (1998) has written eloquently about children's imaginative thinking , often in a cross-cultural framework. Dunn (1997) continues to study creative listening and Pressing (1988) has tackled improvisation from a cognitive perspective. Much of this work is accompanied by new develops in curricular development in the United States (National Standards) and the UK (National Curriculum) which stress creative production beyond the more traditional performance-based thinking. As we begin the twenty-first century, we know more about music thinking and learning now than at any other time in our history.

Importance for the International Community

Why is this work so important for international music education? By asking children to construct music products with our guidance, we can begin to see how music understanding is naturally constructed. With our ability to share the results of this thinking via the Internet, we are offered an unprecedented opportunity to study this construction cross-culturally. The basic goal of constructionism is to place emphasis on creativity and to motivate learning through activity (Resnick and Kafai, 1996). Learning is seen as more

[1] "Creative thinking" in music education is defined as any effort to encourage children to think imaginatively about sound and to apply this thinking in divergent and convergent ways to form products for the purpose of better understanding music as art.

effective when approached as *situated in activity* rather than received passively. Interestingly, many music educators have believed this since the beginnings of pedagogical discussions in our field, although the creative activity has been largely centered in music performance settings and has been very teacher-centered in its design.

In this paper, I make a strong plea for music educators around the world to consider sharing the results of a more student-centered music education in the form of teaching strategies and student products and processes. In the sections below, I stress the importance of understanding creative thinking in music teaching. I will relate this to an expanded view of my model first published in 1987. A section on the importance of constructionist thinking will be followed by observations on the role of technology and its service to the international scholar and practitioner.

Toward a Definition of Creative Thinking

It is generally understood that creative thinking is not a mysterious process that is based on divine inspiration or reserved only for those that are labeled as genius. (Weisberg, 1986, p.3) It can be defined and identified in us all. It also is clear that creative thinking occurs at various levels in a particular discipline, from the spontaneous songs of the very young child to the products of the greatest minds in our field.[2]

A careful study of the various definitions in the literature reveals five common elements: (1) a problem solving context, (2) convergent and divergent thinking skills, (3) stages in the thinking process, (4) some aspect of novelty, and (5) usefulness of the resulting product.[3] Regardless of the discipline, most experts agree that creative thinking is driven by a problem and a need for its solution. This problem may have an aesthetic base (as in the arts) or may be grounded in some specific discipline such as science, medicine, or law. The point is that there are obstacles that must be overcome by searching for alternatives. In music, the activities surrounding (a) composition, (b) performance/improvisation and (c) analysis (listening to music or studying written scores) present specific problems to be solved for the creator which demand the use of musical knowledge **and** musical imagination.

The search for aesthetically acceptable answers is made possible by strategies that include movement between divergent and convergent thinking skills – in other words the ability to generate a number of possible solutions and then arrive at the single best. Convergent thinking is encouraged and rewarded by music educators – divergent thinking is rarely encouraged or valued.

Studies in many disciplines have revealed that creative thinking generally progresses through stages: preparation, incubation, illumination and verification. Artists have reported movement from stage to stage in different ways and at different speeds, but the descriptions seem to follow the pattern of initial work, periods of rest followed by insight, and a final phase of major work and refinement.

All definitions of creative thinking include some reference to novelty. This may take the form of something new to the artist (or the child), but perhaps not to society or to the world of art. Words such as "unique" or "original" seem common. This sense of the novel

---

[2]An older but still useful view of levels in creative products can be found in the writings of Taylor (1959). Taylor suggested that the products of creative thinking might be viewed on five different levels: expressive, productive, inventive, innovative, and emerginative. Each of these levels can be defined in terms of the discipline of music.

[3]This view is reinforced by Gardner (1989) in his book, *To Open Minds*, when he defines a creative person as ". . . one who can regularly solve problems or fashion products or carry out projects in a domain which are initially considered novel or unusual but ultimately come to be accepted in one or more cultural settings." (p. 113.)

is balanced by the concept of usefulness or suitability that also exists in most definitions. In other words, a truly creative work includes a sense of newness, but within the confines of artistic reason.

Finally, the result of the creative thinking process must always be represented by some form of product. This separates real creative thinking from day-dreaming or fantasy. Musical products take the form of written compositions, performances of music both pre-composed and improvised, and analyses both written and mentally represented during listening.

The Notion of Balance

I want to emphasize again the importance of factual content. Common sense tells us that we cannot expect children to be creative when there is nothing to be creative with. Any model of creative thinking in music must deal squarely with how factual content in music serves as the foundation for the creative process. In terms of composition, this content runs the full gamut from the earliest experiments with notational systems to the most sophisticated understanding of musical structure in different historical styles. The performer, including the improviser, needs to have mastered the technique of the chosen instrument or voice and be able to hear the subtleties of their playing cast against the framework of the musical context in which they find themselves. The creative analyst, including the informed listener who may not be a professional musician, must have gained experience in identifying musical elements that range from simple settings in short time frames to complex musical sound over long periods of time.

In music education, we recognize all of this as the factual content of music teaching and learning—the material upon which we structure our best convergent strategies. This material can be described in curriculum guides, placed in scope and sequence charts, presented to children, and evaluated for achievement. In many substantial ways, we do this very well in music teaching. In fact, our history as a profession in this regard is extraordinary. Given the conditions under which we have worked and the time we are allowed to have with children in a typical school day, it is amazing that we have been able to produce as much knowledge as we have.

But being *knowledgeable about* music is not *knowing* music. The question remains, how do we ask children to use this material to actually make music and to think about musical sound? I would argue that we do not do this in any substantial way and that there is no balance between the clearly convergent thinking processes in music teaching and the more divergent. In short, there is little or no creative thinking occurring.

The Case for Constructionistic Thinking

Table 1 provides a summary of shifts in educational thinking that can be traced, at least in part, to a more constructionistic view. At the heart of these ideas is the shift away from thinking about education as begin centered solely in the mind of the teacher and more as partnership between teaching and student with the teacher as the major architect of learning. Project-centered learning is celebrated with students working to solve problems. It is argued that if children learn this way, facts are learned in a situated context which helps to make clear why the facts are important in the first place.

Table 1. Shifts in Thinking About Education Influenced In Part by Constructionist Philosophy

Pedagogical Concept	Older View	Newer View
Relationship Between Ideas	Hierarchical	Networked
Environment	Highly Structured	More Informal
Thinking	Lower-order, linear skills valued; convergent thinking, memorization	High-order, non-linear thinking valued, convergent and divergent thinking, application of knowledge, critical and creative thinking
Instructional goal	Memorization	Inquiry and invention
Relationship Between Student and Teacher	Instructors are experts with learners as passive receptors	Instructors are seen as mentors with students as active participants
Teacher Role	Fact Teller	Architect of school experience by creating opportunities for discovered learning
Student Role	Listener	Discover of learning with guidance from teacher and other resources
Classroom Activity	Didactic	Interactive
Approach to Knowledge	Accumulation of facts, centered in the classroom/school	Transformation and application of facts, knowledge sources both in and outside of the classroom/school
Role of Technology	Drill and practice reinforcement, information defined by the machine/system	Active agent for new knowledge via simulation, non-linear links, multimedia, interactivity
Assessment	Norm-referenced measures, standardized testing, objective measurement, teacher-centered assessment	Criterion-referenced, portfolios of achievement, self-assessment, ruberic-based scales,
Success	Based on quantity of knowledge	Based on quality of understanding and application

Each of the "newer views" listed in Table 1 holds enormous consequences for how learning is structured in music education. Music teachers are challenged to think in a completely different way about education. For example, a general music specialist who has

always taught music reading in a teacher-centered approach (curriculum content is quite fact and skill oriented) might find the idea of improvisation and composition in small groups with self-assessment to be quite different and perhaps challenging. Technology-based collaboration over the Internet with experts from outside the school might be even more foreign, perhaps even threatening. Performance directors who follow continual cycles of rehearsals and performances with no consideration for the teaching of music context, interrelationships with other arts, and critical analysis of the music will likely find the sharing of the podium with student conductors, extensive discussions of music content, and asking students to write reports about the music to be quite unusual.

The point here is that we have much to learn about structuring music teaching environments that encourage musical (and I would argue, creative) thinking—the kind of core musical thinking that really matters, the kind that goes beyond mere perception of surface sound. Constructionism as a philosophy of education has much to teach us in music as we consider the design of more effective teaching strategies for reaching a greater percentage of today's youth.

Communication and the Internet

Lewis Perelman in his controversial book *School's Out: Hyperlearning, the New Technology, and the End of Education*, argued that the current design of public school education is more suited to the nineteenth century, industrial economy than to the present day information-rich society. He makes the case for a complete redesign of schools, placing greater emphasis on technologically-based systems of "hyperlearning" delivered by systems not necessarily bound to what we now think of as "school."

Most educators would likely maintain that Perelman's views are too radical and not useful in practice, at least in the short term. But the nexus of Perelman's arguments strike close to the major tenants of a constructionism philosophy and do raise the important link to the role of technology in reshaping how we come to think about how we teach. We cannot dismantle our schools systems, but music teachers can begin to integrate Perelman's ideas into traditional education by using the power of the Internet and advances in music technology.

Consider first the presence of computers and the Internet in schools across the world. No longer is a computer a "standalone" personal device, but part of a massive interconnected system of computers that offer enormous implications for learning in every subject domain. What began in the 1960s as a fail-safe system to connect computer systems in a few military-related institutions is now a robust and ever-growing interconnection of computers in billions of locations in schools, libraries, businesses, government agencies, and private homes across the world.

Data sources continue to document the growth of the Internet's presence in schools. No longer is a teacher, a student, or a school an isolated set of entities, operating is a closed system. Some may site television as a technology that has effected change in education, but the computer and the Internet have far outdistanced television in its ability to deliver multiple forms of information on demand in ways that can be helpful to students as they work to construct their understanding of a subject domain with the teacher's help. The Internet has also provided methods of interaction and collaboration that have never before been possible.

In our text on music technology, David Williams and I make a case for how networking and collaborative computing change the entire environment for learning (Williams and Webster, 1999). Table 2 represents a matrix of time and place with resulting implications for collaborative computing over the Internet. Each cell of the Table provides possibilities for music teaching.

Table 2. Time/Place Matrix and Activities Possible

	Same Place	Different Place
Same Time	**Class and Meeting Space** Local Collaboration (Synchronous) Local computer labs Computer-assisted instruction Desktop presentation	**Vitural Class and Meeting Space** Remote Collaboration (Synchronous) Remote Classes/Rehearsals/Lessons Distance Tutors and Experts Video Conferencing
Different Time	**Vitural Labs, Libraries, and Media Space** Local Collaboration (Asynchronous) Computer-aided assessment Shared Databases and On-line Catalogs Electronic Portfolios Network Drop Folders Music Kiosks	**Remote Coordination and Collaboration** Remote Collaboration (Asynchronous) Electronic Mail Online Calendars Electronic Newsletters Electronic Forums Web Servers with Multimedia Resources

The cell in the upper left represents the more traditional same time/place scenario. This is traditional instruction with technological assistance. Here, there is no Internet involvement but technology is used to enhance music instruction. Everything happens in real time including collaboration, rehearsal and classroom instruction. Portable computers can be used in the same room for cooperative work and an electronic "whiteboard" can be used to display the work done from all computers in the room. Computers with audio CD drives can be used as teaching aids to accompany presentation software. Music can be taught interactively within computer labs much like class piano instruction has been done for years.

The bottom left cell *does* involve the Internet as schools expand their instruction to more flexible time frameworks. Although information remains in a relatively local setting, access to that information can be more centralized and accessed at any time. Electronic portfolios in music can be maintained, along with other databases to support instruction. Network "drop" folders can be used to submit work and progress can be monitored electronically and assessed online. Imagine music teachers helping their students improve their improvisation, composition or critical thinking skills in music remotely and at any time of day.

Moving to the upper right cell, we extend many of these ideas to virtural classrooms and meeting spaces that use the Internet as a way to connect different places at the same time. Music instruction is delivered to different places around the street corner or around the world synchronously (at the same time). Distance learning of this sort challenges the traditional notion of schooling funded by local agencies for local constituents. Imagine learning to play the trumpet, figuring out the structure of a Bach fugue as a basis for your own composition, or listening with understanding to a Mahler symphony—all by engaging in instruction remotely. This is being done now, of course, with specialized and expensive systems[4] but as the Internet develops in speed and capacity this kind of instruction will be a viable option using less expensive resources.

The bottom right cell is perhaps the most radical and challenging for traditional education. Here learning is not restricted to a common time or place. Musical knowledge is not delivered in any one setting at any particular time. If I wish to learn about the symphonies of Beethoven, I can do so by sampling the teaching materials offered by different Internet sites at three o'clock in the morning. If I want to learn some of the basics of flute playing, I can dial up a lesson by a teacher in Tailand who might choose (or be hired) to help me. If I wish to ask the aid of a composer in Ireland to offer comment on my soundscape, I can seek her opinion using the Internet as a basis for communication.

As radical and perhaps fanciful as these scenarios may seem, each one is real all over the world. Examples of each kind of teaching and learning in music can be seen today. The point here is that the growth of the Internet is offering news ways to think about music teaching and learning, supporting the constructionist position that we have outlined.

Summary

What better way to teach music as art then to routinely encourage our students to create music through performance, improvisation, composition, and active listening. When we ask children to *exercise their own aesthetic judgments* in performance in this way, we are helping them to construct their understanding of music as art. Music technology and the Internet provide means for this kind of teaching in ways more powerful than we often can imagine.

In this paper, I have tried to suggest three things that might aid in our international efforts to cooperate and teach music more powerfully: (1) there is a broad research literature (much of which is emerging in the last 15 years), conceptual base, and set of practical techniques that underpin the employment of creative thinking in teaching music, (2) that constructionism as a philosophy of instruction that includes traditional skill building is a viable way to engineer the educational experience, and (3) that music technology (especially Internet capabilities) acts as a powerful partner in not only the use of creative techniques but also as a vehicle for cooperative efforts world-wide. There has never been a more exciting time to be a music teacher in the world today.

References

Barrett, M. (1997). Invented notations: A view of young children's musical thinking. Research Studies in Music Education, 8, 2-14.

Burnard, P. (2000). Examining experiential differences between improvisation and composition in children's music-making . British Journal of Music Education, 17 (3), 227-245.

Campbell, P. (1998). Songs in their heads. New York: Oxford University Press.

Dunn, R.E. (1997). Creative thinking and music listening. Research Studies in Music Education, 8, 42-45.

Folkestad, G. (1996). Computer Based Creative Music Making. Goteborg, Sweden: Acta Universitatis Gothoburgensis.

Gardner, H. (1989) To open minds. New York: Basic Books, 1989.

Hickey, M. (1997). The computer as a tool in creative music making. Research Studies in Music Education, 8, 56-70.

Hickey, M. & Webster, P. (1999) MIDI-Based adaptation and continued validation of the Measures of Creative Thinking in Music. Bulletin of the Council of Research in Music Education , 142, 93-94.

Kratus, J. (1991). Characterization of the compositional strategies used by children to compose a melody. Canadian Journal of Research in Music Education. 33 , 95-103.

National Curriculum; England, (Music). (1995) London, England: Department For Education.

National Standards for Arts Education. (1994) Reston, VA: Music Educators National Conference.

Paynter, J. (1992). Sound and Structure, London: Cambridge University Press.

Perelman, L. (1992). School's out: Hyperlearning, the new technology, and the end of education. New York: William Morrow.

Pressing, J. (1988) Improvisation: methods and models. In J. Sloboda (ed.), Generative Processes in Music: The Psychology of Performance, Improvisation and Composition. (pp. 129-178), New York: Oxford.

Resnick, M. and Kafai, Y. (eds.) (1996) Constructionism in practice : Designing, thinking, and learning in a digital world, Mahwah, N.J.: Lawrence Erlbaum Associates.

Taylor, I. (1959). The nature of the creative process. In P. Smith (ed.), Creativity , New York: Hastings House, pp. 51-82.

Webster, P. (1987a). Conceptual bases for creative thinking in music. In C. Peery (Ed.), *Music and Child Development* (pp. 158-174). New York: Springer-Verlag.

Webster, P. (1987b). Refinement of a measure of creative thinking in music. In Madsen, C. & Prickett, C. (Editors). Applications of research in music behavior. (pp. 257-271) Tuscaloosa: University of Alabama Press.

Webster, P. (1992). Research on creative thinking in music: The assessment literature. in R. Colwell (ed.), Handbook of Research on Music Teaching and Learning, 266-279. New York, Schirmer Books.

Webster, P. & Hickey, M. (2000). Development and Refinement of a Computerized Version of the *Measure of Creative Thinking in Music*, Paper presented at the National Convention, Music Educators National Conference, Washington, DC.

Weisberg, R. (1986). *Creativity: Genius and Other Myths* New York: W. H. Freeman and Company.

Williams, D. & Webster, P. (1999). Experiencing music technology. New York: Schirmer (a division of Wadsworth Publishing).
Wiggins, J. (1990). Composition in the Classroom. Reston, VA.: Music Educators National Conference.

Collaboration of music educators across virtualities and realities

Lai Chi Rita YIP - lcyip@ied.edu.hk
Hong Kong Institute of Education

Abstract
Collaboration among teacher educators (music and non-music), school teachers, research assistants, technicians and the music industry in the development of music teaching materials and teaching designs is becoming more necessary in the digital age when computer technology is found to be of much benefit to music education. The experience of a group working together for the purpose of disseminating sampler music teaching practices and for the advancement of music education through an innovative and interactive CD-ROM is accounted for in this paper. Benefits and drawbacks encountered through the process involving this ensemble of workers are discussed. Issues concerning differences in ideologies of music educators, acquisition of the most appropriate materials for the design, technical constraints, and budget matters are included. Music educators who would attempt similar endeavours would be informed of our experience for reference to their work.

Introduction

In the fast growing digital age, the benefits of applying computer technologies in the education field are quickly noticed. The multi-media and interactive capacities, which are especially beneficial to music education, have captured the attention of music teacher educators in Hong Kong. To utilize those capacities for the improvement of music education, music teacher educators had made efforts to prepare teaching materials and references incorporating multi-media computer technologies in the form of CD-ROMs in the local context. Materials published to date in Hong Kong include Primary School Music Teaching (Department of Creative Arts, 1999), Chinese music instruments and instrumental music (Department of Creative Arts, 1999), Cantonese opera (Education Department, 2000) and Chinese bowed stringed instruments (Education Department, 2000). The number is still minimal compared to similar CD-ROMs in English. Triggered by the visit of a French music educator who brought forth his sophisticated electronic publications as demonstrations, a group of music teacher educators in Hong Kong applied for a budget to start working on similar endeavors on introducing Chinese folk songs. It was expected that the resulting product would fully utilize the interactive multi-media computer technology for the dissemination of sampler music teaching practices in the virtual as well as the real music classroom. The work was to be done with the collaborative efforts of team members drawn from the music education field and beyond. Through the joint effort, more objective views could be obtained and quality ensured.

Theme of the project – teaching of the Chinese folk songs

The theme of Chinese folk songs had been selected for the teaching design since song teaching is an appealing area in music education through which a range of music concepts could be taught. The pedagogic purpose of song teaching could also be extended to the cultural, social, and historical aspects of the songs. This not only supplements students' understanding of the music, it further develops their power of interpreting and performing the song, and expands their views beyond music.

Four different types of Chinese folk songs were selected: a nursery rhyme, a work song, a mountain song, and a song from one of the minority groups. Students of Chinese origin as well as those who are not constituted the targeted audience. The former group needs a better understanding of their own culture in music, and the latter could be provided with an opportunity to become familiar with cultures of other areas in this globalised world.

Collaborations

To ensure a good design for the virtual as well as the real teaching environment, the working group recruited personnel from different sectors:

1. Seven teacher educators including:
    - Four music teacher educators who were each responsible for the design of the teaching materials and teaching strategies of a song,
    - Another two more music teacher educators, one being more of an expert in Chinese music and the other more expert in singing, and
    - A lecturer from the Social Sciences Department who was to advise on information related to the cultural, historical and social background of the songs.
2. A technician from the Education Technology Unit as the internal consultant on technical matters,
3. A part-time research assistant was employed to help search for different information and to do the liaison work of all matters related to the production of the teaching designs including to contact with a production company. He left before the job finished and another part-time research assistant had to be recruited to help with the work,
4. Four school music teachers were identified to help with implementing the designs on the trial bases. They collaborated with the music teacher educator in charge for improvement of the design to accommodate different teaching situations,
5. Expert Chinese singers from Beijing and who were consulted on the right style of interpreting the songs, and
6. Two other school music teachers were contacted to have their students perform the songs for recording as video examples on the CD-ROM.

Research for related materials / reference

To start with a song seemed easy but to teach more than just singing the song had to draw on the knowledge, experience, and insight of the individual educators concerned. The research assistant was responsible for the search of appropriate teaching and reference materials. There were many approaches to the teaching of the same song. Information gathered was analyzed by the teacher educators who discussed it with the school teachers to form the basis for the teaching designs. There was also the search for the original versions of the song scores, as well as examples of authentic singing. The schools responsible for training the students to sing the song were supplied with the song scores. While the music lecturers who obtained the singing demonstrations by the expert Chinese singers as a point of reference discussed with the school teachers about the practice and performance.

Pedagogic designs

Approaches taken to present the materials depended to a great extent on the teacher the musical aspects of the song on which the teacher wanted to focus. The pedagogic

approach could also be developed from the song naturally with reference to the more obvious musical characteristics. However, the working team was aware of the questions of uniformity and comprehensiveness in the presentation. Materials included were meant to provide an holistic view of the songs which should cover different aspects. Consensus was reached after meetings on the general format and content.

There were four different areas to be presented for each song: (1) the reference section (in word document format) which included teaching suggestions for the songs, (these varied according to the song and the insight of the music teacher / educator in charge; background information of Chinese folk songs in general, background information of the song itself, a map page showing the place where the song originated with a short video clip showing the characteristics of the area with subtitles; (2) the range of virtual teaching activities for each song. Teachers could have the flexibility of selecting from the activities provided. They could also decide on the proportion of materials to be used depending on the standards of their students, the time allowed in class, or even, their own choice of focus. (3) Videos for demonstration: song singing with actions by school children, and verse reading in the mandarin style. (4) The music score which could be printed out, and a MIDI music version. Considerations from both the learner's and the teacher's perspectives had been made to cater for the different interests.

Provisions were also made to cater for the creation of music after learning the songs. To learn through creativity has been advocated in school teaching and is a relatively new direction in education in Hong Kong (HKSAR, CDC, 2000; HKSAR, 2000; Hong Kong Institute of Education, 2001). The type of creative activities included creating ostinato rhythms for the song, rhythm rounds, pentatonic melodies, and other free style writing. Other pedagogic designs included innovative ways of developing skills in rhythm reading, sight singing, and verse memorizing with the help of computer technology in generating exercises for practice. (These would be demonstrated in the paper presentation session.)

Issues arising in the process of developing the designs and the teaching materials

Copyright issue

The search for video clips raised copyright questions. It was impossible for the working team to video shoot on location authentic folk elements pertaining to the song. So ready-made videos were to be searched for. However, to have the copyright cleared was difficult since there were numerous complications in the course of searching and negotiation. There was the problem of finding the right video, clipping an appropriate length with regard to the CD-ROM capacity, and contacting the video company for the right to use the selected video clips. There were many restrictions on using the clips and there were different charges, e.g. whether they were to be put on CD-ROMs or on the web, the number of CD-ROMs to be published, the expected number of people visiting the web. Very often, there was the problem of companies not responding due to unknown reasons and the team had to search for other sources, then contact and negotiate with other video companies. The copyright issue regarding authentic teaching materials could not be solved easily.

Teaching in reality and teaching in virtuality

Teaching in reality and teaching in virtuality were different in that the latter was more susceptible to criticism. Teaching in a classroom situation was not as open to the public as that in a virtual classroom. Even with a video recording of the classroom teaching situation, the process might not be as clear as putting all the materials on the CD-ROM and implying the kind of pedagogies to be used. Everything was crystal clear when it came to teaching in virtual reality through the multi-media CD-ROM. It provided a panoramic view of the approaches taken, the pedagogic designs and the exact content material to be shown in

that virtual environment. Not a mistake could escape the eyes of the viewer and thus perfection in everything on the CD-ROM was expected.

To have perfection in virtuality posed some technical problems in reality. There were individual requests in ways of setting up the virtual environments but these could not be easily met due to technical limitations. With restrictions set by the virtual environment: the limit in memory size, the limit in the screen size in presenting the materials, and the speed in retrieving the materials, could all hamper the perfect virtual teaching and learning environment. The technician had to inform and advise the team on the designs which were to be modified to suit the virtual environment. Teaching strategies and teaching designs were thus amended to accommodate the new situation. These had been good experiences through which newer strategies or designs were resulted or developed.

Collaboration in virtuality and reality

In the course of developing the teaching materials, the collaboration of the team was meant to be working together in virtuality and in reality. At the beginning, the technical company concerned uploaded the draft version on the net for phone conference comments. The parties involved could have phone conferences with the company and with the online draft in front of them to comment on or reflect their ideas about the design. The technical company could amend the draft immediately whenever possible and the client could view the change online instantly. However, there were technical problems at different ends as the environment for collaboration in virtuality was not mature. The collaboration was to resume to take place in the office with the parties travelling back and forth.

The local technical company in authoring the project could not totally accommodate the range of sound quality requirement, or the preciseness of rhythm, sound and timbre requests for the more sophisticated music creating activities. The requested technique was still at a developing stage. The technique, and the expertise required may need more time to be developed to meet the needs of music education locally.

Resource implication (Budget / funding)

It can be seen that the resource implication was enormous for this collaboration. The time span for finishing the project extended to around two years. There were the seven teacher educators involved and they have persevered in their efforts to finish the project. There were the two part-time research assistants who worked successively for the job and who helped a lot in the liaison. There were the six schools, the music teachers and their students. There was the work of the expert Chinese singers, the technician, and the technical company. The piles of paper of the amended versions of the scripts were much thicker than the notes which were used for a real classroom. The manpower, the funding, and various other resources were huge at the commencement stage of experimenting and preparing materials for teaching in virtual reality.

Conclusion

The collaboration in and beyond the music education field across virtualities and realities reported in this paper shared the experience of building up sampler music teaching practice. It was the teacher education institution which could usually provide support for developing resources for teaching and learning which were found lacking in schools in the digital era. In this project, the collaboration among teacher educators from different departments together with school teachers and children have contributed towards re-vitalizing valuable resources. The intention was to bring about sample teaching designs and teaching materials. The ideal of teacher educators was realized generally through the collaboration. The different parties involved have learnt from each other and it has been a special opportunity for professional development. The experience of working with the technical company in producing a virtual learning environment was a beginning for better

understanding of mutual demands. Though there were some sophisticated details to attend to, and it was tiring and frustrating in the communication process, the experience brought about insights for more successful collaborations in the future. The resource implications were enormous but the return has the potential to be greater in the future.

Reference

Department of Creative Arts. (1999). *Chinese music instruments and instrumental music*. Hong Kong: Hong Kong Institute of Education.

Department of Creative Arts. (1999). *Primary School Music teaching*. Hong Kong: Hong Kong Institute of Education.

Hong Kong Special Administrative Region Government (HKSAR), Curriculum Development Council (CDC). (2000). *Learning to learn, Key learning areas - Arts Education (Consultation document)*. Hong Kong: The Printing Department HKSAR.

Hong Kong Institute of Education. (2001). *Prospectus for four-year full-time Bachelor of Education (Honours) program*. Hong Kong: Hong Kong Institute of Education.

Hong Kong Special Administrative Region Government (HKSAR). (2000). *The 2000 Policy Address*. Hong Kong: The Printing Department HKSAR.

Education Department, Chinese Orchestra, Leung, C. C. (2000). *Chinese bowed stringed instruments*. Hong Kong: Education Department.

Education Department (2000). *Cantonese opera.* Hong Kong: Education Department.

Mícheál Ó Súilleabháin – Micheal.Osuilleabhain@ul.ie
Professor of Music, Composer and Director of the Irish World Music Centre, University of Limerick, Ireland

Many Rivers: Towards a Global Listening

In 1995 I scripted and presented a television series entitled 'A River of Sound: The Changing Course of Irish Traditional Music' in which I used the metaphor of the river for the Irish musical tradition.[1] Its journey from its source to the ocean charted the identity of the music represented through the protection and guidance of the river banks, and its entry to the ocean represented the cultural globalisation which was upon us. The series, while honouring many source aspects of the tradition, also featured many young tradition bearers who were experimenting with the music on the innovative side of the spectrum.

While I was working on the series the previous year, I was simultaneously involved in setting up The Irish World Music Centre at the University of Limerick on the west coast of Ireland - in many ways, an educational model addressing from an Irish perspective those same issues of identity in the time of globalisation.

The series ended with a 10 minute piece co-composed by a key innovative figure in Irish traditional music over the past three decades, Donald Lunny, and myself. It was one of those efforts very much of the time, Irish harp juxtaposed with African Kora, string quintet beside traditional fiddle, bodhrans head to head with orchestral and 'world' percussion (played by the wonderful Evelyn Glennie), and jazz sax against traditional harmonica. This was the river hitting the ocean, or at least one attempted visual and aural representation of it. What is important here, however, is that the two African Kora players involved became the focus of the camera and the sound as the piece ended. One was a 12 year old femaJe, and she is seen and heard lilting the main theme gently while strumming her Kora in accompaniment in the very final shot of the series.. To this day I cannot remember exactly how Donald Lunny and I arrived at this idea as an ending. I do remember that we came on it just hours before the filming began.

Ireland in 1995 was very much a monocultural society. To end a seven part series on Irish music, therefore, with a shot such as this seemed to some to be incongruous. But within five years of this, Ireland was to be introduced to multiculturalism through the arrival of rapidly increasing numbers of entirely unexpected asylum-seekers and refugees. The kind of global listening, therefore, which was reflected in the music of the series turned out to be prophetic of social developments.

[1] A River of Sound: The changing course of Irish traditional music, (Dublin and London; Hummingbird in ass. with RTE/BBC, 1995)

This idea of music as an indicator of impending social - or indeed personal - change is hardly a new one. Socrates in Plato's Republic says:

...music and gymnastics shouldl be preserved in their original form and no innovation made... for any musical innovation is full of danger to the whole State, and ought to be prohibited...when modes of music change the fundamental laws of the State change with them. (quoted in Storr 1992:43)[2]

More recent references may be less concerned about the impact of such changes on the state, but nonetheless they still posit a connection between artistic expression and the wider social environment.[2] And of course this interest in the connection between the artistic pulse and the social plan extends outside of music to the other arts. The Irish poet Seamus Heaney has a special interest in this as if his drawing on the deeper parts of wellsprings of his own person - the omphalos of the pump in the yard as he has it -can effect a newer and more rightful balance within himself which in some way also seems to tease a response out of his external world.

In order to achieve this you must answer to the vision inside you. And to access that vision you may need to close your eyes - like someone singing'with their two eyes closed'. These images are from Heaney, and especially from his poem entitled 'From the Wellhead'. The headlarnps are off. It is night, Or at least twilight. Strange that to access an inner vision you might need to close your eyes, as if to access an inner light. Only by accessing that darkness can the door be found into a new light. This is the 'door into the dark' which the artistic impulse can locate within us, and not only lead to expression in the arts, so-called, but also find the deepest of expressions in the art of driving (although in 'real life' we recommend you keep your headlights on at night'), the art of sleeping, the art of dying, and of course the art of living. Just as there is a time for everything under the sun, so there appears to an art for everything under the sun.
Not least, the art of teaching, and of teaching music as the Art of Listemng.

My musings here are about the Art of Listening, in particular the Art of Global Listening. Whenever we respectively cross the boundaries that border our musical experience from that of another, we move towards furthering something. Every movement of respectful knowing we make creates another stepping stone where another may follow - or indeed someone may come across from the other side.

Our Focus Area here in this conference is about 'crossing boundaries and musical cultures'. I find my text again in Heaney where he reminds us that for the Romans, Terminus was the God of Boundaries, and that the image of Terminus which they kept in the Temple of Jupiter on Capitol Hill had no roof and was open to the sky. This was redolent of the templum or sacred space where the future might be foretold. The word templum originally stood for that section of the sky where the stars might be read or the movement of birds be observed. Later it came to mean that particular space on which you stood while speculating the stars. And indeed the word terminus appears in Irish as tearmann, which is found in margy Irish place names "meaning the glebe land belonging to an abbey or church, land that was specially marked for ecclesiastical use".[3]

And indeed we can take the idea further into another Irish word -not related etymologically but all the stronger for that - the word tairseach, meaning threshold. This is word for the lintel of a door, the boundary between the inner and the outer world, between the local and the global. It is a place of great creativity and fertility. Folklore in Ireland has it that Saint

[2] see J. Attali, Noise: The Pølitical Economy of Music (Manchester: Manchester Univerity Press 1985)

[3] Seamus Heaney, Finders Keepers: Selected Prosem 1971-2001, p. 49 (London : Faber and Faber 2002)

Bridgit, whose feast day on the 1st F'ebruary marks the beginning of Spring and of the agricultural year, was born with her mother having one leg inside the threshold of the door and the other without. Based upon an earlier Celtic Goddess called Ainu, she is an earth goddess and a keeper of the flame of creativity. St Bridgits flame which was kept alight in her monastery in Kildare is the light to mark the passage of those of us who are drawn towards crossing boundaries. It is the light of knowledge and of true understanding which come through a studied listening. And above all it is the light of respectful listening.
Terrninus of course atso carries the meaning of an end of something. We speak of being terminally ill. Or of something being terminated. It is as if the various slantings of the word are telling us that an end is also potentially a beginning.
There is a mystery and an accompanying darkness therefore which may accompany a boundary crossing wh ich is why we need the light of creativity to see us through, to keep us, as it were, safe and sound.

Whenever we make this journey through music we are in a position to come back to guide our students across the now proven stepping stone's into the ambience of another sonic reality. Respecfful listening within that new cultural landscape can still be done with our eyes closed. Singing with your eyes closed is to "sing yourself to where the singing comes from". We connect with the act of singing as with a beam of pure light linking us into and again out of the fertile soil at the bottom of our wellspring. when we get it right we are Rilke's "crystal cup that shattered even as it rang" and we are through the looking glass into another music.

To understand the other is to understand our self. To understand our self is to understand another. We are programmed as humans to do it with our eyes closed. It is so deeply embedded in our nature that we have forgotten it. Which is why when we rediscover the experience of such time and space travelling we are struck by the light of recognition and something is furthered within us.

The musical challenge we face as educators in our own times is to address the global multiplicity of voices as never before. To continue to work through our curriculum construction like a good cartographer drawng the educational map of the location of the stepping stones. Everyone must find them in the end for themselves for the experience to be as wholesome as it should be. But as teachers our task is to lead the student to the terminus or the tearmann and to hold the light steady for the duration of the passing. And to pass from what I call the tempus to the templum and back again is to go beyond the metronome of existence to the cantabile of understating.
We do it with our feet on the ground and our head in the clouds, and with our eyes clos.ed.

The 17th century Japanese poet Basho writes:

What is important is to keep our mind high in the world of true understanding. an returning to the world of daily experience to seek therein the truth of beauty. No matter what we may be doing at a given moment, we must not forget that it has a bearing upon our everlasting self which is poetry.

It is this ability of music and of the arts in general to encode connections whicn links its intelligenc e with the intelligence at the heart of politics and at the heart of identity itself. And it is this power within music to encapsulate, represent, and at times actually be at the quick which sets it up as a potential barometer of the times. This may be also the reason why people within a culture can react so deeply when music changes. Music, and the other arts, can at times reside at the crossroads of becoming where the dynamic of cultural

change is being generated. The current debate within Irish culture about the speed and nature of change within traditional music is a case in point.[4]

Edwards Said in Culture and Imperialism writes:

No one can deny the persisting continuities of long traditions, sustained habitations, national languages, and cultural geographies, but there seems no reason except fear and prejudice to keep insisting on their separateness and distinctiveness as if that was all human life was about. Survival in fact is about the connection between things...[5]

The balance between locus and globus is a key to unlocking the music within, of making the body of a culture start to sing again. Linking the local to the global may be something of a cliche now, but it is one which remains pregnant with meaning and relevance. As an example of this, my attention was recently drawn to a 'cultural village' architectural concept which the Italian architect Renzo Piano designed for New Caledonia off the coast of Australia. It is a strikingly beautiful series of buildings based on the local tribal huts of the Kanak people. Someone once described this kind of architecture which was at once local and global as 'glocal'. As I thought about the word - especially its hardness and almost musical aggression - I was drawn towards a different amalgamation of the two words local'global into 'lobal'. Quite part from its softness, 'lobal'carries th esonances of the lobe of the ear, of a kind of listening.

Because lobality listens to the process of becoming, because it is the dance at Elliot's 'still point of the turning world', because in Yea, t's words it "calls the Muses home", it leads us towards what George Steiner has called 'real presence' - a place where creativity resides. The real presence at the crossroads of becoming is the lobality of the world turning at the still point of existence. Here lies the heart of intelligence, the juncture of survival, Said's "connections between things".

That combination of fear and prejudice alluded to by Said can short circuit this process. Sorr etimes the dynamic of a musical tradition can disturb old haunts, challenge established settings, seek to replace old gods. At its worst, the reaction against this can breed a cultural fundementalism where outrage is tainted by fear. At its best it can help to redress an emerging imbalance within a tradition by counteracting crass commercialism, or by challenging dishonest political manoeverings within institutions. It is in finding a balance that a culture reaches towards its healthy aspects, and t is fundamentally within the individual that this balance emerges. The encouragement of choice seems essential to finding that balance. The continual opening up of other ways of doing what has been done before seems to keep tradition alive.

The Empty City

How does artistry journey within us when it meets academic ground? In Limerick our programmes constantly raise this issue:
ethnochoreologists investigate dancers, chanters chant, ritualisation in the spiritual arts is explored and experimented with, tradition is held up through music and dance research, the young musician is led into the shadow of her own educational light and is celebrated, healing sounds and gestures are invoked, moving communities of sound are sought out and nurtured, and the nomad and the stranger are recognised within.

[4] Fintain Vallely, ed. The Crossroads Conference (Dublin 1999)

[5] Edward Said, Culture and Imperialism, p. 408 (London 1993)

This search for the wisdom of true unity is contained potentially contained within the tradition of the University tight across the globe. The process of universus - a singular turning - seeks to recognise the community of humankind through the creative turning of diversity into new and ever challenging forms of unity. In our search for comrnunality while at the same time recognising and respecting difference, the true University celebrates the great and rich oneness of science, of commerce, of culture, and not least of the human spirit. This search towards a true balance of inner and outer, of the self and other, of contemplation and action, of reflection and performance, of stillness and turning, may be seen as represented in the river's flow - that which moves but holds a still reflection.

This journey in towards self can be marked in a special way through the sounds we make and through the gestures we allow to happen through us. Jungs words, "it is not I who create myself, rather, I happen to myself ' (Collected Works 1 1, para.39 1) puts it up to us to conceive and know such a happening.

Perhaps it is all like one of the English poet Philip Larkin's famous train journeys which eventually bring him back to where he has begun - "past the poppies' bluish neutral distance" to the silent ocean of his 'here' and now.

Here silence stands
like heat. Here leaves unnoticed thicken,
Hidden weeds flower, neglected waters quicken,
Luminously-peopled air ascends;
And past the poppies bluish neutral distance
End the ;and suddenly beyond a beach
Of shapes and shingle. Here is unfenced existence:
Facing the sun, untalkative. out of reach.

Is it the splashes fron the sea spray which bring rational sense into the natural experience? Is academic reflection our periodic awakening from the ciream of an underworld of artistic exploration? Is the gap between these two experiences to be found between the jigs and the reels of our personal interactions? And where is love in the mix? The Irish poet Moya Cannon captures it here:

Between a jig and a reel
what is there?
Only one beat
escaped from a ribcage.

Tunes are migratory
and fly from heart to heart
intimating
that there's a pattern
to life's pulls and draws.

Because what matters to us most
can seldom be told in words
the heart's moods are better charted
in its own language -

the rhythm of Cooley's accordion
which could open the heart of a stone,
John Doherty's dark reels

and the tune that the sea taught him,

the high part of the road and the undelworlds
which only music and love can brave
to bring us back to our senses
and on beyond.

This is why we must encourage the University campus to continue to take its heart in its own hands by allowing a rightful place to the emotional subversion which artistic expression brings to a new science of knowing. Artistic expression needs the sea spray of science for its full experience, especially now that we know that science itself has all the chaos of art about it. The ocean is our analogy here - its pulls and draws like the heaving cardboard lung of aaccordion contains in all the breath and power of an underworld, and yet the ocean is its own system. How it survives is how we surive. Even as the sun lights it up, the moon draws its tidal rhyt.hms.

Steiner puts it forcefully when he ask us to imagine a new city.

A city for painters, poets, composers, choreographers, rather than one for art, literary, music or ballet critics and reviewers, either in the market-place or in academe.

But Steinerts is a pretending exercise, designed to alert us to the necessity of redressing a balance in the new academy. The very presence of the choreographer on the campus, not to mention the dancer, is its own insistence on an honest intersection of reflection and practice in the world of the arts.
The University can be an empty place without the ambience of an artistic global listening, Just as the conservatoire of the past can be Conservative beyond a point of contemporary knowing. Arts education must be released from its bottled quarters onto the new interdisciplinary campus where science and art can flow in and through each other. The new campus must have 'a bird's eye view of a bird" as Heaney puts it in his poem 'Changes' as he takes the lid off the well.

The cast- iron rims of the lid
clinked as I uncovered it,

something stirred in its mouth.
I had a bird's eye view of a bird,

flnch-green, speckly white,
nesting on dry leaves, flattened, still,
suffering the light....
So tender I said, 'Remember this.
It will be good for you to retrace this path

when you have grown away and stand at last
at the very centre of the empty city.'

The campus experience of the new University must be one where Art and Science conspire to produce the code, formula, or map through which the centre of 'the empty city' is reached. That journey towards the centre is a process which may well begin on the new campus but which will surely continue long after students and faculty have, like Elvis, left the building.

Liora Bresler – liora@uiuc.edu
Professor of Education, University of Illinois, US

Out of the Trenches:
The Joys (and Risks) of Cross-Disciplinary Collaborations

"How do we find ways of interacting and working together across professions, ideologies and subject areas across the school curriculum?" This question, posed to me by the ISME committee, begs the larger question of whether indeed we should collaborate, and why. In my studies, I found that even when schools were committed to arts integration, of all school teachers, arts and academic subjects included, music teachers are typically the ones to resist collaboration. This was particularly glaring in the high school that had the most successful and exciting arts education program that I have ever seen. This school, in Washington State, integrated the arts into every imaginable subject – from Physics and Math to French and Chinese. The only teachers who were not involved in the whole school endeavor were the music specialists. In another, mid-western school district that included six elementary schools, all elementary arts specialists collaborated closely to develop and implement an impressive integrated curriculum, except some music teachers.

Who were these integration holdouts? Were they mean, evil spirited, ignorant saboteurs? On the contrary. They were knowledgeable, smart, dedicated, friendly, and often well-liked by their students. Therefore, their reluctance to collaborate in such highly collaborative environments is all the more puzzling. In fact, it makes us wonder whether these teachers may have seen what the rest of the school missed: that unlike other arts, music could not or should not be integrated into the rest of the curriculum.

Isolation is not restricted to schools, but is often true of academia, reflecting traditional structures and images that maintain "hard boundaries" between academic disciplines (Detels, 1999).. Until recently, the culture of research in music education has been characterized by lack of communication even between researchers and practitioners in the same field (Bresler, 1993a). I argue that the boundaries within and across school practitioners, musicians, and academics, can be negotiated to create collaboration.

What does it take to truly collaborate, not just conduct team work, where each person does a part of the task, but to engage in a process where we are transformed and our horizons are expanded? I will start with a personal story, which accounts for why I am here, in this field and on this stage, as well as to why I feel that collaboration can be a transformative experience.

> The story goes back 20 years. I was then a musician (pianist) and a musicologist with a degree in Philosophy. I found myself at Stanford, trying to decide whether to do a doctorate in Musicology or Performance. But fate decided otherwise. I happened to attend Elliot Eisner's aesthetic education class which I greatly enjoyed, and was invited to work with him on a research project conducting case-studies of arts education. I remember the first day of the study, where I sat with four other Stanford doctoral students in an elementary classroom. I had no idea what to observe, let alone how to interpret. I had

never taken any classes in education, was not even familiar with the terms "curriculum", or "pedagogy", the basics of education. After 25 minutes of being paralyzed with ignorance, I decided to draw on my one area of expertise–music. I then looked at the classroom in terms of its form (introduction, the development of the lesson, closure), orchestration (the teacher as a conductor), texture, rhythm, tempo. When I shared my vignette with our small research group, Elliot appreciated my interpretations as original, contributing to what we could understand about classroom life. I was not, of course, as original as I was desperate: ignorant in the field of education, and knowledgeable in music, I drew on the one area where I felt comfortable. But this taught me that my musical lenses could provide understanding that others found meaningful. In that encounter with Elliot Eisner's research group, I learned that different perspectives could contribute to ways of meaning making. Having been touched by that experience, I have come to appreciate the power of listening to colleagues, teachers and students, whose expertise complements rather than matches my own.

The issue of collaboration is particularly relevant for schools and universities now. We live in a world that is acknowledged to be interconnected and interdependent. Its culture – music, media, economics, indeed the entire value system–, is often intensely localized, and at the same time powerfully shaped by accelerated globalization (e.g., Bresler & Ardichvili, 2002). In education, our notions of the nature of learning and the construction of knowledge have undergone a paradigm shift from centering on the individual to the community. This shift is evidenced in the dominance of Vygotskyan theories on educational thought (Vygostky, 1986), and the related concepts of communities of practice (e.g., Lave and Wenger, 1991; Wenger, 1998). In this talk, I examine the learning that is involved in collaborative relationship, how collaborative relationship affects the institutional role of music educators, as well as personal (intellectual and emotional) and professional rewards, and the joys of facilitating students' growth by making connections across the curriculum.

Collaboration has not been part of the American educational system. US schools are the epitome of individualism, reflecting larger cultural values[1]. Independence is cherished, often the number one priority from kindergarten onward (e.g., Einarsdottir, 2000; Lee, 2001; Schweder et al, 1998; Tobin, Davidson & Wu, 1989). Cross disciplinary collaboration requires a shift of perception regarding the relationship of the individual to the society, from the individual *against* the community, to a framework where the individual becomes *enhanced* by interactions with the society. This latter view is, of course, an old notion traced in the West from Ancient Greek Philosophy to 20th century American Dewey, and one that is at the basis of Asian[2] value systems, philosophy and psychology. Still, the myth of individualism underlies our perception of ourselves, – both in terms of individual success and the fear of being constrained by society, –prevailing in educational settings. I find its prevalence in music particularly surprising. After all, a collaborative, interconnected model is embedded in the very existence of music ensembles and their repertoire, where instruments or voices– violins, oboes, cellos, tympnai; tenors, baritones, sopranos and altos, need each other to bring to life the performed work of art.

Collaborating with other disciplines and institutions involves not only what we do in terms of contents and pedagogies, but also the construction of structures to facilitate it. Most profoundly, it involves who we are – our visions of education and professional identities. Collaborations can be generated in a nurturing setting that promises growth and psychic (if not financial...) rewards, or initiated by a problem, a dissonance. Either way, they force us to

[1] Though we note genuine efforts to move in the direction of collaboration. For example, there seems to be an emphasis these days on cooperative/collaborative learning, "learning communities," and the team approach to teaching at the middle and sometimes secondary levels. The Internet is facilitating on-line collaborations among educators and students, and there are "partnerships" with businesses, communities, and families (Armbruster, email communication, 6/12/2002).

[2] As well as Aboriginal, Native American, and other cultures.

emerge from our trenches[3], cross no-man's land to gain another view of the educational landscape. Like all transformative relationships, professional collaborations are never easy. They push us out of our comfort zones. They take time and energy. And, they are not always successful. But they can offer tremendous opportunities to grow and be effective in new and different ways.

Clearly, there are different models of working together, depending on who the actors are, their missions, their particular contexts and circumstances. Collaboration can involve different educational levels: teachers in primary and secondary schools; faculty in teacher education programs. Collaboration can occur in research contexts, when researchers choose what to study, what additional perspectives and areas of expertise (that guide us in our choice of collaborators) can enhance our understanding of the researched phenomena, and what audiences to address. Different audiences often care about different issues, and communicating with them, as I have often discovered, can serve as an invitation to discover new areas of relevance.

In this talk, I discuss several models of collaboration, based on my research in American schools– ordinary schools as well as exemplary. I am particularly interested in observing what integration does to those who engage in it – teachers, and students, not just in terms of outcomes and achievements, but also the professional and personal costs and benefits, and ultimately, what integration can mean to the profession. I will refer to within-school integration across disciplines, as well as to collaboration across institutions—museums and performing centers. These connect and relate to other contexts, such as the policy making levels.

In the first part of my talk I present instances of successful arts integration in elementary and secondary schools, zooming on participants' perspectives. In the second part, I discuss two levels of obstacles to collaboration: (1) the level of beliefs about the nature of music, where specialists address music exclusively as a sonic event, (as contrasted with sound in relation to its socio/cultural contexts); and (2) the institutional level, involving the lack of structures, and the expectations of schools' practitioners. I then consider an "enabling" framework that can work around these obstacles. In the third section I talk about the dynamics that are needed to facilitate work across professions, institutions, and various "art-worlds", facilitating what I call "Transformative Practice Zones" (TPZ).

Anyone who attempts to address school issues should be aware that schools are notoriously complex and change-resistant institutions. Seymour Sarason, a leading scholar on educational change, has claimed that the characteristics, traditions, and organizational dynamics of school systems are "more or less lethal obstacles to achieving even modest, narrow goals" (1990, p. 12). Furthermore, "real life" situations never lend themselves to simple prescriptions. The contextuality of educational settings allows no "ready-made" recipes. Each system, micro and macro, has its unique characteristics and each of us has different commitments and working style. Accordingly, my own reflections are an invitation to readers to consider what is relevant and transferable to their own settings and circumstances.

Studies of Integration of Music and Art with Other Disciplines

The attention to working across the curriculum is not new. The roots of integration can be traced to the ideals of progressive education and its child-centered curriculum at the beginning of the 20th century. John Dewey, prominent in the formation of the ideals of progressive education, regarded experience and in particular *aesthetic* experience, rather

[3] The metaphor of trenches draws on teachers' images expressed in our conversations, and admittedly contrasts with the "ivory tower" of researchers. Other images of gentler nature (suggested by Joan Russell) are the personal space, bubble, or shell. However, the trenches convey an aspect of teaching that was an important part of the perceived reality of my participants.

than the formal and symbolic curriculum as the basis around which education should revolve (1934).

Integration penetrated from the scholarly world to the more practice-oriented circles of music and arts associations. Its earliest voices can be traced in the "progressive era," for example, in the Music Educators National Conference Yearbooks of 1933 and 1935, which listed titles such as "Projects in the Interrelation of Music and Other High School Subjects," and "Fusion of Music with Academic Subjects".

The notion of *integration* was revived in the 60s and 70s, a period of social upheaval when concern about students' achievement yielded to concern for students' experiences. Instead of regarding curriculum as a rigidly defined, given entity, educators focused attention on its meanings to students. The basic, academic subjects lost some of their traditional contents. At the same time, the arts and artistic ways of thinking assumed a more legitimate, even desirable status. This climate of innovation and experimentation with new educational goals, contents and pedagogies, promoted a fusion between the arts and academic subjects.

In the past decade we seem to be witnessing a renewed interest in integration. Advocates for integrating the arts with academic disciplines reflect a variety of perspectives, interests, and goals. Because integration, like all concepts, is a construction, it can mean different things to different people in terms of contents, resources, structures, and pedagogies; yet the multiplicity of meanings is not always explicit in the ways that we use the term. Each constituency–principals, academic teachers, music and art specialists–have their perspectives on contents and pedagogies in the arts, and often a different model of what integration implies in terms of resources, planning, and structures. Hence the need for a space to discuss these different visions and interpretations, a space to facilitate a shared mission.

Two prominent advocates for the central positioning of art within the curriculum were Harry Broudy and Elliot Eisner. Broudy regarded the purposes of education as the development of imagination (Broudy, 1972) which furnishes the raw materials for reasoning. A major school goal is to develop the intellectual and evaluative powers of the individual by using the cultural heritage, embodied in aesthetic images. According to Broudy, the main function of music education is aesthetic education, the training of imaginative perception of the aesthetic images.

Elliot Eisner's rationale for arts integration relates to the power of what he sees as "forms of representation" (1982). Auditory, visual, and kinesthetic forms of representation develop our ability to interact and comprehend the world around us and draw multiple meanings from it. By expanding forms of representation beyond the verbal and the numerical, our perception of the world is enriched immensely. What makes these forms effective in the arts is the interdependence and inter-relatedness of cognition and affect. Great ideas aside, what forms does arts integration take in actual school practice? Michael Fullan (1982) has observed that improvement is seldom born of merely goal setting and standards raising, but rather of realistic assessment of schools and classrooms, intensive analysis of problems, and careful delineation of areas amenable to improvement. Accordingly, my research studies aimed at greater understanding of how music and arts programs operate, how they relate to the other academic subjects, and how they impact upon schools. The choice of schools for these studies– ordinary, strong, and exemplary, was purposeful. Exemplary schools served to inspire and show what is possible, ordinary schools allow us to observe typical or representative successes and problems.
In the late 80's I was involved in a three year[4] study of arts education in the United States[5] (Bresler, 1993b; 1996; Stake, Bresler, & Mabry, 1991). The study, initiated and funded by the National Endowment for the Arts, centered on "average" schools. Our sites ranged from California and Washington state in the West, through Texas in the South to

[4] Three year refers only to the duration of data collection and simultaneous preliminary analysis.

[5] With Robert Stake as principal investigator and Linda Mabry.

Pennsylvania and New Hampshire in the East. My own settings were three Illinois schools, one in a large metropolitan city, two in a small industrial town. All schools had large minority populations with lower SES. Music was taught by specialists and, less regularly, by class teachers. One of the issues was the role of music in the school and the extent to which integration occurred.

Based on this study, I noted four integration styles of arts education, each with its own set of goals, contents, pedagogies, and roles within the school (Bresler, 1995). The most prevalent in all settings, was what I called the Subservient integration style, where the relationship was unidirectional, with music and the other arts serving the basic academic curriculum in contents, pedagogies, and structures. A second integration style which I called the Co-equal, cognitive style was featured rarely, and only in programs for gifted students. It brought in the arts as an equal partner, integrating the general curriculum with arts-specific contents, skills, expressions, and modes of thinking, addressing larger principles and issues. A third, the Affective integration style was typically manifested in the implicit (non-official) curriculum. It consisted mostly of exposure to music, and its aim was to evoke feelings and free expression. The fourth, Social style, was never part of the formal or ideal curriculum, but was present in all schools[6], emphasizing the social function of the school and its role as a community.

Following the NEA study, I became curious about the nature of arts education where all arts subjects were taught by specialists. I conducted with eight research assistants[7] another three year study in six elementary schools in a mid-western school district, focusing on music, visual arts, and dance/drama specialists to examine integration across arts disciplines (Bresler, Wasser, Hertzog, & Lemons, 1996). There, we observed how the arts were integrated with each other.[8] A third study was initiated by the Getty Center and the College Board, where I was asked to examine the integration of the arts into academic disciplines in five American high schools. These schools were selected from a proposal review process of hundreds of proposals for their exemplary commitment[9]. In these two studies, data sources included intensive observations of disciplinary and integrated instruction, of performances, informances, and related artistic events, as well as faculty meetings; in-depth interviews with teachers, administrators, students and parents; and analysis of curricular materials and student work (Bresler, 1997).

In a fourth study I evaluated an Artists in Residence program of visual arts in eight urban schools in Chicago.[10] There, we focused on integration of the art program with academic disciplines, examined the respective roles that artists had in the school, their relationships with classroom teachers and art specialists, and the impact of the residency programs on students. Data sources included a combination of qualitative and quantitative methods: year long classroom observations of arts instruction by artists-in-residence and observations of school visits to a local metropolitan art museum; in-depth interviews with Artists-in-Residence, as well as with administrators, program coordinators, classroom teachers, arts specialists, and students; and an analysis of artists' curricular materials and student work. A pretest-posttest using both objective test items and open-ended writing

[6] The only place where it was absent was in a district where music teaching was reduced in half and teachers wanted to make a statement about the importance of the arts, so they cut the music performances. Indeed, administration got the message and the music budget was restored within a year.

[7] Judy Davidson Wasser, Nancy Hertzog, Mary Lemons, Nelson Fertig, Rodney Loren, Jane Zander, Deb Ceglowski, and Hsueh-Yin Ting.

[8] Several years later, the program expanded to integration across academic disciplines, providing structures where arts teachers worked with academic teachers.

[9] I served as a principal investigator, aided by Dr. Eve Harwood, and doctoral students Kevin Leander and Wendy Burke as research assistants for one site each.

[10] I was principal investigator, working with Dr. Lizanne DeStefano, and doctoral students Rhoda Feldman and Smita Garg.

prompts assessed the student outcomes associated with student participation in the residency programs (Bresler, DeStefano, Feldman, & Garg, 2000).
In these studies, each school was unique. Every site had its own story to tell, and none was adequately representative of others. At the same time, we are able to note common patterns in integration styles and the ways in which the arts contributed to the schools and their students.

The Benefits and Risks of Integration

The Getty Center/College Board schools were, not surprisingly, the richest in the scope and intensity of collaboration across disciplines. The funding of these schools by the Getty Center required proof of commitment of the principal and the school faculty to work together to integrate the arts. In addition, good examples of collaboration were in the Artists-in-Residence program which was less selective (in terms of choice of schools in one geographic location) prioritizing schools with low social economic population, as well as in the mid-western town program taught by Arts Specialists.
I referred earlier to the sobering finding that of all school disciplines, the arts and the academics, music was the least integrated into the curriculum, and its practitioners consistently least collaborative. This was true at both the elementary and secondary levels, even when all other academic and arts disciplines were involved in integration, and when there were special school structures to facilitate joint planning and collaboration. It was the discipline of visual arts, typically integrated with English (as literature) and Social Studies (as history) that offered the most sustained interdisciplinary linking in all sites.

There are several explanations that complement each other. Let me suggest three here. On the curricular level, shaped by specialists' beliefs and enculturation about what music is, teachers in both secondary and elementary settings, focused on music primarily as set of technical skills and formal concepts. Visual art, while emphasizing their disciplinary lenses and skills, typically addressed the arts more broadly, framing it within its social and cultural contexts. This orientation was given a boost by the Getty Center and the Discipline Based Arts Education approach where art history, criticism, studio and aesthetics were integrated in the visual art. Although State goals and standards aim to transpose these principles to music, dance, and drama, the approach is far less developed in these other (all performance) arts.

A second explanation can be traced to the tradition of music education where teachers are more focused on performance and acquisition of musical skills, and the school expectation from music, especially in American secondary schools. Attaining high scores in state performance is, for example, a major part of job requirements of band directors, in ways that are different from all the other arts (including the other performing arts). I was told in Texas that if a band director does not bring a rating "1" for his performing group for three consecutive years, he is likely to be fired. Clearly, band teachers are not in the best position to form collaborations and work towards interdisciplinarity.

A third explanation ties in with the traditional practice of integration to which I alluded earlier. Music teachers who resist integration often do so based on their experience with the Subservient model. This is why I believe that collaboration should revolve around *relationship* between teachers, not centered on *subject matter content*. Rather than imposed as one more thing that teachers are required to do, I see collaboration as an opportunity for professional growth within and through a supportive school community.
When music integration did occur, in an all Hispanic Texan school on the Mexican border, it was by a general music teacher who used the Blues to discuss broad ideas of race and to illustrate common structural elements to Music, Literature and Poetry. Another illustration of integrated music was by an adjunct teacher in a Jazz music course in Boston, where jazz and tap dance were presented as part of an era and culture, relating to larger issues in the American society. In these curricula, musical skills retained their centrality, as students (in

addition to performing) were given audio-tapes and asked to listen critically to different "classical" jazz and blues pieces; to research a particular jazz musician and his music; to compare across different works and styles; and to raise topics for a two-page paper, starting "from what you hear in the music". As reflected in these two instances, the integrated music curriculum was presented within its social cultural context. This added to its expressive power, highlighting experience and social messages.[11]

These two instances of music as well as other compelling arts integration, exemplify possibilities for music integration. In general, integration occurred through broad questions, common issues, and themes. Integration style involved the introduction of artistic ways of seeing, analyzing and communicating to expand inquiry. Pedagogical orientations incorporated scaffolding and modeling rather than only a teacher-centered, didactic approach. Academic disciplines were quick to draw from the arts in their evaluation strategies which used portfolios, projects and sometimes performances, instead of only tests, and essays, encouraging the presentation of concepts and ideas in a variety of modes of representation – music, movement, visuals.

In all five schools, student engagement and interdisciplinary learning incorporated individual and group projects, as compared with the exclusive traditional whole class format. Because of the emphasis on socio-cultural issues and personal interpretation, students' work sometimes involved independent research and public communication of their research. These individual projects cultivated higher order thinking skills, sophisticated interpretations, and the creation of personal meanings. In the Boston school, the program featured an "expansive theme" for each grading term: Mythology, the Hero Ideal, Public Lives, Private Worlds, and the Power of Images. These themes were inquiry-based, centered around questions rather than "areas of study". Meaningful relationships were forged by connecting the "past" (as evident in historical events, literature, music and visual arts) to present and discuss relevant issues (e.g., Myth, Heroes and Public spheres; Family, Gender, and Race), and by connecting faraway cultures and geographical areas to contemporary America (e.g., visual literacy as applied to various parts of the world, from ancient Egypt, China, and Greece to contemporary US). Thus, arts integration frequently resulted in a curriculum emphasizing personal as well as social relevance for students.
All integrated programs discussed above emphasized problem *setting* as well as problem solving. They incorporated a variety of lenses and ways of thinking to make sense of the artwork, and make explicit the relevance of the ideas presented to personal interests, as well as to larger contemporary issues and values. The integrated arts disciplines highlighted aesthetic issues by raising questions on the nature of art and how it affects the viewer, and the importance of cognition and affect in the aesthetic experience.
Integrated curriculum evolved over time. No one person designed a program. Rather, the program grew and evolved, often slowly, with trials and errors, problems being confronted and addressed, successes acknowledged and learned from. In the Boston school, for example, curriculum increasingly incorporated visual media and materials to subjects that traditionally have not integrated arts. After the success of the history/literature/visual art integration, it expanded to Math, where students did a project focusing on proportion, using classical proportions to measure works of art, as well as measure themselves and other things in their surrounding. In the subjects of Ancient History, Chinese, and Literature,

[11] I find it thought provoking that we found no efforts to integrate music and math. Math was long thought to reside closer to music, from the Pythagorians "Music of the Spheres" through universities structuring of the curriculum in medieval ages, to contemporary beliefs. Rather than attribute it to the inherent relationships of disciplines, this lack of integration can be attributed to the performance/achievement expectation of music teachers discussed above, and the particular dynamics among the music and academic teachers in the sites.

students increasingly drew on principles of artistic thinking (observation, interpretation, creation and expression) to enhance and enrich these traditional subjects.

As in all meaningful relationships, collaborations across professions and disciplines evolved over time. It took time to establish trust, to learn about each other commitments teaching style, and contents. It took time for new ideas to emerge, tried, modified, then tried again. In the processes of deliberations and consultations, arts teachers, traditionally marginalized in schools, became an integral part of the school mission, assuming a key position in the shared mission of education.

Expanding Beyond the Boundaries of the School

In all schools, ordinary and exemplary, arts programs expanded beyond the school to art institutions-museums and performing centers, adding interest and diversion. Typically these were one time visits, disconnected from the general curriculum, with no preparation or follow up. However, in three of the Getty schools, museums were integrated as part of the on-going curriculum. In the Boston school, for example, stronger structures involved the establishment of the Teacher in Residence program in the Gardner Museum. Its first recipient, Ancient History teacher, Rebecca Knowles[12], talked about the various changes that the residency had on impacting her curriculum. Because she had free access to the museum, she took students to the museum on a regular basis. Thus, the museum became her territory as much as the classroom. In addition to free access to the Museum and its collections, its library, as well as lectures and concerould spend a full day at the museum.

Rebecca's classroom assignments increasingly drew on museum exhibits rather than on textbooks (e.g., students were asked, using sketchbooks and journals, to reflect on the use of a particular picture of their choice in the 21st century, the relevance of art history and what was happening at that time of creation, and the time of purchase of the picture.) She developed with the Gardner Museum staff a project which drew on the work of Gardner's artist-in-resident, Mona Haguchi. Haguchi created an installation in memory of the Korean comfort women abducted by the Japanese soldiers during World War II. Kelley used the installation as a focal point for having students investigate what history is, how is can be remembered (or lost), and how art can be a vehicle for rediscovering lost history. Tina Constantino, the visual arts teacher collaborating with Knowles and with the Gardner staff, developed her curriculum to include the themes of forgiveness and reconciliation. Students were encouraged to reflect on forgiveness from a variety of perspectives, encompassing different cultures and historical eras (for example, from Latvia, the Holocaust, and the Far East), as well as from their own personal contexts.

In another instance, Art History and Criticism were integrated with language and culture in a Chinese course. The instructor, Xiao-Hui Yang, drew upon visual art and literature to reflect on philosophies and fundamental values in the Chinese society, in particular, Confucius, under the theme of "The Hero".

The Boston School also formed collaborative relationships with the Museum of Fine Arts and the Gardner Museum. The American Studies course, for example, started the year with a visit to the MFA and a discussion of Copley's shark picture (depicting 18th century scene that fitted with the English course reading, "The Tempest"). Throughout the year, classes visited the museum frequently, and several exhibitions were integrated into the regular American Studies curriculum to illustrate and develop issues and themes, providing students with diverse ways of looking, perceiving and interpreting. Visits were sequential and built on previously learned skills, as compared with the usual "one shot" museum visit.

In addition to these regular visits, teachers made use of the museum for special projects. During my visit, eighth grade students made oral presentations–declamations–of acts from Shakespeare's Julius Caesar. The students, positioned in the exquisite garden or the upper

[12] All names are pseudonyms.

balconies of the Gardner museum, wore formal attire, and their solemn voices and gestures, imitating the ancient style of orators, created a memorable event. Thus, the museums were used not only for what they house, but for their artistic spatial values as well.
In addition to only whole class visits, students had small-group visits with the teacher in residence, as well as independent visits (usually, after school) for research projects. The Gardner Museum educational director said that many students chose to do voluntary activities (e.g., talk to the public in the courtyard, help school children in accessing the museum), activities which reflected students intrinsic interest and engagement with the museum world and learning environment. Thus, the museum became an extension of the school learning environment.
Indicative of the success of the collaboration was the general teacher involvement with museum programs. In my two visits to the MFA museum, I encountered several teachers from the school picking up materials and preparing for their courses. In both the MFA and the Gardner Museum, teachers were given the opportunity to gain unlimited access to the Museum and its collections for professional and personal growth, and encouraged to develop a strong connection to the museum and to build on these connections into classroom curricula and future work with students.

In Baltimore, teachers visited regularly cultural resources, museums (in particular, the African Art Museum and the Holocaust Museum in Washington DC) and theater performances, incorporating related themes into their curricular units. In Washington, a visit to the "American Grain" exhibition at the Portland Art Museum provided the basis for the November-March curriculum.

I find the scope and intensity of collaboration between these schools and the museums to be unusual. In my studies I have consistently found that with the exception of the one shot "field trips" museum visits, teachers are typically reluctant to use museums as learning environments. This is partly due to their feelings of insecurity with art history contents; partly their sense of lack of control over the learning environment (too many stimulus, relative student freedom of movements, etc.)**;** and partly, the need to solve logistical problems with scheduling and chaperoning (an adult required for every ten students, permission slips from parents for each visit).[13]

Collaborations with museums can enhance schools in ways that are impossible to achieve, otherwise, serving to inspire and expand visions and experiences. Most writings on educational reform assume that education best takes place in encapsulated classrooms in encapsulated schools. In his book *Schooling in America*: *Scapegoat and Salvation* (1983), Seymour Sarason argued that: 1. Schools are generally uninteresting places for students and teachers. They are intellectually boring places. 2. In the U.S., development in the mass media, and their ever-growing influence have created for young people a wide, unbridgeable, experienced gulf between two worlds: that of the classroom and school, and the real world. In terms of interest and challenge, schools are unable to hold a candle to

[13]A large-scale project focusing on artists-in-residence working in Canadian schools is now conducted by Upitis et. al (2001) Elster (2001), and Irwin and Grauer (2001). The project, "Learning Through the Arts" was designed with the goal of engaging students deeply in learning, through carefully designed math, science, history, geography, and language units that incorporate performing and visual arts into the learning process. This goal is achieved through a structured program of teacher development which includes the involvement of artists who work along with teachers to develop curricula. Preliminary research findings indicated that students were engaged by the program, achievement on language and mathematics measures increased, teachers reported positive changes to their teaching practices and attitudes towards the arts, and administrative practices were changed to increase support for arts curricula after involvement with the program.
Other collaborations involving musicians within music institutions, are documented in David Myers case-studies of orchestra-school partnerships (Myers, 1996), Greg DeNardo' symphony orchestra/school project, (1997), Keith Swanick's composers' project (1999), and Dennie Wolf's Opera project (2000).

the outside world. 3. By virtue of their encapsulation, physical and otherwise, schools have two virtually impossible and related tasks: to simulate the conditions that engender interest, challenge and curiosity, and to make the acquisition of knowledge and cognitive skills personally important and meaningful. Sarason argues for alternative ways of conceiving and structuring formal education, including the use of non-school sites for learning. Collaborations in Boston and Washington provide examples where performing centers and museums can be used as an integral part of the arts and academic curriculum.

Collaborations between artists and arts specialists

Another collaboration with the "real art world" outside of schools involved artists in residence programs in visual art, dance, drama, literature and poetry. One of the unexpected findings in the study was the collaboration of art teachers with artists. The success and intensity of some of these relationship was surprising. In my observations, arts specialists often fear their own unemployment given that they are the first to be fired in budget cuts. When interdisciplinary expansions intersect with budgetary constrictions, that fear becomes particularly evident (Siskin, 1997). Indeed, consistent arts instruction by arts specialists is known to be replaced by alternative programs–sporadic visits to cultural institutions, or short periods of artist-in-residence programs (Stake, Bresler, and Mabry, 1991). We expected these realities to carry implications for the extent to which arts teachers are willing to support and collaborate with residencies.

However, the Artist-in-Residence project, as well as two Getty schools, featured a programmatic, intensive collaboration with professional artists who served as residences in schools. In the Artist-in-Residence program, located in an inner city Chicago school , David Barret, an artist-in-residence, and Roberta Maples, the art specialist met regularly and had frequent phone conversations between meetings to plan and discuss curricular issues. David arrived early and stayed late on the days of his residencies in order to spend additional meeting time with Roberta. Interested in how Roberta taught and what kinds of things she covered, David attended her classes, often staying for a couple of hours. The two learned from and inspired each other, with one complementing the other: the art specialist's program focused on hands-on activities, whereas the artist's integrated intensive art history with studio work and focused on special, larger projects.[14] Each was sensitive to and interested in what the other was interested in. The two jointly developed curriculum, assessed and reassessed, shaped and reshaped, with the curriculum emerging as they progressed. This collaboration has been going on for two years, and the result was an expanded curriculum that provided unique opportunities for students. Clearly, the time investment and the co-teaching of the class were essential to the success of the program.[15]

[14] The artists in this program had a larger budget use in their residencies (including four classes), so they could concentrate on a dramatic, single product, whereas art specialists had to spread their budget over the entire school.

[15] A large-scale project focusing on artists-in-residence working in Canadian schools is now conducted by Upitis et. al (2001) Elster (2001), and Irwin and Grauer (2001). The project, "Learning Through the Arts" was designed with the goal of engaging students deeply in learning, through carefully designed math, science, history, geography, and language units that incorporate performing and visual arts into the learning process. This goal is achieved through a structured program of teacher development which includes the involvement of artists who work along with teachers to develop curricula. Research findings indicated that students were engaged by the program, achievement on language and mathematics measures increased, teachers reported positive changes to their teaching practices and attitudes towards the arts, and administrative practices were changed to increase support for arts curricula after involvement with the program.

The benefits of collaboration for teachers

Professional growth. How did collaborations affect teachers? As manifested in the cases of Roberta and David, Rebecca, and many others teachers collaborations proved to be transformative on different levels. The most obvious was a change of roles for participating teachers' in all sites – a heightened movement toward *developing*, rather than just implementing, curricula. In developing integrated curricula, academic teachers moved away from reliance on textbooks, and art teachers, from reliance on set activities, and narrower, discipline-specific skills, towards a focus on larger projects, overarching themes, broad issues and questions. In this process, they also started to draw upon a larger array of resources. On a more fundamental level, they learned to listen to each other in ways that expanded their own vision of their discipline. Thus, not only were teachers much more active in constructing curricula, the collaborative means through which this was accomplished, shifted the nature of their work to a high degree of professional involvement with other educators–mostly other teachers, sometimes artist and museums educators.

Change of self-image. Often, teachers brought up in our conversations the gradual but fundamental changes in their images of teaching that were triggered as part of the process of these collaborative relationship. From a framework of an isolated teacher teaching individual classes, teachers commented that they now saw themselves as a part of a larger whole. Teachers said they became conscious of how their curriculum fits and affects other disciplines, and the ways from which they can draw upon other disciplines. This was manifested even at the level of purchasing materials, when teachers kept looking for materials with interest to others.

Becoming central to the school. Invariably, arts teachers became more central to the school and its mission. As we know, the institutional context of elementary music and arts specialists is different from that of classroom teachers, in that specialists represent a distinctive subculture within schools, where theirs is frequently the only subject that is not taught by classroom teachers. Hence, their position, a marginalized one, as "the other" teacher. The institutional view of music and of music specialists as dispensable is reflected in the allocation of space. One's own room is a highly significant possession in school terms, symbolizing professionalism, autonomy, and self-control. In their room teachers have control over use of materials and rules for comportment, autonomy that is lacking in most other arenas of teacher life. It is indicative of the image of music and arts within schools that half of our observed schools had no rooms for music, in contrast to regular teachers' classrooms, as well as to libraries, gyms, offices for social workers and counselors.

These constraints of space, and the related dynamics with classroom teachers create added technical and emotional pressure for music specialists. When music was taught in homerooms, some classroom teachers monitored music teaching, interfering with instruction in what they felt was *their* "territories.". Classroom control was sometimes a contested issue where quiet and order frequently become more important than experimentation with sound and discussion of ideas. The ability to work together towards common goals facilitated the positive negotiation with classroom teachers, creating allies among different faculty members. Integration placed teachers as legitimate, highly-valued citizens of the school, part of its core community of practice.

Change of Students' Roles

Individual student projects are a significant site of gathering information on how disciplinary and artistic boundaries are being traversed, and how students are making meaning from these connections. Students' ownership of work was stressed in all schools that had strong arts integration programs, and connected with issues of identity, voice, and pride in one's ideas and creation. In particular, teachers in the Washington, Texas, Baltimore, and Boston schools participating in the Getty project used the integrated curriculum to help students explore "who they are," and "understand that what you make is yours, it's a part of your voice." In the tradition of "informances" rather than the exclusive use of performances students often shared their artistic journeys and explorations,

assuming interpretive and reflective roles.

Student-led dance and drama (but not music) groups were a unique and significant realization of the arts/democratic community. In Washington, for example, we observed highly disciplined and hard-working dance group co-led by three older students which met weekly before school for a one and one-half hour rehearsal. The group had been meeting for several weeks, was basing some of their work upon the production of Stomp!, as well as following suggestions from a former visiting dance artist. All of this work had been carried out by the students themselves, with the guidance and support of faculty. From an arts perspective, both projects were opportunities for students to engage in interpretation and creative expression. From the perspective of democratic community-building, such student-originated and directed work provided strong examples of student commitment to communal purposes.

What the arts can contribute to schools: related studies

What do these dance, drama and visual arts classrooms cultivate, in addition to arts specific skills, that is not typically part of the academic disciplines but that can contribute to the collaboration? Clearly, different arts classrooms may have different characteristics. In her multi-year study of a cross-institutional program in which elementary students formed an opera company to write and produce an original opera, Dennie Wolf (2000) found that groups of students became increasingly expert at active participation in the form of taking turns and asking questions. Like in the student-led groups in the Washington school, students became increasingly expert at coherent work towards quality, building on what others – peers and teachers – proposed. When asked to describe important choices, decisions, and insights, students focused their responses on gradually evolving solutions to an artistic challenge.

Heath with Roach (2000) conducted a decade-long study investigating effective learning sites that young people in economically disadvantaged communities choose for themselves in their non-school hours including (i) athletic-academic groups; (ii) community service centers, and (iii) arts-based activities including musical, visual, and dramatic. The young people who belonged to arts programs exhibited more of certain attitudes and behaviors than those attending organizations of other types. Students said that: "[Art] changes your perception of the world." "You can say really important things in a piece of art." "When I am actually doing my art, I feel like I am in a different frame [of mind]." The communal aspects were central. Young people were expected to help to make rules, be able to try something new, take inspiration from various sources, and create. Adults in these organizations expected more than just problem solving. They ensured that students got extensive practice in looking ahead and figuring out where problems might arise down the road.

Based on a study of 2046 students attending public schools in grades 4-8, Burton, Horowitz, and Abeles, (2000) found that the arts were subjects where students could take risks in their thinking as they tried out new and unexplored arenas of learning. The high-arts settings, were considerably more flexibile in curriculum design, with less emphasis on conformity, formalization, or centralization. The results show that teachers in arts-rich schools, which favor the arts tended to change and experimentation demonstrated more interest in their work, were more likely to become involved in professional development experiences, and were more likely to be innovative in their teaching.

Teachers spoke of the effects of the arts programs on students' different dimensions of ability, including (1) expression of ideas and feelings openly and thoughtfully; (2) the ability to imagine different vantage points of an idea or problem and work towards a solution; and (3) the ability to focus perception on items of experience, and sustain this focus over a period of time. The appearances of arts competencies in other disciplines was found in contexts where, for example, there was a need for students to figure out and

elaborate on ideas on their own; when there was a need to structure and organize thinking in light of different kinds of experiences; and where learning involved task persistence, ownership, empathy, and collaboration with others. In subjects such as science, mathematics, and language, invitations to accommodate conflicting ideas, to formulate new and better ways of representing thoughts, and to take risks and leaps call forth a complex of cognitive and creative capacities. These capacities were typical of the arts learning in this study. Burton and her colleagues conceptualize the competencies developed by the arts as "habits of mind" (rather than higher order thinking), interweaving intuitive, practical, and logical modes of thought that characterizes these arts learning.

In another study examining the differences between the environments of the arts and academic classes, Baum et. al (1997) describe the art classes they observed (but *not* the observed regular classrooms) as typically characterized by: 1. A physical and emotional climate conducive to active learning (e.g., arrangement of physical space for activity, individual participation, and the tolerance of some noise and chaos); 2. Goal setting (set collaboratively by instructor and students, results in performance for an audience, related to talents and interests, real world challenges encountered); 3. Instructional process (lesson requires active participation and student leadership, opportunities to move around and confer, opportunities for students to ask questions, opportunities for divergent thinking), and 4. Teachers' expectations and feedback: high standards for all; frequent specific feedback (positive and negative), student feedback to other students encouraged, and regular self-evaluation encouraged.

Observations of students involved in arts classes and performances provide evidence of successful learning and reveal a wide range of self-regulatory behaviors at work. Activities were performance-based, providing students with immediate feedback to evaluate their own learning. Academic teachers in all settings commented that because language was not the sole modality of instruction, a wide range of students, including those with limited English proficiency or special nonverbal skills, could learn and communicate what they knew in different ways. In these studies as well as in the schools that participated in the Getty study arts education highlighted work towards excellence, students ownership, negotiation in the process of creation, cultivation of originality, and a climate where they could take risks.

Enablers: Music as Forming Connections

Music as connecting to culture

What was it in the experience of integrated arts education that proved meaningful to students and to teachers? Why was it that caused students to comment on the power of arts integration to help them make meaning in their life (in the words of one student: "I need to see and feel the integration between my art classes and my academic courses in order to feel alive."). In this section, I focus on the different types of connections that music, and the other arts, can cultivate in the context of education, discussing some of the obstacles for music integration, and offering a framework that can work around these obstacles

The power of music to connect us to our culture, to a heritage that we identify as ours, is well acknowledged. Our “soundscapes” can encompass various musical genres (my own, for example, dating from my early childhood, includes the folk tradition of Israeli songs, as well as classical music—particularly chamber music repertoire). Thus, one’s culture can transcend geography and ethnicity, having, I believe, to do more with the *experiential power* of the context within which it is acquired. Because these connections are more easily achieved in non-formal settings, I would not elaborate on this here.

Education is often associated with learning about things that we don’t acquire “naturally”. The quest for learning about different cultures is central to our gathering here

in Bergen. Through ISME's exciting, multi-sensory, and intellectual interchange, we learn through lived auditory and kinesthetic experience, as well as scholarly presentations about various cultures, others and our own. The need for understanding various cultures is intensified in a globalized world in which the local is often cherished as part of self-identity. Contrasting with the prevalent conceptualization of music in academies and universities, as "relics of musical geniuses" (e.g., Wolterstorff, 1997), music can also be concpetualized as exemplifying cultural sensibilities. In this view, to study music and other art-forms is, as the great anthropologist Clifford Geertz has framed it so well, "to explore a sensibility, a sensibility that is essentially a collective formation, the foundations of such a formation are as wide as social existence and as deep." (Geertz, 1976, 1480) Life would be grayer, says Geertz, if we lose some of these sensibilities. Art, then, is about understanding society, and what it values: a theory of art is a theory of culture. I believe that this process of "making the strange familiar," allows us to "make the familiar (our music, our culture) strange," discovering its meaning within our value system.

The tremendous influence of anthropological worldview on our conceptualization of social sciences, including music and music education is relatively new, dating to the last few decades. But the view of music as quintessentially social is an old theme in philosophy, dating to pre-modernism (Plato, 1971).[16] Change music, said Plato, and one threatens the very foundations of social order. Music creates and shapes collective identity. Music helps define both "we" and "them," distinguishes "us" from the "other." Music serves as a powerful symbol of who people are, and competing symbols, as Plato implied, threaten the social status quo just (Bowman, 1992, 1998). Sound and arrangement of sound fashion societies. Music creates and consolidates community, and is a primary means of channeling social consciousness (Attali, 1985, in Bowman, 1992).

Music then is a powerful tool to get to know societies on an aesthetic, experiential level. The social-cultural aspects of music as "expanding the universe of human discourse" is a central device for "displacing the dulling sense of familiarity with which the mysteriousness of our own ability to relate perceptively to one another is concealed from us (1973, p. 14). Indeed, in a globalized world, the expansion of human discourse is the underlying goal of education at large, where different disciplines allow us to relate to cultures through various modes, and in the process, cultivate distinct sensitivities.

What does it all mean for the music curriculum and for collaboration across disciplines and ideologies? Framing music within a socio-cultural context, expands the "pure", self contained view of aesthetics, which focuses on music as solely a sonic event. It involves shifting the dominance of what is essentially a "craft" approach to a focus on relationship, relationship to the society, and to the learner who participates in it. While the focus on craft – instrumentation, harmonic progressions, symmetry, balance – is, as Geertz and others point out, prevalent in various cultures including the Yoruba, Javanese, Arabic, and Aborigines, it is mostly in the West that we tend to equate technical talk with understanding. Understanding involves access to the *meanings* of music within the specific contexts in which they are embedded. Indeed within an ethnomusicology tradition, scholars like Minnette Mans (2002), Bruno Nettl (2002), Daniel Neuman (1980), and Mark Slobin (1993), examine music within its social context, as part of social life and its underlying values systems.

The presentation of music within overarching questions and broad cultural issues can help connect aesthetics with the larger curriculum. In integrating music across the

[16] The ancients recognized the difference between music that was good musically and that which was good morally or intellectually. Plato was adamant on this point: aesthetic experience had to be judged by its effects on the whole life of a person or a society as well as by artistic standards alone. (Broudy, 1958, 67)

curriculum, we can collaborate with others in that larger educational mission of teaching about different eras and earlier times.

Notions of Aesthetics and their Implications for Integration

Harry Broudy, the scholar who was the first to argue, consistently and extensively, for aesthetics as a foundation for music education in American public schools (Broudy, 1958, see also Bresler, 2001), shaped to a large extent the field in his definition of music in education. He defined the music curriculum, indeed music itself, as centering on concepts: "Whenever experience can be analyzed into patterns of melody, harmony, rhythm, and tonal color, we call it musical" (Broudy, 1958, 62). Broudy's Classical Realism orientation highlighted a curriculum revolving around exemplary works, oriented towards students' acquisition of subject specific knowledge. A key concern of a traditional view of aesthetic and aesthetic education is the refinement of the listener tastes and preferences. In the quest for refinement, the contribution of music education towards the goal of excellence is to make listeners more discriminating and sophisticated with respect to musical materials and musical forms (e.g., Broudy, 1958).
An alternative theory of aesthetics is based on experience and inquiry (Dewey, 1934). Whereas Broudy defines aesthetic experience by characterizing the features of artwork that evoke aesthetic experience, Dewey's aesthetics is grounded in his conceptualization of human experience in the context of education, as a mode of being and knowing. In this view, connection and transformation of the learner are crucial to aesthetics. Nothing can be enunciated as knowledge until it is an integral part with a knowing subject:

> *In an experience, things and events belonging to the world, physical and social, are transformed through the human context they enter, while the live creature is changed and developed through its intercourse with things previously external to it (1934, p. 246).*

The origin and essence of art is in *lived experiences* rather than the musical works, the masterpieces. "The product of art", Dewey notes, "–temple, painting, statue, poem– is not the work of art. The work takes place when a human being cooperates with the product so that the outcome is an experience that is enjoyed because of its liberating and ordering properties" (1934, p. 214). Thus, Dewey conceptualizes art not as product but as a process, a conceptual and perceptual activity rather than a finished work, belonging to subjective experience rather than being objective entity.

These notions of aesthetics based on an intensified experience and inquiry, lend themsleves to collaboration across school disciplines. Dewey conceptualizes knowledge and art as the same conceptual activity, moving beyond the narrow definitions of cognition.[17] For Dewey, art and science are both intellectual activities that share the same features with respect to the process of inquiry:

> *The difference between the esthetic and the intellectual is thus one of the place where emphasis falls in the constant rhythm that marks the interaction of the live creature with his surroundings. The ultimate matter of both emphases in experience is the same, as is also their general form. The odd notion that an artist does not think and a scientific inquirer does nothing else is the result of converting a difference of tempo and emphasis into a difference in kind. The thinker has his esthetic moment when his ideas cease to be mere ideas and become the corporate meanings of objects. The artist has his problems and thinks as he works. But his thought is more immediately embodied in the object. Because of the comparative*

[17] Recent advocates of music education have emphasized narrowly conceptualized aspects (for overviews of these arguments see, for example, Bresler, 2002; Eisner, 2001; Winner and Hetland, 2000) to encompass a richer conceptualization of knowledge and understanding.

remoteness of his end, the scientific worker operates with symbols, words and mathematical signs. The artist does his thinking in the very qualitative media he works in, and the terms lie so close to the object that he is producing that they merge directly into it (1934, pp.15-16).

Broudy's epistemology is modernist in that artwork is part of an objective reality. Dewey's emphasis on individual lived expereince and interpretation of art makes it a harbinger of postmodernism. Drawing on the concept of experience, Dewey unites opposing polarities–such as society and the individual, emotion and intellect, science and art, artist and viewer, and subjectivity and objectivity (1934, p. 297).

An Entertainment View of Music as Hindering Integration

We discussed the focus on formal and technical aspects, related to the tradition of music in the West, as one hindrance to integration. Another hindrance to integration is the association (by the culture at large, and school practitioners in particular) of music with entertainment, association which I call a "tourist" approach ("The tourist travels just as far, sometimes with great zeal and courage, gathering up acquisitions, and returns the same person as the one who departed." Schelling, in Smith, 1997, p. 105)
A tourist framework accommodates the Social Integration style prevalent in American schools. Including songs from different cultures in Winter Holidays and "Ethnic evenings" (e.g., Bresler, 1996) in American schools signify that all musics deserve some respect (at least superficially) and also, as Bruno Nettl aptly observed, that "they all sound pretty much the same." (Nettl, 2002) . Music teachers resistance of the entertainment approach often leads them to dig more tightly into their trenches.

The Power of Music

If the focus is not formal and technical, nor entertainment, what is it? Certainly, art and entertainment are not mutually exclusive. Both entertainment and art rely on engaging the audience and capturing their attention. Entertainment marks the attainment of that first level of engagement (Beckerman, 1990), opening the spirit to other possible exchanges between a show and its audience. Whereas this first-order engagement is sufficient for entertainment, art typically involves a deeper level of cognitive and emotional engagement. Music reaches us in ways that are not possible in propositional language (Langer, 1957). In choice of contents and cultivation of musical skills, music teachers can help to emphasize these deeper levels of engagement, rather than serve as decorative.

In an ISME Keynote talk in 1994, Heath Lees commented that the arts offer the means of achieving a "fullness of understanding", a grasp which he refers to as "three dimensional", contrasted with rational description. Rational description, he wrote, is from the outside, whereas three dimensional knowledge is formed through the insider's commitment to a tradition. The music makers, he claims, are "those who are particularly charged with restoring and revealing that vital, three dimensional knowledge through the continual exploration and consolidation of the community's own, recognizable, tradition." (Lees, 1994, p. 3)

This unique, experiential quality of music is increasingly recognized by different scholars. Bowman, drawing on David Burrows' work, observes that where visual experience involves an outwardness akin to touching, auditory experience involves an inwardness analogous to being touched. Sounds emanate in all directions at once, intermingle, coalesce with, and pass through each other. Sound's touch is no surface sensation, but one of penetration: it reaches within and passes through us. Sound is fundamental to our sense of being alive to the world. Music transforms these personal phenomena into social ones because of its remarkable capacity to surround us, and to create synchronicity among us. (Bowman, 1992).

The goal of touching students within a socio-cultural perspective may require different instructional materials, including an attentive listening to insiders' (to the culture) perspectives and cherishing. When we teach about another culture, we can bring in voices of that culture, through insiders' presence, or through their writing.
In summary, our visions shape not only what we teach, but how we teach. As tourist guides, while presenting the newness of sound, landscape and food and memorizing information, we deal with surface knowledge. As educators, we aim to cultivate the process of meaning making, to expand our cognitive and emotional understanding of experiences and concepts that may be fundamentally different from the ones currently possessed. On this level, the aesthetics of music—the rapt attention, the presence of heightened experience, can be a powerful force in creating profound learning

The Social Integration Style of Music in Schools

We can clearly enrich school curriculum in the power of the musical contents, as well as by the power of the group's making and listening to music. The power of music in communal rituals is evident in its centrality in celebrations of holidays and rites of passage in all cultures. Indeed, the use of ceremonies for educational purposes (in the broadest sense of the term) is well-established in various cultures. Historically, ceremonies were intimately related to religion and spirituality, to nationalism and patriotic values. They helped create a cohesive community, inculcated important communal narrative themes and were associated with reflection of values as well as with propaganda and indoctrination. Clearly, rituals do much more than mirror existing social arrangements and existing modes of thought; they can act to reorganize them or even help to create them.

Interestingly, this communal aspect of music is not part of the *formal* curriculum, absent from Standards and Bench-marks. There is an interesting paradox in this omission. While arts curricula (prescribed in detail in Standards and State Goals) are typically peripheral to the core, academic curriculum, the major moments at which the entire school comes together as a whole (for examples in holiday programs), typically feature artistic performances.

School performances are unique events intended for large (that is, larger than the prevalent classroom unit) audiences, important enough to take time from school routine to gather not only its regular members–students, teachers and principal–but also families and community members. Performances involve rituals, and rituals, as Turner (1969) had suggested, express what moves people most, revealing values at their deepest level. Moore and Myerhoff (1977) suggest that it is through repetition and order that ritual imitates the rhythmic imperatives of the biological and physical universe. In the acting, stylization and presentational staging, ritual is attention-commanding and deflects questioning at the time. Thus, school performances are stages on which we see the values of schooling enacted, moments where meanings are created and reinforced.

School performance are reminiscent of Turner's notion of the experience of communities which are antithetical to ordinary, rule and role-oriented human relations, (and admittedly, cannot be long sustained if society is to proceed with its workaday, instrumental functions.) However, as Turner points out, it is in those enclaves of social life where communities are allowed to flourish that the community can re-create itself through a regenerative spell of symbolic activity in ritual, myth, and art.

What is the role of music specialists in these communal events? In my studies, music specialists resisted participation in school performances. Central considerations in teachers' resistance to work together performance include their commitment to their traditional conception of subject matter and worry about giving up scarce and precious time of music instruction for what they essentially see as entertainment. Thus, specialists felt their subjects lose integrity featuring "entertaining shows" rather than the serious study of music. Clearly, school performances can be powerful situations for learning of

music integrated with other arts and sometimes with other disciplines. It is the distinction between surface and deep levels discussed earlier, corresponding to the distinction between "entertainment" versus "art", that proved a hindrance to music teachers and what I saw as opportunity to become visible and central in moments that created an impact in the school.

Disciplinarity versus Interdisciplinary

An underlying issue concerning collaborations across school subjects and institutional affiliations relates to ideologies (the nature of music) and to professional identities, affecting the extent to which disciplinary and interdisciplinary curricula function together. Do we employ a different set of criteria when choosing music in socio-cultural contexts? Should we give up the musical skills based on the traditional and cherished goals of music education? Obviously, it is not an "either-or" decision. Disciplinary and interdisciplinary learning can be imagined as existing in a productive tension with one another. The tensions are experienced at the curricular level of musical choices. They permeate to the social institutional level of structures for collaborating, demanding attention at the policy level of student evaluation. The dialectic between focused disciplinary practice and broad-based interdisciplinary practice promises to produce interesting disciplines and inter-disciplines as bodies of knowledge.

Establishing Transformative Practice Zones

The most urgent problem, (coming back to the initial ISME question)– is *how* do we find ways of interacting and working together across professions, ideologies and subject areas. In reflecting on the successes of integration, as well as the failures, I find the concept of Transformative Practice Zone in facilitating working together useful. Originally, Judy Davidson Wasser and I constructed the concept of the "Interpretive Zone" as the intellectual realm in which *researchers* work collaboratively (Bresler, Wasser, Hertzog, and Lemons, 1996; Wasser & Bresler, 1996). I had been lucky to be engaged in several such collaborations and was sensitized to how working with others allowed me to reach different levels of understanding (Bresler, 2002). Consequently, when selecting research assistants, I have looked for a variety of disciplinary lenses and backgrounds, practice-based perspectives and sensitivities, to add richness and complexity to the collection and interpretation of data.

Early on, I found that literature search in diverse disciplines can provide powerfully relevant ways of constructing meaning. For example, in seeking literature that would help us understand issues of collaborative research, we learned that there was little pertaining directly to methodological issues of interpretation within Education or Music Education. We did, however, find relevant scholarship in Sociology, Anthropology, Philosophy of Science, and Clinical Psychology (see in Bresler, Wasser, Hertzog, and Lemons, 1996).
The term "Zone", too, is borrowed from usage in other disciplines – psychology, linguistic, and critical theory. These include Vygotsky's *zone of proximal development* (1986), Bakhtin's *character zones* (1986), Pratt's linguistic *contact zones* (1992), and Giroux's (1992) *border zones*. Non-academic uses include "comfort zone", "speeding zone," "demilitarized zone," and "inter-tidal zone." What is similar about these notions of zones, resonating with our conception of it, is that they refer to unsettled locations, areas of overlap or contestation. It is in a zone that unexpected forces meet, new challenges arise, and solutions have to be devised with the resources at hand. The notion of zone implies dynamic processes—exchange, transaction, transformation, and intensity.[18]

[A]As Regina Murphy has wisely pointed out (2002, email communication), Practice Zones are not easy, and could become "a no-go-zone", "s prone to flooding zone", or "a restricted parking zone".

Interpretive Zones center on interpretation and meaning making. When it comes to *working* together, (involving action, such as developing curriculum), the target is improved practice. The term zone assumes more than one party, negotiating, competing, and interacting from different perspectives. Thus, it moves us away from the traditional role of the teacher as lone, isolated figure working independently in the classroom, to that of a socially embedded "team player", shaping and being reshaped. Transformative Practice Zones provide a space to share ideas, visions and commitments, and to build relationship in collaboration across disciplines and institutions. In the Transformative Practice Zone, participants bring together their various areas of knowledge, experience, and beliefs to forge new curricula and explore teaching styles through the process of the joint thinking and action in which they are engaged. This allows people who were trained and enculturated in one discipline to learn from people in other disciplines.

Collaboration involves risks. As a team member, monitoring one's subjectivity is necessary so that the group can function with some degree of harmony. Individual needs for space, dominance, and acknowledgment shape group processes. For instance, when do we feel threatened and why? When do we feel the need to be right? In our research group (Bresler, Wasser, Hertzog, and Lemons, 1996), we found it important to discuss these issues in order to understand our collective subjectivity, identifying points of tension, negotiating differences, and resolving conflicts. Our discussions were not always harmonious. Because our interpretations often led us to examine values, our professional and personal commitments involved emotional responses, and tension. In that research context, for example, we debated public education versus private, religious education; the role of excellence versus general education; and the usefulness of integration of arts disciplines with the general curriculum. Not all issues were resolved, nor did we feel they could or should be. While we were able, through discussion, to reach a deeper understanding of our diverse positions, in many cases we continued to hold divergent views. Here, consensus was not always a goal. Instead, in that collaborative work, we aimed at understandings of arts instruction that were more complex, pulling from a relative simplistic advocacy toward a portrayal of multiple perspectives.

The conception of the Transformative Practice Zone, like the Interpretive Zone, combines two important and closely linked hermeneutical traditions: the philosophical, represented for example, by such thinkers as John Dewey, and Hans Georg Gadamer and that which stems from Interpretive anthropology and the work of Clifford Geertz, Victor Turner, and Barbara Myerhoff. The characterization of zones differs according to the context and the aspects of the collaborative interactions that are emphasized. Zones range from the neutral (scaffolding), through the conflictual (borders, struggles, wars) to the amicable (negotiation, alliances, overlap). Like Bakhtin (1986), we recognized zones to be socially and historically situated, in which multiple voices converge and diverge through the tensions imposed by centripetal and centrifugal forces in action. Note that Transformative Practice Zones are different from the typical team-planning, where people are delegated responsibilities and the task is being divided. In TPZ The participants are changed in the process, touched and transformed. The sum – a gestalt – is bigger than its parts.

Music educators' experience and understandings of musical ensembles can serve as powerful models for working together. Various types of music ensembles with their distinct characteristics provide useful exemplars for the individual/group relationship. The big orchestra and the choir are two models where the individual voice is required to fit with a pre-ordained conception of the larger whole. More characteristic of teachers' collaborations is the chamber group model where each member has its distinct musical line and color, where the individual parts are always prominent, never lost in the whole composition.

What made the schools participating in the Getty project so successful was the creation of dynamic Transformative Practice Zones where teachers could share ideas, reconsider visions and goals, work with others to create new ones. The Getty schools were selected on

the basis of their commitment to create structures and spaces for teachers to meet, discuss, plan, and reflect. These structures, sometimes weekly or bi-weekly, generated frequent, informal conversations, which served to promote the development of shared goals that ultimately resulted in a shared vision. The integration across the arts and the Artist-in-Residence programs thrived when these collaborative structures were in place, but were far less effective in their absence.

Expanding the conversation beyond the individual school across other institutions and communities involves the "softening" of traditional disciplinary boundaries (Detels, 1999). Informed and engaged teacher educators can help prepare teachers in visions of interdisciplinary, and curricular resources. Researchers can attend to what needs to be explored, in search of deeper understanding of success and hindrances.

A climate of accountability and assessment renders the role of policy makers particularly important. The method of assessment and what is assessed clearly determine its success. My Getty evaluation of the integrated curriculum was positive in terms of what was achieved, the processes and products of learning, but in Texas, what "really" counted in the eyes of the principal, the district administrators and the community were the statistically significant increases in the reading and math test scores of the students participating in the integrated program.

Are we measuring significant learning in music or, like Nasrudin's search for his coin under the lamp rather than where he lost it, are we assessing what is easy to assess? What do we consider worth learning in music education? What dimensions that are central to musical learning are we leaving out? Is the power of the musical experience the interest and energy it generates, overlooked? (Similar questions are raised by Csikszentmihalyi, 1997) The studies described in this paper help us to identify some important qualities in the arts and music education that are relevant to the general curricula.

Important work in many countries, to name a few, Magne Espeland's work in Norway (1997), James Flolu's work in Ghana (2000), Minette Mans' work in Namibia (2000a; 2000b), Gary McPherson's in Australia (1995), and Regina Murphy's work in Ireland (2001), highlight the centrality of the macro contexts of educational policy and national goals. Clearly, the meaning of music education is inseparable from the political, historical, and ideological conditions under which music education is generated and in which it operates. In many African and Asian countries, for example, arts education policy has been shaped by the dramatic changes involved in the processes of transition from colonization to independence and the quest for a national and cultural self-identity. Other important elements are the multiplicity of genres and types of music (e.g., indigenous, traditional, western classical and popular musics in African societies) and the diverse and complex roles of these arts within the societies in which they are embedded. My talk has focused on the level of schooling, but I can not over-emphasized its interconnectedness to other levels.

It is also important to realize that collaboration is an arduous process. Simply because something is collaborative gives no guarantee that its results are more significant, thoughtful or enriched than those gleaned by an individual teacher. So no guarantee, but much promise!

Moreover, Transformative Zones cannot be forced. They are characterized by open-endedness, providing spaces for exploration and discovery, rather than products of prescriptions. There are conditions that are favorable to productive zones, serving as enablers, useful starting points. These include structures for meetings, supportive administrators conveying interest in teachers' ideas and encouragement to try these ideas. But mandating collaborations, let alone transformations, is guaranteed to ruin the whole endeavor.

The movement towards reaching across professional boundaries has clearly started, part of a larger post-modern world view. ISME is instrumental in promoting these collaborations within music education, in its practices and ideologies. Having a community

that nurtures us, intellectually, emotionally, professionally, on all levels, is a real privilege. I am grateful to be part of it all.

References

Attali, J. (1985). Noise: The political economy of music. Trasnlated by Brian Massumi:

Mineapolis: University of Minnesota Press.

Bakhtin, M. (1986). Speech genres and other late essays. (V. McGee, Trans., C. Emerson & M. Holquist, Eds.). Austin, TX: University of Texas Press.

Baum, S., Owen, S., & Oreck, B. (1997). Transferring individual self-regulation processes from arts to academics. Arts Education Policy Review, 98 (4), 32-39.

Beckerman, B. (1990). Theoretical presentation. New York: Routledge.

Bet-El, I, & Ben-Amos, A. B. (1994). Rituals of democracy. In N. Sammlung, Fierteljahresseitshcrift fur erziehung und gesellschaft (pp. 51-58). Germany: Sonderdruck.

Bowman, W. (1998). Philosophical perspectives on music. Oxford University Press: New York.

Bowman, W. (1992). Sound, sociality, and music: Challenges to the aesthetic wisdom.

Address to Tempo 92, Ontario Music Educators Association Provincial Conference. Toronto.

Bresler, L. (2002a). The transformative zone in international qualitative research. In L.

Bresler, & A. Ardichvili (Eds.), Multiple paradigms for international research in education: Experience, theory and practice. New York: Peter Lang.

Bresler, L. (2002b). Research on advocacy outcomes. In R. Colwell & C. Richardson (Eds.),

The handbook on music teaching and learning (2nd ed.). New York: Macmillan.

Bresler, L. (2001). Harry Broudy's aesthetics and music education. Research Studies in Music Education. 17, 42-53.

Bresler, L. (1998). The genre of school music and its shaping by meso, micro and macro contexts. Research Studies in Music Education, 11, 2-18.

Bresler, L. (1997). General issues across sites: The role of the arts in unifying high school curriculum. A report for the College Board/Getty Center for the Arts.

Bresler, L. (1996). Traditions and change across the arts: case studies of arts education. International Journal of Music Education, 27, 24-35.

Bresler, L. (1995). The subservient, co-equal, affective and social integration style of the arts. Arts Education Policy Review, 96(5),

31-37.

Bresler, L. (1993a, Fall). Teacher Knowledge in Music Education. *Council of Research in Music Education,* 106, 1-22.

Bresler, L. (1993b). Music in a double-bind: Instruction by Non-specialists in elementary schools. Council of Research in Music Education, 104, 1-13.

Bresler, L. & Ardichvili, A. (Eds.) (2002). Multiple paradigms for international research in education: Experience, theory and practice. New York: Peter Lang.

Bresler, L., DeStefano, L., Feldman, R., & Garg, S. (December, 2000). Artists-in-Residence in public schools: Issues in curriculum, integration, impact. Visual Art Research, 26 (1), 13-29.

Bresler, L. & Stake, R. (1992). Qualitative research methodology in music education. In R. Colwell (Ed.), The handbook on research in music teaching and

learning (pp. 75-90). New York: Macmillan.

Bresler, L, Wasser, J., Hertzog N., & Lemons ,M. (1996). Beyond the lone ranger

researcher: Teamwork in qualitative research. Research Studies in Music Education, 7, 15-30.

Broudy, H. (1958). A realist philosophy of music education. In N. Henry (Ed.), Basic concepts in music education (pp. 62-87*).* Chicago: University of Illinois.

Broudy, H. (1972). Enlightened cherishing. Urbana, IL: University of Illinois Press.

Burton, J., Horowitz, R., & Abeles, H. (2000). Learning in and through the arts: Curriculum implications. In E. Fisk (Ed.), Champions of change: The impact of the arts on learning (pp. 35-46). The Arts Foundation Partnership.

Csikszentmihalyi, M. (1997). Assessing aesthetic education: Measuring the ability to "ward off chaos." Arts Education Policy Review, 99(1), 33-38.

DeNardo, G. (1997). Authentic assessment of student learning in a community: Arts education partnership. Council of Research in Music Education, 134, 1-8.

Detels, C. (1999). Soft boundaries: Re-visioning the arts and aesthetics in American education. Westport, Connecticut: Bergin and Garvey.

Dewey, J. (1934). Art as experience. New York: Perigee Books.

Einarsdottir, J. (2000). Traditions and trends: Two Icelandic preschool teachers' practices, goals, and beliefs about early childhood education. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.

Eisner, E. (2001). What justifies arts education: What research does not say. In M. McCarthy (Ed.), Enlightened advocacy: Implications of research for arts education policy and practice. College Park: University of Maryland.

Eisner, E. (1982). Cognition and curriculum. New York: Macmillan.

Elster, A. (2001). Learning through the arts: Program goals, features, and pilot results.

International Journal of Education & the Arts, 2 (7). :// ijea.asu.edu

Espeland, M. (1997). Once upon a time there was a minister: An unfinished story about reform in Norwegian arts education. Arts Education Policy Review, 99 (1), 11-6.

Flolu, J. (2002). Re-thinking arts education in Ghana. Arts Education Policy Review,

101(5), 25-29.

Fullan, M. (1982). The meaning of educational change. New York: Teachers College Press.

Gadamer, H. G. (1975). Truth and method. (J. Weinstheimer & D. G. Marshall, Eds. and Trans.; 2nd rev. ed.). New York: Crossroad.

Geertz, C. (1973). The interpretation of cultures. New York: Basic Books.

Geertz, C. (1976). Art as a cultural system. MLN, 91, 1473-1499.

Giroux, H. (1992). Border crossings. New York: Perigee Books.

Grauer, K, Irwin, R., Cosson, A.., & Wilson, S. (2001). Images for understanding:

Snapshots of “learning through the arts.” International Journal of Education & the Arts, 2 (9). :// ijea.asu.edu

Heath, S. B., & Roach, A. (2000). Imaginative actuality: Learning in the arts during

‘nonschool hours. In E. Fisk (Ed.), Champions of change: The impact of the arts on learning. (pp.19-34). The Arts Foundation Partnership.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York: Cambridge University Press.

Lee, K. (2001). Raising the independent self: folk psychology and folk pedagogy in

American early schooling. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.

Lees, H. (1994). Something rich and strange: Musical fundamentals and the tradition of change. Keynote address, presented in ISME, Florida. In L. Heath, Musical connections: Tradition and change (pp. 1-7).

Mans, M. E. (2002). Playing the music: Comparing children’s song and dance in Namibian education. In L. Bresler & C. Thompson (Eds.), The arts in children's education: context and culture (pp. 71-86). Kluwer: Amsterdam.

Mans, M. E. (2000a). Using Namibian music/dance traditions as a basis for reforming arts education in Naminia. International Journal of Education & the Arts, 1 (3).

Mans, M. E. (2000b). Creating a cultural policy in Namibia. Arts Education Policy Review, 101(5) 18-24.

McPherson, G. (1995). Integrating the arts into the general curriculum: An Australian perspective. Arts Education Policy Review, 97 (1),

25-31.

Moore S., & Myerhoff, B. (1977). Introduction. In S. Moore & B. Myerhoff (Eds.), Secular rituals (pp. 3-24). Amsterdam: Van Gorcum.

Murphy, R. (2001). Authorship, advocacy and cultural Identity in the partnership model of curriculum development in music. Paper presented at the Drumcondra Music Education Conference, St. Patrick's College, Dublin, Ireland.

Myers, D. E. (1996). Beyond tradition: Partnership among orchestras, schools, and communities. Atlanta, GA: Georgia State University.

Nettl, B. (2002). What's to be learned?: Comments on teaching on teaching music in the world and teaching world music at home. In L. Bresler & C. Thompson (Eds.), The arts in children's education: context and culture (pp. 29-42). Kluwer: Amsterdam.

Neuman, D. M. (1980). The life of music in north India. Detroit: Wayne State University Press, 1980.

Oreck, B., Baum, S., & McCartney, H. (2000). Artistic talent development for urban youth: The promise and the challenge. In E. Fisk (Ed.), Champions of change: The impact of the arts on learning (pp. 63-78). The Arts Foundation Partnership.

Plato. (1971). The republic. Translated with an introduction by A.D. Lindsay. Heron Books, London.

Pratt, M. (1992). Imperial eyes. New York: Routledge.

Sarason, S. (1983). Schooling in America: Scapegoat or salvation. New York: Free Press.

Sarason, S. (1990). The predictable failure of educational reform: Can we change course before it's too late? San Francisco: Jossey-Bass Publishers.

Siskin, L. (1997). Restructuring knowledge: Mapping (inter)disciplinary change. Paper presented at the American Education Research Association. Chicago, IL.

Slobin, M. (1993). Subcultural sounds: Micromusics of the west. Hanover: Wesleyan University Press.

Shweder, R., Goodnow, A., Hatano, J. G., LeVine, R. A., Markus, H., & Miller, P. (1998).

The cultural psychology of development: One mind, many mentalities. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.), Handbook of child psychology: Vol. 1. Theoretical models of human development (5th ed., pp. 865-937). New York: John Wiley & Sons.

Swanwick, K. Teaching Music Musically. London: Routeledge.

Tobin, J. J., Wu, D. Y. H., & Davidson, D. H. (1989). Preschool in three cultures. New Haven, CT: Yale University Press.

Turner, V. (1969). The ritual process. Chicago: Publishing Company.

Upitis, R., Smithrim, K., Patterson, A., & Meban, M. (2001). The effects of an enriched elementary arts education program on teacher development, artist practices, and student achievement: Baseline student achievement and teacher data from six Canadian sites. International Journal of Education & the Arts, 2 (8). :// ijea.asu.edu

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. New York: Cambridge University Press.

Winner, E. & Hetland, L. (2000). The arts in education: Evaluating the evidence for a causal Link. In the arts and academic achievement: What the evidence shows. Special issue of Journal of Aesthetic Education, 34 (3-4). 11-76.

Wolf, D. P. (2000). Why the arts matter in education. In E. Fisk (Ed.), Champions of Change: The impact of the arts on learning (pp.91-98). The Arts Foundation Partnership.

Vygotsky, L. (1986). Thought and language (A. Kozulin, Trans. & Ed.). Cambridge, MA: Cambridge University.

I am indebted to Decker Walker who was the first to point out to me, when I was his student, the notion of deliberation in the context of curriculum, and to Elliot Eisner in exemplifying this concept consistenly. I am fortunate to have at the University of Illinois colleagues and students with whom I can form Transformative Practice Zones in my quest to better understanding.
Heartfelt thanks to Eve Harwood, Joan Russell, Magne Espeland, Bonnie Armbruster, and Regina Murphy for reading an earlier version of this paper, and for their excellent suggestions.

Morton Subotnick – mortsub@earthlink.net
Composer, the California Institute of the Arts, USA

Exploring the Fundamental Qualities of Musicality as a Means of Nurturing Creativity and of Crossing Cultural Boundaries.

At birth, all of us start with the same musical means of communication. In order for each individual to achieve the fullest potential of musical creativity, we need to base early childhood musical experience on pre-acculturated musical expression

1. The evolutionary advantage to musicality.

We make music because we can. Making and creating music is one of the givens of our species. The ability to communicate with pitch, loudness, timing and timbre has been passed down to us through the process of evolution and is present in every individual of the species. Communication between members of a species appears to be a strategic staple of evolution. Most communication comes in three forms: smell, sight and sound. Sound, of course, has four basic dimensions: pitch, loudness, timbre and time. The evolutionary development of creatures to communicate through sound production is probably the reason we have music. In order for sound to work as communication, there has to be the ability to create the sound and the ability to perceive the sound. The two, expressing the sound and interpreting or perceiving the sound, are actually two separate functions and probably come from different parts of the brain. Even a very simple sound communication can take on complex meanings. The bullfrog, for instance, produces a very narrow range of pitch, amplitude, time and timbre differences. And, it hears only the range of pitches within its range of production. Yet, limited as the communication skill might seem, it apparently gets by quite well. We could say that bullfrog communication is about as limited as a car horn. The car horn, though it can't do much in the way of variation in sound, can mean a number of things to the perceiver. The context of the beep can mean, "the light is green, stupid!", "watch where you are walking!", "look out for me, my brakes are gone!", "We just got married!".
A creature is expressing itself when it needs to and tries to communicate with another. As this communication skill becomes more varied and more complex, it begins to become closer to what we call musicality. We have also inherited the ability to invent a vast amount of instant variation in communicating. As new situations arise, we can adapt by inventing numerous ways to express our needs with a limited number of word-like sounds. Think about expressive utterances where one dimension only changes, say time, where an utterance can be short or long, or repeated faster or slower while loudness, pitch and timbre remain constant. Or, where only loudness or pitch is altered. We witness this communicative expressiveness in animals all the time. As the ability to produce more and more variety of sounds and the control over the musical dimensions become more complex, we can be see the beginnings of what we call language AND what we call music.

My assumption is that music and language have the same start. That is, the evolutionary advantage musicality offers aural communication is richness of meaning, an almost infinite variety of the way words and groups of words are expressed and understood. For instance, if I were to say, "Do you like what you do?" in a normal tone of voice, and without particular emphasis on any word. The sentence is a simple question requiring only a simple response of "yes" or "no" or, "perhaps". But, if I say [in English, of course], " do you *like* what you do?" by making the word "like" a little louder, a little longer in duration and the pitch from LIKE to the end of the sentence higher, the meaning of the sentence suddenly becomes quite difference. The implication is that the questioner does not think the person enjoys what they do, or that, perhaps, does not think ANYONE could enjoy a job like that, etc. What occurs is obvious. Pitch, loudness and temporal duration must be able to be used easily by the speaker and perceived as easily by the listener. And, the perception and presentation of these are often at tiny interval changes in all three dimensions of communication. The delivery does not alter the meaning of any individual word; rather, it alters the meaningfulness of the sentence. It is my assumption that *musical ness* is the *meaningfulness* of language. And, in fact, it is the stuff that all aural communication is made of.

The word, "easily" is important. What makes it easy and quick to both understand and deliver is that the use of pitch, time and loudness to alter the meaningfulness of a word or groups of words is learned. We have aural sounds which communicate various things, but the meaningfulness is always changed and very quickly. In many species, the addition of new meaningful ways to communicate is more fixed and requires further evolution to change. The way in which we change the meaningfulness of words and sentences varies from culture to culture and from individual to individual. I believe that the process of saying something like "hello" or "goodbye" in so many different ways, often improvised at the moment, is part of the creative or "individualized" part of our language communication skills. We invent WAYS to say things ALL the time. We also invent words and new meanings. New meaning to old words and new words are usually done with a combination of the way the word is said and the context of its use. New words and new meaning for existing words require time to become part of a group's language. But, the "meaningfulness" of a sentence is immediately conveyed and often expressed through the musicality of the speaker along with the speaker's body language.

The advantage given to a species that has this kind of complex and quick expressive ability to communicate with each other is obvious. The physical ability to produce the variety of sounds alone would not go far without a creative and inventive skill on the part of the speaker. The parrot is an example of this. Our parrot can produce every sound that we can produce and then some, including speech, music, the vacuum cleaner and the coffee grinder. But it lacks the ability to invent, on the spot, new and different ways to string sounds together and to express complex sentiments in new ways by variations of pitch, time and loudness. For this to work as communication, the receiver of the expression must be able to perceive and interpret the information as quickly as it is invented. The gift to us through the evolution of musicality as communication comes in three packages: inventiveness [creativity], extreme control of the production of the dimensions of sound and the ability to perceive and interpret simple to complex nuances of these dimensions.

Children are born with the ability to use sound as a varied tool of communication. As the child grows, the musicality of communication can and is quickly and easily abstracted from the needs of hunger, pain and loneliness. We learn that we can express a large number of feelings through this musicality, not just basic needs. This abstract process informs itself in that the more we invent and play with expression, the more we *have* to be expressive

about. As the musicality of communication is developed we begin to discover that the expression can go beyond how we feel about ourselves. We begin to uncover ways to feel and express about the world around us.

2. Our experience from birth is enclosed in a kind of metaphorical categorization: motherness, loudness, fatherness, playfulness, upness, painfulness, etc.

In their book, "Where Math Comes From", George Lakoff and Rafael Nunez refer to basic [universal] metaphors as *grounded* metaphors. The grounded metaphors for music can be thought of as energy shapes, things that move from place to place in different ways. We see something moving toward us [a train, a car] and passing us and internalize the change in amplitude and the change in pitch without knowing it or understanding the mechanism.

The results are seen when a child picks up a toy car and goes "voOOom"!
We internalize the feeling of how hard it is to get big things moving up a hill and how easy it is to let them go when they cross the top of hill and head down. We experience the energy of something like this in the opening of Verdi's "La Forza del Destino". Beethoven in his piano sonatas creates the sensation of energy rising and falling. Think of the opening of his first piano sonata. The excitement and drama comes from the continued rising until it reaches the top, stops and falls down. In much sacred chant, whether it be Gregorian Chant or Tibetan chanting, the energy is still. The pitch material either centers on a pitch or stays on a pitch. There is no dramatic rising as in the Beethoven, nor is there the halting start and then taking off as in Beethoven's fifth symphony or in Verdi's Froze Del Destino.

There are three kinds of what I call energy shapes which constitute the raw shape of our kinetic life experience or what we can call the grounded metaphors of movement. We experience these shapes as the way it feels to push something, to throw something, etc. The three shape types are:

1. Going in a direction [tending to move up and/or tending to move down]. The musical metaphors are:
    b. Loudness= crescendo and/or decresendo. [< >]
    c. Pitch=rising pitch patterns and falling pitch patterns. [Scale or arpeggios or patterns]
    c. Time=accelerando and ritardando or when note durations get generally faster [h eeq xxxx] or slower.

2. Staying still. The musical metaphors are:
    a. Loudness=a single dynamic
    b. Pitch=held notes, trills, tremolos, etc.
    c. Time=a single tempo or note durations remain constant.

3. Moving disjunctly. The musical metaphors are:
    a. Loudness= sudden changes in dynamics
    b. Pitch=sudden change in intervals.
    c. Time=sudden changes in duration. [h xx q.e qw]

We think of organizing principals in music as abstract. But, in fact they are also conceived and understood because of our grounded life metaphors:

a. Returning ness=cycles=daylight, seasons...
b. Beginning, middle and end ness=seeds- plant- flowering- dying
c. Variation ness=the shapes of noses, eyes, ears, etc., manners of walking,

d. Development ness=maturing of thoughts, feelings, ideas
e. Complex ness=the cycle of the sun simultaneous with the cycle of the moon

To a large extent, creativity in early childhood consists of playing with materials, putting them upside down, putting things in different contexts, attaching them to various things. A lot of attention has been given to this process, but the WAY they move the objects are directly related to the above metaphorical energy shapes. The manner of moving the objects, twisting, throwing, conveys a meaningfulness or musicalness to the action just as the WAY we speak conveys the meaningfulness or musicality of the sentence or phrase.

We can watch children exploring and inventing with blocks and paints and rocks and dolls and cars. All of these objects live outside of the time it takes to play with them. That is, after putting blocks together, they can see what they have done, and react to it. They can 'edit' the results of their play. But, music generally exists only in the time it takes to do it, and it is gone. If we want a child to experience the kind of creativity and inventiveness they are getting from playing with objects, we need to give them the freedom to not only play with musical materials, but to be able react to what they do with musical materials. We need the equivalent of building blocks and finger paints. As the child gets older, creativity [inventiveness] can be nurtured by moving from the basic free molding tools to more sophisticated modeling tools. Continued creative ability is greatly enhanced by the ability to create something and then revisit it, edit it and put it into new contexts.
(Making Music demonstration)

It doesn't take long for a young person growing up to begin to "know" what music is and what it should sound like. They even use terms like right and wrong. This awareness, of course, is almost completely learned and varies from culture to culture and family to family. Most people growing up in any culture are rarely aware of the possibility of creating new pieces of music, let alone creating new "kinds" of music. When we think of educating our children, we teach them the melodic and rhythmic organization of the existing tradition of music as if there were no other in existence, and certainly no room for exploring totally new avenues of sound/musical expression. Our main intention is to train young people to play existing musical literature and to be good audience members at concerts of traditional music.This is, in fact, a valuable and, in the long run, important thing to do. But, if we hope to bridge the gap of what music is between cultures and groups, we need to rethink this approach. And, if we hope to take advantage of what digital technology can offer to new creative paradigms, we need to look again (or, perhaps, for the first time) at the very nature of music and musical expression. Since the dimensions of music are grounded in basic life metaphors, we can start with those at early childhood, and get to creativity and inventiveness in an unfettered mode. As the children interact with their cultural view of music, the group interaction will quickly move them closer to whatever the tradition is in that group. It is important to have creative tools for children at the earliest possible age, not just toys that play musical phrases, but the raw materials of music available to be molded and played with like mud, wet sand, building blocks and finger paints.

To start with, I will reduce the three major areas of musical experience to their primal form, then, suggest a way to build universal tools for children, tools that cross cultural boundaries.

1. *Inventiveness [creativity]*
   In real time: creating with pitch, timbre, amplitude and time.
   Out of real time: editing, manipulating, and adding to what was done.

2. *Performance: Interpretation= shaping of notes, phrase, rubato.*
   When does something happen

How does it happen
When does it stop

3. *Perception/interpreting or understanding*
   Recognizing nuances of change as well as phrasing
   Recognizing differences between patterns
   Recognizing variations of a pattern as differentiated from a totally different pattern
   Recognizing formal relationships

4. *Basic models for cross cultural musical creativity and comprehension*.

An example of how all of this could be used in a practical sense would be a website and/or a cd-rom. The web site would be divided into three sections: Creativity or Creating Music, Performing or "Playing Music" and Listening to music.

A *Creating Music (as demonstrated in my Making Music CD-ROM and in my website, creatingmusic.com)*
A music sketchbook where the children can freely draw music at the level of finger-painting. With it is a set of tools where they can change the timbre, the loudness and the duration of notes or groups of notes as well as changing the modes. Other transformation tools let them move groups of notes around, duplicate, invert and retrograde any group.

B. *Playing Music*
1. The child is given pieces of music that can advance note by note with the keyboard of the computer. Here accompaniments can go along with the notes so that the child gets more feed back. The accompaniment would follow the child's performance of the notes being advanced. (Example: show Beethoven piano sonata)

2. The child is given an entire piece. The piece is "conducted" by tapping the beat or moving the mouse. The piece can be started and stopped anywhere. The piece can be made to go faster and slower and louder and softer, both in real time and out of real time. (Example: show Clementi Sonatina)

C. *Listening to Music in the form of Games and Puzzles*.
1.Same or Different:
Music is heard then heard again The second performance will be higher- lower, louder-softer, faster-slower, forward-backward, forward-inverted. The question is "Is the second one the *same* or *different?"*

2. Name that Difference: Music is heard then heard again. The second performance will be higher- lower, louder-softer, faster-slower, forward-backward, forward-inverted. The question is:" is the second music higher- lower, louder-softer, faster-slower, forward-backward, forward-inverted?"

3. Similar but Not the Same: Here the same process is created as above. But one melody is heard, and, at first 2 choices is given with one being the same and the second a variation. Then, as they get harder, 4 choices with one being the same, one being a variation and 2 being different.

Using the model of translation [English, French, etc] but *replace the content of the musical examples and the graphics [symbols, buttons, etc] while leaving the*

"questions" intact. By having all on one web site, the children can play with the "other languages" as well as their own, thus, through playing with basic notions of musicality, learn quickly how that translates from culture to culture. For instance, in the sketchpad, the instruments and scales of one culture are substituted, but the drawing and transformation tools remain the same.

A final activity of interest [which I hope to implement within the next year] is what I am now calling "chamber music rooms". In a chamber music room [which is similar to a chat room] a child finds, for instance, three Dorian Harps. A high-pitched harp, a medium pitched harp and a low-pitched harp. They choose one of the three and can improvise with the other one or two children. The chamber music rooms are designed with various instruments and various scales and modes. Again, culturally specific rooms will be available for any child from any culture.
Sharing is important as well. Creating a community of children with a common interest is one of the great potentials with the telecommunication. The sharing of creative work can be achieved at two levels:

1. Listening to what others have created, and

2. Being able to play with other's work by substituting new instruments and scales. Though simple in concept and action, it is not the least trivial. [I am not, at this point suggesting incorporating other's work into one's own. This remains an ethical dilemma, which I would rather not get into here].

If we can help the child find ways to express and develop their creative musical potential at an age early enough to precede the cultural conformity which is inevitable, we can hope that a number of missing ingredients to the musical development of individuals can be facilitated. First, we have fewer musically intimidated individuals; second, we may have a more active and creative audience of individuals rather than social groups listening to what group pressure dictates; and, finally, we may have more real appreciation and understanding of what other individuals and groups of individuals have, are and will create.

WOMEN AND INSTRUMENTAL MUSIC: THE KENYAN EXPERIENCE

Hellen Atenio Odwar Agak - Dragak@swiftkisumu.com
Maseno University, Kenya

The Practice in indigenous Kenyan society with respect to instrumental music performance shows that men dominate this area. For example, Zake (1986:178) in his list of Kenyan indigenous musicians, mentions only one musician as a dancer. Hyslop, in his study of instrumentalists and their instruments done in Kenya some twenty years ago, discovered that professional instrumentalists in Kenya are almost exclusively men. He wrote (Hyslop 1975:5):

> Professional instrumentalists in Kenya are almost exclusively men. Only once has there been a mention of women instrumentalists. Two players of the Atenesu drum from Teso [...] at the foot of Mount Elgon were taught by their mother and one of these men was also teaching his daughter.

Reasons why men dominate instrumental music in Kenya came from several beliefs or taboos (discussed later in this section) that arose from the assumed role and status of women in society compared to men. Indigenously, a woman's place is in the kitchen, i.e. her major role is to ensure that domestic work is done, the husband and children are taken care of and that enough children are born to the husband. She is given a passive and subordinate role compared to that of men. She is considered to be the weaker sex. This in essence implies that she is not expected to engage in activities that men do, i.e. activities that publicize her and are likely to make her outshine men. On the other hand, men are given prestigious, active, dominant positions on society. They are assumed to be physically and mentally superior to women. They are knowledgeable, political leaders, religious leaders, priests, owners of property, bread-winners and the decision-makers in society. They are the ones who make instruments of string, wind and drum types.
Consequently, women's instrumental music was more or less restricted to percussion instruments of the idiophone type instead of the other types of indigenous Kenyan instruments, namely:

- Chordophones (strings)
- Aero phones (winds)
- Membranophones (drums)

Table 1. Some Kenyan stringed instruments, communities that play them and provincial location of the communities

Instrument	Community	Provincial location
• Lyres		
Litungu	Luhya	Western Province
Obokano	Gusii	Nyanza Province
Nyatiti	Luo	Nyanza Province

Iritungu	Kuria	Nyanza Province
Kipkandit	Tugen	Rift Valley Province
Chemonge	Nandi	Rift Valley Province

- Harps like

Adeudeu	Teso	Western Province

- Lutes

Wadindi	Kikuyu/Embu/Meru	Central Province
Orutu	Luo	Nyanza Province
Entono	Kuria	Nyanza Province
Ong'eng'o	Gusii	Nyanza Province
Ishiriri	Luhya	Western Province
Mbeve	Kamba	Eastern Province
Kimengeng'	Kipsigis	Rift Valley Province

The aerophone family consists of

- trumpets
- flutes
- reed pipes
- horns of various types

Membranophones are drums of various sizes and shapes known by different names in the various Kenyan communities.

The word idiophone means "self-sounding' hence idiophones are instruments upon which sound may be produced without the addition of stretched membranes or vibrating strings or reeds (Nketia 1979:69). They are the most common instruments since they include the simplest as well as the most easily improvised sound producing objects. Examples of idiophones are wood blocks, clappers, shakers, rattles, ankle bells, leg bells, metal rings etc.

Of the above instruments, women generally do not play chordophones, aero phones, and drums, while they play idiophones of all types.

Belief barring women from playing Litungu in Bukusu (Luhya sub-tribe) are outlined in a research report submitted by a second year music student at Maseno University College who took a course on "African Instruments Part One" convened by the author of this report. These beliefs are as follows:

- Women would remain childless for life, hence, women are scared away from playing the instrument.
- *Litungu* was given by the spirits, and in the Luyha community, spirits only communicate with men and not women. Thus women cannot play the instruments.
- *Litungu* is a prestigious instrument and no woman is to play such a prestigious instrument.

The Luos on the other hand believe that should a woman touch the strings of *Nyatiti,* the Luo lyre, then the strings would naturally become weak and eventually break. She would

only play *Nyatiti* on condition that she marries the lyrist, otherwise she would remain barren all her life. The playing of *Orutu (* a Luo single stringed fiddle) by Luo women is forbidden in line with a similar belief. Among the Marachi of Busia district, it is believed that women do not play *Obukhana* for the reason that women are careless and weak and may easily tamper with the strings which are considered delicate only when women handle the instrument. The Marachi *Obukhana* player like most Kenyan indigenous musicians used to be invited to the nearby villages to perform. Since women were considered to be weak and the instrument heavy, it was and is still considered risky for them to transport the instrument walking long distances for purposes of performance. The Marachi people believe that should the instrument fall down, the spirits become angry and bring curses to their community. Similar beliefs are found among the Kisii regarding women playing *Obokano, Tugen Kipkandit, Teso Adeudeu, Kuria Orokano (Obokano)* and Kikuyu fiddle *Wadindi.*

Some of these string instruments like *Obaokano, Tritungu, and Nyatiti* are played while seated (Zake 1996: 141) because of their weight. In certain cases, other instruments performed together with these instruments to provide percussive accompaniment are best regulated while seated. A *Nyatiti Player* for example has on his right toe a metal ring with which he hits the resonator of the instrument on one side to provide a percussive accompaniment. According to some Luo elders interviewed, women were not stopped from playing *Nyatiti* because they were unable to perform on the instrument, but because in the olden days women lacked proper dresses to conceal their private body parts which would naturally come into question due to the position assumed while playing the instrument. Other instruments like the single fiddles are light in weight and are held more or less in the same way as the Western violin. But even these have beliefs attached to them so that women cannot play them.

Aerophones seem to belong exclusively to men. According to one informant from the Luo community, this is so because the breath needed to produce sound in these instruments is enormously great and not manageable by women. This might appear to be true with particular aerophones which are enormously large in size like *Abu.* However, how about flutes like *Mulele (Luhya), Muturiru (Kikuyu), Asili (Luo), Chivoti* (Mijikenda), and the bamboo panpipes *Giringi* (Kikuyu) that are small and light and can be played by women without calling for so much breath?

There are some allowances when it comes to percussion instruments, especially the membranophone type. The drum in most Kenyan societies is a ritual one instrument. According to the indigenous beliefs, it is men who lead in ritual performances, hence they are the ones to play drums. Among the Luos, however, there are specified drums like *Ohangla* which women could play. Zake (1986:176) refers to *ohangla* as women's drums to distinguish them from those played by men. Even these were not to be performed in public , according to one informant, although Zake and one other informant mention that *Kalapapa* drum, according to an informant, was originally played by old women although nowadays it is played by both genders. Another exception is found among the Teso where the *Atenesu* is played by women (Hyslop 1975:5). This was reiterated by an informant-colleague from Teso. Should this be the case with other indigenous Kenyan societies, it is only an exception, and not the indigenous norm. It is not farfetched to think along the lines of fear by men to compete and be challenged by women in instrumental music. Having women play instruments that men play could perhaps mean women exercising equality with men. Thus having women abstain from playing instruments can be perceived to be a way of emphasizing the subordinate role of women in society, i.e. extending, exercising and exerting men's authority over them. An instrumentalist in the indigenous Kenyan society was to travel to different places to perform. He was actually invited to perform in special societal events and celebrations like weddings, inauguration of chiefs, funerals, etc. This

kind of task could not be performed by women since their work was to care for the home and children. Even if a woman accompanied her husband, her place was in dancing or singing.

Men in indigenous society are the makers of instruments, especially strings and drums. They therefore have the opportunity of becoming acquainted with some of theses instruments as early as the making stage. Since they are not tied down with domestic chores, they also have extra time to train in instrumental playing. Girls, as opposed to boys, lack such privileges because they are to assist their mothers with household chores. Because they are the makers, men are thus the ones to play the instruments and not women.

Idiophones are the only instruments that are widely played by women. This may be due to the following reasons:

- First, most idiophones, except for the bull-roarer of the Tiriki, are easy to improvise by almost everybody and as such are not connected to a particular maker or spirits.

- Secondly, idiophones are not the major instruments in a performance but rather provide an accompaniment to the major instrument, song or/and dance. Women having a passive role in the society, which is extended to music in dancing and singing, naturally take up the less dominant instruments. From her study on women and music performance among three tribes in Sudanic Africa, DjeDje (1985: 79) came to a similar conclusion regarding women and instrumental music:

We can conclude from these observations, then, that the idiophone is the most widely played by women in Sudanic Africa, while aerophones is least used. The reason for this is that idiophones have less status and significance in the ethnic groups than drum, string, and wind instruments; and since women [...] do not play dominant role in the more important instructions in the society - for example, they are not the political or religious leaders, they are not the major producers of food and in no way control the economy, and they do not own property - it has probably been established that they also should not assume leadership in the performance of prominent musical instruments.

Closely related to the fact that idiophones are played by women due to their less significant role in a performance, is the fact that songs were mostly composed in praise of women, since they were considered to be beautiful creatures to be admired by men. In the same way, women according to one informant are thought to have flexible, gracefully moving bodies, more suitable for dance, compared to men's. The same argument goes for the voice. Thus the society more or less assigned women the role of dancing and singing.

Music-making is an engaging and engrossing activity. One is tempted to think that because of this nature of music, fear developed among men that should women engage in instrumental music-making, they would forget their domestic activities. It is not hard to see how this can be a problem since domestic work, especially regarding food preparation and all goes with it, washing clothes and caring for children, is believed by indigenous society to be done exclusively by women.

Generally, in Kenya and in most African countries, music occupied a very important position in the life of the society. It was the medium of enculturation (cultural transmission from one generation to another) and socialization. The economic aspect that music has assumed at present was not then the case with the performance of music. Presently, even the indigenous male instrumentalists do not just perform for entertainment purposes. What

this means societies and people are dynamic. These changes should also be directed to beliefs regulating women's musical activities.

Indigenous beliefs on women and instrumental music challenged

Some of the beliefs barring women from performing music on certain instruments, especially in Kenya, may have been rightly used in the past but with new developments in various circles, should not continue to be perpetuated. For example, refusing women to play the lyres on the ground that they would remain barren was only used to safe-guard women from attempting to sit down with the lyre between their legs since they did not hat have appropriate dress for such an activity. Nowadays, long and reasonably short pants have become a part of women's dress. The belief and that which implies the eventual breaking of strings of certain instruments when touched by women, need to be challenged in the absence of scientific evidence of the same. Otherwise, they should be treaded as cunningly calculated methods of segregating and subjugating women's musical activities.

Belief relating the origin of instruments to spirits and implying that spirits can only communicate with and through the men, ignore the fact that there were and still are women soothsayers, diviners and medium charmers in indigenous African societies. In the event that women who communicate to spirits do exist, society ought not to have gender-segregated musical practices along these lines. Certain beliefs were seemingly coined to bar women from playing certain instruments so they do not get invited to perform outside the home. For example, it is widely believed that women are weak and fragile and thus are not able to transport instruments from one place to the other. Closely related to this is the belief that women are too weak to produce enough breath to produce musical sounds in aerophone instruments. This belief seems not to provide convincing reasons why women could not be allowed to play the small-sized aerophones. However, different and perhaps better playing methods, that suit both men and women, can be devised.

Men used to be and are still the makers of instruments in the indigenous Kenyan societies. In certain societies, instrumental making was a family occupation. Although this may still be true, the aim of making instruments has taken a totally new direction. Men nowadays make instruments for commercial purposes. This makes the instruments readily available for men and women alike and detaches the instruments' attachment to spirits and particular makers. With this understanding, females are free to buy and train on any instrument of their interest and choice.

Summary

From the foregoing discussion, it is clear that women have been excluded from performing on certain instruments of music. This has been done on the basis of some societal beliefs that claim that women can perform only on specified instruments. Women's musical performance has been mainly vocal. The Kenyan society should let some of these beliefs go in the face of modernization and lack of scientific evidence to their claims on women and instrumental music.

REFERENCES

DjeDje, J.C. 1985. Women and Music in Sudanese Africa. In I. V. Jackson (ed.). *More than drumming. Essays on African and Latin American Music and Musicican* (pp.67-89). United States of America. Greenwood.
Hyslop, Nelson G. 1975. *Musical Instruments of EastAfrica 1 Kenya.*
Zake, G.S. 1986. *Folk Music of Kenya.* Nairobi: Heinemann.

ACROSS BORDERS AND MUSICAL CULTURES: AFRICA'S VOICE IN KWAITO

Caleb Okumu Chrispo – calebokumu@hotmail.com
University of Witwatersrand, South Africa

Introduction

Ezimtoti is a music programme on South African public television that focuses mainly on youth: a programme that is presented by the youth for the youth. The semiotics (signs and signifiers) evident in the programme suggests that it is geared towards an audience that is appreciative of the global youth culture. Although the programme is heavily situated in global youth culture, the content is virtually all South African in origin. Programme notes appearing in daily, weekly and monthly television schedules usually describe it as "Ezimtoti: local music." The term Ezimtoti is a Zulu word that figuratively means - that which is good, that which is pleasant or even sweet melodies. It comes from the Nguni language group but is understood widely in South Africa by the other African languages.

Ezimtoti features on SABC1 TV on Saturdays at 6.00 p.m. to 6.30 p.m. According to SABC schedules, this programme fell at the beginning of their prime time viewing, which starts from 6.00p.m and runs to 9.30p.m [SABC 1998/1999 Annual Report and Financial Statements, pp18-19]. The programme therefore enjoys a prime time viewing and features a genre of music that is known as kwaito, which emerged in the South African music scene during the 1990s. Before that, other kinds of youth music were featured. A profile of the SABC1 channel, which airs Ezimtoti reads that it is a full-spectrum free-to-air television channel aimed at young viewers and broadcasting in English, isiZulu, isiXhosa, siNdebele and siSwati. It has an average daily adult audience of 8,613 million viewers (ibid: 16). Thulasizwe Nkabinde, the executive director of the programme during 1996 and now the music director at the SABC explains:

"SABC1 is actually a youth channel. Ezimtoti is geared towards the youth and as you know that the youth love kwaito, for some strange reasons. Well it has happened throughout the history of music in the world that popular music is appreciated by the youth. At the present moment kwaito is the in-thing. That is why we target the youth through what they like most." [personal interview 10 May 200].

At the moment therefore and into the foreseeable future the programme has and will continue to be dominated by the genre of kwaito until some new trend comes in. Presumably, the focus of the programme will then change.

What is Kwaito?

Kwaito has been described widely by different people in various ways depending on their understanding of the music genre. In conversation with many young people, who happen to be the main consumers of this genre, kwaito has at times been described as South African hip-hop and an appropriation of American hip-hop music. American hip-hop is a sub-culture that encompasses a wide range of symbols among them clothing and language.

Middleton (1990:139) describes appropriation as the making of a music as your own from whatever materials. This, he contends, arises from the habit of singing along and identifying with the vocal, rhythmic and melodic articulation of the kind of music that is appropriated. In this case therefore, kwaito can be said to be an appropriation of the American youth culture of hip-hop. This has been the general understanding of the genre.

It must be emphasized that over the years, kwaito has found its foothold as a distinct genre of music culture that is specifically South African in nature. Coplan (1985:37-39) and Ballantine (1993:13-17) have suggested, among other reasons, that the South African appropriation of American music has its roots in the phenomenon of the South African blacks finding themselves in a similar situations with their American counterparts in that they were both oppressed as a result of the colour of their skin. Further, the success of the civil rights movements in fighting for political, social and economic justice among the African-American population in the United States of America gave hope to the South African cause. This in turn inspired and motivated South African blacks in their own struggle and toward successes at home.

Mention must also be made of the emergence of the information technology and globalisation of youth musical culture. It is suggested here that South Africa, despite deliberately delaying the use of television until 1976, would never have succeeded in isolating itself from the processes of globalisation as far as popular youth culture is concerned. Kwaito speaks to mostly urban youth populations who embrace similar global lifestyles in their use and consumption of American-influenced cultural genres. South African youth have gone a step further and repackaged this culture in the manner and style of kwaito to address their own social situations. They have succeeded in cutting out a niche for themselves through selective syncretism, an example of the way in which people acquire aspects of a foreign culture that has meaning to them and tend to omit those that do not make meaning.

There are various reasons why kwaito has been described in different ways. Since it is a relatively new musical genre, the literature on kwaito is mostly found in newspapers and magazines. Web pages have been set up that try to answer the questions on kwaito. It is quite difficult to find published literature on the subject in text books. Coplan's 1998 "Popular Music in South Africa" is perhaps the most recent publication that addresses the topic of popular music in South Africa. He ends his foray in the 1990s but mentions not a word on the genre of kwaito. Writing at the end of December 1997 McCloy says:

"Kwaito/d'gong fans know how to get down and go crazy on dance floors - and there were a few songs that reached national anthem status in clubs and at bashes this year .... The straight three-word-lyric hot dance tracks of the established sound of Arthur (Mafokate) and Mdu (Masilela) are going to keep clocking high sales, but we also saw a move away from that type of sound, to creative music that is hard to define as 'local house'. Examples would be Bongo Maffin's popular reworking of Miriam Makeba's Pata Pata that was danceable but definitely not a house track... These songs sound more of a weaving together of musical strands - including kwaito, hip-hop, R&B and ragga. TKZee's Palafala came out on a danceable tip yet was fresh and didn't play into the mindless trend of a three-word song calling out over an uncomplicated beat" [Mail & Guardian, December 24 1997, p 26].

To McCloy, kwaito is a weaving together of musical strands involving hip-hop, R&B, ragga and the local version of hip-hop known as kwaito. At the time McCloy was writing this article in a review of the year 1997 the kwaito genre was apparently still looking to define itself in terms of its musical characteristics. However, the end of that year's top of the charts list compiled from the sales of a popular music shop, Look and Listen, situated in Hillbrow, which has a large black African community reads as follows:

1. Ma Willies: Intwenjani
2. Rebecca: Angingedwa
3. Trompies: Trap en Los
4. Arthur: Oyi Oyi
5. Brothers of Peace: King of Kwaito
6. O Da Meesta: Wena Ubani
7. Rebecca: Uzube Nam
8. Mou:Ipompe
9. Thebe: Tempy Pusher No. 1
10. Chiskop: Akusheshi
[Source: Glynis O'Hara, South African Music, Mail & Guardian, December 24 1997 p.27].

The above chart shows that kwaito music occupied eight of the ten places with the remaining two going to numbers 2 and 7 above, the gospel music of Rebecca Malope. She is a dynamic, diminutive female singer who flirted with jive/bubblegum music, winning the Best Female Vocalist at the 1987 version of Shell Road to Fame competition, before going gospel. That there were many kwaito groups and that they had a fair share of the African popular music industry is evident from O'Hara's remarks:

"Arthur sold more than 100 000 (copies) with Kaffir, and although he didn't come close to that figure with Die Poppe Sal Dans, his latest release Oyi Oyi is already at the 125 000 mark. Partly the disappointment is related to the much wider choice in this genre now... There are so many kwaito acts and that they all sound pretty similar, although the Mdu and Arthur stable do have differences in their sound" (ibid).

The confusion of whether it was d'gong, house, ragga, R&B or a mix of all these influences still puzzled many writers in the field of African popular music. Bafana Khumalo defines kwaito as "a blend of township music with rap and house music influences." [South African Arts, Culture and Heritage: 1997 Calendar, p.20]. But a casual observation of the categories of kwaito music available in the market shows that it may be linked to other styles apart from rap and house. There are tracks that can be classified as reggae and others which still fall under township bubblegum music. For example, Fred Khumalo on his part writes that:

"Kwaito is a combination of house and the township bubblegum of the '80s popularised by the likes of chartbuster Brenda Fassie. But, like rap, kwaito is angry, in-your-face music rooted in urban angst: it speaks of violence, drugs and sex through pared-down, repeated lyrics" [Sunday Times, 9th August 1998 p.17].

Fred Khumalo's judgement of kwaito lyrics referring to violence, drugs and sex arises out of the general stereotyping of the genre of music. While that is the majority view that has generally been presented by critics and observers, there are exceptions that defy that conclusion. Kwaito is not just angry music and does not speak only of violence, drugs and sex. There are kwaito numbers that talk of development and positive issues, for example, the song Vuk' unzenzele by the group Abashante urges the youth to get up and do it for themselves.

The 1998 Cultural Industries Growth Strategy Report (CIGS) on the South African music industry defines kwaito as a composite of international and local sounds - house, bubblegum, township rap, and R&B and maintains that it arose as an effect of international sounds on local music production. The international music marketing companies that control the world's music production are, first and foremost, business concerns. In their quest for local markets, they would inject both international hits that have been successful and also look for local music that could be marketed locally and internationally. International

music hits make huge incomes for the music companies. The wider they sell their music the higher their profits. Their major concern, is thus consumerism and the marketing of their products. In this case the product happens to be music. The report is a bold acknowledgement of the reality of the genre as South African, albeit with several external influences.

Maria McCloy (1998) says, "South African young people are as much into R&B and hip-hop as their counterparts all over the world - but the most popular party music is a locally created home brew called kwaito." [Arts & Heritage 1998 Guide to South African Arts, Culture & Heritage, p.4]. According to McCloy, kwaito is a locally created version of R&B and hip-hop. From the performance style and consumption dynamics (fashion, language and lifestyles) of the genre it would be safer to categorise kwaito as a local appropriation of R&B and hip-hop. McCloy's version has the implication of a completely newly created music genre of South African origin. This may seem to be a rather far-fetched assumption for hip-hop originated in the Bronx in the United States of America way back in the 1971 (Farley 2000). While Fred Khumalo is blunt and direct, McCloy is non-committal and takes a safe stand by not giving a concrete definition of kwaito. However, it is agreed by both kwaito artists and writers alike that it has both local and American influences. "We cannot deny we have been influenced by America and Europe. But at the same time we have our own culture - and we have hooked up to the internet, too." (Stoan from the group Bongo Maffin quoted in McCloy 1998: 4).

Rap and hip-hop started in the Americas as a fad and later spread to street parties with dancing on the streets using big portable sound systems that could blare loud music. In the United States the rap and hip-hop culture involves much more than the music. It includes baggy clothing, graffiti, a slang vocabulary, break-dancing and a general lifestyle. This genre of music from the United States came to South Africa and other parts of the world in the 1980s through movies like Break dance and Beat Street that portrayed youth in fancy casual clothes dancing in the streets to their radio cassette players. People would be given a chance to show their capability on the dance floor while others gathered round and cheered in appreciation. At clubs the music included the scratching of vinyl records on turntables to produce a raunchy percussive addition to the music playing on a different turntable.

While American and European R&B, hip-hop and house music influences are evident in kwaito, there are several other ingredients from Jamaican ragga muffin style of singing and chanting. Zakele Ngubeni asserts that

"Kwaito is a type of music that originated in South Africa around the early 1990s. It developed just after South Africa's disco music, which was a mixture of western pop, solo and African rhythm. The people who are famous for this music are artists like Brenda, Chicco, Thiza, Spokes-H and others. Today people who are famous with kwaito are people like M'du, Arthur and Trompies...Kwaito is the reflection of life in township according to the people who were born and brought up there, and is 100% indigenous... So Kwaito reflects that life, where people from different cultures and backgrounds come together in the townships... Kwaito can be seen to be similar to rap or hip-hop in America, which reflected the lives of the city youth in that country" [Socialist Worker, No 54 February/March 1998 p.11].

We can infer from the above definition of kwaito that it indeed is a product of the black township culture that has seen many changes and innovations in dynamic forms to reach its present level. It definitely is a music of the youthful generation that has taken over from an equally vibrant disco-craze generation dominated by the likes of Brenda Fassie, Chicco Twala and the rest of the 1980s phenomenon. As Coplan (1998:779) writes,

"The 1980s in South Africa saw an effloration of popular groups and musicians, fueled by the dramatic improvement in locally available electronic musical technology...The most popular representatives of local music were the township funk-rock groups playing what people commonly call "bubblegum," a term that identifies the youthful, bouncy, top-40, party-music aspect of balladeers and funk-dance bands, though it suggests nothing of their stylistic innovations, or political lyrics and musical metaphors. The top township party-dance groups in the early 1990s were Brenda Fassie (with or without the Big Dudes), Steve Kekana, Chicco, Yvonne Chaka Chaka, Lazarus Kgakgudi, Condry Ziqubu, and Sipho 'Hot Sticks' (sic) Mabuse."

Thus while bubblegum and disco was the music liked by the youth of the 1980s, kwaito became the music of the 1990s and beyond.

Charl Blignaut [Mail & Guardian, May 29 1998] concedes that kwaito has rocketed into the stratosphere as the new pop and he credits Arthur and Mdu as the two musicians who helped pioneer the genre. Blignaut, however, calls the genre "kwaito or d'gong." and carefully avoids making a firm description of the genre. In June 1998, the top selling kwaito artists were listed respectively as Arthur Mafokate, M'du, Boom Shaka, Ma Willies and Abashante.

What is apparent from the programme is that kwaito and Ezimtoti have parallels in their culture. Both of them are aimed at the youth and reflect the global trend of urban youth culture. Global youth culture is very vibrant and dynamic and carries many symbols, especially in the dress code of both the artists and their audiences. This trend is not peculiar to South Africa but widespread in other western oriented societies all over Africa and the rest of the world. Youths have redefined American influences into their own localised styles of hip-hop and rap to suit their locales. The artists wear casual, fancy and designer clothing and shoes that are trendy. Kwaito's basic characteristics can be summed up as follows:

1 .An electronically controlled percussive beat that is danceable.
2. Chanted or sung vocal lines, with interpolated grunts that emphasise the dance movements thus contributing to the percussive elements. A mixture of African languages, English and/or a slang language (iscamtho), may be used.
3. A sustained keyboard support to underscore the rhythmic element and/with occasional solo riffs.
4. A link with the dress code of baggy oversize garments and colourful designer labels ranging from hats to shoes.
5. A non-presence of live instrumental performers since all the music is electronic. The musicians therefore depend on CD play-backs with the vocal tracks omitted.

In addition to the above, some kwaito artists include creative choreographed dance that endear them to their audiences. It is for this reason that kwaito groups like Boom Shaka, Trompies and Abashante found ready and popular acceptance as live acts.

In a survey of the South African teen scene in 1997 the Mail & Guardian weekly found out, among others, that teenagers liked sports labels like Nike and Reebok, clothes and hats from expensive designer labels such as Kangol , cK (Calvin Klein), Diesel, Cerutti, Tommy Hilfiger, Lee and Levi's, body piercing, platforms, the baggy hip-hoppy skater-boy look, kwaito, hip-hop and R&B. Out of the respondents surveyed, 78% of Soweto youth preferred kwaito over all other genres of music. Soweto black youth were chosen because " it's seen to be the trend setter for the rest of South Africa: it offers insight into South African youth." [Mail & Guardian, December 24 1997 pp.12-13].

The association of rap and hip-hop to the big fashion houses of the world has been linked to advertisers' recognition of the potential world-wide market of the youth. It is apparent that the youth are the major consumers of popular music and therefore major clothing designers use rap artists for their advertising campaigns and go out of their way to design clothing wear in which these artists and their fans like to be seen. These in turn filter down to other regions via the media thus making the culture ubiquitous all over the world albeit in different varieties.

The dance styles that came along with rap were mostly creative energetic choreographed moves that were made even more popular by the artist MC Hammer in the 1980s.Through television and movies these styles were channeled far and wide. The hip-hop culture and tradition were thus created and disseminated widely through the electronic media.

Locally Boom Shaka, one of the top kwaito groups in South Africa, have been accused of including sexually explicit dance moves from kwasa kwasa and skimpy outfits. Stephens (1996: 25) contends that the dance element in kwaito was brought about by the need to fill the vacuum left by the absence of live bands. While by 1996 the explicitly sexy dance moves were looked at with disdain by some quarters and considered to belong to kwasa kwasa it was widely accepted as a dance style in South Africa four years later. Kwaito artists embraced kwasa kwasa as one of their dances and sung in praise of it. The influence of kwasa kwasa is also evident in South African adult contemporary music as exemplified in the music of Jabu Khanyile and even Jimmy Dludlu during their live performances. It must be noted that both kwaito and kwasa kwasa are basically dance music in which the dance element is cherished more than the subtleties of song text. In any way one chooses to look at it, kwaito is either local music with international influences or international music with local elements.

Origins of Kwaito

The very origins of kwaito are as cloudy and varied as the description of the genre. In the late eighties young black South Africans were listening and dancing to the imported music of American disc jockeys and producers who mixed house music. As the trend of American disc jockeying caught up, South African disc jockeys also developed their own inspired versions and mixes. In South Africa the best known hip-hop act, Prophets of Da City (POC) based in Cape Town released their first album "Our World" in 1990. [Thami Masemola "The State of SA Rap", Mail & Guardian April 28, 2000 p.3]. The content of their lyrics at the time involved the struggles of being black in apartheid South Africa and their hate of the system. Masemola attributes the earliest origins of the present day genre of kwaito to a group, Katlehong Rappers Movement (Karamo) who released a single 'Bra Music' in 1991 which had a "rap twist that no one had done before: they fused township elements into their music, even using township slang in their lyrics...catapulting them into ghetto superstars who wore the latest silk and viscose attire." (ibid).

Masemola (ibid) goes on to explain that rap groups were mushrooming all over the townships and that there were miming shows taking place every month. The music was also disseminated by radio and television, and thus began to reach a wider audience. Even those who would not have attended a miming show would have at least some idea of what this new wave was about. Arthur Mafokate, the self-styled 'King of Kwaito' and owner of the production company 999, says that people labeled house music kwaito after Amakwaitos, a group of gangsters and that kwaito comes from the townships: "It's all about ghetto music. For me, it's ghetto dance music. It was around before guys like us made it well known and called it kwaito" (McCloy 1998:14).

The popular award-winning kwaito artist and producer, Mdu Masilela, has a slightly different opinion and refers to his music as local house music, 'When house music got popular, people from the ghetto called it kwaito after the Afrikaans word 'kwai', meaning those house tracks were hot,(sic) that they were kicking'(ibid). While Mdu accepts the input of house music into kwaito he further says that local influences also inspired kwaito's beginnings. He claims that people gained a taste for South African disco music (bubblegum) from the likes of Brenda Fassie, Yvonne Chaka Chaka and Chicco Twala. "People were into UK and US house, so I mixed the house and bubblegum and I came up with kwaito"(ibid: 15).

On his part Oscar "Wa Rona", another popular kwaito artist and producer, says that when he was a disc jockey (deejay) the people called all music that was outstanding kwaito because they felt that it was 'slamming'. Oscar calls his music - d'gong. (ibid:14).

At this juncture we could invoke the theories propounded by Dean and Nancy Tudor (1979), as quoted in Okumu (1998:10), concerning the trends in popular music, that styles persist past their prime and are often revived by a new musical generation, perhaps in a series of permutations and that one development in a style leads to another through constant evolution. Each style and stream of music influences the other styles and streams through the artist's awareness of trends in all areas. This is caused by the exposure that the mass media gives to a great variety of artists. This assertion is as true today as has been in the past. The emergence of kwaito as a distinctively South African music genre defying all definitions of boundaries places youth music culture as a global phenomenon with local musical dialects of a world music genre.

References

Ballantine C (1993) Marabi Nights: Early South African Jazz and Vaudeville. Ravan Press: Johannesburg.

Blignaut C (1998) " Making it Sound so Good" Mail & Guardian May 29 1998.

Coplan D B (1985) In Township Tonight!: South Africa's Black City Music and Theatre. Longman: New York.

Coplan D B (1998) " Popular Music in South Africa" in Nettl B and Stone R (eds.) The Garland Encyclpedia of World Music. Garland: New York.

Cultural Industries Growth Strategy (CIGS) (1998) "The South African Music Industry" Report to the Department of Arts, Culture, Science and Technology, November 1998 p. 13.

Farley C J (2000) "Hip-Hop Nation"
http://www.time.com/time/magazine/articles/0,3266,19134-3,00.html

Okumu C C (1998) " The Development of Kenyan Popular Guitar Music: A Study of Kiswahili Songs in Nairobi". Unpublished MA Thesis, Kenyatta University, Nairobi, Kenya.

Stephens S (1996) "Looking for the Message: Kwaito Music and the Post-apartheid Politics of Sound." Unpublished BA Honours thesis, University of Natal Durban.

http://www.rage.co.za/kwaito2.html

http://www.artsdiary.org.za/guide/kwaito.html

Music teaching in Brazilian schools: conceptions and practices of a primary school music teacher

Luciana Del-Ben - lucianadelben@uol.com.br
& Liane Hentschke - hentschk@portoweb.com.br

Introduction

In the last three decades, general music education in Brazil has been facing recurrent problems. Music is not a compulsory subject in Brazilian education, and is often not taught (Hentschke and Oliveira, 1999); and Brazilian teacher education programmes are not preparing teachers adequately to face the multiple realities of Brazilian schools today. Furthermore, we still have very little systematic data about school music teaching, which blocks any development, since it is very difficult to change something that we do not understand.

Among the many agents that construct educational practices, the teacher is fundamental. Various studies of teachers' thinking all understand the educational process from the teachers' point of view, investigating both their actions and the basis from which they construct and reflect upon their practices. They also reveal the interpretative frames teachers use to justify, guide and interpret their own educational practices. This body of research recognises teachers as the agents of their own educational actions. It conceives teachers as reflective professionals, practitioners who possess a specific kind of knowledge, which can serve as a basis for teaching (Calderhead, 1987; Zeichner, 1994).

Considering these assumptions, the aim of this research was to investigate how Brazilian primary music teachers' conceptions and practices of music education constitute their music teaching practices at primary schools. How do music teachers construct their everyday practices? What are the meanings they attribute to music teaching and how they practice it? The theoretical perspective chosen to guide this work comes from the social phenomenology of Schutz (1973; 1976), which focuses on the ways people perceive and make sense of social phenomena.

Method

According to Schutz (1973), people relate to the social world in individual ways, according to their own unique biographical situations. This perspective led us to use multiple case studies of three music teachers as our strategy of inquiry (Bresler and Stake, 1992). In each case study, data collection involved observation of a sequence of lessons, semi-structured interviews with the music teacher involved, and analysis of pertinent documents. Observation focused on music teachers' classroom practices, including pedagogical approaches, activities, contents, repertoire, teaching strategies, ways of organising lessons and assessment. Semi-structured interviews aimed to investigate; a) each music teacher's own education and their professional practice; b) their conceptions of music education in terms of values, aims, objectives, contents, activities, repertoire and assessment; c) their approach to lesson planning; and d) their perceptions about the ways the school relates to music as a curriculum subject. Written documents produced by the music teacher and the school gave information about music in the school, along with the teacher's aims, objectives, contents, activities, repertoire, and strategies.

Results and discussion

Data analysis involved the development of a system of categories based both on themes emerging from the data and on social phenomenological concepts. According to Schutz (1973), "all our knowledge of the world, in common-sense as well as in scientific thinking, involves constructs, i. e., a set of abstractions, generalizations, formalizations, idealizations specific to the respective level of thought organization" (ibid.: 5). Our experience within the world is based upon these constructs. What we grasp of reality is the result of the selective and interpretative activity of human beings, based upon our previous experiences of the world and our stock of knowledge at hand.

Through data analysis, we tried to identify the fundamental constructs of each music teacher's stock of knowledge (Schutz, 1973), such as their ideas about the nature of music, and their general and specifically musical, pedagogical precepts. Together, they constitute the interpretative frame that sustains and guides music teachers' conceptions and practices of music education. We now present the results of just one of the three case studies, who we call Flora.

Flora's music teaching practice

Flora was 27 years old when the data was collected. She used to teach 2nd, 3rd, 5th and 6th grades at a private school in Porto Alegre, south of Brazil. Throughout the interviews Flora stated many times that "music is a non-verbal language. As such, music becomes a form of expression and thus a form of communication". When analysing the data, we perceived that the idea of music as a form of communication was a very important one to Flora. Many of Flora's conceptions and practices acquired meaning and coherence when referred back to this idea, which seemed, therefore, to constitute one of the fundamental constructs of her stock of knowledge. At the end of the process of analysis, five constructs were identified:

a) "Music is a form of communication";
b) "Music is a special language because it has the power to touch the human soul";
c) "Music are sounds around us";
d) "In the school music should be recreational", and;
e) "The arts integrate among themselves in a natural way ".

Each construct seems to sustain and give coherence to a group of conceptions and/or practices. Based on the construct that music is a form of communication, Flora states that "the general aim of music education is to develop a critical person, because he/she will be able to perceive the musical language and to express him/herself through it".

In the classroom, Flora tries to develop students' "musical perception and expression" through activities involving instrumental, body and vocal expression, aural perception and composition. Flora seems to search for integration between all these activities. Aural perception, for example, is exercised by means of very short pieces composed and performed by the students, using vocal, instrumental and body sounds, as well as non-conventional sources. In relation to students' performing and composing activities, Flora explains that she is not concerned about the qualities of students' musical products, but only with their expressive processes.

Flora also conceives music as "a form of knowledge", on which basis she believes it possible "to learn through what a composer has done, whether or not he is a classical composer, whether he composed a vocal or an instrumental piece of music". Musical knowledge refers here to "the context of the musical piece, the composer's emotions, musical notation", and to what Flora calls "aesthetics", meaning the stylistic rules that characterise the different periods of the history of European classical music. When conceived as a form of knowledge, Flora can see how music can interact with other curriculum subjects, contributing to the students' global development. On the other hand, when Flora considers music as a form of communication, she sees how school music can develop students' ability to express themselves through a non-verbal language. These

conceptions constitute the rationale presented by Flora to justify the importance of teaching music at primary schools.

As a non-verbal language, music acquires a special character. According to the second construct mentioned before, Flora states that,

> "Music is a special language because it has the power to touch the human soul. It is special because it speaks many things through sounds. The special I am referring to is that musical sounds transcend words. (...) It is very difficult to talk about this, because I think that everything that touches the emotional side of people is a very special thing. It is not possible to be rational about it".

Because music "involves feelings, personal things and touches the human soul", Flora says that she cannot assess students' music making.

> "It is very subjective to assess a student considering only his/her music making".
>
> "How can I say that: 'this student sings in tune, that one does not; this student plays very well, that one does not'?".

Flora's strong belief on music's subjectivity is also revealed in the way she intervenes in her students' learning. She states that "the students can have their own concept of music. The student can, for instance, create his/her own treble clef ", rather than abide by notational convention. The student can also "manipulate the musical instrument in the way he/she wants to do it". Flora seems to believe that there are no rights and wrongs in music; everything can be right if so considered by a student or a group of students. When assessing her students, Flora adopts a more individual approach, trying to contemplate each student's subjectivity. This individual approach is also the basis of Flora's teaching strategies in the classroom, where she considers the student as a unique individual, particularly with respect to both performing and composing, which are always worked through individually.

According to Flora, although music is a subjective language, it acquires an objective dimension when conceived as a form of knowledge. It is the latter that makes it possible for Flora to grade her students, because in this case they can perform written tasks. Another objective dimension in music refers to her notion of the elements that constitute music as a non-verbal language: the sounds around us, as postulated by the third construct mentioned before.

> "I love [John] Cage's definition brought by [Murray] Schafer in one of his latest books, which goes more or less like that: music are sounds, sounds around us, being inside or outside the concert halls".

Flora believes that "everything that sounds in the environment can be treated as music", and that these ambient sounds constitute the basic elements for students developing their ability "to perceive the musical language and to express themselves through it". During lessons, she is attentive to every possible source of sound available in the classroom and to what she conceives as being the everyday sounds, such as sounds from cars, animals and telephones, and uses them to stimulate listening, composing and performing activities.

Flora states that students must relate to music playfully. This assertion is based upon her construct: "school music should be recreational". She believes that music lessons are different from others in school, because:

> "The student is in another place, he/she interacts with his/her mates and teacher in other ways, he/she has other kinds of relationship with the object of knowledge".

Flora is so concerned about promoting enjoyable activities in the classroom that she does not impose any work on her students, or even expect them to be present at music lessons.

In this way, she believes she is respecting those students that "do not like music" or "do not have any interest in music". Her conception of music as play seems to represent an objective means to develop students' musical perception and expression.

The last construct that sustains Flora's conceptions and practices is that "the arts integrate among themselves in a natural way". She explains that, in order to achieve such integration, students first work with something more concrete, more representational, such as mime or drawing, as a point of departure for work with sounds. This strategy, however, does not so much integrate the arts, as use arts other than music to provide a concrete ground to work with the musical language.

The relationship between Flora's constructs, conceptions and practices

Throughout this work, we have identified the constructs underlying Flora's conceptions and practices of music education. Together, they complement each other and constitute the interpretative frame that sustains her work, but this is not to imply that these constructs are either coherent or consistent. According to Schutz (1976), constructs can be incoherent because people's interests, which determine what can be known or further investigated, shift continually throughout their experiences. Furthermore, the constructs "are only partially clear" (ibid.: 93), because individuals in their daily lives are only partially interested "in full insight into the relations between the elements of his[her] world and the general principles ruling those relations" (ibid.: 94). In everyday life, our main aim is not to question the world but to live in it. Finally, the constructs are not free from contradictions, and people "may consider statements as equally valid which in fact are incompatible with one another" (ibid.: 94). The individual is not aware of these contradictions because each statement refers to a discrete dimension of social reality (Schutz, 1976).

For the present research it was important to investigate the relationship between Flora's constructs, conceptions and practices, in order to search for possible inconsistencies and contradictions in her ways of thinking and acting. Her construct of music as a special language seems inconsistent with that other construct which conceives music as a form of communication, as well as with some of Flora's conceptions and practices. Flora says that, in order to plan the music lessons, she considers the student's previous knowledge and experiences, and considers how she can help to develop these subjective resources. But by encouraging her students to have "their own concept of music and their own treble clef", and saying that there are no rights and wrongs in music, it seems that Flora is not helping her students to broaden and deepen their previous knowledge, and to develop their musical perception and expression. In short, she seems to have relinquished her interventiory role as a teacher and the main aim of her work, which is to develop students.

As stated by Flora, "music is not like mathematics, which works, for example, with adding and multiplying". Music deals with the emotions, suggesting that the qualities of music making and its learning outcomes depend only on private experiences, individual abilities, perceptions and responses, thus varying from student to student (see Swanwick, 1994: 13). Although Flora believes that it is essential to make music in order to learn music, the subjectivity that she understands to be involved with both music making and its assessment prevents her from defining what can be learned through music making (see Swanwick, 1992: 164). This inability seems to be linked to her propositional conception of musical knowledge, as something that can only be articulated through verbal language.

Flora did not seem to be aware of the inconsistencies and contradictions underlying her constructs, conceptions and practices, because, in her daily work, she has "an eminently practical interest" (Schutz, 1973: 208). This interest is, firstly and mostly, to teach music to certain students in a specific context, and not to question the principles that ground her pedagogical practice. This pragmatic attitude makes the teacher search for assumptions she believes are adequate to guide her pedagogical practice. In her everyday life, she relies on one or another construct from her stock of knowledge, as the different situations of her work require. Flora does reflect on her work, but only on the basis of the

constructs of her interpretative framework. These, according to social phenomenology, are not the result of a rationalisation process or scientific conceptualisation; rather, they emerge in the everyday experience of the world. Therefore, they will not necessarily be logical, clear or consistent (Schutz, 1973; 1976).

Conclusion

Brazilian teachers are often blamed for the problems and failures of school systems, and their knowledge and experience is consequently devalued (Dias-da-Silva, 1998). Applying the social phenomenology of Schutz to teachers' thinking gives an alternative perspective from which to gain a better understanding of their work.

Based on concepts from research on teachers' thinking, our research method contemplates not only the teacher's practice, but also some less visible aspects of her work, which cannot be directly observed in the classroom. To investigate what the teacher thinks about music education was fundamental in order to interpret her pedagogical practice from an inside perspective: how she interprets school music teaching and how she experiences it through her practices in the classroom. Through this procedure, we show that the teacher, even tacitly, has a theory of school music education, which gives meaning and coherence to her conceptions and practices, and provides a basis for reflections thereon. This suggests that music teachers are educational agents who play an active role in the construction of school music teaching practices.

Whilst music teachers' personal theories should be valued in terms of their capacity both for grounding practices and illuminating reflection on these practices, does not imply accepting and celebrating teachers' conceptions and practices in an uncritical way. The reconstruction of the way Flora thinks and acts revealed some inconsistencies and contradictions underlying her conceptions and practices that block the realisation of her work as intended by her. On the basis of this research project, we could go further than simply describing the teacher's actions. Furthermore, instead of just pointing her failures or judging her work as adequate or inadequate, we could come to an understanding of her actions, explaining why she does what she does. We could also reflect upon some of the constraints and consequences of what she does and thinks.

The results of this investigation suggest that examining teachers' thinking, using the social phenomenology of Schutz, can provide insights for music education research. These concepts and methods make it possible to understand how music teachers construct, interpret and reflect upon their practices, and can guide music educators in their searching for a better understanding of the practices of music teaching, and for ways to improve them.

References

Bresler, l. and Stake, R. (1992). 'Qualitative research methodology in music education', in Colwell, R. (Ed.). *Handbook of research on music teaching and learning*. New York : Schirmer Books, 75-90.

Calderhead, J. (Ed.). (1987). *Exploring teachers' thinking*. London : Cassel.

Dias-da-Silva, M. H. G. F. (1998). 'O professor e seu desenvolvimento profissional: superando a concepção do algoz incompetente'. *Cadernos Cedes*, ano XIX, 44, 33-45.

Hentschke, L. and Oliveira, A. (1999). 'Music curriculum development and evaluation based on Swanwick's theory'. *International Journal of Music Education*, n. 34, 14-29.

Schutz, A. (1973). *Collected Papers* I. The Hague : Martinus Nijhoff.

Schutz, A. (1976). *Collected Papers* II. The Hague : Martinus Nijhoff.

Swanwick, K. (1992). 'Open peer commentary. Musical knowledge: the saga of music in the National curriculum'. *Psychology of Music*, vol. 20, 162-179.

Swanwick, K. (1994). *Musical knowledge: intuition, analysis and music education*. London : Routledge.

Zeichner, K. M. (1994). 'Research on teacher thinking and different views of reflective practice in teaching and teacher education', in Calgren, I., Handal, G. e Vaage, S. (Eds.). *Teachers' minds and actions: research on teachers' thinking and practice*. London/Washington, DC : The Falmer Press, 9-27.

samspel

MUSIC EDUCATION AS A NATIONAL VALUE OF LATVIA

Anna Liduma – aliduma@hotmail.com
University of Latvia

Abstract
This research paper reveals and evaluates the current situation with music education in Latvia starting from its historical origins and describes its achievements. The great achievements in music pedagogy at all levels of education point out to the fact that music, as an integrative and developing value, is considered to be a significant component of pedagogic process. Latvian singing skills have always been cultivated in families by means of appropriate folksongs of olden times. Due to rich contents and diverse range, folk- and original songs can suit children of any age group and proficiency level. They can be used both for personality and social attitude formation purposes.

Introduction
Throughout centuries Latvians managed to preserve and develop the national education ideals and customs by means of singing. The ideals of folk pedagogy were borrowed by the science of pedagogy and used successfully in upbringing of many generations.
In 1920s music methodologists noted that the subject of singing at school was viewed as least important since it was of no practical use, so singing was viewed as pure entertainment (Liduma, 2001).
Nowadays, under the conditions of epochal globalization, values are being reevaluated and attitudes to education, things and facts undergo changes in the modern society. This is the reason why it is so difficult to organize music education at a modern school since in the beginning of 21st century, just like in the beginning of last century, music is viewed as a less important subject than other subject of studies.
Purpose of study: to reveal the specifics of music education in the process of formation of national values in Latvia.
Object of study: music education.
Research methods: analysis of literature on teaching methods, psychology and pedagogy, analysis of pedagogical observations and content of original and folksongs.
Key words: music education, historical origins, musicality, pedagogical value, folksong, original song, identity.

Origins of Latvian Music Education
Purposeful national music education was promoted by musical training of Latvian national teachers performed by Janis Cimze (1814-1881) in Vidzeme (1839-1881) and Janis Betins (1830-1912) at the Irlava Teachers Seminar in Kurzeme (1850-1893).
Cimze was one of the first notable Latvian music pedagogues and composers. He studied at the Weissenfelz Teachers Institute in Germany (1836-1838) with the most high-qualified pedagogues in Western Europe and acquired pedagogical education of the highest level possible at that time, spent one more year as an external student at Berlin University taking courses in philosophy, pedagogy and theology. After having attended music lessons taught by E.Henchel in Weissenfelz, where he had learned to play the violin, the organ and the piano and had studied harmony, he continued improving his music education at the

professor and folklorist L.Erk (1807-1883). It was there that J.Cimze got his inspiration to study folksongs.
In 1839 Cimze took up the post of the Teachers' Seminar organizer in Valmiera, and from 1849 in Valka. Admission regulations were developed under his control, where music was paid great attention to. At that time, musically gifted young people were admitted to the Seminar. Future national teachers were taught music and harmony and learned to play the piano and the violin. In Vidzeme they used to focus mostly on choral music, and in Kurzeme – mostly instrumental. Many of them started collecting folksongs, founded choruses and cared for music education of the society. The activity of J.Cimze and J.Betina successors' was crowned with the First Latvian Nationwide Folksong Festival in 1873. Since that time, Folksong Festivals have been held regularly every 5 years. The festivals are known worldwide due to their noteworthy musical performance. Nowadays, it is getting more problematic to keep the high level of choral music, which was confirmed from the very beginning by the performance of *a capella* chorus as a criterion of professionalism and musicality. The dominant tendency of an entertainment genre dictates the necessity of a musical show, which expressed itself vividly during the 2001 Summer Festival dedicated to the 800th Anniversary of Riga - the capital of Latvia.
In the 1920s the first Latvian music methodologists J.Bebris (1859-1951) and J.Rozitis (1880-1952), and later on A.Eidins (1922-1983), noted that a music lesson must occupy the second place on the priority list of school subjects following the native language, since it is the native language only expressed in terms of music. The inner world of girls as future mothers must receive a special care. This idea was upheld and successfully implemented by pedagogues, psychologists and philosophers of the prewar Latvia. In the 1930s the four Teachers Institutes (in Riga, Daugavpils, Jelgava and Rezekne) admitted only musically gifted young people. The would-be teachers mastered teaching methods of all fundamental school subjects. They would acquire comprehensive expertise in music for a 6 years' period of studies at the institute: singing, sol-fa, ABC of music, harmony, rhythmic, playing the piano and the violin, musical literature, choral singing and music teaching methods and give test lessons of music at an exemplary fundamental school. Pedagogues could implement integrative teaching at school.
In the postwar period (1945-1990) preparation of teachers underwent major changes as a result of narrow one-subject specialization. Future teachers would no longer master the teaching methods for all subjects, and unlike in the prewar Latvia, musically ungifted people could also become teachers. They did not feel the emotional impact of music themselves, so they failed to appreciate the educational value of music in cultivation of personal integrity and hampered the work of a music pedagogue. The music teaching quality deteriorated, attitude to music became superficial and music appeared to have, mostly, an entertaining function. Lack of critical attitude in adopting foreign experience should also be mentioned as a negative factor resulting in the fact that choral music in the end of 20th century was regarded as least important in comprehensive development of a child.

Contemporary Music Education

The Latvian unity was characterized with people's singing skills and traditions since the times of Cimze. Nowadays too, as the most appropriate form of upbringing, singing is indispensable in comprehensive and musical development of the younger generation.
Latvian music teaching methods, developed with participation of many Latvian music pedagogues, take care of musicality development in a youth and introduction of new and creative music teaching methods and contents of studies into all levels of preschool and primary school education.
The beginning of the 21st century is marked by a decrease in musicality level both in preschoolers and primary schoolchildren. The majority of children entering school are unable and unwilling to sing – they have never done that before. Instead of self-assertion, they have developed an inferiority complex. Every day they have to listen to music at home, which does not suit their age and has mostly entertaining contents and nature. Mass

media rarely broadcast classic or folk music, which are very important for overall development of a child of preschool and primary school age.
A long-term study has shown that the musical contests for children "TV Calis" (3-5 years of age), "Saules zakis" and "Popskanas" (school age) are meant to entertain and create a one-sided attitude to music and work. Pedagogical observations at preschool and primary school have shown that there is a number of reasons for the fall of the prestige of music in the society:

- the society is unaware of the developing function of music, because music as an obligatory subject at a comprehensive school is for Forms 1 to 9 only;
- choral singing is not required at school, hence the problem of involving children with good vocal faculties into a chorus;
- the parents did not take care of their child's many-sided development during his most sensitive period (1 to 3 years of age);
- the favorable influence of music in the development of child's psychic processes is underestimated.

Despite the negativism existing in the society, teachers' practical work results on all levels show that musically developed children are more rapidly developing in all other aspects. Therefore, music at school must continue being an important component of pedagogical process. In the 20th century, researchers discovered that music promoted many abilities: anticipation – simultaneous presence in two different times, simultaneity – psychic activity in a shortened form, short- and long-term memory, original thinking and emotional perception (Birzkops, 1999).
A study of functional asymmetry of cerebral hemispheres has shown that the right hemisphere is mostly responsible for perception of outer world in images. The left hemisphere mostly controls speech and the related processes. Having the language and logical thinking functions, it plays the strategically leading role. The centers of visual and auditory perception are located there. Emotional centers are located in the right hemisphere. In a process of learning, an irritation signal arrives at the left hemisphere. A balance between the two hemispheres can be achieved by means of music. The right hemisphere perceives the melody and the left one – the rhythm. The right hemisphere may temporarily take over the left hemisphere's function and solve problems of artistic and creative nature connected with emotional experience, however the psychological functions of the right hemisphere may only be realized in cooperation with its left counterpart. On the developing level, every child is recommended not only to sing but also learn to play the piano (Birzkops, 1999).
Musical direction in school practice testifies to improvement of the child's proficiency in mathematics, successful imagination activity, mastering languages and comprehensive everyday self-realization. Therefore a teacher of music at any educational establishment must ensure such favourable circumstances and prerequisites so that:

- class work would motivate schoolchildren to practice music;
- formation of musicality in a pupil would be timely and consecutive;
- all schoolchildren would acquire singing skill;
- schoolchildren would be encouraged to listen to classic and folk music;
- teachers of other subjects would support music.

Having reviewed the studies of musicality conducted by psychologists, physiologists, physicians and teachers in the second half of the 20th century, I can conclude that music lessons are the means to promote the child's comprehensive development.
Nowadays, under the conditions of globalization, when values are being reevaluated and changes are underway in the society's attitude to upbringing and education, to things and phenomena, singing as the most accessible way of practicing music is indispensable in the process of forming the identity and preserving the mentality in the younger generation. According to music experts, every nation has some characteristic features supporting the national unity. For the Latvian people, it is singing traditions and folksongs cultivated and

preserved by the people from ancient times and well-tested pedagogical priorities contained in those folksongs. Since olden times, to be a Latvian has meant to be a musical person.
A child of preschool age has not yet developed the widely accepted stereotypes and thinking. Therefore it is important to bring up children by means of musical masterpieces. Accumulation of musical impressions forms intonation musical experience. Folk music intonations gradually become customary if listened to regularly. The repertoire used in the process of upbringing produces impression and inspires emotions. Only positive emotions promote the child's development. As a value, the child will perceive such music as his/her close ones listen to and appreciate. Undeniably, a preschooler in a modern family mostly listens to entertaining music since classic and folk music is not appreciated by most adults.
Psychologists admit that the task of upbringing of each age group is not acceleration of development but maximum realization of abilities pertaining to a certain age group and its connection to such kinds of activities that would promote overall development (Meiksane, 1998).
Studying the child's development, music teachers throughout the world discovered that musicality develops individually and unevenly in each child, one faculty may be substituted with another (Tarasova, 1988, Arismendi, 1989).
In development of the brain in early childhood and at preschool age, music and other means of development have a long-term effect, which can manifest itself only in a teenager (Young, 1996).
The timely commenced musical and emotional development of a child will promote mastering of speech and singing skills (Gordon, 1990; Papousek, 1996; Mackevica, 1998).
Musicality develops in child's active work starting from birth. It includes such components as emotional responsiveness, which is the main indicator of musicality, musical hearing (an ear for music), sense of rhythm – sensor capabilities, musical thinking with reproductive and productive components and musical memory (Tarasova, 1988). It is important to promote the child's emotional responsiveness, singing skills, sense of rhythm and coordination of motions with the content suitable for child's age level.

Pedagogical and Musical Values of Latvian Folk- and Original Songs
According to the pedagogical researchers, culture cannot exist without cultivation of traditions, since in itself it has no past or future. It has discarded the past, and will get discarded by the future, since the model implemented in the present day is destroying rather than creative (Kursite, 1996).
In 1980s, there was a prevailing view among a wide layer of the society lacking experience to understand classic music that folksongs had become outdated, that they were an archaic phenomenon inappropriate for child's development and useless for relaxation. A situation then emerged when something easily achievable was viewed to be a value, while something requiring certain efforts in the working process was regarded as useless and insignificant. At a Primary school were many non-singers suffering from an inferiority complex and unwilling to sing, which posed problems to music teachers.
Looking for an appropriate repertoire for preschoolers and primary school children since 1986, I found out that there is no collection of Latvian folksongs specially meant for children of preschool age.
I have analyzed the contents of 56 collections (1894-1995) meant for children of various age groups: Latvian songs *a capella*, textbooks on singing, Latvian composers' original songs for children and I found valuable songs, that conformed to my devised collection of Latvian folksongs "I climbed a hill to sing" (1997), and divided 252 songs by genres: lullabies, songs about mother, labour and industriousness, songs about singing, adornment, brothers and sisters, youth, songs about a horse (steed), songs about the sun.
According to pedagogical researchers, child's development is successful if upbringing is purposefully organized since birth and performs the functions of personality development, mastering of culture and socialization. Any ability develops by some kind of activity, exercise

or training. In a purposefully organized activity, the person's attitudes become personality's real true features and signs, stable interests are formed, as well as deep feelings and skills in the form of psychological and social customs. Customary attitudes are gradually growing into self-realization attitudes and determine the person's actions (Spona, 2001).
Latvians are neither poorer, nor richer than other nations. One nation has a richer literary and philosophical heritage, others compensate the drawback with a better preserved folklore heritage. Folklore is not the only starting point in a search for the Latvian national identity, but it is still rather important to draw the attention of scientists (Kursite, 1996).
We can be proud of the acknowledgements of F.Menni (1632), G.F.Stender (1783), J.G.Herder (1794-1799), J.Kohl (1841) and other foreign visitors that it would be hard to find another European nation so deserving to be called the Nation of Poets and another land so much deserving the name of the Land of Poetry as the small Latvian nation and the land of Latvia (Vitolins, 1972).
It is known that Latvians used to sing about their everyday life, natural phenomena and seasons in their folksongs composed by **the people was a whole: one was the leader and others – assistants. People used to sing songs in the evenings doing housework, while working in the field and on all holidays whenever Latvians get together. Folksongs are called so because they were made up by all the people and transferred from one generation to another by word of mouth.**
Folksongs are short, concise and often full of symbols. Perhaps, today's people do not understand folksongs through lack of knowledge of their nation's historical origins. Songs of valuable contents are being ousted by vulgar songs sometimes consisting of a couple of phrases and illogical word combinations and haplessly accompanied with shacking, fidgeting and other uncomely motions, which can be observed at many show performances. That does not enrich one's inner intellectual and emotional world.
Industriousness and a sense of duty were values that the parents used to teach their children since birth. The school ought to see to it that this heritage be preserved and supplemented. Thanks to the values fostered by many generations, our ancestors were able to overcome a lot of hardships: endured slavery, opened heavy doors to the palace of knowledge, gained independence. The Latvian nation preserved its educational ideals throughout centuries, transferred their ancient upbringing traditions from one generation to another (Liduma, 2001).
Latvian national upbringing ideals were adopted by the science of pedagogy and used successfully in the upbringing of generations.
Ancient Latvians used to find a unique and special kind of beauty in each life phenomenon. They lived in harmony with the nature, expressed their feelings in songs of a short poetic form, that's why Latvian folksongs are fraught with experience gained throughout centuries and express the Latvian **identity** – something, which is typical only for Latvians. That's why there are so many genres of the Latvian folk music describing Latvian folk virtues, wisdom and sense of the beautiful.
Using the Latvian folk pedagogy heritage, one can create such a model of Latvian national upbringing so that a new generation would not get confused in today's unsteady world and so that at school they could familiarize themselves deeply and thoroughly with the Latvian identity values through folksongs: industriousness, diligence, honesty, cheerfulness, endurance, patience, love, sense of beauty and integrity, since honor, friendship and trust were very important and significant for the unity of the Latvian people – indisputable norms of life. If adults themselves become conscious of the Latvian identity and accept it as a value, then it will be understood and accepted by their children and grandchildren.
Into the second collection of songs "The cradles for bread" (1999) I have included 30 original songs of different composers of the 20th century; songs about bread, lullabies, songs about the nature, songs of various contents about leisure and recreation – joyous, humorous, cognitive, sad – sympathetic, promoting formation of the child's emotions and feelings. They express an attitude to demographic problems – single-child families.

It must be highlighted that 3 to 5 years of age is a favorable period for promoting creativity, since the child of this age is ready for socialization (his speech has been formed), but on the other hand, has not been socialized yet. To ensure creativity developing as a deeper (personal) rather than behavioral (situational) feature (Druzinins, 1997).
The lyrics of songs allow to sing songs not episodically or spontaneously but to perform at any concert. Children can assert themselves through songs both individually and socially, which is very important since it helps develop skills of positive communication at preschool age, which becomes a norm of behavior at primary school.
Since the child's musicality is of a different quality, some songs have a wider range, their technical performance requires a wide and well-trained voice and performance techniques (staccato, double vowels, semiquavers). The performance of songs inspires one's imagination and promotes coordination of motions.
The lyrical and musical values of Latvian folksongs and original songs by Latvian composers promote consecutive development of musicality in a preschooler, as provided with the 3-stage preschool musical education program worked out by the Ministry of Education and Science (1998). It is focused on the development of the child's psychic processes by means of a game as the principal kind of child developing activity.
At the first stage of musical development of a child one must encourage the willingness to sing and join the singing adults, promote the development of an ear for music, accustom to listening to short musical performances, develop a sense of rhythm, promote coordination of motions and encourage singing short songs. Pedagogical observations at preschool show that children of 3-4 years old learn to imitate and make a rapid progress.
An analysis of theoretical sources shows that the period of 4 to 5 years old is the transition period from the lowest stage of melodic hearing - perception level (timbre or speech hearing) to the musical or sound pitch hearing (musical hearing level) (K.Tarasova, 1988; O.Radinova, 1994). The peculiarities of human hearing analyzer are prerequisites for the development of hearing skills: just like phonemic hearing may only be formed by mastering the language, mastering music is the only way to develop musical hearing. In a child musical hearing develops before phonemic hearing. Both speech hearing and musical hearing are cultivated and developed in a child since babyhood. A baby's first attempts to speak start with baby-talk – cooing. Singing aloud is the only way of musical perception level reflection. The development of the child's musical hearing goes alongside with the development of the child's vocal apparatus. Vocalization functions similarly to hand motions and eyes when perceiving the volumetric characteristics of objects. Sound pitch hearing may only develop in a musical environment and at music lessons; it involves not only the vocal motor function but also other kind of body movements (Mackevica, 1998, O.Radinova, 1994, Gordon, 1990).
Cultivation of musical perception, musical hearing and musical memory is carried out by a purposeful working process starting from the birth and initially expressing itself in the child's attitude to music: liking or disliking.
Pedagogical observations testify to the fact that songs matching the child's age are indispensable means of the child's musicality development since they stimulate musical hearing perception; enhance links between hearing and voice, encourage interest in music and develop taste, develop motion coordination, promote vocal apparatus development and control, encourage the child's musical experience, i.e. an emotional experience. help develop general intellectual abilities.

Conclusion

Music education traditionally was the Latvian national value. Music teachers and teaching methods experts adopted the folk pedagogy ideals and worked out a scientifically substantiated system of music teaching methods. The most sensitive period of a child – early childhood – is the most appropriate time to start developing his musicality. Musicality develops by way of a purposeful work observing gradual approach and succession using folksongs and original songs by professional composers with the contents and voice range

best suiting each particular age group. The Latvian folksong is the mother tongue expressed in terms of music, therefore music must be an important integrative component of a pedagogical process at school. As an indispensable national value, music education must be included into the program of studies at comprehensive school as an obligatory subject of studies for Form 1 to 12. It would be ideal if all teachers were musically developed and aware of the importance of music in comprehensive upbringing of a new generation.

References

Birzkops J. (1999). *Muzicēšana kā labākā intelektuālo spēju attīstītāja*. Rīga: Apgāds Liesma.

Kursīte J. (1996). *Latviešu folklora mītu spogulī*. Rīga: Zinātne. 425.-426.lpp.

Līduma A. (2001). *Pedagogs un mūziķis Jūlijs Rozītis*: Laikmets un personība/red.A.Krūze. Rīga: Raka. 72.-78.lpp.

Mackeviča L. (1998). *Mūzika – attīstību veicinošs faktors pirmsskolas vecuma bērnu audzināšanā*. Liepāja.

Meikšāne Dz. (1998). *Psiholoģija mums pašiem*. Rīga: Raka. 24.lpp.

Pirmsskolas izglītības programma: Pirmsskolas izglītības iestādēm/ red. I.Ceļdoma. (1998). Rīga: Mācību apgāds NT.

Špona A. (2001). *Audzināšanas teorija un prakse*. Rīga: Raka.

Vītoliņš J., Krasinska L. (1972) *Latviešu mūzikas vēsture 1.sēj*. Rīga: Liesma.

Gordon E.E. (1990). *Music Learning Theory for Newborn and Young Children*. Chicago: G.I.A. Publications Inc., p.1-10.

Papoušek H. (1996) *Musicality in infancy research*: Musical Beginnings: Origins and Development of Musical Competence / Edited by Irene Deliege. – John Sloboda. Oxford NewYork Tokio: Oxford University Press, p. 37-55

Young M.E. (1996) *Early Child Development*. Washington D.C.: The World Bank.

Арисменди А.Л. де. *Дошкольное музыкальное воспитание* / Пер. с испанского Ю.Ванникого. Москва: Прогресс, 1989.

Дружинин В.Н. (1995) *Психология общих способностей*. Москва: Лантерна Вита. с.130-131.

Радынова О.П. и др. (1994*) Музыкальное воспитание дошкольников*. Москва: Просвещение: Владос.

Тарасова К.В. (1998) *Онтогенез музыкальных способностей*. Москва: Педагогика.

The Introduction of Music Curriculum in the Basic Education System of Jordan

Julie Carter Sarayrah – julieccarter@excite.com
National Music Conservatory/Noor Al Hussein Foundation, Jordan

Advances in science have, in recent years, brought a multitude of benefits to the learning environment of our planet. Researchers are providing us with an unprecedented understanding of how we think and how we learn. Fortunately, even the long neglected musical education of our young people has recently enjoyed positive press as publications of the results of various studies underline what we as music educators have known all along – our children can benefit greatly from making music!

However, present day advances have also jeapordized our most precious treasures – the unique cultural heritage of each and every one of us. We decry the fact that our ancient traditions are vanishing as we speak in the whirl of globalization. How can we best manage such an environment? How can we defy the very law of nature that is threatening the essence of the indiginous cultures of our world– simplistically known as "diversify or die"?

In the field of biotechnology the milestone attained by the human genome project is just one example of how modern day potential for rapid advancement literally boggles the mind. Now we have documentation of what farmers and naturalists have observed all along – that any given gene pool weakens unless there is new genetic input.

Current concerns more often reflect detrimental aspects, although globalization also carries the power of regeneration. In today's world the development of the ways and the means to utilize breakthroughs in technology and communications offer the ability to confront problems inherited from the past as well as resolve issues in the present. Encouragement of parallel development of both global and local presence can be mutually helpful – local music heritage experiences enrich global trends while worldwide advances enrich local experiences.

Now is the time to implement every effort, by every available avenue, that can and must be made to preserve and protect the unique character each and every culture has to offer. Now is the time to share the cultural treasures and resources of all nations to build bridges of understanding and appreciation. Now is the time to promote not only awareness, but much needed action, especially in places where cultural appreciation is, to various degrees, found to be under seige from internal as well as external factors.

A primary strategy in the effort to add to world-wide awareness of the importance of arts education is to build culturally sensitive as well as culturally intensive foundations in modern music education. Jordan, we are happy to report, has taken her place on the front line of both music education and cultural preservation with the giant step of implementation of music in the school curriculum. The scope of the project includes the development of a comprehensive series of music textbooks and appropriate teacher training programs.

In previous years, Jordan had no music program for the school curriculum and musical experience in the classroom was very limited in both the private and government school systems. The Jordanian traditional music heritage had only been seen as a part of celebrations or festivals, not as educational material. However, there is a growing awareness of the value of the transmission of this heritage, and steps were taken by the relevant government ministries to insure that the young people of the nation should have the opportunity to know their heritage.

A brief description of Jordan might be appropriate here. Due to the fact that Jordan has few natural resources, the people themselves are seen to be the most valuable asset. The population of Jordan is approximately 5 million people. Current population demographics emphasize the youth and those under the age of 18, who are by far the largest percentage, estimated as high as 40%. Another factor is the rate of population growth. The natural growth rate is estimated between 2.4% and 2.5%. In addition, periodic influx of refugies (forced migration), estimated at 30% per ten year period primarily due to political instability in the region, have put considerable strain on the country's infastructure, including the educational system.

Therefore, the strain on the educational system is of great concern as Jordan strives to meet its needs as well as to adapt to the global economy. For example, current educational intiatives include an upgrade of the English and the information technology requirements for the school system. Until last year, the government schools started instruction for English in the fourth grade, which now begins in the first grade. Also the push is on to provide instruction in information technology, to update the skills of the labor force. Initiatives such as these have been implemented on a multitude of levels. For example, Jordan has recently complied with international property rights statutes and joined the World Trade Organization.

The life of the Music and Songs Textbook Project has been impacted by factors such as those cited above, but has moved forward, still in progress at this writing. Needless to say, a project of this size has required a coordinated effort of many concerned parties.

At the outset, the initial step was to formulate a culturally sensitive curriculum, accomplished by a National Committee of esteemed experts: Prof. Mahmoud Sadeq (Chairman), Shibly Haddadin, Prof. Abdul Hameed Hammam, Yusra Arnita, Prof. Kifah Fakhouri, Hashem Arabiat, Mohammad Ali Eid, Samia El-Zarou, Shaimaa Murayesh and Hala Nusaibeh. In 1989, Guidelines of the Music and Songs Curriculum for elementary school education were approved by the Board of Education. The Curriculum was then approved by the Ministry of Education in 1990.

Due to the Gulf War, it wasn't until 1992 that a contract was signed between the National Music Conservatory and the Ministry of Education of Jordan. In accordance with this agreement the NMC was entrusted with the task of preparing the Music and Songs Textbooks, utilizing the approved curriculum as the foundation for the NMC team of writers and researchers in the process of the development of lesson plans and formulation of each level. The core team members include Kifah Fakhouri, Sakher Hattar, Samia Ghanoum, Mohammad Al Thaher and Julie Sarayrah. In addition, many other knowledgable persons, too many to name, have contributed their efforts, and their contributions have been no less important.

Of highest priority has been the meticulous research and documentation of age appropriate traditional songs in support of the guidelines for each level. The fact that this was the first time such a project was to be done in Jordan has ment that considerable research and development of resource materials has been necessary. Then, every effort

has been made to present these materials in an appropriate manner. The Arab Ensemble of the National Music Conservatory, led by Sakher Hattar, has carefully arranged and recorded the songs that they may be easily sung by young voices. In the older levels, songs are presented in their original form so that students can become acquainted not only with the musical material, but famous musical personalities and styles of singing as well. Students also have the opportunity to gain appreciation of other cultures through exploration of music around the world.

The vision of the project includes the presentation of music concepts in the context of the Jordanian and Arab tradition developmentally specific for Grades 1 through 10. The materials for each level are to include a student workbook, a teacher's manual and a cassette tape recording of all exercises and songs. Each level is to contain thirty lesson plans designed to educate and entertain as well as to expose our young people to their own cultural heritage that they might come to a better understanding and appreciation of the traditional arts.

The issues surrounding diverse musical cultures in the classroom are widely recognized. Arab music itself embodies a rich tradition based in the aural method of transmission. One challenge that emerges in the effort to preserve and transmit such a tradition concerns the utilization of western notation. The use of this notation system is widespread throughout the Arab music community, but the debate continues concerning its use as a means of transmission. The critical question concerns the essential character of an aural musical tradition, i.e., that of its strong melodic, rhythmic and improvisatory elements, and to what extent this character is compromised by notation.

Another issue is the extent that traditional teaching methods can be incorporated into the classroom environment. Traditional teaching methods often employ master teachers. Currently, Jordan faces a critical lack of qualified master teachers as well as of trained classroom music teachers. It is essential that culture bearers provide a living example so that the young see music as possible carreer opportunity.

The rapid expansion of the influence of the modern media are often overwhelming to our younger generations; cultural identity confusion is brought on by the barrage of information now available through the television and the internet. Fortunately, the antidote is available that has the ability to restore balance to our cultural environment – and that antidote is found in the power of a culturally sensitive foundation in music education.

And, as an example of the realization of the potential for postitive contribution towards balance in the local vs. global struggle, the media here in Jordan has certainly done their part. Various collections of recordings have been an important resource for the researchers on the project, including the extensive archives of Jordan Radio and Television Corporation.

Jordan is a relatively young country, yet has inherited a rich musical past. In the early years of the Kingdom, especially during the late 50's and the early 60's, the late King Hussein enlisted the power of musical heritage itself to forge the identity of his new nation. Talented singers, songwriters and musicians were recruited and recorded, according to Salwa Al-Ass, one of the young singers of the day. The resulting recordings, a variety of both traditional and patriotic songs, were broadcast over Radio Jordan and Jordan TV and became the sound track for the lives of her countrymen. Little known and less appreciated by the younger generations, these recordings are a window into history and a valuable reference.

The recording of the song, "Dugal Mehebash", sung by Samira Tawfiq, a popular singer of the day, embodies the characteristics of a popular recording of that era of a famous traditional song. Recorded live at a celebration for King Hussein, the sound quality in not very clear. However, the spirit of the music is captured on tape.

The meaning of the song tells about the tradition of pounding the coffee. The rhythmic grinding sounds, when heard coming from a tent were an invitation to hospitality in the Bedouin culture, announcing readiness to receive guests. The words speak of lots of smoke and fire with instructions to make the coffee strong with lots of cardamon, emphasizing that generosity is the most important value, and that one must receive those in need graceously. Through recordings such as these one can gain insight into past musical as well as cultural traditions.

(Play excerpt from recording of "Dugal Mehebash", sung by Samira Tawfiq).

During the recording process for the cassette tapes of the Textbook series, special care has been necessary in order to present traditional music in an age appropriate setting. Many of the popular recordings of important songs chosen as repertoire for the textbook project have been re-recorded with the abilities of the young listener, singer and/or performer in mind. With the advantage of contemporary recording techniques and the help of expert musicians well versed in the traditional styles of the region, every effort has been made to present an authentic and viable version that will stand the test of time and revive the musical legacy of the region.

The new recording of the "Dugal Mehebash" is sung by Qamar Badwan and is accompanied by the Arab Ensemble of the National Music Conservatory. Traditional Arab instruments provide the accompaniment: the oud (the Arab ancestor of the European lute), the qanun (a plucked zither) and the deff (tambourine). The song is a lesson in for Level 2.

(Play excerpt from recording of "Dugal Mehebash", sung by Qamar Badwan).

At the present time the Music and Songs Textbook Project is well on its way towards completion, but there is much work yet to be done. Books I, II and III have been published and distributed to schools throughout specific districts in the Kingdom. Book IV is currently at the printer, Book V is in the art department, Book VI and VII and IX are currently being edited and Book VIII is about half written, leaving Book X yet to be completed. In retrospect, initial timetables and projections were found to be inadequate for the task at hand. The project has been fraught with unforseen delays and obstacles, both financial and otherwise; and yet, over time, steady progress has been made.

Jordan has a hard won reputation as a leader in the field of education in the Middle East, an accomplishment that stands as an example for others in the region. The scope of the Music and Songs Textbook Project will be an inspiration for music education throughout the Arab World. However, as we speak, the project is at a critical stage. We are all well aware of the country's current financial situation. Yet in the face of overwhelming odds, dedication will perservere, with the help of all who see to it that the musical treasures of the past will survive the present and live on in the future.

I am honored to stand before you as a member of the team of writers and researchers who have contributed towards this massive project. We are dedicted to the hope that this project can come to a point of completion and implementation in the schools so that the vision of a comprehensive music education for the children of Jordan will be realized and the precious treasure of our musical heritage will be passed to future generations.

Notation, and Teaching Ease, of Folk songs and Nursery Rhymes; Comparison of America, Botswana and Zambia

Irene M. Soko - irene@botsnet.bw

Abstract

This investigation was aimed at establishing the impact of folk and nursery rhymes in the teaching of music to children aged six (6) to nine (9). The study compares music teaching situations in American, Botswana and Zambian schools. The ten (10) materials used for the American setting was obtained from the Internet and libraries while the references for Botswana and Zambia were compiled from questionnaire and interviews. The participants used in this study for Botswana and Zambia were 350 teachers who took part in music class and taught folk songs and nursery rhymes. Data were analyzed using descriptive statistics of percentages. The results showed that sixty percent (60%) of the internet-accessed American folk songs were notated and used in the teaching of music in pre-schools and lower primary schools. Zero percent (0%) of the folk songs and nursery rhymes were reported as documented in Botswana; with Zambia having ten percent (10%). Further results showed that teachers in America, Botswana and Zambia found it easy to use notated folk songs and nursery rhymes for teaching than those that are not notated (sixty percent (60%), twenty percent (20%), and forty percent (40%) respectively). Twenty percent (20%) and Sixty percent (60%) of Botswana and Zambia teachers respectively, resolved to the use of American and European folk songs and nursery rhymes which are notated. There is therefore a need for funded research projects in the documentation or notation of folk songs and nursery rhymes in Botswana and Zambia.

Introduction

Music plays an important role in our everyday lives. Researchers have found out that music starts having effects on a human being as early as before birth. Researches have also proven that music helps in the development of language skills in children. Folk songs and nursery rhymes are normally in the child's mother tongue or 1st language hence they are a tool through which language skills could be enhanced. Suzuki, Mills, Ferro, Schreiber, Behrend, Jempehs, Kendall, Mills, Rowell, Tillson, and the American Suzuki Institute-West. (1991) say:

> *Wonderful results among children as they learned their mother tongue was the basis. Children in all parts of the world have developed this wonderful language ability which is developed by environment. What they receive from their parents at the day of birth is not music or language but the ability to learn and speak language or perform music. If the babies have no physical defects, all are born with these qualities ...which means there is the posibility of raising various abilities in all human beings to a very high standard (p 2)*

Glover and Ward (1993) agree with Suzuki et al. by saying that;

Music is not language. It does however share some fundamental similarities with language and useful parallels can be drawn....The structures of music at any level of complexity derive from the pattern: of communication by voice and gesture; of physical action in movement, at work, dance or play; of interaction with each other one-to-one or as part of a group; of observing and imposing order on the world we live; pattern which make up our way of life. (p2)

Suzuki et al. (1991) observed that children learn language from their mother tongues or tongues that they are exposed to at birth. This Suzuki et al. say gives the children the ability to learn and speak languages. Glover and Ward (1993), gave a wide range of aspects that constitutes music and clearly show that it is a combination of these many aspects that give out the musical touch to language.

The American National Center for Education Statistics (2000) in their paper 'Entering Kindergarten'asked the following questions to help them get the required findings: What knowledge and skills do children possess when they start school? How prepared are they for the social and academic demands of the classroom? Can they get along in a large group of children? Can they sit still and pay attention? Are they interested in learning? How do knowledge, skills, and behavior vary across individuals? And among groups of children, such as older versus younger pupils, girls versus boys, and children from high-risk as opposed to more ordinary family circumstances? (p1).

To answer these questions, one would not be wrong to make reference to music. Music is used to influence the child's world as early as when they are still babies where lullabies are sung to children, motivational songs sung when the children are trying to take their first steps. Children at the pre-school age learn a lot of children's songs (which could be nursery rhymes or short folk songs) either from friends or from cartoons.

A nursery rhyme is defined by the American Heritage Dictionary as "A short, rhymed poem or tale for children." http://www.pandasplyhouse.com/book/teach2.htm says;

Nursery rhymes are a lot more than entertainment for children, they also teach children various skills through words, rhythm and rhyme.

Researchers on this website also state that nursery rhymes are often the first narrative that an infant hears. The child is often entertained by the vibrant drawings often associated with the nursery rhymes, but is in the meantime being taught the importance of listening. The rhythm of the words helps teach a child the sound of various words. This will provide a base for reading later on, which leads to a love of books. They further say; young children are emotional beings. They can often relate to many nursery rhymes such as losing mitten (Three little kittens) or getting lost (Little Bo peep).Though some nursery rhymes are gloom and doom, it is fun to be creative and change the end into more lightened conclusion. This will encourage children to use their imagination. Brown (2000) in her paper 'Music at Mountain View'writes;

"I've become more and more convinced of the benefits for musical experiences for elementary school children. Not only is music an active, joyful part of their week, but it involves team work, respect for others, and most importantly, growth in self-confidence. It has been a pleasure to watch children take small steps from singing alone in class to performing on stage

before the school. These are skills that will benefit the children in their high school and adult lives. (p1).

On the other hand, the American Music Curriculum forward (2001) states that, Folk music has always been part of the curriculum and is taught as a way of preserving Native American and West African folk styles. The curriculum's content suggests that understanding relationships to history and culture help to identify different usages of music in daily experiences and describe the characteristics that make music suitable for each use. Folk songs carry/convey the historical and cultural norms of a given society. Song books with documented/notated folk songs like; "From Sea to Sea": A Treasury of American Folklore and Folk Songs compiled by Amy L Cohn; "Gonna Sing my Head off": American Folk Songs for Children, collected and arranged by Kathleen Krull; "Songs from Mother Goose" compiled by Nancy Lerrick; recorded music like "The American History through Songs Series" by Keith and Rusty McNeil; "Horse sense for kids and other peole"; "Sing-Along Cowboy Songs" by Justine Bishop; "Shake it to the one you love the best" "Play Songs and Lullabies from Black Musical Traditions" produced by Cheryl Warren Mattox; The Wee Sing Series of tapes with song books, published by Price Sterm Sloam. All these convey the historical and cultural norms of their societies.

Statement of the Problem

In reference to the introduction, it is clear that American schools do have the resource materials of documented folk songs and nursery rhymes in form of notations and recordings. There is no doubt that a music teacher in such an environment would be effective. This is not the case with Botswana and Zambian schools. There is very little documentation that has been done on folk songs and nursery rhymes. Even that little work was done by scholars from abroad. Researchers like Hugh (1959) "The state of folk music in Bantu Africa Central , Southern Africa"; Ballantine (1964) "The polyrhythmic foundation of Tswana pipe melody South Africa and Botswana," Nurse (1959) wrote on "Musical instruments among the san of the central kalahari: Botswana" and Wood (1959) who wrote on "The use of metaphor and certain scale patterns in traditional music of Botswana." She also wrote on "Recording in the Lost Valley; Zambia, Zimbabwe" Rycoft (1949) "Tribal style and free expression Zambia", Louw "The use of African music in church Malawi" Blacking (1967) "Eight flute tunes from Butembo Eastern Zaire" and he also worked on "Venda Children's Songs South Africa" to mention a few in the area. Of course a few of African researchers like Lunsonga wrote on "Bemba music Zambia," Malamusi "Samba Ng'oma Eight: the drum chime of Mario Sabuneti Malawi". All the above books or recodings mainly appeared on the internet and not in book shops and music outlets that the researcher visited.

As can be seen from the titles of the papers cited, only one paper addressed folk songs and none for nursery rhymes. Possible reasons for this may include the fact that;

(i) Researchers might have no interest in the folk music and nursery rhymes.
(ii) There might have been no folk songs and nursery rhymes in the areas where the researches were conducted.
(iii) The population selected for the researches might have been more of adults and not children.
(iv) Most of the researches were descriptive. There was not much notations. May be because some researchers were not familiar with music notations.
(v) There might have been some communication breakdown due to language problems.

The later was supported by Graham (1988), who wrote that;

"...yet the variety and vitality of Zambian culture should not surprise us. For several mellenia, Zambia has been at the crossroads of Africa. Trade routes

from north to south and east to west passed through the territory. It was along these routes that musical ideas traveled as various ethnic groups migrated and settled. Linking the Congo basin with Mozambique and the swahili speaking east coast with Angola, Zambia today enjoys a heterogeneity of culture and language almost unmatched in sub-saharan Africa. A single village can thus produce Cewa, Yao, Swahili, Lamba and Tonga musical styles side by side, practised with a conscious sense of history and purpose".(pp 283).

The researcher supports Graham(1988)'s view. Researches of this nature would be carried out more efficiently if the researcher understood the culture, setting and may be language of the group studied.The International Library of African Music undertook a recording tour of the Tswana tribe, Western Transvaal and Bechuanaland Protectorate music from October to November, 1959. During this tour they discovered that little or nothing had been written or recorded on Tswana music. The following were some of the excuses that chiefs gave as they went seeking permission;

(a) People think you are only recording Tswana music to show how primitive the Tswana's are.
(b) We have no music here only school songs.
(c) The women have no songs.
(d) There is no music here only out in the cattle posts.
(e) There is no Tswana music here at the cattle posts, the boys play only guitars and concertinas.
(f) The kgotla (council of men) must meet before you can be allowed to record.

Botswana has however struggled to keep their music going. Yearly music competitions are organised for primary schools, secondary schools, and tertiary institutions. At these competitions, traditional dancing and choral music are performed. Some of these choral pieces are composed by local composers like G.T Motswaledi and J. Moswela. The composers try to incoporate folk songs in their compositions. Songs like "Tsatsi kelele balibeele kakala", translated to English would mean: "The sun is there, it has been put up", "Didimala mme uile ko masimo" translated to english "Keep quiet mother has gone to the fields". These have been notated by these local composers and are sung at these competitions.

Wood (1975), made an observation as she was researching in Botswana and she wrote;

" The role that music has played in the lives of the people of Botswana is primary. It is of such intrinsic importance that it is as much a part of them as breathing, eating or sleeping. It has functioned as a basic part of their daily lives, serving a paramount role in their activities, customs and beliefs". (pg 6).

It has been a long time from the 1940's to the 1980's since studies have been conducted on notation of the rhymes and folk songs in Zambia and Botswana. This study therefore seeks to find out if anything has changed since then.

Research Questions

The following research questions directed the course of this study:

(a) Are there documented/notated folk songs and nusery rhymes in Botswana schools?
(b) Are there documented/notated folk songs and nursery rhymes in Zambian schools?

(c) Are there documented/notated folk songs and nursery rhymes in American schools?
(d) What are the types available in Botswana?
(e) What are the types available in Zambia?
(f) What are the types available in America?
(g) What is the ease of teaching the documented folk songs and nursery rhymes vis-a-vis non-notated ones in Botswana and Zambian schools?

Methods and Procedures

Participants: The participants of this study were 150 primary school teachers of Botswana's Kalagadi, Kweneng, Kgatleng and Central districts and 100 primary school teachers of Zambia's Livingstone, Choma and Lusaka districts. The material used for the American situation were obtained from the internet

Research design: This study made use of the survey research design.

Data Collection

Participants from Botswana were primary school teachers who were studying for the Diploma in Primary Education with the University of Botswana. They were given the questionnaire during their residential session. For participants from Zambia, the questionnaire was taken to selected schools and given to head teachers who in turn gave them to selected lower primary school teachers. The American National Curriculum and the music syllabus was downloaded from the internet. Books on folk songs and nursery rhymes were obtained from libraries.

Data Analysis
Simple percentages were used to analyse the data collected as the data analysis was simply descriptive.

Results

Table 1: Percentages of the Respondents' answers to questions asked (n=250)

Items	Botswana		Zambia	
	Yes	**No**	**Yes**	**No**
1. Is music on the timetable in your school?	100%	0%	100%	0%
2. Do you teach music to your standard/Grade 1-4 pupils?	90%	10%	80%	20%
3.a.Do you use nursery rhymes when teaching either music or any other subject?	82.5%	17.5%	80%	20%
b. Are these nursery rhymes notated in either:				

	Staff notation or Tonic solfa?	0%	100%	10%	90%
4.a.	Do you use folk songs when teaching music or any other subject?	90%	10%	78.2%	21.8%
	b. Are these folk songs notated in either:				
	Staff notation or Tonic solfa?	20%	80%	20%	80%
5.a.	Give at least two nursery rhymes you use.	(see table 2)			
	b. Give at least two folk songs you use.	(see table 3)			

Table 2 List of popular nursery rhymes

Botswana	**No**	**Zambia**	**No**
Twinkle Twinkle little star	87	Twinkle Twinkle little star	81
Baa Baa Black sheep	77	Baa Baa Black sheep	52
Rain Rain go away	46	I want to cross the road	24
Mmutla o ditsebe-tsebe	45	One-two Buckle my shoe	21
This is the way	32	This is the way	18
Two little birds	31	Nkankululwe	14
Nkukuru wee o ya kae	20		
One two buckle my shoes	12		
Dinonyana tse pedi	11		
Ke ne ke le ngwana	10		

Table 3 **List of popular folk songs**

Botswana		Zambia	
Tshuele ngwana ngwakaka (Thuele my grand child)	4	Bushimbe Bwapesha-mano (I am baffled by bachelorhood)	6
Maburu wee (Maburu you)	3	Wayaluka mooye (The girl has come of age)	5

Ngana walela o lela mo lesung (The child is crying a death)	2	Titwe Titwe (We pound we pound) Nsale nsale chinkamba (Choose choose)	3 2

Table 4 The American setting

	Yes	No
1 Is music on the American school curriculum?	100%	0%
2. Are the accessed Amerian folk songs notated?	60%	40%
3. Are the accessed American nursery rhymes notated?	60%	40%

Discussion of Findings

On the question of whether music was on the time table in Botswana and Zambian primary schools, all the respondents (100%) gave the yes response (see table 1). This shows that music was on the time-table in both Botswana and Zambian primary schools. This shows also that the curricula of both countries recognise music just like the other subjects. The subject is allocated time in the time-tables fairly. Responding to the second question of whether the teachers teach music, ninety percent (90%) responded that they did and ten percent (10%) indicated that they did not in Bostwana. Eighty percent (80%) indicated that they did while twenty percent (20%) did not in Zambia.

The third question inquired whether teachers used nursery rhymes when teaching, and eighty two point five percent (82.5%) response was that they did while seventeen point five percent (17.5%) did not in Botswana. Eighty percent (80%) did while twenty percent (20%) did not in Zambia. Asked to give two of these nursery rhymes in question three (b); the respondents gave a wide range of nursery rhymes that they used though the majority were in English. It was interesting to see that some songs were given by both Botswana and Zambian teachers. Songs like; Twinkle Twinkle Little star, Baa Baa Black Sheep, Rain Rain go Away. This could be due to the fact that those rhymes are obtained from some of the books written by foreign scholars. Some of these nursery rhymes can be found in books quoted in the statement of the problem like Seeger (1948) American Folk Songs for Children. The above line of thought was however supported by answers given by some Head teachers of primary schools during oral interviews with the researcher.

When the researcher asked these Head teachers whether they had any music books in their schools, the most popular answer was that they only had old books left by the colonial governments which have been in their offices or storerooms for decades. In all cases these books were not in use at the time of the research. Sampling these books the researcher found out that some were old English hymn books like "IN EVERY CORNER SING' -Teachers' Music Edition, by Thomas Nelson, 'A HUNDRED AND TWENTY NEGRO SPIRITUALS" by Alexander Sandilands, and "THE TEACHING OF CLASS SINGING' by Hilda M. Parker, and many others.

Question four asked whether they used traditional folk songs when teaching. Ninety percent (90%) responded that they did while ten percent (10%) responded that they did not in Botswana. Seventy eight point two percent (78.2%) responded that they did while twenty

one point eight percent (21.8%) responded that they did not in zambia. Oral interviews with some respondents reviewed that some of them did not even know what traditional folk songs were. When asked to give at least two folk songs and two nursery rhymes they knew in question four (5.a.and 5.b.); the respondents gave a wide range of folk songs in vernacular. These included songs like; Didimala mme o ile masimong - Tswana (Keep quiet mother is gone to the fields). A good number of respondents to this question however gave nursery rhymes instead of folk songs; an indication that they may not have known the difference between folk songs and nursery rhymes. Asked whether these traditional folk songs were documented/notated, hundred percent (100%) responded that they were not. This result agree with Hugh (1959)'s findings that *"little or nothing has been written or recorded on Tswana music" (p.1)*

As for the American schools, the American National Curriculum indicated that music is on the curriculum. According to the syllabus downloaded from the internet, it showed that folk music was on the syllabus. Sixty percent (60%) of the folk songs and nursery rhymes downloaded were notated and forty percent (40%) were not notated. Popular folk songs and nursery rhymes resources were; "Down by the Riverside", "Micheal, Row the Boat Ashore", "Follow the Drinking Gourd". Resources for these songs are song books like; "From Sea to Shining Sea: A Treasury of American Folklore and Folk Songs" compiled by Amy L. Cohn, "Gonna Sing My Head Off!" American Folk Songs for Children, collected and arranged by Kathleen Krull, "Songs from Mother Goose", compiled by Nancy Larrick.

Conclusion

It is clear from the results obtained that the study that very little has changed in terms of notation of nursery rhymes and folk songs in Botswana and Zambia since after the early works of researchers like Hugh, Wood and Blacking.

The results leave us with a question, "If there are any traditional folk songs and nursery rhymes documented/notated in Botswana and Zambia, then where are they?" The researcher could not rule out the possibility that if such works exist, it is possible that they were kept in national museums and archives. Another possibility could be that, researchers came from abroad, recorded and documented folk songs and nursery rhymes and went away with them and never returned the works to the rightful consumers. During the research, the researcher discovered that some of such works which were returned by overseas scholars were kept in the archives where it is almost impossible for primary school teachers or other interested persons to know that they are there. Some recorded tapes are reported available but can not be listened to because they are spoilt or too old for the modern tape players.

The American recorded folk songs and nursery rhymes date way back as 1930. The works have been edited over and over with good technology making them available on modern audio devices. They can even be listened to even through the internet.

Recommendations

Following the outcome of the study, it is pertinent to make the following recommendations:

(a) The surviving folk songs and nursery rhymes in Botswana and Zambia should be documented.

(b) Funded projects should be embarked on to try and salvadge these folk songs and nursery rhymes.

References

American National Center for Education Statistics (2000). Findings from The Condition of Eduaction . U.S. Department of Education: NCES 2001-035

Bayless, M.K. & Ramsey, E.M. (1994). Music-A way of life for the Young Child. Toronto: Howell Co.

Blacking, J. (1967). Venda children's songs. Johanesburgh: Witwatersrand University Press.

Graeme, E. (1991). A celebration of African music. London: Guinnes Publishing Limited.

Graham, R. (1988), Stern's guide to contemporary African music. London: Zwan Publications.

Hugh, T. (1959). The state of folk music in Bantu Africa central, southern Africa. International Library of African Music. Johansburg (un published)

The American national center for education statistics http/www. Nashville-schools.davidson.k12.tn.us/core4web5th/km5thmu.html (2001). Kindergarten | 5th six weeks | Music

The American music curriculum forward (2001) http://www.yealey.boone. k12.ku.us/music.htm (2001). American Music Curriculum

Isaacs, A. & Martin, E. (1982). Dictionary of music. Suffolk, U.K: Richard Clay Ltd.

Shuker R. (1948). Key concept in popular music. London: Routledge.

Seeger, C.R. (1948). American folk songs for children. Lithographed in United States of America.

Wood, E. (1959 & 1975). The use of metarphor and certain scale patterns in traditional music of Botswana. International Library of African Music. Un published Records. Botswana Archives.

MUSIC EDUCATION AND THE FORMATION OF CULTURAL IDENTITY: PERSPECTIVES ON THE IRISH PRIMARY SCHOOL SYSTEM

Mary Stakelum – mary.stakelum@mic.ul.ie
Mary Immaculate College, University of Limerick, Ireland

Introduction

In the structuralist functional model which underpins many education systems founded in the nineteenth century, lines of demarcation are clearly drawn where content is prescribed from the top and implemented on the ground. This is true of the education system at primary level in the Republic of Ireland. What is notable also in this system is the extent to which roles and relationships set up in the 1830s have become institutionalised and continue to be perpetuated in discussion on classroom practice. In the case of music in the Irish primary school, the content has from the outset emphasised music literacy, elevating the status of notated music and so defining music as product, removing from school music any consideration of the process of music making. As a result of this, there has grown a national story of what goes on in music education and this story is based on implementation of contents of a curriculum whose structure, since its origin has remained virtually unchanged. This practice of determining the nature of music at the macro level through provision of a centralised curriculum has implications for teachers. It presumes that they are members of a homogenous community, sharing a common practice, whose role is that of conduit (Clandinin and Connelly:1992). It implies too that the curriculum is a given, embodied in textbook and syllabus, what Michael Young (1998:25) terms 'curriculum as fact'.

Central to this is the question - as yet unposed - how do teachers construe music? Drawing on literature on teacher knowledge, I challenge the notion implicit in historical and indeed contemporary discourse that there can be consensus on the nature and understanding of teacher practice. I suggest that in order to understand music education practices, research is needed which will reveal the multiple realities of teachers.
In acknowledging the idiosyncratic and multi-faceted nature of teacher knowledge, my review of current research includes the studies based in behaviourist and cognitivist traditions but argues the case for drawing on the perspective of personal practical, biographical and implicit theories as means of gaining access to the 'teacher voice'. Perspectives on research which informs the present study include the biographical, espoused by Kelchtermans(1993), as well as the writings of Woods(1993) and Goodson (1997)whose life history method attempts to resist the 'generic' or 'interchangeable' in discussion of teacher practice. The significance of the personal is central to Elbaz (1991) and Schon (1991), as well as to Clandinin and Connelly (1990) who describe curriculum as experience, a view articulated earlier by Schwab (1969). By including aspects such as teacher perspective and curriculum as experience, I challenge two of the prevailing assumptions, firstly that all teachers use the official curriculum as the basis of their practice, and secondly that the teacher's role is to implement the prescribed syllabus. In so doing I intend to offer an alternative model to discourse on the nature and function of music education in Primary schools, one based at the micro-level, grounded in the teacher's

perspective. In the Irish context, the nature of the relationship between music education and teacher perspective is one which remains unexplored.

Design of the study

Preliminary investigation carried out on current practice of music education in primary schools in the Irish Republic (1998/1999) included post-observation interviews with class teachers and pupils in a number of schools (n=5) in a variety of settings (urban suburban, rural). Arising from these, two issues emerged. The first concerned the biographical perspective, namely the relationship between teachers' formative experiences (formal and informal) and their understanding of the nature and value of music in education, while the second concerned their understanding of their role in the formation of cultural identity.

A second phase in the project has emerged from this, where in settings ranging from inner city to rural, using case study method, the research design draws on teacher knowledge in two ways; the first is the biographical or life history approach and includes teacher conceptions and beliefs about music education while the second, the phenomenological approach focuses on teacher in action and reflection -on-action. The qualitative study includes classroom observation and semi-structured interview with five generalist teachers.

Each teacher has been interviewed on two occasions. The purpose in the first interview was to build a profile of each teacher. Drawing on the teacher knowledge literature which emphasises the biographical or life history perspective, this included, in the case of each teacher, an account by them of

- their formative experiences, both formal and informal, in music and music education,
- their views on the value they ascribe to music in school and in children's lives
- their views on the official 1971 Primary Curriculum, in terms of content, value and relevance
- their perception of their role as music educators in the education setting.

Drawing on implicit theories, reflection-on-action and personal practical knowledge literature, the emphasis in the second interview - post-observation - is on aspects of content and method, selected by teacher and identified by him or her as significant.

Organisation of Data

The organisation of data is as follows. Sketches of lived experience are presented which present a flavour of the setting and context in which each subject works, showing a variety of experience both formal and informal which the generalist teachers bring to their classroom practice.
Ray is principal teacher of a four-teacher school in a rural area about ten miles from a market town. He is a teaching principal and takes a mixed grade class of fifth and sixth class (age range 10-12years). Ray describes music as 'vital' for children, considering that they are 'missing out greatly if they are not exposed to it'. His philosophy is that music is not just a school subject but should be part of everyday life, a 'living tradition' He is not keen on the official curriculum, having 'nothing to do with it whatsoever', believing that it is 'very tedious for children'. His background is in traditional Irish music and his earliest memories are of listening to master fiddlers playing at music making sessions.

Ultan is principal of a six teacher school in a rural village. He grew up in a village steeped in Gaelic games. In the school setting, he is particularly strong on song, because the song 'tells a marvellous story, nearly a spiritual thing'. These songs were handed down in his

family for generations, orally. His father passed them on by singing to him. He considers it important that children can identify with their place and sees a local song as a kind of anthem to facilitate this binding together. Regarding the curriculum, Ultan considers music literacy and music appreciation key areas. He believes if children read music they would be able to pick up tunes. He learned 'heaps of old songs, loads of them'.

With one year away from retirement, **Norma** is the oldest member of the group. She had been teaching in the boys' school for twenty-five years with recent additional responsibilities in remedial education. She has a choir, membership of which comprises a selection of boys in the senior class groups ranging in age from ten to twelve. Norma went to a convent school and remembers her mother singing, her aunt playing piano and teachers who were encouraging and supportive, mainly nuns. In her capacity as teacher in a boys school, Norma observes that sports pose a huge threat to time. She wants to give the boys an alternative, the chance to participate in activities other than sports. She considers the official curriculum to be very relevant to her and cites music literacy and sight singing as particularly important and would love to see primary children able to do basic sight reading. She tries to present music as the same as any other subject, particularly where the boys don't show an enthusiasm for it.

Patricia remembers her music teacher in second level school as inclusive, ensuring that all the pupils participated regardless of ability. Her mother wanted each of her five children, (of whom Patricia is the eldest) to be proficient at music and encouraged them to take part in music outside school. Patricia's social life included music and she wanted to contribute to sports events at weekends and went to great lengths to learn a 'party piece'. She is keen on Irish traditional music and has been to group lessons on tin whistle to try to get back into it. Her view on music in school is that every one should have a party piece and that children should sing every day. She is particularly keen on sight singing. She is more dependent on textbooks than she would like and feels most comfortable when following a systematic, graded approach.

Fiona teaches in an inner city school. She was brought up in a rural village and her parents provided opportunities for her to learn music outside school. She was educated by nuns and there was keen interest in music. She took up the piano at six and was involved in singing, 'being ingratiated into a motet-singing choir from fourth class'. Irish traditional music lessons were given by local musicians who would come to the school and from there, she got involved in a traditional group. On coming to the city, she continued her studies and remained interested and involved in musical activities, including singing, harp and musicology.

Fiona's interest in the school is such that she considers that children love 'good music', by which she intends classical music. Like Norma, she is responsible for remedial education and also takes the school choir. Membership stands at about fifty and is by audition at the beginning of the school year. She believes in standards and maintains this by competition. The choir has been successful at many competitions and she believes that this opportunity would not be had were it not through school. She says the support from the principal is vital and she believes that the reason for the interest gaining strength is due to this. For Fiona, 'it all comes from the school'.

Analysis of Data

Thus far analysis of the data reveals that the teachers perceive their role in terms broader than implementing curriculum as fact. Central to this is the strength of the relationship each teacher has with music. In particular two factors are significant, the first where the

teacher sees music as a marker of culture and the second where he or she defines the role of teacher as a maker of cultural identity.

The relationship between life history and the formation of cultural identity is explored. For Norma, the notion of ***the establishment*** is emphasised. She wants to create in her pupils a sense of belonging to a community which will be recognised and recognisable as being of value. She related a story of how past pupils returned to her thanking her for the work she had done with them when they were in school, This sense of pride in her work keeps her going, in sometimes disadvantageous circumstances. For Ultan, too the ***initiation into a community*** is important. Ultan's immersion into singing was strong as a child and it is this he reproduces in his class. Ultan shares the view with Ray that music in school is a powerful means of ***immersion*** in a living tradition. Both teachers play traditional music in sessions and would have been self-taught. For them, then, the relevance of the curriculum is dubious, since they want music to be of the people. It is here that the mismatch between curriculum as fact and curriculum as experience has particular significance. Ray dismissed the official curriculum as irrelevant yet he drew on notation to the boys when teaching them to play a new tune on tin whistle. It could be inferred from this that, when appropriate, the teacher transforms the curriculum, focusing on those aspects of his own learning which will be of relevance to him in the dynamic interaction in the classroom.

Fiona believes that the children's own culture needs to be challenged and their scope needs to be broadened. In effect she is ***creating a cultural context*** and immerses them into it during school and outside school in structured settings. Although she was in her formative years steeped in Irish music in her village, she chooses, in her school context, however to draw on the classical tradition, believing that it will stick and will help to give them options they might not otherwise have. The lack of identifying with this culture is compensated for with the fact that she is convinced that children love 'good music' and will see its value in their lives.

Patricia believes that children's sense of ***belonging*** in society, to social groups will be enhanced by participating with a party piece. She wants the children to have a sense of importance, to be visible and not to sit on the sidelines.

Reference to this relationship between music and community is made by Elliott (1995) and Swanwick (1999). In each case, the value of music is seen in the way in which it contributes to our understanding of ourselves as individuals and as members of community. Elliott's view of music as praxial highlights the importance it places on music as a particular form of action that is purposeful and situated and therefore revealing of one's self and one's relationship with others in a community(1995:14). Swanwick (1999:88) uses the metaphor of discourse to propose a conception of music education where the focus is on engaging in the conversation. In the case of the present study, the differences lay in how each teacher construed the nature of music. This in turn influenced how teachers interpreted the official curriculum, in particular how they considered it to have relevance to them in their classroom practice.

Roles and Relationships in Community

The notion of community can be applied in two senses, one regarding community of origin of the teacher and the other regarding community of practice, which includes the particular setting in which the school is located. How the teachers construct their understanding of these issues varies and is seen to be influenced by the value each ascribes to the nature and function of music.

While in school, Ray learned nationalistic and military type songs in English and Irish language. When he became teacher he combined the game of hurling with playing music. His job as teacher gave him access to a social life which included playing at music sessions, live music in public houses. He started off playing the bodhran and the tin whistle. He used bones too. They were cheap and there was nice rhythm. The social side of music is important to Ray. The fabric of society revolves around the community, the sense of belonging and of unity.

> *'As regards my own music, it is like one big family. It is camaraderie as well as the music and everything else'.*

Working in the inner city, Fiona sees the children as confined and cooped up. Music is an outlet.

> *'It is all school based, in an area like this and I would say it applies to most schools in the inner city the children would not go somewhere else. It is all very localised. In middle class areas that wouldn't be the same.'*

Fiona explains that inner city communities are very close knit. She sees music as a vehicle through which they can escape from the community.

> *'Their social activity is drinking in the pub or it is in the playing field. But there seems to be little else. That is why I love to see them getting involved in choirs, in musical societies, all that kind of thing. I think it is a great training for life. I know what joy it brought me and I see here the kids and the drug problem around here, this area especially. I feel the people who have done a lot in the music line... I can't see them ever going into that. Now it doesn't necessarily follow but you know if you begin to appreciate the good things in life it keeps you away for the other stuff'.*

Patricia belongs to a community of schools, of teachers in staff as well as one of family, of parenthood and of social group. Music plays a part in each of these. Because of her feeling of guilt about not continuing with her lessons in childhood her sense of belonging has tended to be come fractured and she feels disconnected from really being an insider. She lacks the autonomy of Ray who has a strong sense of ownership about his experiences, which can be traced back to his immersion in traditional music and the extent to which it contributes to his own sense of cultural identity. She is comfortable using prescribed texts and this lends credibility to her in her practice.

Norma's concept of locality and nation is bound up with the structure of the Church. Her activities were family- and parish-based and the focus was on the establishment of a sense of community. This she does through concentrating on those elements of music performing that promote a sense of unity in the schools, attending events representing the school. She is pleased that her boys get invited as a school group to play at civic events. She is motivated to promote music in the school, although the school is divided into 'the lads who do choir and the lads who do hurling' Her aspiration is to give the children a sense of belonging.

> *'You hope at some stage that they might find themselves into taking part in a musical or choir or you know at least it would be an interest for them'.*

She would like the boys to have pride in what they do in school.

'I think that if children look at television or see papers ...they see these children from normal primary schools entering things like that and they'll say we never do anything like that'.

Ultan's focus is on the song. The song tells a story which is associated with an area, with a community. This spiritual bond, for Ultan is palpable. It permeates the village and gives a sense of pride and identity. He sees a connection between the song and the game. The song is an anthem for the village at times of joy. He wanted to give the pupils a sense of place and made up words to a tune which became an unofficial anthem, instilling a sense of pride and sense of place in the pupils. His sense of nationhood is strengthened through his association with the GAA and with Irish culture, music and song. He is keen on the Irish language and promotes this.

'It kind of filters through... The older kind of song is in the mindset of the people, you now the psyche of the people.... I think it is a terror if the kids don't know the name of the trees outside the front of the school and they could tell you all about the hardwood forests of Bosnia. I think it would be a terror if the children left the school and didn't know as much as they could about their own area.'

What is of interest in the study is the extent to which each teacher draws on previous experiences to frame what they do in the classroom and within the culture with which they are most comfortable. Norma is thoroughly at home with church services, rituals and promotes this in her teaching. For Ultan, the relevance of the song is towards celebration of secular events, sports events being an obvious example. Norma considers the notion of music as counter to such activities. Norma's formative experiences were structured around established practices, celebratory and ceremonial activities and events organised locally at parish level. The school was an active member of the parish-town-diocese chain. Her background is in liturgical music and in singing in particular. Whereas for Norma, the church was significant, for Ultan it is alien. He has great respect for what they do but considers himself 'unworthy' to have an opinion on it. He sees what happens in the local church as peripheral to the school whereas for Norma it is fully integrated.

Conclusion

Although the research study is still in progress and this phase represents a pilot study, thus far analysis of the data shows that teachers in the Irish primary system have theories about what counts as music. Indeed far from being considered interchangeable, and part of a homogenous community, the subjects have firm view about their role in music education. They see music as a means of establishing a sense of belonging, along the lines of McCarthy (1999) who holds that 'musical cultures are created within particular communities whose members participate in and share a common practice'. The classroom while operating as a discrete unit also forms part of the wider network of communities, both local and global. Thus the classroom forms a link in the chain of cultural identity and has a place in the professional knowledge landscape (Clandinin and Connelly1995:12).

Where the voice of the teacher remains tacit, assumptions about the practice of music education in primary schools continue to be based precariously on anecdotal evidence, with the view of music education as transmission of prescribed knowledge unchallenged. Research which aims at understanding what goes on in schools needs to include the perspective of the classroom teachers, moving away from a national story of homogeneity towards one which can reveal the multiple realities which shape teacher knowledge. In this case, the teacher is curriculum maker (Clandinin and Connelly:1992) engaged not only with transmitting but with transforming the curriculum.

My study supports the notion of music education as a process both of transmission and of transformation. If in the case of biography or life history, the idiosyncratic nature of teacher knowledge is acknowledged, the starting point is the individual teacher, working in the individual setting. The research study has highlighted the importance of including the teacher perspective. From the snapshots of practice it can be stated that primary teachers have among their aims in music education the formation of cultural identity.

References

Clandinin,D.J. and Connelly, F.M.(1990) 'Narrative, experience and the study of curriculum', *Cambridge Journal of Education* 20 :3,241-253

Clandinin, D.J. and Connelly, F.M. (1992) 'Teacher as curriculum maker', chapter one in Jackson, P.W. (ed) *Handbook of Research on Curriculum* New York: Macmillan Publishing Co.

Clandinin, D.J. et al (1995) *Teachers' Professional Knowledge Landscapes* Teachers College Press

Elbaz, F. (1991) 'Research on teacher's knowledge: the evolution of a discourse'*. Journal of Curriculum Studies* 23:1,1-9

Elliott, D. (1995) *Music Matters: A New Philosophy of Music Education*. New York, Oxford University Press

Goodson, I. (1997) 'Representing teachers', *Teaching and Teacher Education* 13:1,111-117

Kelchtermans, G. (1993) 'Getting the story, understanding the lives: from career stories to teachers' professional development', *Teaching and Teacher Education* 9:5/6, 473-483

McCarthy, M. (1999) *Passing it on: The Transmission of Music in Irish Culture*. Cork: Cork University Press

Schon, D. (ed) (1991) *The Reflective Turn. Case Studies in and on Educational Practice*. Teachers College Press

Schwab, J. (1969) 'The practical: a language for curriculum', *School Review* November:1-23

Swanwick, K. (1999) *Teaching Music Musically* London: Routledge

Woods, P. (1993) *Critical Events in Teaching and Learning*. London: Falmer Press

Young, M. (1998) *The Curriculum of the Future. From the 'New Sociology of Education' to a Critical Theory of Learning* London: Falmer Press

Japanese and Western Musical Interaction in Japanese Textbooks

Kensho TAKESHI, Ph.D. - takeshik@u-gakugei.ac.jp
Tokyo Gakugei University, Japan

Abstract

The purpose of this study is to investigate the extent of the interaction of Japanese and Western musical trends, practices, and issues on Japanese music education by tracing the development of music curriculum.

The following research questions are investigated:

1. To what extent can Japanese and Western interaction be observed in Japanese elementary music education since World War II in the Courses of Study?
2. What Japanese and Western interaction can be found in the textbooks used in Japan in relation to: (a) percentage of songs included at each grade level which represent Western European and American traditions? (b) percentage of songs composed by Japanese composers for use in the texts which are based on Western European and American models?

As a result of this study the following conclusions were reached:

1) Since the Meiji period (1869-1912), modern Japanese music education has tended to imitate Western European or American music education.
2) American educational theories significantly influenced post-World War II Japanese education.
3) American and Western European songs have been widely used in Japanese textbooks, but there are some pedagogical problems associated with their usage.
4) The balance of song materials in the Japanese curriculum has improved, but is still problematic.

Introduction

Modern Japanese music education has been strongly influenced by American and Western European music education since the Meiji period (1868-1912). Luther Whiting Mason (1828-1896), an American music educator, assisted in the establishment of music education in Japan by editing the first graded series of music textbooks for Japanese students. After the end of World War II, the Japanese school system was reformed with the American system as a model over the past 50 years Japanese music education developed to a level that is highly regarded internationally. Ironically, however, the recent heightening of Western interest in and admiration for Japanese music education coincides with an intensification of Japanese criticism of their own system. Among the most fundamental of these criticisms is the questioning of the very emphasis on Western music that has brought Japan international recognition. As Duke (1986) stated in *The Japanese School*, "after a century of endeavoring to catch up with the West by looking primarily to the United States for the model, Japan, now challenging her teacher, faces a unique situation" (p. 199).

In this project I examined the influence of American and Western European music tradition on Japanese music textbooks. On the basis of the information gathered, recommendations have been made for reorganizing the curriculum to provide for the broader inclusion of indigenous forms of music which have heretofore found little solid footing in Japan's Western-based education system. I focused on the Japanese elementary music curriculum since the elementary education system offers basic education to all Japanese citizens.

Purpose of the Study

The primary purpose of this study is to investigate the extent of the interaction of Japanese and Western trends, practices, and issues on Japanese music education by tracing the development of elementary school music curricula since World War II. Based on the information collected, recommendations will be made for revision of the curricula in order to broaden the study of music to include more emphasis on indigenous musical forms.

American and Western European Influences on Japanese Elementary Music Textbooks

Many American and Western European tunes have been used in Japanese elementary music textbooks. The acceptance of American and Western European materials can be seen in Japanese textbooks since the Meiji (1868-1912) period. The first song textbook for elementary school was *Shogaku Shokashu* [Primary Songbook] (1881, revised in 1883 and 1884). The foreign songs included in *Shogaku Shokashu* were selected from American textbooks which L. W. Mason and Shuji Isawa had brought from the United States.

This textbook contained foreign pieces such as "*Utsukushiki*" (originally, "The Blue Bells of Scotland," Scottish folk song), "*Niwano Chigusa*" (originally, "The Last Rose of Summer, " Irish folk song), "Annie Laurie" (composed by Lady John Scott in Scotland), and other similar pieces. The teaching materials also included Japanese traditional tunes. However, Japanese traditional music included mainly *gagaku* [court music], not *warabeuta* [Japanese traditional songs children sing at play] nor *minyo* [Japanese folk songs]. It was unfortunate that this textbook did not adopt *warabeuta* or *minyo* as these genres are more representative of common people. In contrast, music textbooks published by many foreign countries included their own musical heritage by utilizing their indigenous folk songs and children's songs. This tendency to slight Japanese traditional folk music in music education has continued to the present day.

Since the Meiji period, this way of arranging textbooks has influenced Japanese music education. Since the publication of *Shogaku Shokashu*, many other textbooks have been published. In these textbooks foreign songs have continued to be emphasized . The songs in these books were mainly drawn from American, British, and German song collections. Protestant hymn books also served as sources for song materials. The American patriotic song "Hail Columbia" was introduced in *Chuto Shoka Shu* [Secondary Song Books] in 1889, and "Dreaming of Home and Mother" was introduced in 1907. The favorite American song composer among Japanese seems to be Steven Foster (1826-1864), as reflected in the number of his compositions found in Japanese textbooks. Foster's songs that were included in early Japanese textbooks include "Old Black Joe" and "Old Folks at Home" in 1926, and "My Old Kentucky Home" in 1935. Foster's melodies are still popular with Japanese students because his songs are sung in Japanese, and the melodies are considered beautiful and easy to sing.

After the 1920s many songs were composed by Japanese composers, but the majority of these songs were in Western composition styles. For example, *shoka* are closely linked with Western models, especially regarding the use of major scale. *Doyo* generally include all tones of the major or minor scale; however, the melodic tonal systems of *doyo* were largely based on the pentatonic scale [*yo na nuki onkai* in Japanese] which

lacked *yo* [the fourth] and *na* [seventh] degrees of the diatonic scale. *Shoka* and *doyo* are also written with the same system of Western notation. This tendency has continued since World War II.

After World War II the genre of American songs became increasingly diverse, as revealed by the examples found in Japanese textbooks. However, the problems of the inclusion of American and Western songs used in Japanese elementary music education are as follows:

The policy for the adoption of American and Western songs is unclear.

When examining the American and Western songs included in the various editions of Japanese textbooks, it is unclear what was the basis for the selection and for translation of lyrics into Japanese language. Many Japanese-translated songs do not deliver the true meaning of the original texts. The translations are not real translations but the Japanese writers' own lyrics written to fit the melody and rhythm of the selected song. In many cases these lyrics are unrelated to the original lyrics. For example, "Dixie" becomes "Swallow" (1948). "Oh Susanna" is changed to "Morning" (1948), "What a Friend We Have in Jesus" is transformed to "The Star World" (1910) or "Mother's Song" (1950), "The Battle Hymn of the Republic" is changed to "Pleasant Summer Holiday" (1960), "Yankee Doodle" is changed to "Alps 10,000 *Jaku*" (1964), "Clementine" becomes "Praise Song for Snow Mountain" (1964), and "Rock-a-My Soul" is changed to "Look up to the Sky" (1976). When I asked many Japanese students, "Which country's song do you think 'Alps 10,000 *Jaku*' is?" They answered, "It is a Swiss song, because the title says 'Alps.'" Only a few people knew that this song is an American song. The style of performing is frequently misunderstood.

The misunderstanding of performance style of Western and American songs is undoubtedly related to the practice of writing entirely new lyrics for American songs, rather than trying to translate the meaning of the original. For example, "The Battle Hymn of the Republic" is a very patriotic song, and is usually sung in a moderate tempo in the United States. However, in Japanese textbooks this song is designated to be sung at around 120 beats per minute. This is probably caused by the adaptation of the text. The Japanese lyrics make the meaning of the song to be very cheerful and vigorous; therefore, the tempo is naturally fast. When I first heard the song in the United States, I was very surprised by the difference of musical expression. However, when I learned the words of the American song, I understood why it would be performed as it is.

The quality of singing has improved in Japan, but curricula of song education still faces serious problems.

After World War II many foreign chorus groups including Western and non-Western groups visited Japan. These were good examples for Japanese choir leaders and music educators. This greatly influenced the improvement of singing skills. Japanese chorus groups have performed quite successfully at the ISME conferences as well. However, the curricula of song education are still inappropriate for Japanese children's musical growth. Many Western folk songs are included in music textbooks. In contrast, there are only a few Japanese folk songs in them. Japanese music education is unrelated to the community and social life. Music critic Tanabe (1969) described as follows:

> It is inappropriate to exclude Japanese folk songs which are born in the mass of people from music textbooks. Many Western folk songs are included in music textbooks. I think Japanese folk songs should also be included in textbooks. Through singing or listening to folk songs, children easily can understand the relationship between the way of life in regions and folk songs. If folk songs are considered to be vulgar, it is wrong. I recognize that this incorrect idea caused the problems of school music education and social music. (pp. 32-33)

1. Is curriculum rooted mainly in the European art music repertory the most humane approach for training music educators for the 21st century?

The European art music repertory is still emphasized in curriculum in Japan, but its ratio has decreased in recent years. The influence of European art music repertory on Japanese music education has been the subject of controversy. Many have also argued that Japanese music education should put more value on the Japanese traditional musical songs. These songs are based on linguistic and melodic patterns that are unique. Thus, Japanese citizens are empowered to make active contributions to the international community. From this point of view, it is essential to create an appropriate music education curriculum that is compatible with bi-musical heritage: Japanese and foreign (both Western and non-Western) music.

2. Why has the European model been so resistant to change and /or reform?

The reason is Japanese music education has, since its inception, been greatly influenced by the European/ American model. The Meiji Restoration presented a drastic change from a feudal system to capitalism. Modern Japanese music education has been strongly influenced by European and American music education since the Meiji period (1868-1912).

Western Europe and the United States were considered to be good examples by the new government of the Meiji period upon which to base its education system. The Ministry of Education, which was established in 1871 to control the education system, was given the task of establishing a Western-style school system throughout Japan as a means of supporting the changes in governmental structure.

Japan's adoption of Western music and educational models has been so successful that many Japanese musicians have achieved world-class status. Western educators have consequently investigated Japanese methods of music education for keys to its success.

The Japanese school system was reformed after World War II, influenced by the American system. Much has been written about the impact the American education system had on Japanese education after World War II (Takeshi, 1998) .

3. Is reform of the present curriculum possible, or will the European model have to be abandoned in favor of one rooted in an entirely new set of assumptions about the nature of music and music training?

It is possible. There is a need to assess the relationship between European/American philosophical and pedagogical rationales and Japanese rationales for music education. In assessing school music curricula, previous research in Japan tended to be carried out from the Japanese viewpoint. There is a need to investigate how European/American rationale influenced Japanese music education in order to devise appropriate methods of instruction that are sensitive to the needs, interests, and abilities of all children and to ensure that this experience includes music of their own heritage.

At Tokyo Gakugei University, the largest music education department in Japan, support European, multicultural , and Japanese music performance. Students learn Japanese traditional instruments and Western instruments.

4. If the European model were to be replaced, what would take its place?

I do not think the European model needs to be completely replaced. Japanese music educators not only must appreciate and understand the musical identity of foreign songs, but also teach them to children in the appropriate style. Many European/American songs are used in Japanese textbooks, but there are some problems with their use:

a. The practice of adaptation of American and Western songs is unclear. Many Japanese-translated texts of original songs do not deliver the true meaning of the original.

b. The original performance style of songs is misunderstood. The problem of translation contributed to this musical problem.

5. If the European model were to be replaced, modified, or reformed, what would be the nature of the impact on the music curriculum at all educational levels?

In Japan music education has sometimes been justified by its extrinsic value. The raisin d'être of music education has been different from aesthetic objectives. After post-

World War II Japanese music education started as Western-based music education. The first tentative Course of Study paid little attention to Japanese traditional music. This over-emphasis on Western music at school has slightly improved. Since the 1958 Course of Study, some pieces of Japanese traditional music have gradually been included as common required materials. The frequency of foreign (other than Western European and American) songs has also somewhat increased.

However, traditional music and music from cultures other than Western European and American music do not occupy a firm position in class lessons. One reason is problems in the teacher training system. Many music teachers do not experience such music at teachers' colleges or universities. Therefore, they are quite unfamiliar with such music. The teaching Japanese traditional music and traditions other than Western European and American music has recently been regarded as important from the perspective of internationalization.

Many of the problems of music education in Japan stem from the organization and structure of the music textbooks. Japanese music textbooks are very thin, and do not include a large number of songs compared with American textbooks. Japanese music textbooks do not differ greatly from textbook to textbook. The reason is that Japanese textbooks are all approved by the Ministry of Education, which prescribes both contents of teaching and teaching materials.

Conclusion

I advocate the Tripartite Approach to the development of Japanese children's musical growth. First, Japanese children should learn their own linguistic and musical patterns through play songs or daily activities such as folk music in or around their immediate living area; second, they may begin to study the musical heritages or different genres of music from throughout Japan; third, they should learn foreign countries' music(s) and different cultural traditions. This is a kind of natural "multi-cultural approach" for Japanese Education.

Japanese textbooks should be arranged from this bi-musical viewpoint. As stated previously, music textbooks, regardless of whether they are American or Japanese, should reflect the editors' philosophical and educational policies, not merely the ideas of the Course of Study approved by the Ministry of Education. This examination confirms that Japanese music educators should arrange curricula in order to develop children's perception of songs, including music(s) of the world. Music has several functions on cultural levels, from simple and direct folk utterance, such as children's songs, to highly complex rituals. Every folk song expresses certain ideas, feelings, or state of minds. It is meaningless to sing if we misunderstand the message of the text, the tempo, and the mood of the song. However, with these understandings we may communicate and share the music(s) of the world

Notes

Course of Study (National School Guidelines)

Basic outlines stating the aim of each subject taught in Japanese schools and the aims and the content of teaching in each grade. Issued by the Ministry of Education, these guidelines are drawn up separately for elementary schools, junior high schools, high schools, and the schools for visual and hearing impaired and handicapped students. The Course of Study was devised initially in 1947 by the Ministry of Education and patterned after American models.

Categories of Japanese Songs for children

There are several genres of Japanese songs for children. These can be classified into traditional and modern songs, namely *warabeuta, shoka* and *doyo*.

1. *Warabeuta*, Japanese traditional songs children sing at play, may be considered children's folk songs that have been transmitted through the generations. They are an integral part of children's play, and while some are about nature or annual events, most are

sung to such activities as drawing pictures, bouncing balls, skipping rope, and playing pat-a-cake.

2. *Shoka* are songs composed or authorized by *Monbusho* [the Ministry of Education] for classroom use. The *Meiji* Restoration period (1868-1912), heralds the modern history of Japan. To keep abreast with the thrust of modernization and westernization of the Meiji government, the *Monbusho* invited music teachers and supervisors from abroad to come to Japan and act as advisors.

3. *Doyo* also literally means children's songs. At the end of World War I during the Taisho period (1912 - 1918), some poets and composers such as Kitahara, and Yamada thought that the s*hoka* were too moralistic, deemed unsuitable for the children.

School textbooks

In Japan all schools are required to use government-approved textbooks as their main teaching materials. Textbooks are produced by private publishers, who are given a limited amount of freedom in the style of presentation and choice of illustrations, but are obliged to conform to the government-issued Course of Study.

References

Duke, B. (1986). *The Japanese school.* New York: Praeger Publishers.

Takeshi, K. (1998). American Educational Influences on Japanese First Tentative Course of Study, 1947. *The Bulletin of Historical Research in Music Education Vol.XVIII* , 115-137.

Tanabe, H. (1969). Nihon no dento ongaku to ongaku kyoiku no arikata [The ideal way of Japanese traditional music and music education]. *Ongaku Kyoiku Kenkyu* [Music Education Research], *40*, 32-33.

Students in Music Class: How They Are Allowed to Take Part

José Luis Aróstegui – arostegu@ugr.es

This is a summary of a research into the way different participants in primary and secondary schools take part in their classrooms. It deals with the manner in which students are involved in their own learning, each group having its own characteristics, its own ways of proceeding, and a different significance of what student's empowerment should mean. It was conducted in the South of Spain, to be exact in the Autonomous Community of Andalusia. This Autonomous Community has its own educational system distinguished by a strong cognitive psychological component. Such component establishes a curriculum mostly based on the practical paradigm. Primary schools are for students between the ages of 6 and 12 and Secondary schools for those between 12 and 18. Schooling is compulsory until the age of 16. The main aim of this study was to contribute to our knowledge of the conditions, reasons and ways in which students take part in curricular relationships along their compulsory schooling, in order to improve democratic culture, analysed from a musical education point of view.
A varied research methodology has been used: quantitative (surveys) and qualitative (case studies). The first one consists of a questionnaire passed to students and teachers from each educational level we are interested in. In primary schools, there were 24 items that were divided into four groups according to their purpose of inquiring how students can have influence on decisions taken: (1) in classes; (2) during activities; (3) about the methodology; (4) and about the evaluation. In secondary schools, there were 42 items, divided into seven groups: it was considered according to the same points as in primary schools, with the addition of three other areas: (1) about the subject at the beginning of the school year; (2) about the working party; (3) and about discipline. The second research method was composed of two case studies. The first one was studied in a private primary school situated in a slum quarter on the outskirts of a town, and the second one in a public High School situated in the town centre. In both studies our case was a group of students in music class, and the main issue was how students take part in that context.
In the next two sections of the article we have included the main data obtained by descriptive and inferential statistic, as well as an exposition of the negotiated report of each case. And, in the last section, the conclusions we have arrived to, according to our data, about the role of music in education.

Students in a lower position because of their own students condition: generalising from the questionnaires

The main results of the survey in primary schools can be summarized as a restricted student participation, as well as a teacher work starting from the practical paradigm, that is, based both on their teachings and on their unilateral control of the process. This explains why students have answered that they really take part in class. At the same time, they consider that teachers mostly make decisions. For example, chat and movement in music classroom is under control of adults. Students do not have the power to make any suggestion on methodology or evaluation.
On the other hand, music is perceived by students quite differently if we compare it with the other subjects, because music is less open than the others. This could be explained by

bearing in mind that music is taught by a different teacher, just like physical education and foreign language. Students of these ages are used to work with their generalist teacher. They might feel intimidated by their lack of intimacy with their music teachers. Besides, music has been gradually implemented into the Spanish curriculum only since 1990 (before there was no music education in practice). That is, music teachers have less experience than most of their colleagues. So, they will probably try to exert a bigger control over their students. Unlike music, drawing and physical education are more open subjects, because students are allowed to take part more often.

In secondary schools, answers indicate a similar tendency: students say they can ask anything at any moment, and overall they feel there is a good atmosphere in the classroom. Nevertheless, most of the items tend to reveal a negative response (for instance, they cannot give their opinion about subjects) or without agreement among them (e.g., when they are asked if it is necessary to have the authorization from the teacher to talk, they answer almost by equal to the four options). On the other hand, the peculiar character that music has in primary schools does not appear in this level, since music differs from the other subjects just in two items. The reason seems evident: in Spanish secondary curriculum every subject is taught by specialist teachers, so music is not an exception in this educational level. In addition, students consider there are more chances for taking part in physical education and in religion/ethic (students have to choose between one of them), whilst physics, chemistry, and technical drawing come to be the most rigid subjects.

Referring to the other factor considered, some significant differences have been found between the old and the new educational system implemented since 1990. Those differences appear just in eight items, and always in favour of the most recent curriculum, especially in a greater use of working parties. There appears a similar situation concerning the centres locations: students in rural schools answer just a little bit favourable than their colleagues in urban ones.

Nevertheless the kind of centre constitutes the main factor: in primary education, public school students give an answer quite more favourable in 12 items (50%), an answer mainly located in those items which refer to a greater intervention in classes. However just the opposite situation appears in secondary education: differences appear in 13 items (31%) which, except for one question, are in favour of private centres. If we relate this point to the absence of significant differences related to social class, and to the absence of correlation between this one and the centre ownership, we can conclude that at least these two partially different educational concepts arrive equally to the whole population.

Speaking of student characteristics, only a few questions have been influenced by gender. We understand this has been due to girls. For example, they answer they never can go out of the classroom when it is necessary, while boys in the same groups answer they can leave from time to time. Anyway, age comes to be the key: students are in a lower position just because they are students. This could explain to us why there appear no significant differences when they are asked about the evaluation, and about what occurs in class: teachers are not interested in talking to them about these questions.

Teaching and control in class: go deeply into the context through case studies

Discussing the case studies, in the first one the teacher used clearly the practical paradigm, distinguished by two issues. Firstly, teaching: she tries to motivate her students in order to make them learn musical concepts. Secondly, control: when her proposals do not work as she expected, she must exert an authority over students to avoid noises and distractions. The teaching facet was perceived in her interest to find interesting material and resources for her classes. The control one was perceived in her scolding when her teaching was not interesting for students. As a consequence of their lack of interest, they answered with their own resistance strategies. Basically, their strategies consisted of making a racket whenever possible, because feeling of freedom is more important for them than their interest in music. For instance, when they were learning a dance in which they

needed to choose another person at the end of the musical phrase, they gradually forgot what they had to do, and focused just on the game. Likewise, students also avoided taking part in any new activity until it became well known. They were more interested in the opinion the teacher could have of them than in learning something new. Teaching and control aspects were clearly perceived by these 9-10 year-old students, as it is shown in this excerpt from the observation diary:

> Before the beginning of the class, many boys and girls are making a racket. Three of them come to me:
> 1 Teacher, won't you give them a talking-to?
> O No, I won't. Why? Do you find incorrect what they're doing?
> 1 Yes, sure, they're making a lot of noise and I don't understand why you don't give them a talking-to.
> O What's the matter? Do I have to give a talking-to because I'm the teacher?
> ALL Of course!!
> O Well, I don't.
> 2 You just teach? Don't you scold anybody?
> O No, I don't.

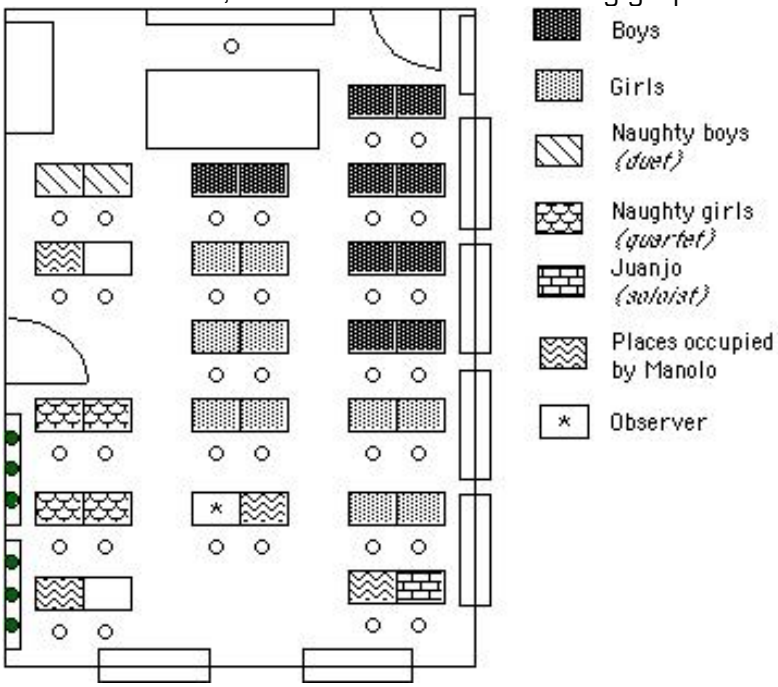
It could be said louder, but not clearer. The teacher's roles are to teach and to give a talking-to. On the other hand, there was not an equal relationship between students because of their gender. For instance, they never chose a mixed pair during activities, and boys took part in class more frequently. As the teacher said, "girls are more shy. Boys take part better". However, she perceived those differences as natural, and so, as inevitable. Consequently, she did not anything to solve the problem.

Their belonging to a low social-class implied an inequality too. This can be perceived in the attitude of a student reflected in classroom interactions, when he tried to get the others to pay attention to him. Consequently he was considered the worst of the group. But the influence of social class was mainly perceived when they participated in activities outside the centre, particularly when they took part with other schools of the town in an educational concert performed by the local orchestra, or in a Carroll competition (in which they also took part). In both situations they learned they were at a disadvantage when the teachers were more concerned with the possible scolding of other colleagues to their students than with a real misbehaving of them. In this point, teachers were conscious of the problem, and so they tried to avoid by all possible means the assumption by students that they were inferior.

With regard to the secondary case study, this is also distinguished by a non-equal relationship among students because of their gender. This leads to a minor intervention of girls during classes, as well as a male control of classroom space. The following excerpt from the interview we had with a group of girls clearly shows this point. They were asked about why they do not ask questions in class:

> Girls You are embarrassed [...]. You are ashamed to ask [...]. Sometimes you are embarrassed because of the people who understand what's been explained. Perhaps you haven't understood something, and they say: "Come on! Don't be silly! It's easy! [...]. That's it.
> O Who says that?
> Gs People... Very often, you know... They say: "It's easy!"
> O But, what do you mean by people? Are you talking about your male classmates?
> Gs Yeah [...]. Even when you know it's a joke, but perhaps...
> O But, has anybody ever said that? Has anybody ever told you: "Oh, how clumsy!" or "How silly!" or something similar?
> Gs No, "How clumsy", no, but perhaps they begin by: "It's easy! You have to understand it!" [...] "How is it possible you didn't get it?"

Of course this is not natural attitude in girls, this is due to a learnt behaviour before their coming to the secondary school. Their male classmates neither do anything special for these girls to feel that inhibition, except for reproducing the more incisive attitude that has also been transmitted to them. In this sense, it is also remarkable where they were seated in the classroom, as it is shown in the following graphic:



Most of the boys were seated at the front and right area of the classroom, while the girls mainly occupied the central column, and always seated behind the boys. The naughty students chose the left side of the classroom. The boys were also distributed in the front and girls in the back. So, we concluded that males dominate the space. Vertically, because the first row is exclusively occupied by the boys. Horizontally, because it looks like the girls always occupy the places behind them, even when it seems there are another criteria in the distribution of space, like their attitude and expectations in class. Finally, there were two boys that they were not so integrated into the group. One of them was usually seated at the right and back of the classroom, and the other one did not have a defined place for seating.

However, the place occupied by each group of students was not the only difference among them. Besides their gender, their naughty or unnaughty attitude, and their integration into the whole group, different cultural characteristics were also perceived. One of the main characteristics was their different musical preferences. The main group, and specially the girls, liked the Spice Girls, the musical group in fashion at the moment. The duet preferred music for bands, because one of them belonged to his village's band. The quartet of girls rather liked flamenco music. The soloist Juanjo enjoyed playing and listening to Heavy Metal music, and the other one liked Bakalao music, a sort of disco music very popular in Spain among certain young groups related to drugs. This means that cultural values of music prevail over its own objectivity. Music defines their belonging to a concrete cultural subgroup just like their clothes, language or habits. This is probably the reason why they showed so much resistances when the teacher tries to talk about their music.

With regard to the teacher, he used a teaching model quite similar to the one explained in the other case study. His didactic approach is based on his control of the educational process and his teaching too, prevailing control over teaching, with the consequent resistance strategies elaborated by students. Student teachers in this group during the first weeks of the school year used the same didactic approach. Nevertheless, there was a warm relationship with students. They thought they had learned more just because they had more confidence in these teachers. As one of the students said: "if you have

confidence in the 'person' who is teaching you: you understand many more things!" So, it is clear the priority of a good atmosphere in classroom over the transfer of contents. That is, the process is over the product in an effective education.

Conclusions: The inherent relationship among music, society and education

According to all the data gathered, it is concluded how teachers are interested in letting know their students what the musical meaning is, that is, the musical objective knowledge. However, this means to focus on achieving a product to the detriment of the educational process. This perspective also implies to deny there are social values linked to music, so that it makes music preferences to be conditioned to his or her belonging to a concrete social group. In other words, students are being educated just for music, instead from music too. So, a positivist conception of music education is over another which considers music as a way to understand the world.

But music is not only an objective product. As Adorno (1976) says, "above all, music is indelibly a matter of the mind [...]. Its preparation has been ideological from the start" (Adorno, 1976, p. 61). This implies people rather like a certain kind of music according to their cultural conditioning, that is, according to their gender, their social class, or their race, among other factors. Denying or recognizing this point carries out to educate for music or from music. That also means a different kind of curriculum in arts:

> There is a vast difference between the view that there is a single universal truth that provides answers for every situation and the view that life is a continual inquiry and we are charged to construct meaning and discover our own truths. Both views [...] hold many implications for the arts and for education. In one view, our task is to study what is already given. In the other, our actions, perceptions and thoughts actually shape the world (O'Fallon, 1995, p. 22).

This last perspective is complementary rather than contradictory with regard to the dominant scientific point of view. It emphasizes the experience of each student in the school in order to let them assume that all the human knowledge is constructed by ourselves, due to this the importance for promoting the critical thinking. A music education made from this subject might contribute to this purpose. On the contrary, we will collect the results we are sowing: high music is related to the academic knowledge, which belongs to a selected minority. At the same time, low music is related to the experiential knowledge of students, appearing both high and low concepts as opposed rather than the two sides of the same thing (Best, 1996).

On the other hand, it is curious to check how to focus on the product carries out the primacy of something external to itself, since control prevails over teaching, and that supposes students are not the stars of their own learning. According to the collected data, it is clear they are allowed to take part always... always there is no conflict with teachers' interests. However if students cannot take part as they should, they will not be able to learn how to participate in society; their training as citizens who can live in a real democracy is reduced in the name of other interests which have nothing to do with them. That is why we should not educate just for democracy, but also in democracy. This means we ought not to worry anymore about contents but about how they could look for and choose those contents which let deconstruction and later reconstruction of experiential knowledge of each student by himself or herself. This becomes useful because, as Pérez Gómez (1994) says, this kind of scholar experience will let students to grow up in autonomy and critical thinking as a way to face their own individual existential problems, as well as those of their society.

In other words, by focusing on contents, teachers forget what happens with students and considers them equally. This is probably the reason of the primacy of control over teaching, because the logic of each subject is over what each student needs and demands. But if it is supposed they are equal, whether the teacher likes it or not, the consequence is the legitimacy of injustice, because treating equally what it is unequal obviously constitutes

something unfair. In fact, this is the concept of democratic justice. So, content's teaching should be in function of student's learning, and not on the contrary as it usually happens. Of course, knowledge still has indeed a very important role in education, but not the same contents for everybody. Contents should be selected according students neediness', even more in the society of information where we live. Nowadays, the question is not to know everything (something impossible even in a very concrete branch of knowledge!), but to search for and to select the information we need (Flecha, 1997).
Nevertheless while we keep on thinking about contents in the name of a supposed objectivity of knowledge, whether we like it or not, we are transferring to our students the neo-liberalism values. So, they learn to use a double moral: what you think and what you say. They learn to consider exchange value over usage value, that is, for them meritocracy and qualifications are over learning, as the image of wage-earning work. They learn to consider training work as a more important job than the one of citizen training. They learn to willingly accept an authority, if teachers get to connect with students, or unwillingly if they are obliged to impose their own criteria in class. They learn to think about the achieving of a product, instead of thinking about the living of the process they are making. And finally they learn to split experiential and academic knowledge into two separated worlds, as it happens with private and public ambits in society.
Unfortunately, these are not democratic values in a full sense, and so they are against the labour committed to the compulsory school in a democracy, that is, to train people in order to enable them to live in democracy, to enable them to take part in the res publica. And it is here where music can do a lot, making things evident. For instance, why it is more and more common to use a background music (we usually hear it but we do not listen to it) not only in films, but in documentaries, and even in news, sending a message not explicit but functional. Or why melody, rhythm, texture and structure are rather better in a Brahms, Errol Garner, or Camaron de la Isla (flamenco music) pieces than those broadcasted by most of radio and TV stations. It is not a question of preferences, but a question of understanding contradictions and lies that the first music quoted faces up, and the second ones hides.

References

Adorno, T.W. (1976). Introduction to the sociology of music. New York: The Continuum Publishing Company.
Best, H.M. (1996). Musical perception and music education. Arts Education Policy Review, 4, 2-9.
Flecha, R. (1997). Pensamiento y acción crítica en la sociedad de la información. In J. Goikoetxea & J. García Peña (Eds.), Ensayos de pedagogía crítica. Madrid: Popular.
O'Fallon, D. (1995). Choices at the intersection of the arts and education. Arts Education policy Review, 96 (3), 21-27.
Pérez Gómez, A.I. (1994). Las funciones sociales de la escuela: de la reproducción a la reconstrucción crítica del conocimiento y la experiencia. In J. Gimeno & A.I. Pérez Gómez, Comprender y transformar la enseñanza. Madrid: Morata.

Nordic SAMSPEL

Music teaching and learning interaction – the symbols used and the reflections of the teachers

Cecilia Ferm - cefe@mh.luth.se
PITEÅ UNIVERSITY COLLEGE, DEPT OF MUSIC, SWEDEN

Abstract

The focus of my presentation for the roundtable discussion is Music Teaching and Learning Interaction at music lessons in the Swedish Primary school. I'm interested in possibilities for the pupil's experience and knowledge of music to develop, according to the ways that the teacher interacts with the individuals. In the investigation that my PhD-thesis I have observed three different teachers at 10-15 occasions, and the teachers have also continually reflected over my notes of the interaction. I'm going to present the main results of this investigation and specifically discuss what different kinds of music teaching and learning interaction taking place at music lessons in the Primary school. Furthermore I will present what kinds of symbols that are used in the interaction between different cultures.

The investigation

Background

My ontological and epistemological standpoints have led me to a life-world-phenomenological approach. This means that the world is around us and in us, we are in the world, but we experience it in different ways due to our earlier experiences. An assumption in my study is that method and theory hardly can be separated from each other. According to a phenomenological way of looking at the world, the purpose is to find a method that makes it possible to understand individuals and social groups from the lived relations that they have to their environments, the world they live and participate in (Bengtsson 1998). The purpose is not solely to shed light on the things that already exist, but to see new connections between what already exists (Merleau-Ponty 1997). When it comes to my view of teaching and learning I can say that I have a holistic perspective. I don't think one can separate content and method, and I think that the individual's development of music experience and knowledge of music has to be in focus (Kroksmark 1987; Dewey, 1997).

Purpose

The purpose of the study is to describe, analyse and try to understand music teaching and learning interaction between teachers and pupils at music lessons in the Swedish Primary school, year 4-6. In focus are the teacher's thoughts, actions and reflections.

Research questions

In what ways do the teachers communicate with the children about music teaching and learning?

What possibilities are there for developing the childrens´ experience and knowledge of music?

How do the teachers reflect upon the interaction?

Music teaching and learning interaction is defined in this study as the meeting taking place between the teachers intentions, expectations, and experience, and the pupil's knowledge, expectation, and experience in the music and the music education process.

Method

To get access to the empirical material I followed three teachers during one semester, one lesson per week, which turned out to be10-15 lessons per teacher. I took notes of the teaching and learning interaction I observed in the classroom and how I interpreted what I saw. I sat on a suitable place and wrote down as thoroughly as possible what the teachers and pupils said and did, and tried to describe the events, the interaction, as natural as possible. This was done on the right sides in the book, and on the left pages the interpretations were written down. Before and after the lessons, informal conversations were conducted, between me and the teachers about the lesson or the reflective part of the study when necessary (Kullberg 1996). Immediately after the lesson the notes were refined at a computer and sent by e-mail to the teacher in question for further reflection. After having read and commented my notes, they sent them back as soon as possible. The purpose was to come close to the music educational activity and to avoid a too subjective vision of the context studied.

Close observation

The big amount of text in this study are field notes from "close observation", which is an investigating method that harmonises very well with a wish to approach the world in a phenomenological way (van Manen 1997). As opposed to more experimental or behavioural focused methods, this type of observation aims to break the isolation that is often created. Through "close observation" the researcher tries to come close to the life-world of the relevant persons. If they are relevant or not is decided from whether their experience could be seen as interesting material for the study. The idea is that the researcher should come as close as possible, without losing the hermeneutic flexibility that opens possibilities to distance oneself and reflect over the meaning of the situations. One way of doing this is that the researcher collects descriptions full of meanings of the world. Van Manen says that it is important that this meaning is described in some way. That is a presupposition for further creating of meaning in the final analyses. A supplement to the method is to write a diary parallel to the empirical work, and in my study that kind of text is an important part.

I should be aware that not everybody is comfortable with an observer in his or her classroom. Despite the fact that educational researchers have deep knowledge about their field, they hold less expertise about the practical aspects of the activity than the teacher does. Different experiences and backgrounds influence the research. This doesn't mean that the observations of the researcher can be seen as more reliable, but it could mean that the observer could bring about a more wide and detailed description of the situation

and the happening. The analysis of the generated text is done from a phenomenological method (Spiegelberg1982; Johansson & Kroksmark 1998; Alerby 1998).

Written reflection

The reflection part of this study aims to create a closer contact to the lived experience of the subjects studied, in this case to grasp the meaning of the teaching and learning interaction from the experience of the teachers (Van Manen 1997). I also hope that the written reflection can give a more mediated result than interviews. To let the subject run here and there in their thoughts, more connections of associations would be created and showed in the written text (Birgerstam 1999).

To let the actors comment the investigated context continually, instead of interviewing them after the investigating period, gives, from my point of view, more reliable comments, as the phenomenon is interaction. The situation, as well as the teachers and myself, change during a semester and reflections over a situation too far gone tends to be reconstruction. They will be influenced by the experiences made in the meantime (Schuts 1982).

The role of the researcher

As a researcher I'm a guest in the life-world of the people I study, I visit their every-day life, which supposedly continues as usual. It is important that I remember this and take it into consideration but I must be aware that I influence the activities I'm a part of. My presence in the classroom makes things more or less different. The idea is after all to influence the activities as little as possible. I always tried to be in a place in the classroom where I could survey as much as possible of the activities, without disturbing these. My choice has been to bodily participate in the classroom in spite of the fact that this presence can influence the activities. One alternative could have been to put some kind of recording apparatus in the classroom and then leave it (Rostvall & West 2001). I think, though, that a camera or a microphone can influence a scenario as much as the presence of a human being, or even more. My way of seeing dedication of knowledge is that your whole body has to be present. We use more than words in our communication and more than our ears in perceiving it. It is therefor not possible to grasp the complexness of the situation without being present.

Different kinds of music teaching and learning interaction

As I went in to this study, I wasn't totally blank about "Music teaching and learning interaction". I had actually read a lot of pedagogical literature and I had also run a pre-study, to test the method and get some hints of what could be possible to investigate (Ferm 2001). So I had defined the conception "Music Teaching and learning interaction" – interaction between teacher and pupils that makes the developing of their knowledge and experience of music possible. One assumption is also that the pupil is seen as a *Who*? and not a *What?* This means that you don't know how to teach a pupil before you have met her or him (Von Wright 2000).

Anyhow, as I went through the study and began to analyse the material, I had seen a lot of different kinds of music teaching and learning interaction. It is too early to give a broad and detailed description of the phenomenon. What I can do is to present a picture that came to me, rather early in the analysing process. It can be symbolised as upside down triangle (fig. 1). Down in the point the interaction is very close both in time and space and at the very top more distanced. One example of a scenario that will fit in at the top of the figure is when a pupil comes up with a suggestion of a melody to play at the lesson. The teacher says yes

and shares the preparation with the pupil. Further down in the figure the teacher may show a pupil by taking her fingers and lead the hand over the keys of a keyboard. All over the place in the figure there is a changing play between initiative and confirmation, the teacher's openness and interests and the pupils interests, experiences and initiative. The interactions at all levels are based on mutual respect. Different symbols for communicating the music are present in the whole triangle, more concrete at the bottom and more abstract at the top. Another part of it is that close to the bottom the interaction can take place only between the teacher and one pupil and at the top with a bigger group involved.

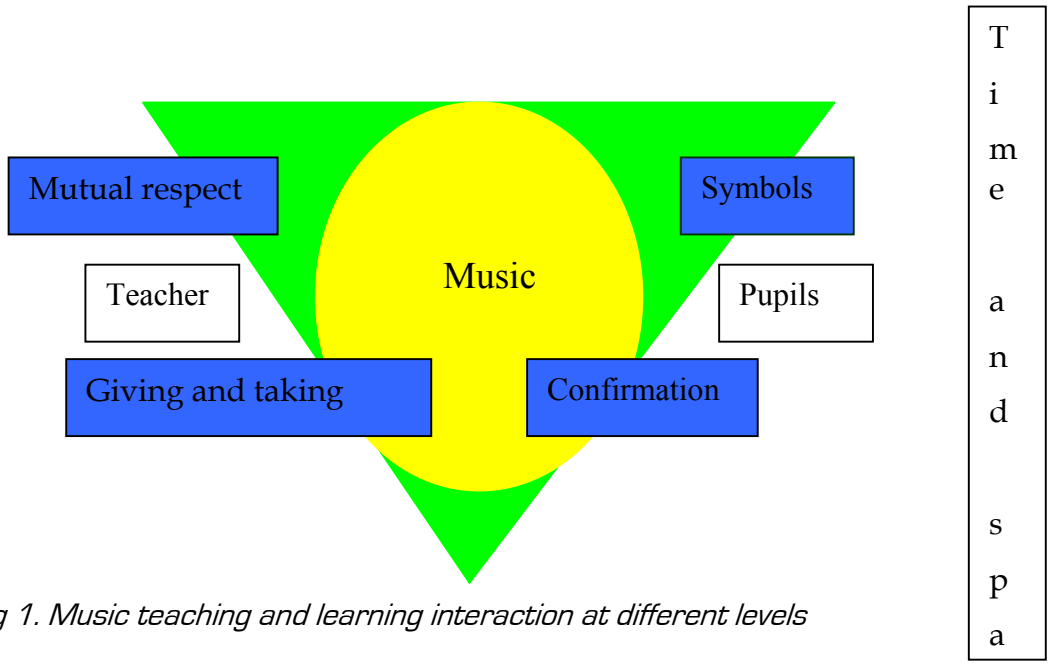


Fig 1. Music teaching and learning interaction at different levels

What kinds of symbols are used?

In the observation study I have noticed different symbols that are used to communicate the music. The symbols came natural together into four groups or categories; sounding symbols, written (visual), verbal (auditive) and bodily symbols. In every category the symbols can be more abstract or more concrete. The pupils' experience of the music or the teachers and pupils inter-subjective knowledge of the music will decide what symbols make interaction possible. The culture of the pupils and the teacher also influence the character of the used symbols. The larger differences between the cultures, musical or linguistic, the more concrete symbols seem to be used. One consequence of this is that the teacher has to know a lot about the musical knowledge and experience of the pupils to be able to communicate with them in a "good" way.

Sounding symbols

To use sounding symbols for communication is not so common in the text that represents the practice I have studied, but it exists. The aim is to communicate the music, to give the

pupils experience of genres, instruments, character or a pre-understanding of a special tune before playing it.

Written symbols

More common is to use written symbols for communication of music. It can be words, notes, chords, numbers, marks, dots and also pictures. The most abstract form of written symbols is for example words that talk about the music in the fifties or a picture of a symphony orchestra. A paper with a song lyric with or without chords or tablatur is also rather abstract if you haven't got any experience of the tune it represents. The teachers in the study search for different ways of using visual symbols in a more concrete way, for example to mark the keys on the piano or set marks or numbers on paper. The most concrete variant of this way to use symbols for musical communication that I noticed in my study is when a teacher teaches a fragment of a melody "by ear" to some children and then writes numbers at the keys for the starting point of each fragment of the melody. Another variant is when he says; "You shall play five times at two keys that I draw dots on".

Verbal symbols

The verbal symbols represent how, when and what the pupils play at the music lessons. It's very obvious here that it depends on the inter-subjective knowledge which level of abstraction the symbols have. For example the teacher says; "Can you play `rhythm guitar` in this song?" to a boy in the sixth grade. She couldn't have said that to any pupil in the class. She knows that he is able to play the chords in the song in a special way and she is also aware of his knowledge of the concept "rhythm guitar". There are also a lot of examples where the pupils and the teacher talk about the character of the music in a rather abstract way. The experiences that the pupils have had together with their music-teacher at earlier lessons are also communicated. When a girl asks if she should play any special "pattern" on the drums, the teacher answers; "No, use usual "Ulla-Bella" (standard pop pattern). A lot of verbal symbols talk about the form. Different parts of a tune are called different things depending on whom the teacher is talking to. Sometimes it relates to the lyrics or sometimes to "the bridge" or something like that. Numbers are often used, like;" A four times, D four times" and so on. To keep the song going the teachers yell all through it; "A, D, E, A" or "snare-drum, cymbal" or "bridge, from the beginning".

There are also very concrete verbal symbols used. For example one teacher asks his pupils to play a well-known song at "black keys" instead of white. "Play at the two white ones in between of the three black ones" is another instruction that aims to let the pupil play a part of the melody "Y.M.C.A".

Bodily symbols

As well as the verbal signs, the body can be used for communicating the music before and during the musicing. The body can be used to transcend how to play an instrument in a special style; the tempo of a song can be shown, when it is your turn to play, the dynamics of the music, the start and end of the music, the character of the music and even how you use a microphone can be shown. The most concrete way of bodily instruction is when a teacher takes the pupils´ hand and plays at the keyboard "This is the way it should feel", he comments. Another example is when the teacher takes the fingers of the pupil and puts them at the right place at the guitar.

The most abstract way, if you can talk about that at all, is when the teacher uses her body to instruct a whole class when playing. The more the movements are directed to an individual, the more concrete they are, in a way. The forms of bodily symbols are movement,

playing, singing or two of three of these at the same time. One very obvious example of the need of this form of communication is a statement from a drum-pupil; "Sing so I can understand".

Another way to instruct bodily is to relate to another instrument. For example the teacher asks a boy who plays the tambourine to play at the same time as the drummer beats the snare drum. One way to let the pupils participate in the music is to give them one chord and then show them when to play by pointing with the guitar or nodding the head at the right person. A last example shows the connection between concrete symbols and different cultures. One of the girls in a keyboard group doesn't speak any Swedish, so the teacher shows her with the fingers how many times she should play the different keys.

Comment

Of course it is hard to separate when different kinds of symbols are used, and which of them that really make the communication possible. Often it is a combination of them all. Another thing open for reflection is whether an intro to a song or a verbal rhythm-pattern could be bodily or sounding symbols. May be the assumptions for a symbol to be sounding are that you can understand it with closed eyes and without language knowledge. Anyhow, it was interesting to see how many different symbols that were used in different ways and in interaction with different people and in different situations. In a further discussion I will reflect over this and the consequences this use of symbols imply for music education

Conclusions and further thoughts

In this paper I have tried to present my investigation about "Music teaching and learning interaction", the method and some of the results so far. This in connection to the theme "Acrross borders and musical cultures" in the spirit of SAMSPEL. I have focused a description of the music teaching and learning interaction and a first analysis of the symbols used. In the further analysing work, I will go deeper into these parts of the study, and also into other perspectives of the interaction. A connection between the reflections of the teachers and the phenomenon will be analysed and in the end I hope we will see a broad and detailed description of the phenomenon. This description hopefully will start reflection and discussion of Music teaching and learning interaction at practical, theoretical and philosophical levels.

References

Alerby, Eva (1998) *Att fånga en tanke. En fenomenologisk studie kring barns och ungas tänkande kring miljö*. Luleå: Institutionen för pedagogik och ämnesdidaktik. Centrum för forskning i lärande.

Bengtsson, Jan (1998) *Fenomenologiska utflykter* Göteborg: Daidalos

Birgerstam, Pirjo (1999) Ett fenomenologiskt tillvägagångssätt – en parallell till visualisering som arbetsmetod i Lindén, Jitka m fl (red.) (1999) *Kvalitativa metoder i arbetslivsforskning* Uppsala: Rådet för arbetslivsforskning

Ferm, Cecilia (2001) *Didaktiska möten på musikundervisningen i grundskolan* Paper presenterat på NNMPF konferens. 3-6 maj 2001

Hangaard-Rasmussen, Torben (1996) *Kroppens filosof* Köpenhamn: Semi-forlaget

Johansson, Thorbjörn & Kroksmark, Tomas (1998) *Teacher´s intuition-in-action. How teachers experience action.* Göteborg: Småskrifter från institutionen för metodik. Göteborgs universitet

Kroksmark, Tomas (1987) *Fenomenografisk didaktik Avhandling i pedagogik* Göteborg: Acta Universitatis Gothenburgensis

Kullberg, Birgitta (1996) *Etnografi i klassrummet* Lund: Studentlitteratur

Merleau-Ponty, Maurice (1997) *Kroppens fenomenologi* Göteborg: Daidalos

Rostvall, Anna-Lena & West, Tore (2001) *Interaktion och Kunskapsutveckling.* Stockholm: KMH Förlaget

Schuts, Alfred (1982) *Life Forms and Meaning Stucture* London: Routledge

Spiegelberg, H (1982) *The phenomenological movement. A historical Introduction.* London: Martinus Nijhoff Publishers

Van Manen (1997) *Researching Lived Experience* Western Ontario: Althouse Press

Von Wright, Moira (2000) *Vad eller vem?* Göteborg: Daidalos

samspel

The Quest for a Collaborative Culture of Teaching— in the 'Write an Opera' mode

Regina Murphy - kinder@indigo.ie
St. Patrick´s College, Ireland

Abstract

In the quest for a collaborative culture of teaching (Hargreaves, 1992) the author first explores the model of professional development for teachers: "Write an Opera", offered by the Royal Opera House, London. Second, the literature on school effectiveness and school improvement is reviewed with a focus on the place of collaboration in school culture, on the role of leadership, and on the concept of leader as artist. Threaded between these themes are illuminations—'nodular moments' (Bullough and Pinnegar, 2001)—of the experience of leading a music project which incorporated the "Write an Opera" approach and which became a vehicle for creating a collaborative culture. The paper concludes by identifying ways in which teachers, artists and school leaders can move towards a collaborative culture on many levels through engaging in meaningful artistic processes. The study highlights the possibilities that can occur when the concepts of collaboration and music education are considered deeply. It also raises many other questions.

Introduction

We must be still and still moving
Into a further intensity
For a further union, a deeper communion
T.S. Eliot: Four Quartets (1994)

Creating a collaborative culture in schools is a recurring theme in the work of many authors in the field of school effectiveness and school improvement (e.g., Sergiovanni, 1984; Stoll and Fink, 1994) and features frequently in the work of Andy Hargreaves and Michael Fullan (e.g., Fullan, 1991, 1997; Fullan and Hargreaves, 1992; Fullan, Watson and Kilcher, 1997, Hargreaves and Fullan, 1998). The authors' perennial theme is to encourage the development of partnerships, alliances, communities of friendship and networks, arguing that 'successful partnerships are a two-way street where all parties realize they have something to learn' (Hargreaves and Fullan, 1998, p71). They draw particular attention to the importance of relationships, and cite Farson who observes that what 'people suffer most in their lives [is] from failed or failing relationships...or from lack of relationships – isolation, alienation, erosion of community' (Farson, 1996, p91, cited in Hargreaves and Fullan 1998, p 97). The authors claim that relationship building is often bypassed, because it is easier to pass legislation, announce a policy, prescribe new standards and reorganise than it is to find solutions to complex problems with strong, competing personalities.

Background to the paper

This paper arises from my experiences of educational leadership in two settings – curriculum development in music at primary level, followed by school principalship at the cusp of the implementation of curriculum reform. Thus, I have had a heightened awareness of the issues of curriculum change in the 'micro, meso and macro' contexts (Bresler, 1998). Searching questions that have pursued and perturbed me in this transition are: what is the most effective model of professional development course in music for teachers—either as recipient (micro context) or deliverer (macro context)—that could lead to a greater understanding of the progressive approaches espoused in the most recent curriculum documents (Ireland, 1999) and result in real change in classroom practice? How does an externally appointed, and therefore potentially isolated administrative principal, develop a collaborative culture of teaching within the school as a long-established organisation? And where does leadership in music education fit in the role of administrative principal (meso context)?

In this paper I examine the methodology espoused in the *Write an Opera* inservice programmes, identifying some of the strengths and limitations of this approach and exploring the permeating theme of collaboration. Second, in reviewing the literature on school effectiveness and school improvement, I draw attention to the importance of collaboration in school culture, and the value of leadership. Threaded between these themes is a description of the experience of leading a music project which incorporates the approach to *Write an Opera* and which became a vehicle for creating a collaborative culture. These vignettes illuminate 'nodular moments' (Bullough & Pinnegar, 2001) in the quest for a collaborative culture. Finally I conclude with identifying ways in which teachers, artists and school leaders can create a collaborative culture on many levels through engaging in meaningful artistic processes. As a single case study, this paper illuminates the possibilities that can occur when the concepts of collaboration and music education are considered deeply. It also raises many other questions.

The observations of practices on the inservice programmes and on the school experiences are based on notes, interviews, and informal conversations with participants during the course of this study.

Vignette 1*. Professional development course*

The participants have been set a task by the course leader: 'In your groups, outline a framework for a composition based on the story we have been working on'. Individually and collectively they set to it with enthusiasm. The task combines a freedom to extend the musical imagination while prescribing the limitations within which it must operate. There is room for simple techniques as well as more elaborate ideas. For these course participants, setting tasks for students is a typical feature of their day-to-day work, although thinking about themselves as students may not have been part of their learning since their own student days. And merging different art forms with music is new for some. Most of all, working with teachers from other settings, schools, districts, cultural backgrounds and countries towards a common goal is probably the most challenging aspect. Among the group of 12, eight countries are represented from three continents, and not everyone in the room speaks English as a first language. Developing a shared understanding requires more effort.

Martin's group come up with the idea: 'Make music which reflects something about the environment, including the weather and the voices of the people. Have clear sections; show use of a recurring motif, use of form and at least 2 ideas.' Jo has tried lots of simple compositional ideas before and wants to add more challenge: 'Use voice and untuned percussion to produce motifs or themes which fit together; use counterpoint and repetition, showing the movement of the traveller towards the camp.' The groups feel

pleased with their specifications. But once more the course leader surprises them as the tasks are reassigned so that each group's compositional framework must now be realised in another group's musical composition. The collaborative effort begins again in a new key.

The scene is no ordinary theatre with professional musicians, script-writers or designers, but a glimpse from an inservice programme which involves making an original opera. The participants are classroom teachers, though in many ways, may not be described as 'generalists'. On these courses, participants usually have a background in music, or theatre, through training or practice, and are experienced in presenting arts programmes to children in schools, while the course leaders are professional artists and musicians who devote a proportion of their time to education work.

Teacher-artist collaborations

Teachers working with professional artists with the aim of bringing the art form to children is hardly a new concept and a number of different models exist of training programmes (see e.g., Tambling, 1999), school performances and student participation in school opera (e.g, Hower, 1999; Morgan, 2000). The *Write an Opera*! (WaO) inservice programme offered by the Royal Opera House (ROH), London, and the related *Creating Original Opera* programme at the Metropolitan Opera Guild (MET), New York, enable teachers to work with professional artists to create their own opera, and to replicate the process later in their schools. The vignette above revealed some of the action on the professional development courses. Typically, two teachers from the same school attend: one with expertise in music, and the other with expertise in another arts area, or a classroom teacher. The purpose of encouraging two teachers to participate is to ensure that the main instigator of the project has some support within the school when he or she commences the project with a class. As a result of the course, teachers develop an opera in school with their pupils, developing a theme, thesis, characters, plot and setting through a process that reflects the students' current needs, concerns and preoccupations. Two main principles underpin the approach: first, the project is pupil-based, pupil-governed and ideas and events start with the children; and second, the project operates along the lines of a professional company, serving as a model for the children's roles and responsibilities within the project (Tambling, 1999).

The process promotes student-led ideas and concerns and the hands-on, active participation of all members of the group. The spirit is one of creative and collaborative learning which fosters the development of the students' sense of responsibility, commitment, ownership of the work and skills in constructive criticism. As children grapple with the issues within the creative process itself, as well as their personal responsibilities, their interpersonal and communication skills are fully stretched (Tambling, 1999; Wolf, 1994). Opportunities to create and practice musical structures within a story framework become more tangible, for instance: telling parts of a story before the action begins (e.g., recitative); exposing the inner thoughts of a character (e.g., aria); illustrating the intensity of the relationship between two or more characters (e.g., duet, ensemble); showing the mood at a given point in the story (e.g., chorus, interlude, underscoring); portraying a nagging problem (e.g., recurring motif) and adding further meaning through set, costume design, props, lighting and choreography. But ultimately, what distinguishes this approach for other models of artists working in education settings is the degree of ownership, commitment and responsibility for the production that is placed in the hands of the teacher and the children (Tambling, 1999).

The Write an Opera model: Benefits and challenges

In an independent evaluation of the American version, *Creating Original Opera*, Dennie Palmer Wolf (1994) reports the many positive aspects of the programme. She and her team concluded that the overwhelming majority of teachers interviewed during the course

of the assessment of the *Creating Original Opera* programme found the sessions engaging and instructive. In European contexts, teachers also report that their students exhibit a high level of interest and commitment to arts education during the project (Murphy, 2000). A recurring concept in the process is that of student ownership of the work and the development of trust among the students that enables them to operate independently of the teacher, as individuals or in collaboration with others, when necessary.

However, teachers also encountered difficulties, once they embarked on the project (Wolf, 1994). The most frequently cited problems were organizational issues, such as managing time, managing whole class groupings and cross-grade groupings; lack of sufficient skills in acting and staging; writing elements requiring stronger stories; visual components and musical compositions needing more input; as well as the need to observe artists at work. Another theme was that of professional isolation once they returned to school (Murphy, 2000). Teachers, despite their enormous satisfaction of working collaboratively during the inservice course, and their commitment to music making in their schools, felt cut off from supports. They wondered how they would cope on their own, and how they could persuade colleagues to participate in collaborative music projects that did not appear, on the surface, to be related to classroom work. Further, they almost held a sense of resentment towards the parent organisation (or opera house) for not providing additional support, even though they also recognised that this was not practical in the situation.

The courses for teachers usually comprise 45 hours and it is recommended that up to 120 hours are necessary to complete the stages of the project with pupils: the preparatory games and exercises in music, drama, writing and design; the actual composing of an original opera, and finally the production stage. The teacher(s) therefore needs to be able to animate the group in the first phase, facilitate their discussion of themes and ideas, lead them through the creation of plot, characters, a problem and its resolution, and finally shape the process towards a full production. Typically themes are based on family, friends and health and according to Tambling (1999), stories often deal with complex betrayal, sibling rivalry and hurt feelings. These themes can demand a great deal of skill from the teacher in charting a course through such issues, and cause the teacher to reflect on values, problems within families, and children's interpretations and responses to such issues, real or imagined.

Problems, conflicts and resolutions are not just the preserve of artist processes. They also feature in real life and are frequently found in the microcosms of school communities.

Searching for a collaborative culture in teaching

Building relationships into larger collaborative partnerships that can withstand the day-to-day major or minor conflicts, problems and resolutions that feature in school life requires vision, energy and a workable strategy.

Defining 'collaboration'

The central feature of all partnerships is collaboration, a theme which again is emphasised by many authors in the field of school effectiveness (e.g., Murgatroyd and Gray, 1992; Sergiovanni, 1984; Stoll and Fink, 1994). A useful definition is offered by Schrage:

> Collaboration is a process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own.
>
> Schrage, 1990, p40

Creating a real collaborative culture of teaching can be an elusive goal. While teachers can share the same pupils, curriculum, resources, workspace, and recreational area under the

one roof, and for many years on end, the degree to which they share a common purpose can often be obscured, misrepresented or even totally absent (Hargreaves, 1992).

Culture of teaching

Within the school, the culture of teaching is created from the styles and strategies of teachers. It develops over time and is a consequence of recurrent problems, demands and constraints of the workplace, the mechanisms for dealing with problems and the networks of associated beliefs, values, symbols, habits and assumed ways of doing things among communities of teachers who have had to deal with similar demands and constraints over many years. Culture carries the community's historically generated and collectively shared solutions to its new and inexperienced membership, and it forms a framework for occupational learning. Hargreaves (1992) believes that teacher cultures are among the most educationally significant aspects of teachers' lives and work since they provide a vital context for teacher development.

Moffett (2000) notes that research over the past 15 years reinforces the central role of school culture in the teaching and learning process. She argues that the cultural norms that characterize the context in which teachers work heavily influence teachers' sense of efficacy with their pupils. Studies have shown that schools with strong professional learning communities enable teachers to respond more successfully to the needs of their students and to sustain positive change. It appears that more than almost any other factor, the sense of a professional community in schools enhances school achievement.

Hargreaves (1992) identifies four dominant forms of teacher cultures. The first two are described as: individualism—a culture where teachers are tied to their classrooms and pedagogically are very conservative; and balkanization—a culture where teachers work in separate and sometimes competing territorial groups which bestow identity and provide bases for the pursuit of power, status and resources.

Vignette 2 ***Excerpt from personal notes***

First year, first term. Music is the responsibility of the teacher who holds the 'special duties post' in that area. The teacher is looking for assistance in the timetabling of the school choir which she views as her exclusive responsibility. Another teacher has warned me that special duties posts became 'a thorny issue' in the past, which resulted in all duties being exercised outside school hours. Which means choir can't happen during school hours. But if choir is scheduled for after school, the children are not available. In any case it's hardly the best time for singing with young people. How do we get out of this 'catch 22'?

The issue appears at first to reside at the micro level, in the values and actions of individual teachers, their approach to teaching duties, their willingness to teach music, or to co-operate with others so that it will be taught. Yet, viewing it in the meso context in which I am positioned, there is scope for change, if necessary. As an indicator of the culture of teaching in the school, it appears to foster individualism, and the isolation of teachers in the school. In this respect, the situation adds little to the overall culture, and does not maximise the potential for music making.

Most teachers work in schools where the first two forms of teacher culture coexist. While teachers may plan and consult, and perhaps even connive and conspire, within their different territorial groups, they rarely co-operate on issues which threaten their classroom autonomy and which open their classroom to intrusive inspection.

The third form binds teachers in time and space to purposes and procedures devised by their superiors. It is referred to as: contrived collegiality—a culture where teachers meet at

particular times in particular places to deal with administrative agendas determined elsewhere.

Vignette 3 ***First graduation***
End of first year. Among other rituals, it is customary for the class in its final year to *stage a graduation concert. The format of the tradition is new to me. The teachers have prepared well for this public occasion, organising a programme based on music from each decade in the 20th century, and going to great expense to hire costumes for the performance. Each item is formally introduced by one of the girls, placing the music in its historical context. The girls appear somewhat uncomfortable in the army uniforms as they sing 'Those Magnificent Men' and 'fly' around the stage awkwardly. They appear shy and despite coaching, their singing voices do not project. Their dance version of Riverdance is authentic and the miming to the difficult vocal section is pulled off in a convincing way. Finally, a pupil announces, 'We have chosen a song that we like ourselves as the song for the last decade'. The mood changes quickly and the girls are suddenly more animated. Dance movements are now slick, synchronised and energetic against the recording of a recent pop hit. They are gleeful in the refrain: '...Hit me baby one more time'...*

While the teachers have worked hard individually to organise this event, the final performance appears to be 'contrived', to fulfil the function of 'having something to show', rather than any artistic expression of musical ideas, or of ideas generated by the children. Apart from the final item, the performance lacks sparkle and animation. I wonder, too, what the understanding among 12-year old girls is of the refrain: 'Hit me baby one more time..?' but choose not to pursue the issue with them.

The fourth form of school culture is the *collaborative culture*. It fosters and builds upon qualities of openness, trust and support between teachers and their colleagues. The collective expertise and endeavour of the teaching community is capitalised on, rather than dismissed. The wider dimensions of teachers' lives outside the classroom and the school are fully acknowledged while the boundaries between in-school and out-of-school, public and private, professional and personal are blurred or merged in a respectful appreciation of the breadth of teachers' lives (Hargreaves, 1992).

Hargreaves (1992) recognises that teachers' work is deeply embedded in teachers' lives, in their pasts, in their biographies, in the cultures of traditions of teaching to which they have become committed. Development of one aspect is contingent upon development of the other. In this respect, the interplay of the personal and the professional in collaborative cultures, and the qualities of trust and sharing within those cultures, provide the most collegially supportive environment for change. The most outstanding feature of collaborative cultures is the unpredictability of their consequences. As Hargreaves (1992) explains, the curriculum that will be developed, the learning that will be fostered, the goals that will be formulated – these things cannot be confidently predicted beforehand.

Hence, the challenge of developing extended cultures of collaboration is ultimately the one of administrative humility.

The role of school leadership
Leadership
Studies of effective schools are so numerous that it would be beyond the scope of this paper to list them all, but in a meta-analysis by Sammons et al (1996) the primary feature identified is that of professional leadership.

Cultural life in schools is constructed reality, and leadership within the school plays a key role in building this reality. Leadership is characterised by a combination of personal

qualities, which both encourage and enable others to follow. It is less concerned with skills, rules or procedures, and more concerned about the person and the quality of their relationships with others. Leadership can be defined in the context of openness, acceptance, sharing and exchange although notions like 'power' and 'authority' are often mistakenly equated with leadership (Fullan, 1991).

Effective school leadership entails the promotion of cooperation rather than competition, the development of joy in work and fulfilment in learning and the driving out of all forms of fear. School leadership must involve helping people to do a better job, in a happier work-like atmosphere, for their own benefit and for the benefit of the whole school, its children, its parents and its community.

Bowring-Carr and West-Burnham (1997) identify two stages in the role of leader. The first is that of analyst, where the leader monitors what is happening and recognises the trends and shifts from within and without, recognising how the school needs to adapt or change. The second stage of the transformational process is the establishment of an atmosphere of trust in which everyone can openly examine the meanings that they have created in the foundations of their culture. This can only arise from a genuine desire from within the school.

Vignette 3 *Opportunity*
Second year, second term. Mrs M and Mrs A, the two class teachers of the final year classes, have raised the issue of the graduation concert with me, anticipating the task ahead of them. Both are experienced, competent teachers who teach all areas of the curriculum, but would admit to being least confident in the teaching of music. 'The girls don't want to play the recorder on stage ', Mrs M pleads. 'They say they're not standing up on stage like 7 year olds. What can we do? What about doing the thing you've done before: "Write an opera"? We've heard you talking about this. Can you do it with them?'

At this point I feel challenged at the meso level to initiate change in the school culture of music teaching, yet I am reluctant, recognising the demands of my role as principal, the administrative duties, and the need to be available to other teachers, pupils and parents and the community. I also know, that to undergo a successful Write an Opera project, as I have done in the past, requires endless hours of classroom work—at the micro level in schools—hours which I do not have. Besides, reflecting on the intensity and quality of professional development teachers receive in the WaO programmes, as described in the opening vignette, I doubt if we could manage in the absence of external agencies. But on reflection, by operating as a team of three: two class teachers and myself, it is possible to imagine how opportunities can emerge.

Leader as artist
A further concept considered in the role of leader is that of leader as artist. The leader as artist is a central concept in the process of translating ideals into concrete outcomes. In order to help solidify those ideals and to represent the views of others in the process, leaders need three qualities that are also found in artists – vision, creativity and the ability to communicate. These characteristics, in particular vision, are also needed in the school's search for excellence, for school improvement and for school effectiveness. Bowring-Carr and West-Burnham (1997) argue that a school *per se* cannot have a vision, but that it belongs to the individuals within the school, whose ideals are garnered, moulded into a coherent shape over time and then openly expressed. That sifting and shaping is an artistic process informed by intellectual questioning, caring for ideas and values, and making connections.

The authors also draw attention to the importance of creativity as a critical tool in the making of the leader. While this paper does not allow for a full examination of the nature of creativity, a simple definition from the literature of management theory is offered by Henry (1991) as:

> ...a thinking process associated with imagination, insight, invention, innovation, ingenuity, inspiration and illumination. (p3)

They stress that what is highly significant about this listing is that it has much in common with what happens when people learn – the creative process is one of having the intellectual and imaginative courage to make the necessary leap into understanding a new phenomenon, and this deep understanding applies equally to student, teacher and principal. They warn that if the principal abdicates the creative aspect of leadership, 'then the community sinks back to replication, reiteration, reinforcement and resignation' (p128).

Vignette 4 *Beginnings*

Second year, start of third term. The two final year classes, comprising 52 twelve-year olds, are gathered in one room, with each of their class teachers, pens poised, waiting for me to take the lead. I have asked them to write about things are important to them, or things they feel strongly about, and have transferred their expressions onto the large blackboard. Although these girls have been in adjoining classrooms for almost eight years, the pupils in each class feel that they have little in common with those in the other. They seem surprised then by the similarity across the themes that emerge. The major ones are not unusual, reflecting the typical preoccupations with family and friendship. Gradually other issues emerge. The blackboard is full of words, some isolated, some encircled and some linked with arrows like a haphazard concept map, devised to channel the brainstorming. The class teachers look a little perplexed – how can this lead to an 'opera'? But the children are beginning to engage in topics. 'What if we have a mother and daughter who don't get on?' 'What if there's someone who's being bullied?' A few girls are doodling nonchalantly in their notebooks, and appear disinterested in the discussion. 'So what do you think, Deirdre[ii]?' I ask. '...We just want to have a pop group,' she mutters sullenly. 'Yeah, like Samantha Mumba,' Laura adds. Mrs M is concerned at what she perceives as a lack of respect. 'Don't be cheeky to the principal, Deirdre', she warns. The rest of the girls and Mrs A look to me for a response. 'No, it's all right, Mrs M', I explain. 'Go on Deirdre. Tell us what you mean...'

The open-endedness of the process is foremost at this point. At the end of this session I state openly to the group that I have no idea, at this point, what the opera will be about, or what it will look like. It may include a pop group, if that group decides. It might have a diary. That's up to the group. The children are genuinely pleased with this transfer of ownership and their relief shows, although the teachers are still a little perplexed.

Leadership, artist and quality arts in schools

The link between leadership, leader as artist, and quality arts in schools is identified also in the work of Stake, Bresler & Mabry (1991). They see the relationship between the arts and educational leadership as crucial because (a) extraordinary leadership is necessary to ensure a genuine place in the curriculum; and (b) the creative habits of mind fostered by the arts correlate remarkably with effective instructional and administrative leadership. In their extensive observations of classrooms they note that where the arts thrive, instructional leadership at some level is committed to the arts. This created the potential for some untrained teachers to produce excitement in their teaching of arts, while some trained teachers under less supportive leadership failed to produce it. They also observed that dedication, training, facilities and resources, and community opportunities can benefit arts education, but that arts education is unique, a product of its own contexts and influences. Ultimately, where arts education was at its best, arts leadership was present.

The issues that arise in the creation of student-led productions have the potential to lead to outrageous results, since the storylines stem for the children's own preoccupations and concerns. Yet, as so many successful WaO projects attest, the ideas are ultimately drawn together into an artist whole and managed into a final production which often exceeds anything that has taken place before (Murphy, 2000).

The authors of *Total Quality Management and The School* propose that 'outrageous goals' (p65) are the very essence of the implementation of their approach to management, along with vision, strategy and involvement of teams. (Murgatroyd and Morgan, 1993). A school culture that encourages innovation, empowerment of individuals and leadership is essential. Together with commitment and communication, these three ideals lead to a model described as 'Total Quality Management'. Again, the themes of imagination and art emerge, within a shared vision.

The role of pupils

Typically, parents are regarded as partners in the education process, but as many authors recommend (e.g., Phelan et al. 1992; Levin, 1994; Stoll and Fink, 1996; Hargreaves and Fullan, 1998;) pupils must be considered as partners also. Innovation and change in schools affect pupils but they are usually considered the ultimate purpose of the school improvement process, rather than as meaningful partners in that process. The focus often lies on teachers' working conditions, cultures and contexts, which can obscure the fact that school is also the workplace for pupils.

Vignette 5 *Music making*

Second year. Almost end of term. After the class sessions, the girls take it on themselves to practice during lunchtimes, to teach each other techniques, to explore making tunes using random notes, scale passages, sequences and repetition. The recorders are ideal for making melodies, although those who elected to be in the orchestra all want to play the djembes at some stage. They love the way the eight drums can create all kinds of moods and atmospheres—fear, or uniformity, or outer space, or just the mundane. They are keen to practice after school, 'So we won't disturb the other teachers,' Jane, the 12-year old musical director, explains. The script has already been completed. At this stage, no one is quite sure who wrote what – an idea from one person, became a dialogue written by two others, became a duet composed by another group, to be performed by the girls playing those roles, to be supported by those in the 'orchestra pit'. What Mrs A notices is that they don't have to keep monitoring all the tasks for the children in the opera – instinctively, they seem to know what to do, and make their own arrangements for meeting up, to finish something in time, or to practice together. We are past the ideas stage, and production date is nearing. Now Mrs M, Mrs A and I take it in turns to direct sessions, assisting only when needed.

Discussion

Moving still

As the *Write an Opera* project comes to fruition, a picture of the culture of the school emerges. At the micro level, two generalist class teachers have succeeded in a task where ambitious musical and creative skills were required. Following this success, their perception of themselves as teachers, and of the creative potential of their pupils has changed. In my role as school principal, operating at the meso context, I have realised that it is possible to slide between the roles demanded at the micro and the meso levels, when the opportunity arises. This is not only possible—it is absolutely necessary, but it can only occur within the safety of a collaborative culture.

Returning to the questions that I posed at the beginning of the paper, I can now reflect on some possible responses but definitive answers are still in the making. First, in seeking an effective model of professional development course in music for teachers as recipients, the WaO certainly provides an excellent stimulus, environment and support during the training period. What happens later in schools depends on many local circumstances, in which the culture and leadership of the school play a significant role.

At the macro level, the level of system organisation, culture and values, the WaO is an effective model of delivering music inservice the teachers, but the course design is heavy on professional input and resources, and finding artists who are also attuned to educational needs can be problematic. A very basic problem is that of attending the course. Teachers such as Mrs M and Mrs A are unlikely to seek out such a course during their summer months but the notion of once-off projects offered by outside vendors, involving 'some of this, some of that' (p38) has been strongly rejected by Wolf (1994) as unsatisfactory and incoherent. If the level of accomplishments required by the national curricula for music education is to be achieved, we must seek to develop what Wolf (1994) refers to as 'extraordinary partnerships between schools and arts organizations' (p38) and extraordinary efforts may be required to foster such partnerships. Whether such partnerships should occur through WaO/COO projects or through miniature versions modelled on the philosophy of the projects, would need to be considered, but given the resources, the WaO model has the opportunity for synergistic relationships when teachers and artists work together over a sustained period, learning from each other's expertise.

Second: 'How does an externally appointed, and therefore potentially isolated administrative principal, develop a collaborative culture of teaching within the school as a long-established organisation? And where does leadership in music education fit in the role of administrative principal?'

The leader who wishes to be effective in his or her role must strive to be: visible, involved and interested in the work of the school; able to communicate thoughts and feelings and describe behaviours to others; accepting of others; open and genuine; able to declare intentions; able to face problems, share them and seek to learn from them (Murgatroyd and Gray, 1992). Critically, the leader must also be an artist, having vision and creativity (Bowring-Carr and West-Burnham, 1997) and must exercise the creative habits of mind fostered by the arts (Stake et al, 1991). To create a collaborative culture, partnerships are vital, though not any kind of partnership suffices. The semblance of 'working together' can, in actuality, be a disguise for 'contrived collegiality' (Hargreaves, 1992) and partnerships are of little benefit to pupils or teachers if they are 'superficial, cynically opportunistic, or bogged down in bureaucracy. Good educational partnerships are sound in purpose, steeped in mutual learning, and full of passion.' (Hargreaves and Fullan, 1998, p93). For the principal then, remaining isolated and preoccupied by administrative tasks is not an option. Imaginative, open-ended music projects can, and must, become a vehicle for collaboration and change. As Stake et al (1992) emphasise—leaders are needed to cultivate arts education and arts education cultivates leaders.

While attempting to answer these questions, the paper raises others, for which there are no quick solutions: How can ways must be found for music educators to step into wider learning networks; for schools, institutions and universities to form partnerships in which teacher education in music and school improvement are pursued in tandem? How can teachers be persuaded to work with each other, and to work with others outside the school whose views may be at variance with their own? How can principals be guided to support one area of the curriculum—music—when demands are placed on them across all areas, on top of countless other administrative and management tasks in the 'balancing act' of

school reform (Hargreaves and Fink, 2000, p33)? How much should music itself become a vehicle for collaboration, and does it lose its intrinsic worth and aesthetic value by being traded in the name of 'school effectiveness'? What are the implications of all of this for professionals involved in the education of teachers at pre-service and in-service levels?

REFERENCES

Bresler, L. (1998). The genre of school music and its shaping by meso, micro, and macro contexts. *Research Studies in Music Education,11,* 2-18.

Bullough, R. and Pinnegar, S. (2001). Guidelines for Quality Autobiographical Forms of Self-Study Research. *Educational Researcher, 30*(3), 13-21.

Bowring-Carr, C. & West-Burnham, J. (1997). *Effective Learning in Schools,* London, Pitman.

Farson, R. (1996). *Management of the Absurd.* New York: Simon & Schuster.

Fullan, M. (1991). *The New Meaning of Educational Change.* London: Cassell.

Fullan M. (1993). Change forces: Probing the depths of educational reform. London: Falmer Press.

Fullan M. (1999). *Change forces: The sequel*. London: Falmer Press.

Government of Ireland. (1999). *Primary School Curriculum.* Dublin: The Stationery Office.

Hargreaves, A. (1992). Cultures of Teaching. In A. Hargreaves and M. G. Fullan (Eds.), Understanding Teacher Development *(pp217-35). London, Cassell.*

Hargreaves, A. and Fullan, M. (1998). What's Worth Fighting for in Education? *Ballmoor, Bucks: Open University Press.*

Hargreaves, A and Fink, D. (2000). The Three Dimensions of Reform *Educational Leadership, 57*(7), 30-33.

Henry, J. (1991). *Creative Management*. London: Sage.

Hower, E. (1999). Creating an Opera with Seventh Graders. *Music Educators Journal, 85*(5), 21-25.

Levin, B. (1994). Improving educational productivity: Putting students at the centre. *Phi Delta Kappan, 75*(10), 758-60.

MacBeath, J. and Mortimore, P. (2001). *Improving School Effectiveness* Ballmoor, Bucks, OUP.

Moffett, C. A. (2000). Sustaining Change: the Answers are Blowing in the Wind. *Educational Leadership,* 57(7), 35-38.

Morgan, R. (2000). Different Worlds. *Music Teacher, 79*(2), 21.

Murphy, R. (2000). *Integrating and unifying arts education for children: the value of*

creating original opera in the elementary school. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

Murgatroyd, S. and Gray, H.L. (1992). Leadership and the Effective Schools. In C. Riches and C. Morgan (Eds.), *Human Resource Management in Education.* OUP, Milton Keynes.

Murgatroyd, S and Morgan, C. (1993). *Total Quality Management and The School* Ballmoor, Bucks: OUP.

Phelan, P., Davidson, L. and Hanh, T. C. (1992). Speaking up: Students perspectives on school, *Phi Delta Kappan, 73*(9), 695-704.

Sammons, P. Mortimore, P. and Thomas, S. (1996). Do schools perform consistently across outcomes and areas? In J. Gray, D. Reynolds, C. Fitz-Gibbon and D. Jesson (Eds.), *Merging Traditions: The Future of Research on School Effectiveness and School Improvement.* London: Cassells.

Schrage, M. (1990). *Shared Minds.* New York: Random House.

Sergiovanni, T. J. (1984). Leadership and Excellence in Schooling. *Educational Leadership 41*(5), 4-13.

Stake, R., Bresler, L and Mabry, L. (1991). *Custom and Cherishing: The Arts in Elementary Schools*. National Arts Education Research Centre, University of Illinois.

Stoll, L and Fink, D. (1994). School Effectiveness and School Improvement: Voices from the Field. *School Effectiveness and School Improvement 5*(2).

Tambling, P. (1999). Opera, education and the role of arts organisations. *British Journal of Music Education 16*(2) 139-156.

Wolf, D. Palmer. (1994). '*More than People Singing in Italian': An Assessment of 'Creating Original Opera'; an Education Program of the Metropolitan Opera Guild.* Cambridge, MA: Performance Assessment Collaboratives for Education [PACE], Harvard Graduate School of Education.

Endnotes

[i] For a detailed description of the Write an Opera inservice programme see Murphy, (2000), Tambling, (1999); and Wolf, (1994). While differences exist between the programme offered at the MET and the course which is offered at the Royal Opera House, such differences are not the focus of this paper.

[ii] Names have been anonymised

I am grateful to Ann Fitzgibbon and Ciarán Sugrue for their thoughtful responses to an earlier version of this paper.

MUSIC EDUCATION AND BRAZILIAN URBAN MUSIC: INTERACTIONS IN MUSIC TEACHERS' TRAINING

Walenia Silva – wsilva@uiuc.edu
University of Illinois, USA

Introduction

In 1998 the Brazilian government established the new Law of Directives and Basis (LDB), a regulation about education that emphasizes arts classes in elementary grades. Based on the law program each state could establish its own practice in arts education. The state of Minas Gerais, for example, opted for music lessons in public schools, while in the past the majority of music lessons happened in public conservatories or in private music schools. The consequences of the decision to include music in public schools brought two important issues for discussion. The first involves the identification of musical activities appropriate and essential for elementary school students. The second is related to prospective teachers' training in music education to support the music program. This research project considers the articulation of connections between these two issues.

Objectives

A central objective of this research is to identify the process of learning and transmission that occurs in urban Brazilian music. Urban music includes a variety of musical styles generally called popular music and folk music. In this research, Urban music implies the different kinds of Brazilian music that are played in the city of Belo Horizonte, Minas Gerais, for example. The site for investigation will be determined according to the possibilities available to develop the research project. I will observe and discuss mechanisms predominately involved in the practice and learning of popular music, musical interactions evoked during the process of learning, styles and their basic contents.

Goals

The goal of this research is twofold: 1) to identify mechanisms of learning and transmission of modalities of urban Brazilian music among popular musicians; 2) to codify this processes of learning/practicing music in these genres and develop ways of transmission that can be included in a music curriculum for prospective music educators at undergraduate level.

Theoretical framework

The theoretical framework will be based on the concept of music as participatory art and its applicability in a music curriculum. Turino (1995) introduces the definition of music as participatory art. According to him 'participatory music' can be seen "as a separate artistic field, that is, as a separate form of art with its own particular ethos, range of practices, types of musical occasions, and sound features" (Turino, 1995. P. 3). In this sense, the observation of urban music practice will include sites in which the caracteristics of participatory music are present.

In order to understand participatory music, Turino (1997, p.1) gave a list of characteristics involved in music performances that derived from his observations about musical practice in Zimbabwe and Peru. The characteristics include: 1 - "short repetitive

musical forms played for long periods of time"; 2 - "an open ended flexibility of form"; 3 - "a constant rhythmic flow involving a rhythmic tension simultaneously pushing and pulling against the basic pulse"; 4 - "the practice of interlocking (hocketing) or responsorial performance to create a melody or rhythmic part"; 5 - "dense overlapping textures"; 6 - " wide intonational variances"; 7 – "buzzy timbres"; 8 – "loud volume"; 9 – "the eschewing of dramatical musical contrasts of any type"; 10 – " gradual crescendo and accelerando"; and 11 - "performance roles requiring varying degrees of musical specialization within any given group". These characteristics are organized in what Turino calls "ground" and "elaboration" parts (Turino, 1997, p.1). The present study will try to investigate and systematize the presence of these characteristics in Brazilian urban music. The results will be added to current music teachers' trainning program in order to expand their own musical practice, values, and capabilities in music education.

Background

One of the main problems in music education in Brazil in relation to the new Law of Directives and Bases (LDB/1998) is the prevailance of the common view that to study music simply means playing an instrument. In the state of Minas Gerais, for example, offering instrumental music classes to the students generally means that they have to go to conservatories to take classes or to participate in community bands. It is not possible to offer individual instrumental classes at the regular schools. There are no class hours, specialized teachers, or instruments available to the students. In the state of Rio Grande do Sul, for example, Silva (1995) reported that instead of public conservatories 19 private music schools offer instrumental lessons to fill the demand of students who want to play a musical instrument in the city of Porto Alegre.

The argument concerning the correlation between learning music as equivalent to playing an instrument is also present in relation to Turino's (1995) observations about American evaluation of music making: "I would simply suggest that in our society, levels of specialization and professionalization are primary criteria for judging musical value and social salience" (p.2). In other words, playing an instrument in the United States is also considered the main expression of musicianship. In the United States, the National Standards for Arts Education for American schools, for example, include music in Elementary and High school levels. It involves music in regular classes but it also includes the instrumental practice through band, orchestra, or choir group practices.

In contrast, in Brazil, there are also others who believe in music education as an activity responsible for developing human perception, like the ability to hear and identify sounds. Generally, these skills are developed in private music schools or public conservatories. The acquisition of the skill of playing an instrument is not the central focus. In this perspective, the focus is on learning musical terms and forms, as well as activities of sound exploration derived from music theory and aesthetics. The emphasis is on learning and understanding curriculum elements related with musical theory.

In Brazil, it is possible to observe a great public interest in music outside music schools indicated by the increased buying records (LP, CD, or cassettes), musical instruments, and through attendance at urban music concerts. The number of Samba groups, Pagode, rap, or rock groups has multiplied in bars, ballrooms and on stages. Music has also been used as a mechanism of education or recreation offered by non-governmental agencies for destitute young people in the suburbs of big cities. For example, a public elementary school in a suburb of Belo Horizonte has a percussion group for fourth and fifth graders. Their rehearsals occur on Saturday mornings, an extra activity outside school hours for students who are interested in learning music.

In this sense, to incorporate musical interactions that are outside schools and at the same time offer music education that involves the development of musical behavior, constitute a possibility of investigation. Assuming that Brazilian urban music is sufficient to evoke musical learning, how to prepare music educators to teach urban music in elementary schools becomes the main question. Is it possible to develop a methodology for

teaching urban music? What are the interactions involved in these genres and ways of transmission?

Inclusion of urban music in the curriculum

Universities are the institutions responsible for training prospective music teachers. These prospective teachers can become the agents of action or transformation of the educational reality once they begin to work in public and private school. In this sense, changes of attitudes in institutions that qualify teachers, can provoke changes of attitudes at the level of student's practices and prospective teachers.

The Universidade Federal de Minas Gerais (UFMG), for example, periodically invites teachers whose musical practice comes from urban popular music, including Brazilian Popular Music (MPB), Jazz, or experimental music to teach for a short period of time. Even though it provides an interesting supplement to students' training, it is just a momentary addition to few talented students in popular music at the music performance program. Students at the music education program are not involved to participate. It can be characterized just as an effort to include popular music as part of the curriculum content, in a traditional performance music teaching structure. But what are the concepts involved in this practice? Are they adequate to the popular music practice? Is the popular music context absorbed by the music school context? Can music education be involved in this process? The answer seems to be negative.

In contrast, the challenge of using popular music positively affected music education in and Australian elementary school. An example of this is the investigation of interactions between popular music and music education at secondary and tertiary levels in Australia after the 1970s. Dumbar-Hall and Wemyss (2000) indicate that the inclusion of popular music in the curriculum brought methodological problems for music education and also a rethinking process of teaching and learning music. The authors pointed out that the shifting nature of popular music resulted in changes in pedagogical attitudes. They included classroom work based on drum kit rhythms, bass guitar patterns, lead guitar riffs and chord progressions, and recordings integrating aural activities. Aspects related with the construction of national identity were also observed as reinforcing social relations within the group.

Letts (1993) also studied popular music in Australian music teaching. Letts constructs his arguments based on the distinction between stylistic preferences and the ability to make aesthetic judgements of music. In his conception, the aesthetic originates from cultural loyalties and musical experience. To him, "what should be in question ... is the type of musical experience best able to increase the ability to discriminate within a particular style" (p. 354). Letts, like Turino (2000), perceives popular music as reinforcing social relations within the group.

In England, Green (2000) interviewed 14 British popular musicians in an ethnographic study about popular music. Her focus was on learning and teaching process in formal and informal situations. The conclusions indicated that activities such as playing, improvising, and composing were part of the musicians' learning process. Follow up of songs and radio listening were also mentioned as part of learning procedures. Friendship, loyalty, communion, and tolerance were the main expected attributes between musicians in their group practice. Green considers that music education should give more attention to pop music, analyzing and evaluating the learning process, values, and attitudes that occur in pop music.

In the United States, based on arguments against the use of rock music, Herbert and Campbell (2000) discuss the role of popular music in American schools. Their analysis detected six aspects emergent from the Tanglewood Symposium (1970), the national conference that discusses procedures related with music education curriculum. The perspective was: 1- Rock music is aesthetically inferior; 2 - Rock is damaging to youth; 3 - School time cannot be spent on vernacular; 4- American teachers are not trained in popular genres; 5 - Rock is anti-education; 6 - Popular music curriculum is under-developed

in United States. In contrast to these arguments the authors presented positive conclusions about the inclusion of popular music in classroom that include the development of musical learning and social aspects (e.g. youth problems, feelings, identity). To them,

> lessons in rock music may require young students to engage with a broader diversity of musical skills, concepts, and technologies that they otherwise might. Students who study the [popular] music will no doubt broaden their understanding of music as a phenomenon of expression of our time. They may be drawn through such studies to recognize the relevance of their technical skills in relation to both amateur and professional performing opportunities outside the classroom. The participation by students in popular music through formal educational opportunities in school can be an invaluable means by which they may develop improvisation, composition and arranging skills – all of which are fundamental components of musicianship throughout the world (Herbert and Campbell, 2000, p. 21).

Herbert and Campbell (2000) argue that popular music is relevant in music education and has strengths and weaknesses like any other genre of music. One of the consequences of including urban music in the curriculum is the necessity of changes in pedagogical attitudes and teaching methods to approach the variety involved in this genre. In this sense, a systematic study of educational aspects related to urban popular music deserved.

Methodology

In order to delineate the context of urban music performance it is necessary to use a methodology that makes possible the contact with participants who develop this musical practice. The ethnographic research focuses and describes the representations that the social agents develop in their daily lives, by putting the researcher in direct contact with the participants.

Ludke and Andre (1996) define ethnography as a "science of cultural description", because it involves presuppositions about the reality and particular forms of collecting and presenting the data. The presuppositions about the reality will acquire specific outlines during the ethnographic study. At the beginning, questions or focus of interests are extensive but they progressively become more objective. According to Eisner (1998, p.168-170), the standartization and uniformity are not the strenghts of the nature of qualitative inquiry. The researcher's exploitation of the setting investigated, the personal style, and emerging conditions and its appropriate adjustments are the main elements to be considered. Therefore, the participant observation, the semi-structured interview, and document analyzes constitutes the main points to be developed during an ethnographic research.

The research will take place in the city of Belo Horizonte or in a Brazilian context that offers a variety of meaningful musical practices possible to be investigated. The possibility of building correlations between an American setting and a Brazilian setting might also be considered. The first part of the investigation consists in observations of representative public settings were popular music practice occurs, such as Arts or cultural centers, communities led by non-profit organizations, local bands or music groups. The participants will be people who are actively involved with music groups in these settings. Aspects such as gender, social class, and music style will be introduced and discussed according to the selected sample. Interviews will be based on a semi-structured questionnaire. Initial questions will focus on personal data, for instance, musical practice, musical instrument, process of learning and transmitting urban music, and relations between musical theory and musical practice.

An analyzis of different music programs that involve the use of urban music in other countries will also be included. The literature reveales that Australia, England, and Canada, for example, have developed a program in music education that considers urban music as a modality of learning in music. The second part of the thesis will analyze the collected data

and the application of the findings into programs of music teacher training adequate to the Brazilian reality. This study will de developed during February 2003 to June 2004.

Conclusion

Since September 1995, I have been working as an assistant professor at the Universidade Federal de Minas Gerais, in Brazil. This univeristy offers an undergraduate program in music education. This proposal is relevant to the institution and the results can be directly applied to the students learning. It is necessary that the teachers acquire, in their training, tools that enable them to work in different contexts. Urban music, according to its cultural characteristics, is suitable to the process of "musicalizing". The schools of music at universities should train prospective teachers also in this direction.

Unfortunately, the practice of popular music is mostly performed out of music colleges. In the United States, for example, a basic professional training in music is offered in the schools. According to Frith (in Lucas, 1992), because of the teachers' worry about the distance between the students' musical interests and the teacher's ideology, the North Americans created the IASPM – International Association for the Study of Popular Music - with the objective to introduce the popular music at the academic level. The insertion of contents about popular music and its practice is a reality in this country. These aspects need to be investigated in Brazil. It is my hope that this study contributes to the dynamic of music education and through a curriculum possibility that links musical development with music in every day life. It is also my whish that it can contribute to further research in the area.

References

Bresler, L. & Stake, R. (1992). Qualitative Research Methodology in Music Education. In Colwell, R. Handbook of Research on Teaching and Learning. New York: Schirmer Books

Bresler, L. (1999). Agenda for arts education research: Emerging issues and directions. (n. p.)

Dunbar-Hall, P., & Wemyss, K. (2000). The effects of the study of popular music on music education. International Journal of Music Education, 36, 23-34.

Eisner, E. (1998) . The Enlightened eye – Qualitative inquiry and the enhancement of educational practice. New Jersey: Prentice-Hall.

Frith, S. (1996). Performing rites: On the value of popular music. Cambridge: Harvard University Press.

Green, Lucy. (2000). Poderao od professores aprender com os musicos populares? In Revista Musica, Psicologia e Educacao, Cipem, 2, 65-79.

Herbert, D. & Campbell, P. (2000). Rock music in American schools: Positions and practices since 1960s. International Journal of Music Education, 36, 14-22.

Letts, R. (1993). Musical preferences and aesthetic discrimination (or should we teach rock?). Australian Music Education Source Book, p. 354-359.

Lucas, M. E. (1992). Musica popular, a porta ou aporta na academia?. Em Pauta, nro. 6, Porto Alegre, P. 4-12.

Ludke, M. & Andre, M. (1986). Pesquisa em educacao: Abordagens qualitativas. Temas Basicos em Educacao e Ensino. São paulo: E.P.U.

Middleton, R. (1990). Studying popular music. Ballmoor: Open University Press.

Silva, Walenia M. (1995): Motivacões, expectativas e realizacões na aprendizagem musical: Uma etnografia sobre alunos de uma escola alternativa de música. Dissertação de Mestrado, Curso de Pós-graduação - Mestrado em Música. Universidade Federal do Rio Grande do Sul, Porto Alegre. 151p.

Tagg, P. (1998) The Göteborg Connection: lessons in the history and politics of popular music education and research. Popular Music. Vol. 17/2. Cambridge University Press.

Turino, T. (1995). Participatory music as a separate art: Music making in Peru, Zimbabwe, and the United States. Thoughts about alternative futures. Presented at a colloquium at the University of Wisconsim – Madson, April, 28. (n.p.)

Turino, T. (1997). Music and social participation: an essay on the instrumentality of sound and movement in community life. Application for the Faculty Research Fellowship of the Program for the Study of Cultural Values and Ethics 1996-1997.

Turino, T. (2000). Nationalists, cosmopolitans, and popular music in Zimbabwe. Chicago: University of Chicago Press.

samspel

Minimalist composing activities: engaging students with contemporary culture through a contemporary aesthetic

Diana Blom – d.blom@uws.edu.au
University of Western Sydney, Australia

Discussing music in cultural and social contexts

As music education increasingly engages with issues from a post-modernist perspective, discussion is often made of music and its cultural and social context. The view that music mediates changes in society, which, in turn, are reflected in the changes of contemporary musics, has been discussed since Plato (McClary 1987:15-16). For Jacques Attali, "art bears the mark of its time" (Attali 1985:5) and music is "...a way of perceiving the world...it reflects the manufacture of society; it constitutes the audible waveband of the vibrations and signs that make up society. *An instrument of understanding, it prompts us to decipher a sound form of knowledge* [and] ... provides a rough sketch of the society under construction..." (4 –5 author's italics). In Beethoven's music Theodor Adorno heard the social upheaval and changes of the time and recognised that the music itself helped in some way, to bring about the social changes (Adorno cited by Jameson in Attali 1985:ix). Eyerman and Jamison (1998) have described music and art as lived as well as thought. "It is cognitive, but it also draws on more emotive aspects of human consciousness" (23), and in the process may become "truth-bearing" (24).

This relationship between music, the composer and society also takes place within the classroom society where "the music class is always a society in microcosm, and each type of social organization should balance the others" with a place for individual expression (Schafer 1975/1979:4). Reimer (1994) finds music educators responsible for illuminating the two essential dimensions of all music – first, that it is sonorous expressive form, not in isolation, but as culturally derived, and second, that cultural values and experiences become music when given sonorous expressive form (243). For Elliott (1995), composing provides a link between the culture, the composer and the music produced - "whenever individuals begin to compose, they are never acting "alone". Their composing is always "situated" and social..." (162).

In music education, discussion of music and its cultural and social context is focused on musical cultures from outside the Western world, on popular musics and, less frequently, on Western art music. When the student's learning environment is based on the culture of contemporary art and popular musics through composing activities, connections between the student and contemporary society will be activated.

Minimalism

For young composers a contemporary aesthetic, such as minimalism, offers relevance and immediate links with contemporary culture and society. Born in the 1960s, minimalism today, some forty years on, is still strongly pervasive in the disciplines of fine art, interior design, architecture, dance, cuisine and music. In music, minimalist characteristics can be heard in popular, art and 'non-Western' musics. Engaging young composers with the compositional techniques of minimal music, that is, a contemporary aesthetic, offers

students an engagement and interaction with "...the art that is *most* relevant to us...that of our own time" (Paynter and Aston 1970:4).

The musical characteristics of minimal music invite discussion of cultural and social issues and in doing so several different 'truths' (to use Eyerman and Jamison's term) emerge. Multi-repetition, heard in much minimal music, can be heard as nothing more than pure escapism "offering the opportunity to flee from reality, sometimes in response to individual dissatisfaction with the dominant socio-cultural system, and sometimes as a result of the pressure imposed by the socio-economic system in times of crisis" (De Meyer 1985:395). Hypnotic-ecstatic experiences often associated with repetition make minimalism into nothing more than a drug, and in music-political terms, extremely conservative (395) as it seeks neither to protest, nor to take a political position (396).

However for Christopher Small (1980), the multi-repetition in Terry Riley's *A Rainbow in Curved Air* brings about a lack of tension, development and drama, an ability to exist wholly in the present and not demand concentrated, steady listening (209-210), offering the human race recognition of its relationship to nature, where the time of clocks and the tyranny of the future can be transcended, and the individual finds his/her proper relation to society (209). And Riley himself, (cited in Smith and Smith 1995) has spoken of a minimalism as part of the climate of the time which "...made people feel aesthetically something they hadn't felt in previous musics (231)...The climate was one of hope, of deepening spirituality, as was the whole of the 1960s" (231-232).

The musical characteristics of minimal music offer student composers connections with their existing musical knowledge - tonality, tertian harmonies, pulse, repetition and ostinati - and new challenges of tightly constructed compositional processes and the effect of 'vertical time' resulting from multi-repetition. Through common musical characteristics, minimalism provides a bridge for discussion of, and compositional interaction with, art music and music of non-Western cultures, in particular African and Asian musics influential on established minimalist composers, and art music and popular musics through the infusion of minimalist compositional characteristics.

A study introducing teachers and their students to minimal music

I chose to introduce music teachers and their students to minimal music for the educational and cultural reasons outlined above, but also because minimalism does not ask students to compose pretty tonal melodies with chordal accompaniments. In doing so it offers them engagement in debate and conjecture in the contemporary arts and therefore in contemporary culture and society. Nineteen teachers accepted an invitation to introduce their students aged 9,12,15 and 18 years, at primary, second and tertiary level, to minimal music through composing activities drawn from a resource album of minimalist projects.

This paper discusses approaches, strategies and roles adopted by the nineteen teachers when introducing their students to minimalist composing activities via a resource album of projects. Several engaged students in two or three of the age groups with the project material. Some teachers enabled their students to write pastiche compositions with limited development of compositional concepts beyond those presented in the projects (referred to as 'pastiche' teachers) while others encouraged their students to move beyond pastiche composition to an expansion of the given compositional concepts (called 'expanders'). This expansion is evidence of self-expression, and of engagement with, and dialogue within, contemporary culture and society.

Methodology

I designed a resource album of eight projects. Six drew on processes from the works of established composers often described as minimalist – phase shifting, isorhythmic overlap, additive (and subtractive) rhythmic construction, repeated chord patterns, the repeated cells of Riley's *In C*, and canon. Two were based on non-Western musics: the layered, multi-metric structure of the music of the Ewe tribe of Ghana, which influenced Reich's compositional procedures; and the Malay Trengannu gamelan, a simpler structured Asian ensemble than those of Bali and Indonesia which influenced several American and Australian minimalist composers, but built on similar musical characteristics. Each project gave written explanations of the musical processes and concepts being introduced plus short compositions to illustrate.

The teachers responded to their work with the resource projects through open-ended written questionnaires and submitted compositions. Open-ended written questionnaires are best suited for particular groups of people who are spaced geographically, and who may be expected to have an interest in the topic under survey (Mann 1985:170), as was the case with the network selected participants (LeCompte and Preissle 1993:73) of my study who lived and taught in Hong Kong, New Zealand and different areas of New South Wales, Australia.

Determining compositional expansion beyond given concepts
Expansion of the compositional concepts introduced in the resource projects beyond pastiche writing occurred in some, but not all, compositions submitted from across the four age groups of the study. This expansion most frequently involved structural manipulation and included: combining several phase shifted rotations horizontally and vertically into one longer composition (9 years); placing the phase shifting process within a call and response structure (12 years); using multi-repetition as a textural device in a freely-structured piece (15 years); and shaping compositional devices of minimal music and Balinese music into extended pieces with unique structures and contexts (18 years). Expansion also included manipulation of construction (e.g. simplifying the phase shifting process, changing the tempo and adopting instrumentation to illustrate a programmatic theme – 9 years), and manipulation of tempo (e.g. combining two processes in one piece with different tempi for each layer – 15 years).

Approaches, strategies and roles common to both groups of teachers.
The 'pastiche' teachers and the expanders adopted many common approaches, strategies and roles. The majority evaluated the resource projects, found them new, interesting and relevant, predicted that the project material would fit in with their current music teaching and maintained flexible music programmes which were able to respond immediately.

The majority chose projects based on the order given in the resource album, 'first page syndrome', despite instructions to choose any project. As the first project involved phase shifting for untuned percussion, students often found these processes abstract, mechanical and boring to play and write, but responded more positively to, and adopted titles for, compositions with a pitch set.

The majority outlined common ground between the projects and previously held student knowledge, identifying improvising, composing and performing activities, material for an 'integrated approach', harmonic material, ostinati, pentatonic composition, Reich's *Clapping Music*, canon and rounds.

Contextualising the project material was undertaken by the majority of teachers in both groups working with the two older age groups, but by none of the 'pastiche' teachers working with the younger age groups. By contextualising the new material and making it relevant to the contemporary society of the students, teachers were building a circle of

interaction between student composer, the classroom society and wider society within which this exchange could take place. Contextualisation took place in various ways - discussing minimalism as an aesthetic; introducing students to relevant music of living composers through recordings, live concerts or the composers themselves; integrating music with other subject areas (e.g. Asian studies); exploring resources of contemporary music; drawing on the students' society through text, humour and aspects of popular music; and giving concerts of compositions which place student works into the wider contemporary society and offer opportunities to "disturb habitual ways of feeling and perceiving" (Small 1980:217).

Several teachers from both groups across the age groups recycled material, using the strategy, at times, as an intermediary stage between performing the project model compositions and commencing original composing activities. This allowed material familiar to the students to be introduced in different ways, building on obvious common ground, and at the same time, gave students the opportunity to understand that manipulating and transforming musical material is at the heart of the composing process. Recycling appeared in different formats including the use of rhythmic material from one composition as the basis for another piece through the addition of pitch or use of retrograde manipulation; new texts written for project pieces brought a relevance to the students' context; a visual image, recycled from one project to another, served as the programmatic inspiration for composing activities; the opening of a project work was welded onto a newly composed or improvised continuation; instrumentation changed from one performance to the next (e.g. voice to instruments) introducing students to new and varied timbres; and worksheets which included compositions from my projects with subtle changes made by the teacher.

Improvisation was frequently used as part of the composing process by 'expanders' and some 'pastiche' teachers working with older students but tended to be overlooked by teachers engaging younger students with composing activities. Effective improvisational approaches included: using a pentatonic scale, inspired by a recording of a gamelan, for an unmetred improvised 'gamelan' piece (9 years); placing improvisation at the heart of the composition teaching process students encouraged students to compose with improvisation leading to creative decision-making on paper or tape, an approach Burnard (2000) found to be often adopted by student composers; adding an improvised layer to a phase shifted layer; recycling the opening of a pre-existing composition and continuing with new improvised material; improvising echo or call and response patterns as an intermediary composition/performance stage; and students breaking freely into improvised sounds during performance.

All teachers adopted a prescriptive composition task design using one or more composition(s) from the projects as model(s). Burnard (1995) describes this style of task design as having a "high degree of control operating on, and governing decision making" (37) and noted that it resulted in isolated instances of divergence, but overall a similarity of music was created (37).

Many teachers across both groups commented on problems associated with performing minimalist compositions – keeping track of multi-repetition, maintaining a steady pulse and not being confused by other contrapuntal lines. Few teachers in either group encouraged students to write for, and play, instruments on which they have facility and idiomatic knowledge – piano, instruments of the concert band, rock group and/or orchestral instruments, recorders. Instead tuned percussion, which few students learn formally, were often used.

The majority of teachers noted that recording student work, despite being time-consuming, was valuable for student self-reflection, enjoyment, evaluation of peers and self-evaluation, for discussion of composition and performance, and offered students opportunities to hear and consider their pieces holistically.

A common series of steps, a strategy sequence (Table 1), emerged in the composing process of the majority of teachers with some variation in the order and activities. This facilitated the introduction of material new to the students and, for many, new to the teachers as well.

Table 1: Strategy sequence for introducing contemporary music, new to students and teachers, through composing activities (activities in brackets were adopted by some teachers)
(Contextualising new music by playing excerpts of prerecorded, relevant music for aural analysis)
Performing a composition from the project
(Recording the performance)
Discussion of structure and other compositional concepts
(Improving and/or composing empirically)
Composing activities based on a prescriptive task design - model
Playing student compositions
Recording the performances
(Evaluating the compositions and performances)

The majority of teachers were student-centred to varying degrees, allowing students to learn from each other, to lead the pace and direction of composing activities and trust in their creative decision-making. Teachers working with more than one age group adopted similar, but not identical, roles and strategies with each.

Approaches, strategies and roles adopted by the 'expanders'

The 'expanders' adopted approaches and strategies not, or seldom, undertaken by the 'pastiche' teachers. The majority of 'expanders' outlined an empowering, holistic music philosophy focused on fun, enjoyment, striving, links with the community, the love of music and holistic creative outcomes. Their strongly stated music education visions of why they were teaching music to (often reluctant) students provided a sense of direction despite their, at times, lack of experience with, and knowledge of, composition teaching and twentieth century music.

In practice, the majority of 'expanders' remained focused on the composing process while the majority of 'pastiche' teachers were distracted by (time-consuming) activities other than composition e.g. performance, notation, computer software, cultural issues and improvisation. This focus was reflected in the high ranking, by 'expanders', of composing activities as a music classroom activity and the high ranking of music activities other than composition by 'pastiche' teachers.

One 'expander', a composer in schools, reversed the strategy sequence (Table 1), moving students through discussion and composition to improvisation as they composed, performed in public without notation, recorded and evaluated pieces which expanded beyond the project ideas. Because of her professional composing experience, she was able to absorb the project ideas and lead students to the heart of the compositional process.

While the 'pastiche' teachers with all age groups retained a prescriptive single model task design, resulting in pastiche compositions, the 'expanders' adopted single and multi-focused task designs. A multi-focused task design immediately offered opportunities to make decisions and choices and enabled exploration beyond pastiche writing. Those who adopted a single model prescriptive composition task design achieved expansion of the project models beyond pastiche by: enabling student groups or individual student composers to achieve expansion of the project concepts by themselves (often bright students); working as composers with the students through 'composition by committee', making decisions about compositional aspects and exploring, at times through improvisation, until a satisfying outcome was achieved; or adding an improvisation layer over the students' pastiche phase shifting compositions.

The majority of 'expanders' across all age groups, and 'pastiche' teachers working with the 15 year age group only, highlighted, through analysis and discussion, compositional structure and construction processes, process being one of the distinguishing characteristics of much minimal music. This encouraged students to consider exploration and expansion of these parameters in relation to the project pieces offered as the basis of a composition task.

The majority of 'expanders' working with the 9, 12 and 18 year age groups, and 'pastiche' teachers working with the 15 year age group, submitted compositions with titles. These provided a stimulus and focus for compositional outcomes with young or inexperienced students, especially when drawn from the students' interests, indicating involvement in the composing process, relevance and self-motivation.

'Expanders' adopted strategies such as 'instant composition' which encouraged fast, simple, creative thinking and notation skills. This moved compositionally inexperienced students rapidly through introductory pastiche writing, offered more experienced student composers a way of exploring ideas in the preliminary stages of their compositions, and through class composition saw the shaping and combining of short compositions/exercises into larger pieces. Younger students who were set composition tasks which could be achieved satisfactorily in a short period of time within a time frame which allowed for more than one task, further exploration and self-evaluation to take place, expanded the project compositional ideas. Older and/or more experienced students required a longer time frame for engagement with sound exploration, composing through improvisation and/or composing to symbol, and building more complex textures. The 'pastiche' teachers said their students took a long time to compose. However they worked with the material for shorter time periods despite noting that their students were not all composing straight to symbol but required time to work from sound to symbol.

'Expanders' favoured class, group and individual composition, while many 'pastiche' teachers facilitated composing as individuals only. The most valuable composing environment was for young and/or inexperienced composers (of any age group) to work as a class or in groups rather than being offered only individual composing tasks. For older and/or more experienced student composers, the most valuable composing environment was working as an individual, with group or class composition being used as a workshop impetus to these individual activities.

While most of the teachers in the study wrote that they engaged with composing and arranging as a personal activity, this facility emerged predominantly in the teaching of the 'expanders' through: composing with the project material themselves prior to introducing it to their students; composing with the students in the classroom (mainly those working with the younger age groups); working as 'teacher as composer', showing students their own facility with composing as they taught; and, through simplification, arrangement and

modularization, adapting project material according to the students' developmental levels. The majority of 'pastiche' teachers, however, used material directly from the project.

'Expanders' submitted recordings of compositions which, on the whole, were accurate and strong performances. They allowed students to play by ear, by memory, from notation or a combination of all three rather than just notation; suggested that student composers write audible cues into their compositions rather than rely on visual conducting; many deliberately left time for rehearsing in order to reach a satisfying level of performance without striving for a perfection which may not be achievable; and several played with their students, acknowledging mistakes when necessary and engaging in a two-way learning rehearsal process.

The teachers adopted several different roles. Despite very different backgrounds and teaching approaches, the majority of 'expanders' were 'guides' (Cain 1985:10) who allowed and encouraged the students to explore as they composed and helped them move their composition skills beyond the ideas presented in the project pieces to a deeper compositional experience. Some were experienced composers or experienced with teaching composition, the 'teacher as composer', and were able to actively guide their students. Several adopted a two-way learning approach, using their experience with composition to compose with the students, guiding, exploring and learning from one another. Because the material was new to them, some teachers worked quite overtly as 'teacher as student', learning about the projects as they introduced ideas to their students. This was often a positive impetus for triggering composing activities in the classroom, however it became self-focused and less positive for the students when the teacher's learning curve was high and preparatory learning, which should have been undertaken before entering the classroom, took time and focus away from composing activities. The majority of 'pastiche' teachers were largely instructors less able to lead students on to compositional expansion.

Conclusions

The roles of guide and 'teacher as composer' were the most valuable for teachers working with student composing activities as they allowed both students and teacher to reveal their potential. The role of guide was heightened considerably when teachers had a spirit of creative adventure, were experienced with, and intellectually in charge of, the composing process themselves and could see the potential of compositional material. They, in turn, were able to communicate this potential to their students and facilitate student exploration of sound and compositional techniques.

While the 'pastiche' teachers and the 'expanders' adopted many similar approaches, strategies and roles in their engagement with the project material, the 'expanders' used other approaches, strategies and roles (Table 2) which enabled them to move their students on to a deeper engagement through composing activities. 'Deep learning' is "concerned with whether the student is searching for meaning or not when engaging with

Table 2: Summary of approaches, strategies and roles adopted

	Expanders	**'Pastiche' teachers**
Approaches & strategies		
Flexible music programme	Yes	Yes
'First page syndrome'	Yes	Yes
Common ground	Yes	Yes
Contextualising material	Yes (15 and 18 yrs)	Yes (15 and 18 yrs)
Recycling material	Yes	Yes

Improvisation	Yes (older students)	Yes (older students)
Recording student work	Yes	Yes
Strategy sequence	Yes	Yes
Empowering, holistic music philosophy	Yes	Seldom outlined
Lesson focus	Composition	Other activities (plus composition)
Prescriptive task design	Single model and multi-model/multi-focus	Single model (Template 9 yrs)
Discussion of structure and construction	Yes	15 yrs only
Titles for compositions	9, 12 and 18 yrs	15 yrs only
Time to compose	Short composing tasks (e.g.'instant composition') within long time-frame - sound to symbol - (9, 12 and 15 yrs)	Long composing tasks within short time-frame - sound to symbol
Composing as a class, in groups, as individuals	Class and in groups - younger and/or inexperienced student composers; Individual – older and/or more experienced student composers (group workshops)	Individual
Teacher composing and adapting material	Yes	Seldom – material used directly from the projects
Performing	Keyed percussion, audible cues, students playing by ear, memory, notation or combination of all three, time to rehearse = satisfying performance	Keyed percussion, visual conductor, students playing from notation, insufficient time to rehearse = unsatisfying performance
Roles:	Student-centred	Student-centred
	Guide	Instructor
	Two-way learning	
	Teacher as composer	
	Teacher as student (some)	Teacher as student (some)

a learning task" (Ramsden 1992:42) and whether he/she is focused on, and concerned with, "the significance of the task...[and] what the task is about" (43). By adopting the role of guide, articulating an empowering, holistic music philosophy, having an understanding of the compositional process through personal experience, focusing students on composing activities without distractions, choosing task designs which encourage exploration, discussing structure and construction, allowing students to compose as a class, in groups and as individuals, encouraging students to consider giving their compositions titles, balancing various aspects of time within the composition lesson, and encouraging strong, accurate performances, the 'expanders' were able to lead students to a deeper understanding of the compositional process. In doing so they facilitated a deeper

engagement with contemporary society and culture and therefore strong satisfaction and student empowerment.

Bibliography

Attali, J. (1985) *Noise – the political economy of music.* Manchester: Manchester University Press.

Burnard, P. (1995) 'Task design and experience in composition' *Research Studies in Music Education*. December, No. 5:32-46.

Burnard, P. (2000) 'Examining experiential differences between improvisation and composition in children's music-making'. *British Journal of Music Education*, Vol.17/3: 227-245.

Cain, T. (1985) 'Teacher as guide: the teacher's role in the secondary school music lesson' *British Journal of Music Education*. Vol.2/2:5-18.

De Meyer, G. (1985) 'Minimal and repetitive aspects in pop music'. *Popular Music Perspectives 2*. Papers from the Second International Conference on Popular Music Studies, Reggio Emilia, September 19-24, 1983. Reggio Emilia: IASPM. Pp.387-396.

Elliott, D.J. (1995) *Music matters.* Oxford: Oxford University Press.

Eyerman, R. and A.Jamison (1998) *Music and social movements.* Cambridge: Cambridge University Press.

LeCompte, M.D. and J. Preissle (1993) *Ethnography and qualitative design in educational research* (second edition). London: Academic Press.

Mann, P.H. (1985) *Methods of social investigation.* Oxford: Basil Blackwell Ltd.

McClary, S. (1987) 'Talking politics during Bach Year' *Music and society – the politics of composition, performance and reception* (ed) R.Leppert and S. McClary. Cambridge: University of Cambridge.

Paynter, J. and P. Aston (1970) *Sound and Silence*. Cambridge: Cambridge University Press.

Ramsden, P (1992) *Learning to Teach in Higher Education*. London: Routledge.

Reimer, B. (1994) 'Can we understand music of foreign cultures?' *Musical connections: tradition and change.* Proceedings of the 21st World conference of the International Society for Music Education held in Tampa, Florida, USA. (ed) Heath Lees. Auckland, New Zealand: ISME. Pp. 227-245.

Schafer, R. M. (1975 second edition 1979) *The Rhinoceros in the Classroom*. Canada: U.E. Ltd. 26922.

Small, C. (1980) *Music, society, education.* London: John Calder.

Smith,G. and N.W.Smith (1995) *New Voices – American composers talk about their music.* Portland, Oregon: Amadeus Press.

Nordic SAMSPEL

"Modernity and musical learning"

Kirsten Fredens, fredens@post4.tele.dk
& Elsebeth Kirk, elsebeth.kirk@private.dk
Jydsk Pædagog-Seminar, Århus, Denmark

Why is music so important, and why do training courses focus so little on it? Why do certain people develop musical skills, while others fail to do so? How do people acquire musical competence? What can we do to promote the development of musical competence? And what does music actually communicate?

These are some of the central questions addressed by us both (Kirsten Fredens and Elsebeth Kirk) in a music and learning research project entitled "Modernity and musical learning". The aim of this project is to describe musical learning both vertically and horizontally – i.e. both from beginner to expert level, and across the board in a general process of musical education. The project has resulted in a book entitled *Musikalsk læring (Music and Learning)*, which is to be published by Gyldendal in Denmark in October 2001.

The experience of music can give us a sense of the meaning of life. When we develop our musical potential, we acquire a tool for use in contacting not only our own emotions, but also other people. The opportunity to take part in the process of musical learning thus enriches us in a variety of ways.

The research project "Modernity and musical learning" (and the book *Musikalsk læring)* is divided into four sections, each with its own angle of approach to music. The first two sections contain cultural, psychological and educational perspectives on musical learning. The third section deals with music and aesthetics, and the fourth focuses on what we call "the musical meeting" – both in cultural life and in the culture of our everyday lives. Finally, a concluding chapter summarises ways of using the theories contained in the book to ensure unity and cohesion in learning/teaching music.

In other words, the book deals with music in relation to two dual perspectives: 1) cultural life and the culture of our everyday lives; and 2) professional qualifications and general education.

The first section addresses the problem that musical learning is not available to everyone in a country like Denmark. One of the reasons for this is that musical competencies are now communicated to a diminishing extent via cultural interaction – instead, they are now passed on by a process of teaching. Music has become a "subject" for study, and some people learn nothing about it. The result is a wide variety of musical abilities: some people become wonderfully skilled at music, while others never even start on the path of musical development.

Even though childcare centres and schools know this to be the case, this process of musical elimination is not perceived as a serious problem. This is undoubtedly due to the deep-rooted belief that fully developed musicality is (and should be) the right of the chosen few. Naturally, the music played by the media is also an important contributory factor in relation to the musical experiences acquired by children in general; but this perspective is not analysed any further in this book. On the other hand, we do deal with the way musical skills are acquired by other cultures.

Each culture has its own forms of learning; and in order to view the musical life of Denmark from a new angle, we consider modern western culture in comparison with other civilisations where music and dancing are important points of cultural focus for communal life. This angle of approach is horizontal, with musical learning taking place via communal musical activities.

The second section deals with the way musical competence can be developed as fully as possible in a modern society where music has become both a subject and a profession. Relevant development psychology and learning theories are used to understand musical learning processes. The aim is to show how we can qualify musical competence by achieving a higher degree of knowledge and reflection. This angle of approach is vertical, following musical development from the beginner to the expert stage.

The musical development of a child starts right back at the pre-natal stage of its life, and in early childhood children communicate musically with the world around them. The question is what is needed to maintain and develop this original, natural relationship with music; and how important is it to consider each individual's own learning strategies? Are they as good as they could be? Or could they be improved?

Various approaches to music and learning expounded during the second half of the 20th century are presented and assessed. What attitudes and philosophies do they reflect? What have the consequences been? And finally, the lives of two professional musicians are presented (representatives of classical and rhythmic music respectively).

In *the third section* the aim is to define in words what many people already know from experience – i.e. that music does something special to us. To achieve this aim we address the aesthetic dimensions of music to find out what lies behind the notes, rhythms and sounds of music. For instance, what is the relationship between experience and analysis in music? And what is special about aesthetic awareness?

In an aesthetic perspective music is directed at the senses, the body and the emotions; and it affects people consciously, sub-consciously and pre-consciously. The concept of aesthetics is also expanded to include the beauty of nature, people, situations and events. Aesthetics is thus extended and becomes part of life itself.

The book proposes that aesthetic awareness can be acquired just as easily as analytical cognition, in both formal and informal learning situations; and that it is important to deal with the development of aesthetic cognition in both a social and a human perspective.

In the *fourth section* we pursue the existential perspective of music; focusing on the meeting between people and music, with aesthetic production creating the space for collective, creative processes in partnership with others.

But if we are to create favourable conditions for general musical learning, we must focus more closely on the relationship between the concepts of music, culture, education, pedagogics and learning. Is musical learning only designed for cultural life, or is it also concerned with improvements in the culture of our everyday lives?

People who are not musically privileged should also have the opportunity to meet music in a modern Danish culture. For instance, musical activities are a useful tool in the process of social education, whose goal is to strengthen the development of a sense of identity in children and young people. This will only be possible if social educators specialising in music focus both on the music itself and on the educational process.

Finally – in the concluding section – we deal with the unity and cohesion of music teaching. In this section we answer the question of how we can ensure continuity in the

musical development of children aged 0-16. We propose a partnership between childcare centres, after-school clubs, schools and music schools.

The publication of this work, *Musikalsk læring* (*Music and Learning)* can be understood without the ability to read music, and without any knowledge of the theoretical concepts of music. The reason why this research projekt is particularly innovative is that it approaches musical learning from a broad perspective. As a result, the reader will gain most from reading the book as a single entity. But it is also possible to read each section separately – perhaps supplemented by reading the references to the other chapters in the book.

The book's message is not to be found in any other publications (not in Danish, at least); so we hope that it can be used as a basic textbook by many different educational institutions, as well as by other public forums in which music plays a part. In other words, *Musikalsk læring* is intended for use by teacher-training colleges, colleges of social education, colleges offering in-service training, schools, childcare centres, after-school clubs, music schools, academies of music, university departments of music, residential schools for young adults, and anyone else interested in music.

"Learning through the Fine and Creative Arts" – a new subject in Teacher Training at Linköping University

Margaretha Grahn – margr@esi.liu.se
Linköping University, Sweden

The Swedish Goverment's recent directive for a new teacher -training program emphasises the importance of the fine and creative arts in schools. It states that " *teachers should use different forms of cultural and artistic expression". "Art, music, sloyd (handicraft), theater and dance are examples of non-verbal language that can help children and young people to develop their communicative skills". "Creative work and play are both important for active learning."*

At Linköping University a new subject based on art, movement, drama-communication and music has been created. It is called "Musiskt lärande" - Learning through the Fine and Creative Arts (LFCA). The word "musisk" refers to the Nine Muses of Greek mythology and has been used, for example, in Denmark and Norway as a concept to denote creative activity with a clear educational link.

Man learns and creates in spontanious processes where the correspondence between thought, the human body and feeling give the knowledge process depth and permanancy. The field of knowledge of "Learning through the Fine and Creative Arts" (LFCA) has a common core – pulse, rythm and movements. It bases on verbal and non-verbal expressions and forms knowledge by experiences and is an instrument and stimulation for the human – beeings comprehensive development. It also makes us aware of who we are and what possibilities we have.

Characteristic for the field of knowledge in LFCA is a playful and experimental attitude to this fields knowledges, facts and skills with reflektion.

Sound, rythm and movement have vitil importance for the human-beeing all the way from fetus to old man both physical and psychically.

LFCA form a necessary combination to both social – humanistic science and natural science.

What is "Learning through the Fine and Creative Arts"?
It is an interdisciplinary aesthetic field of knowledge that
- contains art, drama-communication, movement and music
- builds up knowledge through sensory experience
- combines a playful and experimental attitude with reflection
- has a direct educational link to developing the creative ability of children and young people.

Very sharpened you can describe the collision between a creative ”childrencultur” and a non-creative ”schoolculture” like this:

”Childrenculture”	”Schoolculture”
Authentic	Second-hand-information
General picture	Division into subjects
Play	Studies
I can	You still can´t
Childish	Infantilism
Fantasy	Common sense
I move and learn	Be still!
Carpe diem! Catch the day!	Wait until you grow.

(From Björkvold. ”Den musiska människan”)

Hopefully no school look totaly like this despriction of ”schoolculture” but there are surely some truth in it. Many children has been ”flying” high and wild in their early childhood and after just a few years at school they have stopped flying. They have lost their creativity. With this new subjekt we wish to educate teachers that will ”keep the children flying.”

This new subject will be given for the first time this year and the students will be interviewed about their idea of what it will involve. You can find this new subject only at the University of Linköping.

Even the whole Teacher Training Education will be totaly new for the whole Sweden so to understand the possibilities for our new subject, I´ll give a little view of the structure for the new education of teachers in Sweden.
All students will study 60 weeks (1,5 years) of what we call ”general teacher knowledge”. These courses are spred in time through the whole education. Then they choose one or two subjects that they study for 40 weeks each (1 year each). After that you can continue your studies in one or both subjects for 20 or 40 weeks or you can choose to study a new subject for 20 or 40 weeks. If you want to work with the younger children you have to study at least 140 weeks (3,5 yeras) and for the older children at least 180 weeks (4,5 years). Our new subject (musisk lärande) can be studied during one year (40 weeks), 1,5 year (60 weeks) or 2 years (80 weeks), but can also be choosen for only half a year (20 weeks) as a complement to your other subjects.

MUSIC IN HOLISTIC EDUCATIONAL PROCESS

Dr. Barbara Sicherl-Kafol - Barbara.Kafol@guest.arnes.si

University of Ljubljana, Faculty of Education, Ljubljana, Slovenia

ABSTRACT

The article treats the starting points of holistic educational planning. From this point of view the musical education is defined as an area, which stimulates the holistic development of educational potentials. The meaning of music within holistic educational planning is based on the results of the empirical study, which proves the effectiveness of the planned model of holistic musical education on the level of theoretical scheme as well as on the level of teaching practice. The results of the qualitative research have confirmed, that music-achievements effectively stimulate student's affective, psychomotor and cognitive development.

INTRODUCTION

The modern curriculum planning trends emphasise the need to: introduce the interdisciplinary curriculum instead of the traditionally separated subjects; plan learning achievements in the areas of affective, social, ethic, aesthetic, intellectual and physical development; develop applicable knowledge. Besides educating the intellect (cognitive development), schools should devote more attention to the education of heart (affective development) and body (psychomotor development). A balanced learning development in these three areas calls for a need to surpass the concept of logically-mathematical intelligence, which according to Gardner (1983) is only one of many different intelligences. For every subject requires a successful string of intelligences and each intelligence can be exploited in a broad spectrum of areas that are available in a certain culture. The crossroads of different intelligences forms a basis for a balanced learning development.

HOLISTIC PLANNING OF THE EDUCATIONAL PROCESS

The learning process is of an intentional nature. Therefore it cannot be planned or carried out without educational objectives. In the process planning model the so called process objectives are defined by expressions denoting processes. Process objectives reflect the values of the learning process and not only its final effects. For learning process is not only a tool for achieving previously set learning objectives (behaviouristic model). It is a value in itself, as it determines the quality of the learning development. Process-objectives planning in the areas of affective, psychomotor and cognitive development represents a crossroads of common purposes of different subjects.

Affective, psychomotor and cognitive development processes are an intrinsic value of the educational objectives of different subjects. The process objectives are planned on the basis of the so called "merging model" (Strmcnik, 1996), according to which more general objectives are included into objectives of individual subjects. According to this principle the process objectives represent the basis of holistic educational planning (see Diagram 1).

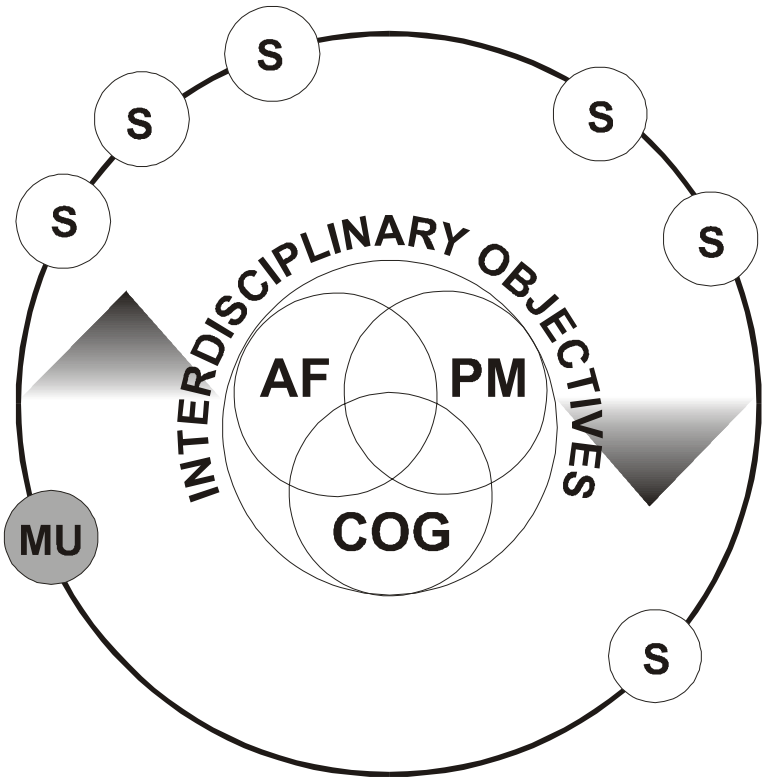


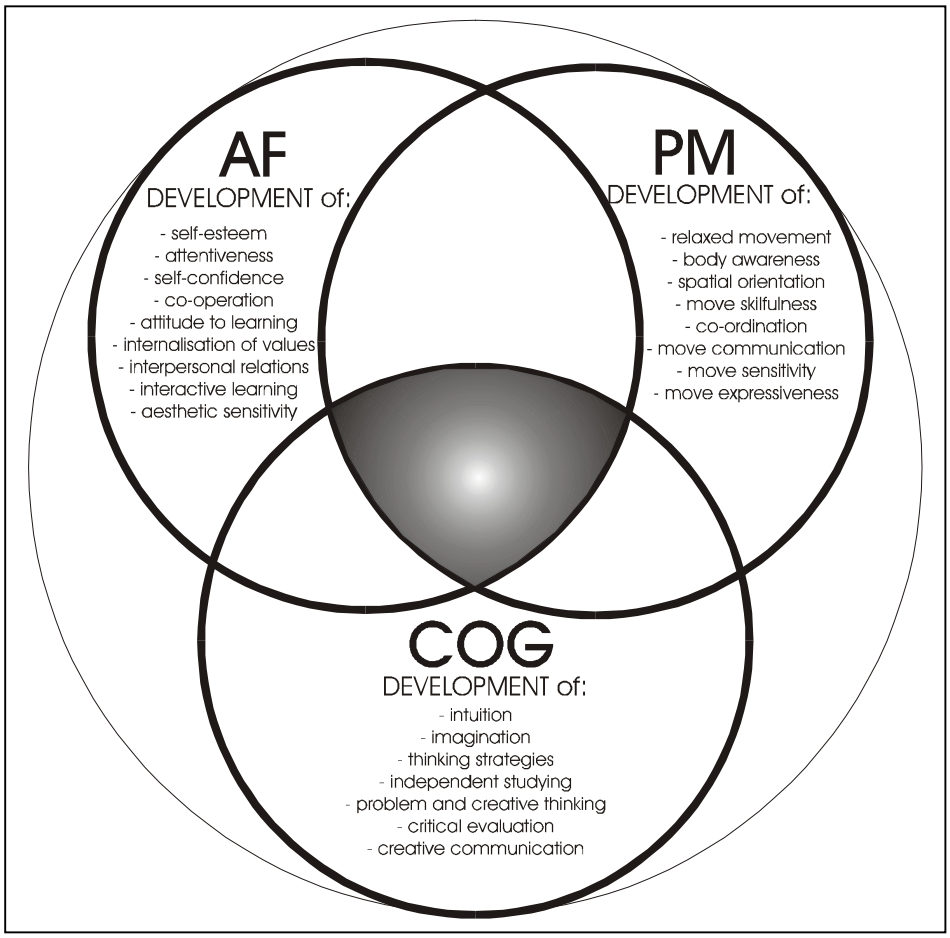
Diagram 1 – Holistic educational planning

Legenda: MU – music; S – (other) subjects

The development processes in the affective, psychomotor and cognitive areas represent the common nucleus which enables the holistic planning of the learning process. The purpose of the holistic planning is to stimulate a balanced learning development. Planning at different subjects should include the following common processes of learning development:

- **the affective area**: development of self-esteem, development of self-confidence, development of attentiveness, development of co-operation, development of a positive attitude to learning, development of internalisation of values, development of interpersonal relationships, development of relaxed and interactive learning, development of a general and aesthetic sensitivity;
- **the psychomotor area**: development of relaxed movement and body awareness, development of spatial orientation, development of movement skilfulness and co-ordination, development of movement communication, development of movement sensitivity and expressiveness;
- **the cognitive area**: development of intuition and imagination, development of thinking strategies, development of independent studying, development of problem and creative thinking, development of critical evaluation, development of creative communication in different areas of expressing.

Diagram 2 – Process objectives in the areas of affective, psychomotor and cognitive development



MUSIC IN HOLISTIC PLANNING OF THE EDUCATIONAL PROCESS

The meaning of music in holistic planning of the educational process is proved by various researches in which the authors point out positive effects of musical education on the development of students' affective, psychomotor and cognitive abilities (Meyer/Oly, 1997; Weber, 1997; Bastian, 1997; Günther, 1997; Shuter-Dyson and Gabriel, 1981; Oblak, 1987 and others).

Musical activities stimulate the development of experiencing, attentiveness, co-operation, relaxed and interactive learning, self-confidence, self-esteem, interpersonal relationships, ability to take the initiative, aesthetic sensitivity and aesthetic evaluation. As abilities in the affective area develop, students' knowledge of their musical experiences also increase. Students develop abilities such as thinking strategies, intuition, imagination, independent studying, problem and creative thinking, critical evaluation and creative communication in different areas of expressing. Musical activities stimulate the development of spatial

orientation, movement skilfulness, co-ordination, movement communication, movement sensitivity and expressiveness *(see Diagram 2)*.

Development processes in the affective psychomotor and cognitive areas represent the values of music teaching and learning. Musical objectives in performing, creating and listening activities contribute to a balanced learning development which, in connection to process objectives of other subjects forms the nucleus of the holistic planning *(see Diagram 1)*.

HOLISTIC PLANING OF MUSICAL EDUCATION IN PRACTICE

In the research an experimental programme of holistic musical education was use to empirically test the effectiveness of holistic planning of the learning process.

The basic research questions were:

- Is it possible to stimulate a balanced learning development by planning musical objectives in the areas of affective, psychomotor and cognitive development?
- What are the effects of musical-objectives planning on different aspects of learning development?
- Do the learning processes in the areas of affective, psychomotor and cognitive development represent an adequate foundation for the holistic-planning model?

METHOD

The study of the effects of music learning was carried out according to the experimental method of pedagogical empirical researching. The experimental factor was the method of holistic musical education. 82 first-grade students from four primary-school classes were included in the research in which four primary-school teachers and seven observers (students of the Faculty of Education, Ljubljana) also took part. The work in the experimental group, as opposed to the control group, included the planning of music objectives in the areas of affective, psychomotor and cognitive development. The experimental programme was implemented for four month in two classes of seven-year-old students. During this period skilled observers were assessing the processes of music-learning in the field of affective, psychomotor and cognitive development according to the qualitative criteria of the observing protocol. On the basis of the obtained results the observers then formed descriptive assessments of music learning. To determine the influence of the experimental programme on musical achievements in different areas of development I used parameters of descriptive statistics (arithmetic mean, standard deviation, coefficient of asymmetry, Ferguson 1989). The level of musical achievements of both groups was assessed before and after the experiment. Measures used were tests of musical abilities, skills and knowledge (non-standardized Oblak, 1987 and Sicherl-Kafol, 1999; standardised Gordon, 1979 and Abel-Struth, 1979) and a questionnaire (non-standardised Sicherl-Kafol, 1999).

RESULTS AND DISCUSSION

The findings of the research proved positive effects of the experimental programme on musical development in connection to affective, psychomotor and cognitive development.

Assesment of the affective area showed the development of interest, relationships within the group, emotions, expression in performance, attentiveness and spontaneity.

Table 1: $\overline{x}$ - arithmetic mean, SD - standard deviation, CA - coefficient of asymmetry for results of a systematic observation of achieving affective

objectives at different musical activities (singing, playing, listening, creating, movement response to music).

Activity	Variables	$\bar{x}$	SD	CA
SINGING	interest	3.120	0.240	0.761
	relationships	2.135	0.219	1.931
	emotions	2.893	8.883^{-2}	0.152
	expression	2.115	0.342	0.048
PLAYING	interest	3.050	0.138	0.310
	relationships	2.085	0.135	1.010
	emotions	2.918	8.439^{-2}	-0.889
	expression	2.113	0.315	0.248
LISTENING	interest	3.110	0.207	0.441
	relationships	2.070	0.152	2.466
	emotions	2.900	0.106	-0.946
	attentiveness	2.685	0.265	-0.974
CREATING	interest	3.215	0.228	0.378
	relationships	2.190	0.238	1.260
	emotions	2.962	6.734^{-2}	-1.535
	spontaneity	2.785	0.600	0.237
MOVEMENT RESPONSE TO MUSIC	interest	2.965	0.182	-0.738
	relationships	2.018	0.113	1.435
	emotions	2.938	0.113	-2.400

In the affective area of development the experimental group showed positive emotions in all musical activities. Student gained satisfaction in creating, the activity at which they also achieved the highest level of socialisation, interest and spontaneity. The outcome is an indicator of the effects of the experimental programme in which creating was included as a teaching method and as a learning achievement. A certain degree of progress in the active listening to works of music and in the sensitivity to aesthetic interpretation was also detected. The level of expression in performance was rather low, which corresponds to the level of children's musical development (Wing, 1971), but it was nevertheless important for the formation of future aesthetic experience. In the social behaviour students reached an above-average level of relationships, as they were undertaking activities on their own initiative and were taking the initiative for group-work.

Assesment of the psychomotor area included the development of clear articulation, motor reactions during singing and listening, performing skills, co-ordination and appropriateness of moves, types of moves and spatial orientation.

Table 2: $\bar{x}$ - arithmetic mean, SD - standard deviation, CA - coefficient of asymmetry for results of a systematic observation of achieving psychomotor objectives at different musical activities (singing, playing, listening, creating, movement response to music).

Activity	Variables	$\bar{x}$	SD	CA
SINGING	articulation	2.570	0.371	-0.309

	motor reactions	1.708	0.255	-0.226
PLAYING	performing skills	2.870	0.375	-0.702
LISTENING	motor reactions	1.743	0.252	-0.843
MOVEMENT RESPONSE TO MUSIC	appropriateness	2.475	0.399	-0.450
	co-ordination	2.730	0.312	0.204
	types of moves	1.808	0.362	0.746
	spatial orientation	2.553	0.274	-0.293

In the psychomotor area the experimental programme included movement response as a teaching method and as an achievement of musical and movement communication. Students made a significant progress in gross and fine motor skills, co-ordination, skilfulness, spatial orientation and articulation. Even after a relatively short time the training of motor skills showed important effects.

Assesment of the cognitive area included the development of rhythmical and melodic accuracy, tonal stability, expressive qualities, recognising sound characteristics, musical memory, originality and appropriateness of creative suggestions, assimilation of musical knowledge and competence in graphic notation.

Table 3: $\overline{x}$ - arithmetic mean, SD - standard deviation, CA - coefficient of asymmetry for results of a systematic observation of achieving cognitive objectives at different musical activities (singing, playing instruments, listening, creating, musical knowledge).

Activity	Variables	$\overline{x}$	SD	CA
SINGING	rhythm accuracy	2.648	0.354	-0.605
	melody accuracy	2.323	0.346	0.273
	tonal stability	1.798	0.230	-0.696
	expressive qualities	2.180	0.369	-0.398
PLAYING	rhythm accuracy	2.583	0.319	-0.867
	melody accuracy	2.325	0.419	-0.106
	expressive qualities	2.177	0.260	0.267
LISTENING	number of recognised sound characteristics	2.293	0.313	-0.574
	type of recognised sound characteristics	1.263	0.392	1.089
	musical memory	2.283	0.453	0.321
CREATING	originality	2.400	0.239	-0.358
	appropriateness	2.428	0.251	0.173
MUSICAL KNOWLEDGE	concepts	15.775	1.025	-0.574
	level of understanding	3.320	0.187	-0.801
	graphic notation	3.615	0.342	-0.456

The results in the cognitive area also proved an intensive development especially of the fundamental musical abilities, such as sense of rhythm and melody. Children made a significant progress in rhythmical and melodic accuracy of performance. They achieved better results in the area of rhythm, which accords with the theory of Révész (1954) and Bentley (1966), according to which rhythmic abilities develop faster than melodic. Tonal stability was, on the

average, almost complete. The quality of understanding reached the level of applicable knowledge, which includes knowledge of musical concepts and competence in graphic notation. Progress was also made in recognising sound characteristics and in development of musical memory. In creating activities the original achievements prevailed.

In order to find out whether the development in affective, psychomotor and cognitive areas was in balance, I joined the results of the experimental group and compared the frequency distributions.

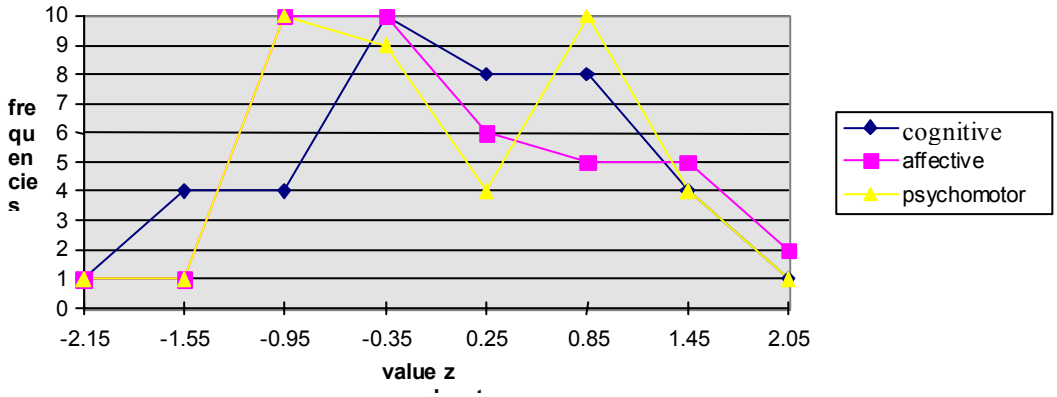


diagram 3 – Frequency distribution of the results of a systematic observation of achieving objectives in affective, psychomotor and cognitive areas.

All three distributions are quite normal, with coefficients of asymmetry in the interval ± 0.5 (CA aff = 0.389; CA pm = 0.079; CA cog = - 0.095). From the point of view of affective, psychomotor and cognitive development there are no major oscillations or prevailing higher and lower values in the experimental group.

The most significant effects were reflected in musical achievements of the cognitive area. Although I based the experimental programme on the affective and psychomotor achievements, its effects were strongest in the cognitive area and less so in the psychomotor area of development. The findings are understandable if we take into account the fact that the processes of development in the above mentioned areas happen gradually and that the effects of the affective area in particular show only after a longer period.

A particularity of the affective development is the gradual internalisation of interests, views, values and emotions, which can be seen from the taxonomy of this area (Krathwohl, 1964). If we take into account also Abeles' (1981) stages of affective development which in the sense of "graduated internalisation" follow each other from the "mood/emotional" stage through the stage of "making priorities" to the stage of established "taste". According to Kuhn (1981) this series continues with other stages that include development of views and opinions. The described structure of processes indicates that students in the initial phase of the primary school mostly reach the first and partially the second stage. Higher stages are to be expected in later stages of education.

In the experimental programme the affective area of development formed the basis for learning progress in the psychomotor and cognitive areas. Musical achievements of the cognitive and the psychomotor areas showed relatively fast effects of musical education on development of musical abilities and skills, which accords to results of other researches (an overview of them

given by Shuter Dyson and Gabriel, 1981). This again proves the fact that the period till the age of ten is the time of an intensive musical development.

CONCLUSION

The findings of the research indicate that musical performing, listening to and creating music have positive impacts on the students' musical and general development.

The music learning processes in the affective area stimulate the development of attentiveness, co-operation, relaxed and interactive learning, self-confidence, self-esteem, interpersonal relationships, ability to take the initiative, aesthetic sensitivity and aesthetic evaluation. Together with musical experience of the affective area, student's psychomotor and cognitive abilities also increase. Psychomotor processes include the development of relaxed movement, body awareness, spatial orientation, movement skilfulness, co-ordination, movement communication, movement sensitivity and expressiveness. On the basis of emotional and motive experience students develop cognitive abilities such as intuition, imagination, thinking strategies, independent studying, problem and creative thinking, critical evaluation and creative communication in different areas of expressing. The processes of learning development in the above mentioned fields are reciprocally related, as experiencing and performing music stimulate the development of musical thinking and vice versa.

The experimental programme showed positive effects on a balanced learning development (first research question). This means that by fulfilling musical objectives in the psychomotor, cognitive and affective areas, the students' musical and general development can be successfully stimulated (second research question). The experimental programme empirically proved the possibility of planning the holistic model of the learning process (third research question).

Learning processes (music learning included) occur in the synthesis of affective, psychomotor and cognitive reaction to the learning reality, therefore the planning of interdisciplinary objectives on these areas must become the core of the holistic planning of the learning process.

REFERENCES

ABEL-STRUTH, S. (1979). *Musikalische Hörfähigkeiten des Kindes,* Schott, Mainz.

ABELES,H.F. (1980). *Responses to music*, In: Handbook of music psychology, ed. D.Hodges. Lawrwnce, Kansas: National Association for Music Therapy.

BASTIAN, H.G. (1997). *Beeinflusst intensive Musikerziehung die Entwicklung von Kindern?* In: Persönlichkeitsentfaltung durch Musikerziehung, Luzern.

BENTLEY, A. (1966). *Musical Ability in Children and its Measurement*, George Harrap and Co, London.

FERGUSON, G. (1989). *Statistical analysis in Psychology and Education,* McGraw-Hill, London.

GARDNER H. (1983). *Frames of mind: A theory of multiple intelligences*, Basic Books, New York.

GÜNTHER, H.B. (1997). *Beeinflusst intensive Musikerziehung die Entwicklung von Kindern?* Wege Musikpadagogische Schriftenreihe, št.10, Aarau.

GORDON, E.E. (1979). *Manual for The Primary Measures of Music Audiation and The Intermediate Measures of Music Audiation*, Chicago.

KRATHWOHL, D. R., BLOOM, B. S. MASIA, B. B. (1964). *Taxonomy of Educational Objectives. The Classification of Educational Goals. Handbook II: Affective Domain.* David McKay Company, inc. New York.

KUHN,T.L. (1981*). Instrumentation for the measurement of music attitudes,* In: Contributions to Music Education, 8, 2-38.

MEYER, H., OLY, G. (1997). *Projekt "Action-Pilot/Eveil-musical",* In: Persönlichkeitsentfaltung durch Musikerziehung, Luzern.
OBLAK, B. (1987). *Ustvarjalno ucenje v glasbeni vzgoji na stopnji razrednega pouka osnovne sole (Creative teaching in musical education in the lower grades of primary school)* - doktorska disertacija, Ljubljana.
RÉVÉSZ, G. (1954). *Introduction to the Psychology of Music,* Norman, University of Oklahoma Press.
SHUTER-DYSON, R., GABRIEL, C. (1981). *The Psychology of Musical Ability*, London.
SICHERL-KAFOL, B. (1999). *Glasbena vzgoja v celostnem vzgojno-izobrazevalnem procesu na zacetni stopnji osnovne sole (Musical education in the holistic educational process in the lower grades of primary school),* Akademija za glasbo v Ljubljani, doktorska disertacija.
WEBER, E. W. (1997). *Schulversuche mit erweitertem Musikunterricht in der Schweiz,* V: Persoenlichkeitsentfaltung durch Musikerziehung, Luzern.
WING, H.D. (1971). *Tests of Musical Ability and Appreciattion*, Cambridge.

samspel

MULTILITERACIES
A New Paradigm for Music Education

Trevor Thwaites - t.thwaites@ace.ac.nz
Auckland College of Education, Auckland, New Zealand.

ABSTRACT:
This paper seeks to both redefine literacy in the modern world and to advance the notion of multiple literacies. It presents the view that literacy is no longer purely linguistic. Literacy might be defined as a way of thinking, and in the present century, as a way of structuring, communicating and interpreting ideas within the varying contexts of social, cultural and technological diversity. At the same time cognition, emotion and expression require multimodal means of transmission through various communications channels and media. In acknowledging this paradigm shift, the writers of *The Arts in the New Zealand Curriculum* document (2000) embraced the concept of multiliteracies to broaden the understanding of literacy in teaching and learning and to acknowledge a multiplicity of discourses within the school curriculum.

Introduction
Schooling at the commencement of the twenty-first century remains largely a Balkanised terrain of multiple insecure territories, most with nineteenth century European ideals and twentieth century Fordist organisation and outcomes. 'New' curricula, which value product over process, are being written, trialed and implemented. Nation states promote competition over co-operation, consumerism over public good, technological dependency over self-reliance and ask not what the state can do for you, but what you can do for the state! The so-called 'Knowledge Economy' further canonises traditional numeracy and literacy in schooling, yet its maintenance and survival depend on valuing creativity and innovation. Meanwhile the relentless drive of globalisation rolls over the world, alienating huge tracts of people and leaving most searching for individual and collective identity.

The schooling system increasingly fails to relate to individual pupils or to their lifeworld. It largely fails to realise that its students are capable of morphing between knowledge bases as they rapidly search the Web or surf television channels. Many students are finding it increasingly difficult to remain transfixed through a one hour 'chalk and talk' lesson not because these students are incapable of learning in the tried and true ways, but because teaching has failed to keep up with change. American educator Bill Green, of the University of New England, claims that "there are aliens in the classroom and it sure ain't the pupils!" (quoted by Australian educator Alan Luke at the Auckland Primary Principals Association Conference, Auckland, March 2002).

Gonczi (2002) suggests that the focus on the "mind as a container" should be replaced by the "mind as a holistic pattern detector". This notion is important in a world which requires the interpretation of a wide range of knowledge symbol systems each with its own mode of transmission, cultural purpose and social and economic goals. The March 2002 bulletin

from my own institution, *Te Kuaka*, singles out the role of Pacific Island arts and crafts on early childhood numeracy (p1) and on the role of dance and drama as the key to classroom success for the bilingual teacher (p5).

The modern mass media and the technologically complex means of global communication "circulate meanings between different cultures on a scale and with a speed hitherto unknown in history" (Hall, 1997: 3). To engage in this fast- moving world of pastiche and instantaneousness, to better prepare our youth to communicate and critically interpret through a range of media, I suggest we embrace the concept of multiple literacies. Such a concept seeks to broaden the understanding of literacy in teaching and learning and to acknowledge a multiplicity of discourses within the school curriculum. Literacy should imply a mode of meaning other than the purely linguistic, it needs to incorporate visual, aural, gestural, spatial and multimodal meanings (The New London Group, 1996). Kress (in Cope & Kalantzis, 2000:157) suggests that literacy begins in the situated self of the learner rather than in the generic individual and reflects cultural resources, artist resources and multi-layered identities. Literacies in the arts are developed as students learn in, through and about different arts forms within the arts disciplines and use its languages to communicate, develop and interpret meaning.

Literacy

Literacy is a socially-made form of representing and communicating. Traditional literacy forms a kind of symbolic capital, the "pre-eminent form of symbol manipulation that gets things done in modern times and as a symbolic marker of 'being educated' " (Cope & Kalantzis, 2000: 121). Literacy has traditionally been used as a token of power and status and schooling has consistently used literacy to deliver hegemonic messages.

Gee (in Lankshear & McLaren 1993:274) states that "language cuts up the world in different ways". For example, the systems of production and consumption we call Fordism stress *systems* that produce meanings (values) over the individuals who carry out the production.

Linguistic and cultural diversity have become central issues in education and the meaning of literacy pedagogy must change to meet this shift away from the "old order". Differences can be used as a productive resource, and the ability to switch between cultural discourses, whether through language, music, gesture, symbols, or material objects, offers a break from the old monocultural ways of meaning making.

Literacy theorist David Olson (1977: 75) states that "to take explicit written prose as the model of a language, knowledge and intelligence has narrowed the conception of all three, downgrading the general functions of ordinary language and common-sense knowledge". In other words, Olson has identified a literate bias in schooling, one which presumes that all knowledge can be translated into words. Literacy obviously needs a broader definition, one which opens up the potential for a more pluralistic view of literacy. For example, Graff (1995: 321) claims that we should note:

> ...the many literacies in addition to or "beyond" "traditional" alphabet literacy – from those of science and numeracy, to the spatial literacy that some geographers term "graphicacy", to the loudly touted and seemingly highly vulnerable "cultural literacy", "historical literacy", and "moral literacy". Some among the lengthening lists are long established in presumption but much more novel discursively or semantically: ecological literacy, "teleliteracy" and other media literacies, food literacy, emotional literacy, sexual literacy.

Raymond (1982) encourages us to see literacy not as a style of language, but as a style of thought. In the same way, writing is not a language, it is a way of giving some permanence to a language we hear and speak by means of marks we can see. Children are encouraged

to make marks as a part of their development, but what is the difference between marks which bear alphabetical resemblance and those which express other meanings and identities such as graphic notation in music or 'child art'. The drawings of a developing child are symbolic in nature and form a part of a maturing ability to think symbolically. Not all symbols need to be marks on a page, and actions, gestures, and spoken or musical sounds can be viewed as forms of symbolic representation.

Thirty years ago Marshall McLuhan (1967) claimed that the principle *means* of communication moulds a society more than the *content* of that communication. Under the "technology of transmission" he classified speech, pictographs, ideographs, alphabets, print, radio, film and television. Robert Logan extends McLuhan's notion that the alphabet is a technology. Logan states that:

> ...a medium of communication is not merely a passive conduit for the transmission of information but rather an active force in creating new social patterns and new perceptual realities. A person who is literate has a different world view than one who receives information exclusively through oral communication. The alphabet, independent of the spoken languages it transcribes or the information it makes available, has its own intrinsic impacts (Logan, 1986: 24).

In order to communicate meanings to other people the participants must be able to use the same symbolic codes. They must speak enough of the same language in order to translate, be able to read visual images in roughly the same ways, be familiar with the production of sounds they would recognise as music, interpret body language, facial expression and gesture in similar ways. And be able to translate their own ideas and feelings into these symbolic representations. "Signs stand for or *represent* our concepts, ideas and feelings in such a way as to enable others to 'read', decode or interpret their meaning in roughly the same way that we do" (Hall 1997: 5). All signs carry information and literacy, therefore, are a 'mode of information' (Poster 1996).

Representation and reading cultural forms

Meaning is constructed through our interpretation of some representational system. This system of signs and symbols - whether sounds, written text, music, electronically produced images, dance, or objects – seems to represent concepts, ideas and feelings. Sociologist Stuart Hall sees the symbolic domain as distinguishing the 'human' element from the biologically driven and as being at the "very heart of social life" (Hall, 1997: 3).

The meaning of language lies in its function as a system and in the subsequent systems of language usages: the synchronic (the conditions for existence of any language) and the diachronic (the changes which take place in a language over time). A collection of signs within a given art form might be ordered as, for example, phrases, themes and motifs. The elements involved form in their synthesis, syntagmic relations with each other, and in turn may be represented and interpreted. Connotations are the set of possible signifieds, and connotations become denotations. The denotations of a sign are the most stable and apparently verifiable of its connotations. The signified is the abstract or mental concept the sign invokes, such as calling something an "impressionistic painting", a "ballet", or "jazz".

The signifier is the sensory impression of the sign, the mental image of marks on a page or in clay, the sounds in the air, the movements of the body. It is material in nature, the vibrations of the vocal cords or instrument, the physical movements of the body, the piece of clay. For example, the actor's words or the singer's song become forms of 'verbal signifiers, or what Saussure described as a "sound image". The connection between signifiers and signifieds might be so imbedded that separation rarely occurs. Metaphorical relations might be subconsciously constructed; for example Renaissance Art appears to

form a bridge between heaven and earth, and Classical Music implies civilised living and social order.

The 'signified' can be constructed as a cultural (or subcultural) 'way of seeing', a way of categorising and structuring. The cultural and social conventions dictate the appropriate uses of, and responses to, a sign. Signs might have characteristics of one arts discipline which might transfer quite well into another arts discipline, but there is no such thing as a sign without a discipline (medium). Each arts discipline is not neutral and is imbedded within its own constraints and cultural significations. The understanding of these significations requires forms of arts literacy.

Semiotic functions in the arts, as with other forms of communication, are culturally and socially determined and Walker (2001:8) states that it is "from this cultural imbedding that its strength and integrity arise". In a global society these significations become discursive formations which define what knowledge we consider useful, relevant and 'true' in specific contexts. I use 'discursive' as a general term which refers to approaches in which "meaning, representation and culture are considered to be constitutive" (Hall, 1997: 6). While semiotics might be concerned with *how* signs and symbols produce meaning, the discursive is more concerned with the *effects and consequences* of representation. It should therefore be apparent that in a global society, obsessed with the branding and spin of consumerism and power, that schooling must give its students the skills, knowledge and understanding needed to interpret the wide range of messages, ideas and emotions present in a multimodal world.

Multiliteracies

The New London Group (1996) claim that literacy pedagogy should connect with the changing social environment through what they call "multiliteracies". They argue that the multiplicity of communications channels and increasing cultural and linguistic diversity in contemporary society calls for a much broader view of literacy than portrayed by traditional language-based approaches, and maintain that the pedagogical use of multiliteracies will enable students to gain access to:

> ...the evolving language of work, power, and community, and [will foster] the critical engagement necessary for them to design their social futures and achieve success through fulfilling employment (1996:60).

Through this view, literacy takes on a broader definition and it is already becoming increasingly common to refer to, for example, scientific literacy (Shamos,1995), media literacy (Quin, 1998), cultural literacy (Hirsch, 1987), political literacy (Freire, 1985) and critical literacy (Lankshear & McLaren, 1993).

The traditional view of literacy in New Zealand has been centred around the English language and culture with its associated rules of grammar and useage. It could be seen as a post-colonial project and the literacy movement yet another form of hegemonic domination. In coining the term "multiliteracies", the New London Group seeks more equitable social and cultural participation. They refer to "the understanding of literacy and literacy teaching and learning to include a multiplicity of discourses" (New London Group, 1996). They elaborate by claiming that:

> ...literacy...now must account for the burgeoning variety of text forms associated with information and multimedia technologies. This includes understanding the competent control of representational forms that are becoming increasingly significant in the overall communications environment... (ibid, p61).

The long-held notion of music as a language has resulted in a dialectic with one position supporting it through the fact that music communicates, that it adopts many of the trappings of spoken and written language forms – phrases, sentences, structure and the like – and that it has a dialect, such as the dialect of jazz, or more specifically, traditional jazz. Many musicians from Haydn through to present day jazz and Latin musicians regard music as a language with specific vocabularies and not just as clusters of patterns.

The opposing view is that a language must have metalinguistic assertions which assert things about other of its elements. This position claims that paintings and music fail to assert anything which could be assessed for truth and so fail the test. Goodman (1978) has argued that the arts are constituted by symbol systems and thus are denotive. In his view musical works are not descriptions or representations, but, to the extent that they are expressive, they are denotative. Despite regarding the arts as denotative, Goodman denies music and the arts are languages because denotation is a preparation for predication. This is not so in music, and could not be so, given the difference between linguistic and musical symbol systems (Davies, 1994: 9).

Such empirical insistence on accepting the "reality of nothing but the most tangible evidence of the senses" (Arnheim in Walker, 2001:9) is both a narrow and shallow view on knowledge construction and how we see the world. It relies on "logos" which permeates western thought, that the word "signifies the presence of wisdom in the cosmos and in Christian thought" (Walker, 2001:11). I suggest that a phrase in language is not more exact than one in music. If I were to say "There was a tree in the valley", this statement would open up more questions than it answers, with imagination and experience aiding its interpretation. If I were to perform a piece of music titled "The Tree in the Valley" similar imaginative constructions would result and the 'truth' would be no less a matter of interpretation.

Meaning-making in the life world often requires the interpretation of several modes which might be integrated with the textual, such as the audio, the visual, the spatial, and the behavioural. The various expressions of media, whether mass or multi, give evidence to this, implying the necessity for the valuing of diversity and the viewing of the world as a multiplicity of cultures, experiences, ways of meaning making and ways of thinking.

Tyner (1998) suggests that a tendency to oversimplify the concept of *multiliteracies* can be problematic. She further states that:

> Multiliteracies suggest a splintering of literacy into discrete parts that belie the true nature of literacy as a complex and intersecting set of social actions...Because their competencies and characteristics overlap, multiliteracies are not necessarily discrete from one another, although there may be discrete facets to each articulation of literacy..... Furthermore, the goal of the teacher is to expand the number of choices available to students. An understanding of the many literacies and their uses offers opportunities for students to become as proficient in as many literacies and learning styles as possible –not only those with which the students find an affinity (p64).

This suggests either cross-curricular or new approaches to education which will benefit students as they make connections and construct meanings. The New London Group note that the "...revolutionary changes in technology and the nature of organisations have produced a new language of work. They are all reasons why literacy pedagogy has to change if it is to be relevant to the new demands of working life, if it is to provide all students with access to fulfilling employment (1996:66)".

Literacies in the Arts

The Arts offer important insights because they are socially constructed and as products of a culture they must comprise signs and indicators to show how that culture works for its members.

Literacies in the Arts are developed as students learn in, through and about the different arts forms and use the specific languages of each discipline to develop ideas, and to communicate and interpret meaning. The Arts are seen as forms of representation, modes of meaning and, significantly, "modes of information" (Poster 1990, 1996). This makes possible a climate of cultural and sub-cultural pluralism in our schools and society as global arts forms are learned and expressed, and are given value and understood. This is especially important in New Zealand with its declared commitment to biculturalism.

Literacies in the arts also means that students should have the opportunity to gain skills in contemporary technologies and to learn how these might transform the way the arts function in that society.

The development of literacies within the arts in the New Zealand Curriculum assumes that:

- literacies have political, social and cultural significance – they cannot be regarded as autonomous;
- the meaning of a particular arts literacy depends on the context in which it is embedded;
- the processes through which the arts literacies are learned and understood help to construct their meaning;
- each arts discipline embodies a range of discourses which may themselves constitute literacies.

(Ministry of Education, 1999:27)

The Arts in the New Zealand Curriculum document (Ministry of Education. 2000: 10-11) states that:

> Literacies in the arts involve the ability to communicate and interpret meanings in the arts disciplines. We develop literacies in dance, drama. music, and the visual arts as we acquire skills, knowledge, attitudes and understanding in the disciplines and use their particular visual, auditory and kinaesthetic signs and symbols to convey and receive meaning...
>
> Literacies in the arts require an understanding of particular cultural and practical conventions within each arts discipline. Literacy in one discipline does not imply literacy in another. Each discipline has particular signs and symbols that relate to specific art forms or genres, such as haka, jazz, role-play, painting, rock music videos, or tapa cloth-making. Literacy in the art forms and genres of one culture or period does not imply literacy in those of another culture or period.

A jazz musician who quotes a phrase in their playing from an acknowledged master jazz musician is demonstrating the same kind of literacy that someone adept at quoting Shakespeare or other master authors might be credited with. A techno-musician who utilises the tape techniques of 'musique concrete' while using contemporary digital equipment is demonstrating they are literate with past movements in the genre as well as technological literacy. A 'classical' musician performing what is now known, somewhat pretentiously, as "western art music" needs a particular kind of reading literacy as they engage with musical notation; they also need to be literate enough to communicate the

appropriate expressive detail and literate in the valid performance practice of the particular style/genre. Likewise, a gospel singer needs to be aware of the codes of the African-American experience and a choral singer in the English choral tradition the particular desired tones, diction and articulation.

How one comes to learn and engage with these literacies needs further inquiry. Certainly one must be aware of the components of a sound-based language (Damasio and Damasio, 1992/1999:11) and understand the design of the representational resources which make up the various artistic forms. Design "rests on a chain of processes" (Kress, in Cope & Kalantzis, 2000: 160) and principles which might be cultural, political or pedagogical.

Multiliteracies and Arts Pedagogy

Tyner (1998:32-33) comments that "...the public's image of literacy still belongs in the little red schoolhouse of long ago. To the average citizen, the purposes of literacy are practical and applied: to get a good job, vote in an informed way, and understand the labels on consumer products". Tyner (p33) goes on to quote Peter McLaren,[1] who comments that:

> ...mainstream theories of literacy conceive of being literate as possessing only that requisite fund of knowledge – that privileged form of linguistic currency – necessary for students to succeed materially in an industrialized capitalist society... the non-standard literacies of minority groups and the poor (that is, different dialects, non-standard English) are regarded as deficits or deprivations rather than differences (McLaren.1988:214).

This gives rise to a view that the acknowledgement of multiple literacies in education might be potentially empowering. I refer to a broader concept of literacy than even McLaren, one which not only acknowledges cultures and subcultures, but different knowledge forms such as music, dance, technology, and health. When people communicate they "form habits and link forms with meanings. Some of these habits are idiosynchratic, others are conventional within communities (*of practice*) of various shapes and sizes, but they will always serve as the initial guidelines for both production and interpretation" (Verschueren in Cobley 2001:93).

Shaker (2001:26) states that "the best intellectual learning occurs in a context that illustrates its practical value. He suggests that schools need a curriculum structure more suited to twenty-first century life-skills, a structure which falls into *economic literacy*, *social and emotional literacy*, and *aesthetic literacy*. Within the social and emotional, music can help teach about other cultures, protest, health and well-being, change (either physical or emotional) through listening, re-creating and composing. Aesthetic literacy, and I mean here a personal aesthetic, could give students the creative means to "intercede in one's environment" and to have the means to do so effectively (ibid:28). It might stress comparisons, open-minded selectivity, and would operate as a motivating factor in children's schooling. Self confidence grows through the ability to make interpretations and not be beholden to "truths", to be able to make choices with the whole self.

Conclusion

This paper has set out to demonstrate that traditional views of literacy need to change and expand. I have espoused the notion that literacy is not the sole domain of the verbal and/or textual forms of representation. As we move into what could become a 'post-textual age' broader definitions of literacy have become a necessity. The learner and citizen of the twenty-first century must learn to interpret a range of codes which will interface through a wide variety of media. The increasing dependence upon electronic media means that visual

[1] McLaren, P. (1988) Culture or canon? Critical pedagogy and the politics of literacy. *Harvard Educational Review*, 58(2), 213-234.

and audial messages may well predominate much of our daily intake of information. Even so, the re-assertion of cultural identities means that the spoken and gestural message will also carry some impact. Of course, text is by no means dead, as Drucker (1998:57) indicates when he states that: "all of us hear 'Electronics' or 'Computers' when we hear 'Information'. But the number of *printed books* published and sold in every developed country has gone up in the last thirty or forty years as fast as the sales of new electronics".

The challenge for education will be not only in educating for new breadth and forms of literacy, but also in educating how to critically interpret these forms as sources of information, expression and personal identity. The possibility of domination by rival ideologies and discourses is real and could well mean that education will be forced to compete with the 'information industry' as a dominant mode of information. There is also a danger that the notion of multiliteracies could be captured by market-driven discourses, in keeping with the "new fast capitalist literature (*which*) stresses adaptation to constant change through thinking and speaking for oneself, critique and empowerment, innovation and creativity, technical and systems thinking, and learning how to learn" (New London Group, 1996:67).

Notions of a "cultured person" must change to match this new world of literacy and education. This was signaled by Hoggart in 1966 when he laid down the basic premises upon which Cultural Studies was to be based:

> First, without appreciating good literature, no one will really understand the nature of society; second, literary critical analysis can be applied to certain social phenomena other than 'academically respectable' literature (for example, the popular arts, mass communications) so as to illuminate their meanings for individuals and their societies (Hoggart in Hebdige, 1988:8)[2].

This acceptance of a broader notion of a literate person points the way towards the necessity for educating for the purpose of decoding new modes of information. Nevertheless, the multiliteracies movement should move carefully and with caution, for:

> the extent to which the newly profilerating literacies signify little more than a semantic "name game" or a feature of the politics of literacy and education or professional specialization raises hard questions...An enormously important set of critical developments, whose potentially revolutionary consequences for learning and teaching are largely unappreciated, thus far remain prisoner to scholarly, cultural, and pedagogical fragmentation (Graff in Tyner, 1998: 67).

By way of advancing this notion beyond ideological capture and into the lived domain, I suggest that we need to view literacy as ways of thinking, the language of which is a coded text which forms a set of discourses through which meanings and beliefs are actively communicated and interpreted. In music, for example, communication is through signs and symbols, either seen or heard, through which sonic images are created and metaphorical relations are constructed and interpreted.

Literacy in the arts encompasses the knowledge, skills, attitudes and understandings within an arts discipline, it does not define the discipline itself. A specific literacy, such as jazz literacy in music, contributes to the formation of literacies within that discipline and even multiple literacies across the arts. These literacies might contain shared characteristics and competencies and all will contain elements of design.

In conclusion, the languages of a literacy follow design conventions which dictate how meaning is communicated and interpreted. These include intonation, vocabulary,

[2] Hoggart, R. (1966) 'Literature and Society', *American Scholar*, Spring 1966.

commitment, genre, packaging, presentation and coherence. Degrees of literacy are dependent on how these are perceived and understood, and forms the fund of requisite knowledge within the specific arts. To be considered fully literate in the arts, this knowledge should embrace culture and subculture, as well as politics, economics, race, class, gender and difference. Schools must ensure that arts literacies form a significant component in the education of the multiliterate individual, which Gee (in Cope & Kalantzis, 2000: 67) sees as a "Bill of Rights" to function in the new capitalism and knowledge-economies of the twenty-first century.

References

Cobley, P. (Ed) (2001) *The Routledge Companion to Semiotics and Linguistics*. London: Routledge.

Cope, B. & Kalantzis, M. (2000) *Multiliteracies*. London: Routledge.

Damasio, R. & Damasio, H. (1992) 'Brain and language' reprinted in *The Scientific American Book Of The Brain.* (1999) Guilford, Connecticut: The Lyons Press. p29-42.

Davies, S. (1994) *Musical Meaning and Expression*. Ithaca (US): Cornell University Press.

Drucker, P. (1999) *Management Challenges for the 21st Century*. New York: HarperCollins.

Freire, P (1985) *The Politics of Education: Culture, Power and Liberation*. New York: Bergin and Garvey.

Gardner, H. (1993) *Frames of Mind*. London: Fontana.

Gonczi, G. (2002) Education Review, March 6-12, 2002. p7.

Goodman. N. (1978) 'When is Art?' in *Ways of Worldmaking*. Indianapolis: Hackett Publishers.

Graff, H. (1995) *The Labyrinths of Literacy: Reflections on Literacy Past and Present*. Pittsburgh, PA: University of Pittsburgh Press.

Hall, S (Ed) (1997*) Representation: cultural representations and signifying practices*. London: Sage Publications Ltd.

Hebdige, D. (1979, 1988) *Subculture – the meaning of style*. London: Routledge.

Hirsch, E. (1987) *Cultural Literacy: What Every American Needs to Know*. Boston: Houghton Mifflin.

Hoggart, R. (1957) *The Uses of Literacy*. London: Chatto and Windus.

Lankshear, C & McLaren, P (Eds) (1993) *Critical Literacy. Politics, Praxis and the Postmodern*. Albany, NY: State University of New York Press.

Logan, R. (1986) *The Alphabet Effect*. New York: William Morrow.

Lunenfeld, P. (1999) *The Digital Dialectic: New Essays of New Media*. Cambridge Mass: The MIT Press.

McLuhan, M. & Fiore, Q. (1967) *The Medium is the Massage*. Harmondsworth, U.K: Penguin Books.

Ministry of Education (New Zealand). (2000) *The Arts in the New Zealand Curriculum*. Wellington: Learning Media.

Ministry of Education (New Zealand). (1999) *The Arts in the New Zealand Curriculum* – a Background Paper. Auckland: Project Development Team (Foley, S., Hong, T., Thwaites, T.)

New London Group, The (1996) A Pedagogy of Multiliteracies: Designing Social Futures, *Harvard Education Review,* Vol 66, No 1, Spring, 1996.

Olson, D. (1977) The Language of Instruction: On the literate bias of school. In R.C. Anderson & W. E. Mantague (eds), *Schooling and the Acquisition of Knowledge*. Hillsdale, NJ: Lawrence Erlbaum Associates. p75-86.

Poster, M. (1990, 1996) *The Mode of Information*. Cambridge, UK: Polity Press.

Quin, R. (1998) 'Media Literacy and the Information Age' in Livermore, J., *More Than Words Can Say*. Canberra: Australian Centre for Arts Education.

Raymond, J. (1982) *Literacy is a Human Problem*. Alabama: University of Alabama Press.

Shaker, P. (2001) 'Literacies for life' in Educational Leadership, October 2001, p26-29.

Shamos, M. (1995) *The Myth of Scientific Literacy*. New York: Rutgers University Press.

Te Kuaka Bulletin of the Auckland College of Education, March 2002.

Tyner, K. (1998) *Literacy in a Digital World: Teaching and learning in the age of information*. Mahwah, NJ: Lawrence Erlbaum Associates.

Walker,R. (2001) The rise and fall of philosophies of music education: looking backwards in order to see ahead, in *Research Studies in Music Education* No 17, December 2001. p3-18.

samspel

Composing realities: problem finding and solving in the musical worlds of student composers - an international perspective.

Betty Anne Younker – younker@umich.edu
University of Michigan, USA
Pamela Burnard – pab61@ca.ac.uk
University of Cambridge, UK

Education worldwide faces unprecedented challenges. A common goal of education is to develop 'creative capital' and empower students to think creatively. In music education, the call to empower students to think creatively has been articulated in a variety of curricula and professional documents on an international basis. In the USA, publications such as *Vision 20/20* (MENC, 2000) and *The School Program: A New Vision* (Music Educators National Conference, 1994) promote creativity. The promotion of creativity is implicit in much of the documentation of the National Curriculum in the UK for the last decade as demonstrated in a most recent 'Creativity in Education' campaign which culminated in the publication of '*All our Futures: Creativity, Culture and Education'* (a report of the National Advisory Committee for Creative and Cultural Education or NACCE Report, 1999). The report examined issues concerning the future of education and the place of creativity in all areas of education. A report of the National Foundation for Educational Research (NFER) on *Arts Education in Secondary School: Effects and Effectiveness* (Hartland, 2000) explored the contribution of the arts to pupils' creative and cultural development. The analysis of curriculum requirements in England and other countries by the National Foundation for Educational Research, (NFER) led to the publication of the report '*The Arts, Creativity and cultural Education: An International Perspective* (QCA, 2000). With this international focus, research is needed to enhance understanding about what involves creative thinking.

Creativity research in recent years has been increasingly informed by the development of creative thinking (Davis, 1986; Getzels & Csikszentmihalyi, 1976; Sternberg, 1988; Webster, 1979, 1992; Kosof, 1995; Csikszentimihalyi, 1996; Robinson, 2001). Perkins (1994) argues that while any subject matter can effectuate thinking skills, the arts do so more readily because of the possibility to focus on a physical object while thinking, of instantly capturing and reflecting, of capturing our attention, and enticing rich connections. The notion of creativity, as the 'making' of something from which the finding and solving of problems arises, is commonly supposed as an ideal view of creative action and experience in arts education. However, what do we really know about the role and development of creative thinking, specifically, in composing?

Purpose and Research Questions

What is the role of creativity in composing? What strategies do students from different musical backgrounds use? These are questions which framed a joint project involving a comparative analysis of data banks from previous studies conducted in England (Burnard, 2000a/b/c; 1999); Australia (Burnard, 1995) and Canada (Younker, 2000a/b) in which age, musical background, and freedom and constraints as conditions of compositional task designs, varied. Revisiting data from previous studies provided the opportunity to map

student strategies of composing from which models of composing pathways were developed (Burnard and Younker, 2001). In the present investigation, we further focus the lens on the role of creative thinking in composing and identify aspects of problem finding and solving as exhibited by students of varying age, and musical and cultural background. The aim of the present study was to examine the composer realities that characterise creativity in students' diverse musical worlds. The following cross-case analytic question guided our inquiry: What aspects of problem finding and solving characterise the composing strategies of students in which factors of age, musical background and culture differ?

Focus of paper

A common element of creative thinking found across definitions in the psychology and music literature is problem solving and its role in creative thinking (Webster, (1992, p. 267). Problem solving, and problem finding, within the creative thinking process involve stages that are dynamic, and at times, non-linear. These stages include sensing, defining, clarifying, or understanding the problem, moving between divergent and convergent thinking while generating and evaluating solutions, and converging on a final solution, one that may be used in further situations (Guildford, 1977; Davis, 1986; Webster, 1987a/b; Sternberg, 1988). This is somewhat compatible with theorists' identification of artistic creativity, in the making of aesthetic judgements during the handling of the medium, as engagement in a kind of dialogue between concept and material; an interplay of making and perceiving which includes an intrinsic involvement in problem setting, selection and solution searching. Thus, the idea takes shape in the process of the extended effort required to solve the problem through a series of successive approximations (Amabile and Gitomer, 1984; Abbs, 1987; Ross, 1989; Robinson, 2001).

In thinking about what types of thinking are characterised in the creative process, Webster's (1987a) places two types of thinking, divergent and convergent, at the centre of his conceptual model of creative thinking. During the process, there is considerable movement between these types of thinking, consciously and unconsciously, which are facilitated by stages of operation that include preparation, incubation, illumination, and verification (Wallas, 1926). For the purposes of this project, we have adapted Wallas' stages and defined them as thus: (1) preparatory stage–the individual senses a problem or problems, and the overall scope and structure of the product; (2) incubation, in which divergent thinking plays a crucial role–the individual thinks about the problem, and generates and considers possible solutions; (3) illumination, the light bulb stage–the individual arrives at various solutions while interacting with the musical materials; (4) verification–the individual hears externally what has been created, refining solutions, and welcoming opinions. It is important to note that the stages do not necessarily occur in the order as stated (Webster, 1987a/b).

In an attempt to measure the relationships between various kinds of thinking and the assessment of creative performance, Wakefield (1991) offers a situational theory of thinking skills as intention for the "organisation of information and generation of hypotheses based on a coordination of problem finding and solving situations" (p. 190). His theory consists of two continua, problem finding and problem solving, on which four types of problem finding and solving situations are identified and described. One type, an open-problem, open-solution situation, calls for "creative thinking, combining problem invention and expressive problem solving skills" (Wakefield, p. 187), and can be viewed, according to Wakefield, as a possible assessment for creative performance. The other types can also be viewed as possible assessments of creative performance, although may be successful at testing for cognitive skills or insight or skills of selective information processing (cf. Sternberg & Davidson, 1983). Wakefield views his situational theory as one that

resonates with the process model put forth by Wallas (1926) but allows for a new way of conceptualising the challenge of measuring creative thought.

In the present investigation, we characterise problem finding and solving within a context of open-problem, open-solution situations. For the purposes of this study, *problem finding* is identified as those instances of recognising and defining a problem, while *problem solving* is identified as those instances of generating, evaluating, and refining solutions for the problem. Thus, the idea of problem finding and solving as aspects of composing is a way of thinking about the internal logic of the composer's pathway, instances of which have been explained by Sloboda (1985), as a process which sees 'the composer reject possible solutions until he finds one which seems to be the best for his purposes' (p. 149). In this article, the term *composing* refers to the act of making a revised piece created over time. A *strategy* is defined as a plan involving significant decision- making moments for the overall composition (Burnard & Younker, 2001).

Method

In this paper, we report on an ongoing study involving a comparative re-analysis of various data banks from the UK (Burnard, 2000a/b/c), Australia (Burnard, 1995) and Canada (Younker, 2000a/b). Each earlier study examined the strategies used by students while composing and utilised multiple data sources which included verbal reports, verbal responses and interviews. The re-analysis of interview data served to identify aspects of problem finding and solving as characterised by pupil talk about composing. Student composers' 'realities' concern our constructivist ideas about teaching and learning. Thus, the whole issue of shared and different understanding – as characterised within multiple contexts, tasks and backgrounds - is considered important. What follows is a cross-case comparison of six student composers' aged between 11 and 20 years. In this multiple-case research, where cross-case comparability is sought, the case studies chosen were those students who exemplify different types of strategies as key factors and relationships among problem framing and solving. The thematic analysis was constructed around case study 'stories' of individual students and the interrelationship among each.

Analysis Procedures

Using definitions as characterised for this project (see above), and constructing around the intra- and inter-relationships of individual student's case study 'stories, we analysed multiple data sources. These data sources included verbal reports, verbal responses, interviews, observations, and musical products. Specifically, these included either:
(a) students' verbal reports and verbal responses collected at the beginning (interview-talk), while composing (session-talk via think aloud or unstructured interview techniques), and at the end of composing sessions (individual interview-talk and focus group interview talk in which children reflected upon their composition strategies by viewing a video-replay of a previous composing session); (b) students' written reports collected at the beginning, middle, and end of all composing sessions; (c) examination of musical products (as audio taped or musical transcriptions of collected performances). This detailed study of six students representing contrastive ages, experiences, and cultures, and sustained re-visiting of old data with an exploratory intention is recognised as new research from old data–an uncharted methodology in music education (Stevens, 2000).

Introducing Data Banks and Participants

The cross-case display of data banks, as shown in Table 1, represents participants of varied age, in different locations, from diverse musical and cultural backgrounds, and in response to a range of tasks.

Table 1: Overview of Data Banks

Data Bank	Location	Participants Age	n=	Formal Tuition	Composition Task	Sessions
1	Canada	8-11-14 years	9	without	piece with technology	3 x 40 mins.
2	UK	12 years	18	14 with 4 without	self-determined	21 x 60 mins.
3	Australia	16 years	11	With	4 varied tasks	40 x 60 mins.
4	Canada	College age	6	With	piece to given text	3 x 30 mins.

What follows is an introduction to the six student composers whose strategies could be seen to range across stages of the creative process, (hence representing each student's pathway), revealing varying levels of problem finding and solving strategies. The labels given to pathways represent a set of mapped strategies, which were drawn from across the data banks. The pathways fall into six hierarchical tiers and include: floater, linear, serial, staged and regulated. These labels are essentially ones of methodology, where the focus is on the way in which the students organise their composing activities.

Table 2: Overview of participants

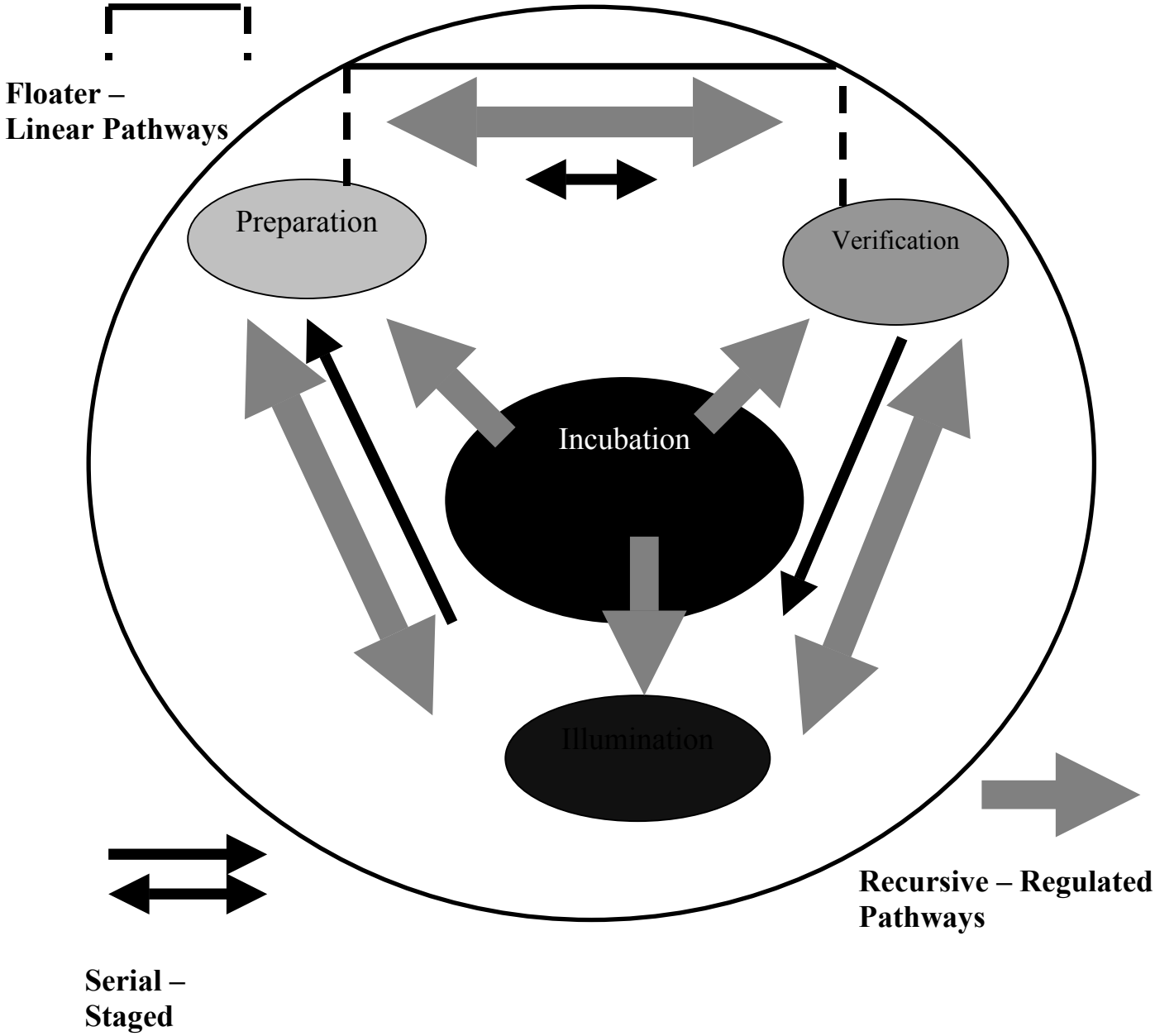
Name	Data Bank	Age	Musical Background	Composing Pathway	Pathway Description
Rob	Canada	11	School-based general music	Floater	*Much exploration *Minimal verification and incubation
Lia	UK	12	Guitar (1yr)	Linear	*Much exploration *Skips direct to verification *Minimal phase interplay
Shira	Canada	20	Voice Music education major	Serial	*No preparation *Minimal verification *Minimal phase interplay
Katyia	Australia	16	Voice (3) Percussion (4) Piano (3) Flute (2)	Staged	*Progressive movement forward and across phases *Verification as notation *Expressive focus
Sarah	Canada	20	Voice Music education major	Recursive	*Time shared between preparation, incubation, illumination, and verification. *Much interplay between phases *Expressive intention emphasised
Angie	Australia	16	Cello (7) Voice (1) Piano (3)	Regulated	*Continuous interplay between phases *Much incubation (mind-writing and mind-playing) *Expressive intention realised as goal setting

Model of Students' Composing Pathways

The following representation is used to express the multi-dimensional pathways of composing as routes in the creative process. As summarised in Figure 1, composing involved the students in various phases (as adapted from Wallas's (1926) phases) and movement pathways. These pathways could be defined in terms of spending most of the time exploring ideas (preparation);

moving directly from generative to verification phase; interplay between some of the phases; to a cyclical, regulated path which included continuous feedback loops through all phases.

Model of Composing



Findings and discussion

Our analysis begins with the simplest to most complex composing realities, an analysis of the nature of composing strategies that guided the interplay between problem finding and solving, and what mechanisms enabled their functioning. Student composers' are grouped in pairs according to the composing pathway exemplified from simplest to most sophisticated.

A. Rob and Lia – Exemplifies 'Floater' to 'Linear' pathways
B. Shira and Katyia – Exemplifies 'Serial' to 'Staged' pathways
C. Sarah and Angie – Exemplifies 'Recursive' to 'Regulated' pathways

A. Individual Realities: 'Floater' to 'Linear' pathways

Introducing Rob: Rob was 11 years old whose only formal musical experiences occurred within the school-based general music program. Rob had no experiences with keyboards, had minimal experience with computer technology, expressed uncertainty as to what to do, and offered minimal content in the form of verbal reports. Accounts of thinking about his composition between sessions (incubation) were in reference to 'the instruments' and improving the ending of his song, however, there was no indication of strategizing about or generating solutions (incubation) for either of these desires. His talk about what he was doing included words like 'practising' (preparation), rejecting specific timbre and eliminating material (illumination), and 'listening' (verification). There was minimal evidence of interaction between the various stages of creative thinking. Much of Rob's focus was on listening to a limited number of timbre and selecting one, and recording random pitches with that timbre.

Introducing Lia: Lia was 12 years old and had played the guitar since the age of seven. She had guitar tuition for one year and played both acoustic and electric guitar. Lia had formed a rock group and occasionally played songs with friends and family members at home. Her accounts of composing emphasised the revisiting of 'made up pieces' (preparation) that she 'play(ed) different but the same each time'. Lia was partly guided by the 'stuff' of formal learning but spent little or no time away from her instrument thinking about the emerging piece (absence of incubation). She composed four pieces for guitar working in a preparatory generative phase in which she described herself as 'always starting with some chords' (drawing upon previous experience) and ' . . . then I keep playing around with them and settle on a few ideas'. Once she recognised the musical starting point (illumination); she continued by shifting to a verification phase where she played 'a quick piece'. She would 'go on and play more or less what I had and add some more bits' (an additive generative approach with little or no verification). There is little detail provided in her talk about detailing a problem or solution, and little interaction between individual elements in the process. When the 'making' phase of a guitar piece was completed she played the whole piece again, whereupon 'some things sound different, some sound the same'. There are no feedback loops across phases and little or no interaction between elements in the process.

Table 3: Rob and Lia: Instances of Problem Finding and Problem Solving

	Problem Framing	**Problem Solving**
Rob: floater	1.Evaluates specific timbre and decides to reject.	2.Explores timbre and accepts one. 3.Eliminates targeted material
Lia: linear	1.Considers need for chord pattern as starting point	2. Considers 'familiar' chord patterns and explores related ideas; 3. Selects particular patterns and adds further 'bits'

Rob and Lia did not mentally play back, or plan structures or finalise a section in relation to the whole piece. The composing process represented an aural and performative mode of composing. Additionally, neither student engaged in a cyclical path involving ongoing interactive checks but rather made minimal decisions. Lia framed the problem of composing as one of 'getting started' that she solved by 'mucking about with bits I know' (maximum exploration followed by verification in the performance of the final product). Rob never framed the problem but immediately began to explore timbre.

B. Individual Realities: 'Serial' to 'Staged' pathways

Introducing Shira: Shira was a college age voice major whose only composing-like activities occurred in theory classes. Shira had many performing opportunities in solo and ensemble settings throughout her undergraduate studies. Her verbal reports reflected acceptance or rejection of material, and confirmation of, occasionally with reasons for, the acceptances and rejections. Verbal responses about her activities revealed preparation for the overall form as thus: '. . the first three would be strophic and I would vary the last verse, make it more interesting . . . Maybe I can come up with the same beginning for all, . . . for each line ...'. Shira's composing strategies remained consistent throughout all of the sessions. She selected pitches for each word in a linear, step-wise fashion with minimal exploration. When she did diverge to generate solutions (incubation), she converged quickly (illumination) and continued with the next phrase. While there was some movement between the incubation and illumination stages, there was no loop back to the preparation stage. The verbal report, 'not bad, eh'? after finishing the third verse and 'And there we go' at the end of the final composing session signified the only indication of verification and no feedback loop back to incubation or illuminative processes.

Introducing Kaytia: Kaytia was in her third and fourth years of tuition in voice and percussion respectively. She had sampled some tuition on cello and flute at primary school and learned piano for three years. This student was an experienced participant in multiple performance ensembles. Her accounts of how she approached composing characterised a progressively-staged approach in which, she identified the problem in the following terms: 'I start with a melodic idea' (defining the expressive purpose and framing the problem) 'and carry it in my head for a few days' (imagines possibilities - incubation), 'then I play around with it on the piano' (sounding out - exploration). . . 'I then plan the structure of the piece on paper' (deciding the way forward as a structural form of the musical whole), and 'then, at the piano, I devote all my time' (a phase of illumination which varied across four compositions from 10.5 to 24 hours and averaged 45-60 minutes a session) '. . to working through it and finalising it as I go' (a generative phase in which she identified musical possibilities, monitored changes and memorised choices). Once the piece was finalised, she embarked on the next step, as referred in her talk: '. . . then I notate the final score and make no more changes'.

Table 4: Shira and Katyia: Instances of Problem Finding and Problem Solving

	Problem Finding	Problem Solving
Shira	1.According to the form of the poem, decided to create the same music for the first three verses, different music for the fourth. 3. Desires to have the same line of music for the first and last line of each verse, and same music for parallel lines across verses. 5. Desires to create music for the remaining lines of the first verse.	2.Created music, note by note, line by line, and phrase by phrase for the first half of the first verse. 4. Created the same music for the first and last line of each verse. 6. Note by note, word for word, and phrase by phrase, creates music for the remaining lines of the first verse. Sings parallel lines of subsequent verses with the composed music to verify a 'fit'.
Katyia: staged	Considers musical and expressive goals	2. Defines expressive purpose; seeks imagery as stimulus, plans structural holding form, sets

	3. Raises questions about ways of achieving musical contrast; concerned about the limitations of playing and memory skills	structural relationships; then enters ideas stage by thinking about and then sounding out ideas on piano. 4. Musical course of action continues: develops and shapes final piece sounding out at the piano; reflects on mental model and plan of piece; ideas are focused, developed, fixed and finalised. 5 Makes computerised score - notation phase in which she evaluates and accepts with little or no feedback loop between the generative and verification phases.

For both Shira and Katyia, the initial problem was framed in terms of a conception of the whole, and goals set before the physical business of sounding out musical possibilities. Neither revealed evidence in their talk or actions of looping between the generative and verification phases. As well, both spent longer periods of time, particularly with incubation and illumination processes, revealing evidence of generating possible solutions and converging on the most desirable. While Shira did not verify by performing her final composition, Katyia of a final played through version.

C. Individual Realities: 'Recursive' to 'Regulated' pathways

Introducing Sarah: Sarah was a university student in her senior year of a music education degree. Her primary instrument was voice and she experienced many successful performing opportunities in solo and ensemble settings throughout her studies. Sarah began by playing a chord, proceeded to explore possibilities for the first half of the first stanza (preparation), converged on solutions, verified what was created and then embarked onto the second half of that stanza. Her level of sensitivity to the expressive qualities was reflected in verbal reports and responses: 'I normally would do [plays Eb instead of D on piano while singing text] but I really like the affect of these, [plays D, C on piano] of the major second there. I think it gives it a more 'folksy' affect'. She continued until (aha), her vision for all four stanzas was constructed in terms of mood, form, style and harmony (illumination). Much time was spent generating possibilities, however, when the framework constricted expressive decisions, she adjusted initial decisions (reflecting feedback loops between verification, and preparation, incubation, and illumination). Verification was reflected in her talk and actions by performing her composition in whole sections before looping back to the other stages.

Introducing Angie: Angie was a principal study cellist with seven years of tuition, had one year of voice lessons as her second practical study, three years of piano in her junior years of schooling, and rehearsed regularly with four performing groups. Her accounts of composing across four compositions showed consistent recorded working times where she was committed to composing a piece. On average a piece would take 19 hours to complete with the average length of working sessions being 90-120 minutes each. The evidence in her talk about her approach to composing characterises a non-linear compositional process. This involved a constant interplay between the generative phases of preparation (exploration, activates resources, discovery, clarification of purpose, defining goals), incubation ('mind writing', 'mind-playing', thinking about), illumination

(selection/rejection; aural testing and experiment), and verification (evaluation, adjusting, refining) processes. Importantly, the physicality of sound was less emphasized as a tool for realising ideas as thinking in sound. For Angie, her creative process was at its strongest as a regulated interplay between the use of a full range of generative and verification processes, and focused on what was essentially a creative problem-solving procedure in which she made inductions from experience about 'what will and won't work' and reflexively tested, recorded, revised, and refined evolving drafts of a piece.

Table 5: Sarah and Angie: Instances of Problem Finding and Problem Solving

	Problem Finding	Problem Solving
***Sarah:** recursive (see appendix 1 for full analysis)	1. Considers possible pitches, rhythms, repetition and unity, and expressive intentions 3. Frames composition as a whole in terms of harmonic relationships, mood, melody, rhythm, and unity and repetition 5. Considers expressiveness of text and music, and inter-relationships with a focus on dynamics and transitions between major and minor (verses). 7. Seeks further possibilities for mood of each verse.	Explores and notates possible solutions displaying interplay between preparation, incubation, illumination, and verification. 4. Generates possibilities for problems defined, moving across verses of text, aurally viewing the composition from the whole as well as related parts. Much time spent generating, converging, and verifying. 6. Converges on dynamic decisions with no generative activity. Generative activity with verification experienced before decisions are finalized. 8. Moves between generating possibilities illumination, and verification before deciding. Verifies entire composition.
Angie: regulated	1.Considers musical and expressive intentions; explores, listens, drafts and sketches; sets goals 3. Seeks further musical possibilities; listens to models; thinks a lot about it. 5. Continues research into stylistic details and raises questions related to musical conventions; mind-playing; mind-writing 7. Problems perceived in consideration of time limitations and initial plan; questions raised	Drafts ideas in memory, graphical forms and some musical representations generated. 4. Continues iterative process of constructing solutions and testing, then trialing further musical possibilities within a particular section. 6. Focuses on generating new contrasting ideas and to elucidate the motivic relations between sections; trials and tests possibilities 8. Decides musical way forward; continues listening, editing, refining and notating the evolving

	about length of piece; researches how other composers tackle problem	drafts.

For Sarah and Angie, composing involved a continuous interplay between problem finding (framing of problem as expressive goals), working flexibly to generate musical solutions (seeking and trailing musical possibilities), and verifying ideas by developing strategies of looping back and across all phases of the creative process. The importance of the incubation phase was made clear where 'musical mapping', 'imagining possibilities' from situated problems and 'mind-playing' and 'mind-writing' occurred. Both demonstrated considerable metacognitive skills. Contrastively, Angie combined the use of imagined sounds and carefully notated manuscripts while Sarah notated minimally and relied on the use of imagined sounds and audiotape to preserve and verify what was created.

Several theorists have written about composition, reminding us of the dangers and inappropriateness of accepting any single theory on the nature of composition (Emmerson, 1989; Berleant, 1987). This study showed that there were considerable individual differences between the students in their approaches to composing. However, there were commonalities across the creative process. What we have created is an operational typology, deductively derived, as empirical classifications of the representative routes through which these six student cases were identified from a wide range of composing pathways as drawn from different data sets. The proposed typology is illustrative, rather than exhaustive, and a working one with numerous limitations.

Conclusions

The findings of this study relate to: (a) the role and interaction of problem finding and problem solving skills embodied within the compositional process; (b) a diversity of pathways underlying student composing; and (c) what being musically creative means and looks like. What we learn from students concerning aspects of composing may encourage teachers to recognise that composing presupposes and promotes problem finding and solving, that these are integral aspects of composing. Students need to develop problem finding and solving strategies through which they can examine their own composing pathways as characterised by the degree of interplay between problem finding and solving. Teachers promoting activities that require students to think, critically and musically, through musical problems whilst composing can facilitate this.

The findings of this study point to the need to reflect on and advocate for the kind of music education that acknowledges and promotes students' constructions of their individual composing realities. Students' talk and actions reveal differing operations of composing. The evidence from this study suggests creativity in composing operating on six levels - floater-linear, serial to recursive, staged to regulated - each level highlighting to varying degrees of interplay between problem finding and solving. It is hoped these findings will contribute to teachers' understanding of what characterises problem finding and solving as aspects of composing, thus offering what being musically creative means and what it looks like. As well, it is hoped this research will be a useful foundation for research in the area of assessment.

References

Abbs, P. (1987) (Ed). *Living Powers: The Arts in Education.* Lewes: Falmer Press.

Amabile, T.M., & Gitomer, J. (1984). Children's artistic creativity: Effects of choice in task materials. *Personality and Social Psychology Bulletin,* 10, 209-215.

Berleant, A. (1987). Musical de-composition. In Alperson, P. (Ed.) *What is music? An Introduction to the Philosophy of Music.* Pennsylvania: The Pennsylvania State University Press.

Burnard, P. (1995). Task design and experience in composition. *Research Studies in Music Education.* **5**, pp. 32-46.

Burnard, P. (1999) Bodily intention in children's improvisation and composition. *Psychology of Music.* **27**, (2), pp. 159-174.

Burnard, P. (2000a). Examining experiential differences between improvisation and composition in children's music-making. *British Journal of Music Education,* **17**, (3), pp.227 - 245.

Burnard, P. (2000b) How children ascribe meaning to improvisation and composition: rethinking pedagogy in music education. *Music Education Research.* **2**, (1), pp.7-23.

Burnard, P. (2000c) 'Making a piece you don't play and forget': Children composing and the role of context. *Australian Journal of Music Education.* (1), 30-39.

Burnard, P. & Younker, B.A. (2001). 'Mapping pathways: Fostering creativity in composition. Paper co-presented at Research in Music Education, International Conference, Exeter, 2001 and (In Review). *Music Education Research.*

Csikszentmihalyi, M. (1996). Creativity: Flow and the psychology of discovery and invention. New York: Harper Collins.

Davis, G. A. (1986). Creativity is forever (2nd ed.). Dubuque, Iowa: Kendall/Hunt Publishing Company.

Emmerson, S. (1989) Composing strategies and pedagogy. *Contemporary Music Review.* **3**, 133-144.

Getzels, J. W. & Csikszentmihalyi, M. (1976). The creative vision: A longitudinal study of problem finding in art. NYC: Wiley.

Guilford, J. P. (1977). Way beyond the IQ. Buffalo, NY: Creative Education Foundation.

Harland, J. et. al (2000b). *Arts Education in Secondary School: Effects and Effectiveness* National Foundation for Educational Research (NFER) Publications.

Kosof, J. (1995). Explaining creativity: The attributional perspective. *Creativity Research Journal, 8*, 311-366.

Music Educators National Conference (1994). *The School Program: A New Vision*. Reston.: VA

Music Educators National Conference (2000). *Vision 20/20* (C.K. Madsen, ed.). Reston, VA: The National Association for Music Education.

National Advisory Committee for Creative and Cultural Education (NACCCE) (1999) *All our futures: Creativity, Culture and Education.* Department for Education and Employment (DfEE).

National Foundation for Educational Research (NFER, 2000a). *The Arts, Creativity and Cultural Education: An International Perspective.* Qualifications and Curriculum Authority (QCA) Publications.

Robinson, K. (2001). *Out of our minds: learning to be creative*. Oxford: Capstone

Ross, M. (1989). *The Claims of Feeling*. Lewes: Falmer Press.

Sloboda, J. A. (1985). *The musical mind.* Oxford: Clarendon Press.

Sternberg, R. J. & Davidson, J. E. (1983). Insight in the gifted. *Educational Psychologist*,

Sternberg, R. J. (1988). The nature of creativity. *Contemporary Pyschological Perspectives* (R. J. Sternberg, ed.). Cambridge, England: Cambridge University Press.

Sternberg, R. J. (1999). *Handbook of Creativity*. Cambridge, England: Cambridge Univeristy Press.

Stevens, R. (2000). Where are Twenty Years On? - A Review of Australian Music Education Research for the period 1978 - 1997. *Research Studies in Music Education,* **14,** pp. 61-75

Wakefield, J. (1991). The outlook for creativity tests. The Journal of Creative Behavoir, 25 (3), 184-193.

Wallas, G. (1926). The art of thinking. NYC: Harcourt, Brace, Jovanovich.

Webster, P. R. (1979). Relationship between creative behaviour in music and selected variables as measured in high school students. Journal of Research in Music Education, 27 (4), 227-242.

Webster, P. R. (1987a). Refinement of a measure of creative thinking in music. In C. Madsen, & C. Pickett (Eds.). Applications of research in music behaviour. (pp. 257-271). Tuscaloosa: University of Alabama Press. In J. Willsen & A. J. A. Binker, (Eds.). Santa Rosa, CA: Foundations for Critical Thinking.

Webster, P. R. (1987b). Conceptual bases for creative thinking in music. In J. Peery, I. Peery, & T. Draper (Eds.). Music and child development. (pp. 158-174). New York: Springer-Verlag.

Webster, P. (1992). Research on creative thinking in music: the assessment literature. In R. Colwell (Ed.), Handbook of Research in Music Teaching and Learning. New York: Schirmer.

Younker, B.A. (2000a). Thought processes and Strategies of students engaged in music composition. *Research Studies in Music Education.* **14**, pp. 24-39.

Younker, B.A. (2000b). Composing with voice: Student's strategies and processes and the influence of text on the composed music. *Canadian Music Educator,* **41**, (3 & 4), pp.91-99.

APPENDIX 1

Sarah: Recursive pathway

1. Desires to for an open cadence at the end of third line that will lead to an open cadence and verifies.

2. Works through possible pitches for the th lines

3. Concern about the simplicity of the line.

4. Explores other melodic solutions. Repeats previously composed line and accepts (verification).

5. Appropriate rhythm for the word 'bluster'.

6. Explores aggressive rhythms and converges on a dotted 16th followed by a dotted 8th note.

7. Concern for a melody dominated by triads and a desire for a 'Maritimish' feel.

8. Explores stepwise motion to replace some triadic motion and converges on solutions that satisfy the desired feel.

9. Problem with too much repetition but desirous for some to represent folk song affect.

10. Explores changing certain notes to create unity, repetition, and folk song affect.

11. 'A ha' moment in which she frames the whole composition and includes problems framed and solved up to this point. Needs to modulate from point. Needs to modulate from first to second verse (minor to major).

12 Explores pitches for beginning three words of second verse by playing and singing created music for previous three words. Solution is arrived at (same intervallic relationships for both parts, but one major and the other minor) and verified. Continues to create music for remaining lines. Sings what was created for first verse, then sings possibilities for parallel lines in second verse. Sings second verse after decisions were made (verification).

13. Music for verses 3 & 4.

14. Same music for 1 & 3, 2& 4.

15. Dynamics for fourth verse.

16. Converges without exploration (softer dynamic level for fourth verse).

17. Dynamics for verses 2& 4.

18. Converged immediately. Related text with dynamics and texture–brighter. Explored while singing through first three stanzas. During fourth verse, halted and articulated the need for a pause and ritard (expressive relationships between text and music).

19. Transition from 3rd (major) to 4th (minor) verses.

20. Explores melodic possibilities beginning with end of 3rd and continuing into the beginning of the 4th verse.

21. Mood for each verse.

22. Articulates mood for each verse using text as source. Proceeds to sing through each verse, stopping and repeating, and then continuing (movement between generating possibilities, illumination, and verification.

23. Transition between 3rd and 4th verse.

24. Plays and sings what was previously created (verification). Plays and sings entire song (verification).

samspel

The Rise and Fall of Choral Music Education in Canada: Towards a Postmodern Perspective

Carol Beynon – beynon@uwo.ca
The University of Western Ontario

Introduction

Over the past 25 years there has been an unprecedented increase in the development of community-based programs, especially choral programs for children and youth. In many cases, these programs have sprung up in communities where healthy school-based choral programs with significant reputations for choral excellence in performance already exist. What is remarkable about this new growth, is that for most of the twentieth century, choral music education programs were provided by the school for those interested in taking the course, by the church for those with a connection to that faith, or by ethnic communities for those immigrants to Canada who chose to stay connected to their culture. In this paper, I compare the phenomenology surrounding current music education programs offered in the public education sector and in communities across Canada, noting the developmental level of choral music specifically in the school system and that of the community. By examining the curriculum, performance and assessment levels in each of the programs, the academic credentials and experience levels of those teaching in both venues, the resources and funding, as well as the demographics of those who participate in the various programs, I seek to investigate the intended and actual results of musical learning in the two venues. As part of this investigation, I examine a variety of sociopolitical reasons for such a remarkable change in the area of community choral music programs, including the demographics of the country, the changing values and ideologies at the turn of the twentieth century, accessability to school and community programs, priorities for the funding and status of arts education programs in schools and community. I begin be providing a very brief overview of the state of music education and community music programs in Canada.

Contextualizing School Music Programs

While music education has always had a place as a subject in the curriculum of Canadian schools, it has remained a marginal subject–as have the other arts subjects, notably art, drama and dance.[1] A number of forces have conspired against music as a mainstream subject. A few include the musical academic limitations of generalist teachers at the elementary level, the lack of trained specialist music teachers, the notion that music education is elitist and a leisure activity for the wealthy, and the impression that music education is not seen as any kind of 'preparation for the world of work' subject. Thus, the time committed to the study of music education within the school day has been marginal at best in some schools, may have been used only for ceremonial occasions, and even non-existent in other schools. Where choral music education programs have in fact flourished

[1] In fact, vocal music is perceived as the most marginal option in music education compared to winds, strings, or other streams of music education even by music educators themselves.

in schools for a lengthy period of time, there is evidence that it requires a number of important variables to be in place: a supportive school administrative team who continually ensure highly qualified vocal teachers are hired and classes are timetabled appropriately, outstanding, energetic vocal specialist(s) in place to teach, a supportive community of students and parents, and so on.

Signs of Change

Educational, as well as personal priorities and practices have changed remarkably in the past 20 years based largely on enormous technological change and development. While it is called our postmodern phase by some and the post-structuralist by others, most cannot come to any sense of shared understanding about the realities in which we live. We live in an information society where 'fast-food service' is expected for every desire; where our world has become smaller mainly due to technological advances; where Canadian society has become more diverse; where economic situations are more variable–the poor are poorer and the wealthy, wealthier–and where governments have become increasingly more controlling, especially with issues related to spending and schooling. In a time of fiscal restraint, marginal subjects often feel the first and harshest blows. Nowhere is this more evident than in Ontario where music has lost its distinctive status as a subject in the curriculum and is now lumped into arts education according to the most recent policy documents from the Ministry of Education (1998 - 2001). Ironically, at a time when music education in the schools struggles for survival, community choral music programs are growing and flourishing.

In considering the unanticipated influx in children's and youth community choirs, there are a number of recent signposts that point to the community as a major site of music education within Canada now instead of the school.

Signpost #1: In May, 2000, the Association of Canadian Choral Conductors held its biennial conference in at the University of Toronto. More than 20 children's, youth, and adult choirs were invited, after a 'blind review' audition process, to perform at the conference before an audience of several hundred renowned Canadian choral conductors. Of all these choirs, only one choir came from a school, and that an elementary school for the arts. The rest were community based-children's, youth and adult choirs.

Signpost #2: In questioning the organizers for another recent music conference, I was informed that of the 55+ audition tapes that were received from performing organizations, only three came from school organizations.

Signpost #3: In reviewing the list of the 23 semi-finalists and finalists for the 2002 CBC Competition for Amateur Choirs in the three school-age related categories, there were only three school choirs at that level of the competition.

Signpost #4: In the spring of 2001 and 2002, I adjudicated choirs at five different music festivals across Canada. At most festivals, there were only enough school choirs for one day of adjudications where in previous years, the festivals had at least five days of school choir performances. The only school choirs performing at the festivals I attended came from Roman Catholic school boards, where music specialists were being maintained at the elementary level.[2]

[2] I am cognizant of the fact that these signposts look at public venues that require some form of competition on the part of choirs, and that there may be some choral conductors who do not enter competitions for one reason or another, whether it be for philosophical, practical, or financial reasons. However, music is a performing art and the reality is that there are fewer

At the same time as we notice fewer school choirs in public performance, we do see a number of community choirs making the headlines, wining the prizes, and touring extensively.

Just over twenty years ago, the Toronto Children's Chorus (TCC) under the direction of school music teacher, Jean Ashworth-Bartle, burst upon the musical scene in Canada. Now, in 2002, both Bartle and the TCC are among the most well-known and respected conductors and choirs, respectively, in the world. Already known in 1980 for her excellence as an elementary music teacher and award winning school choirs, it came as little surprise to watch as she developed the TCC into an consistently outstanding choral organization. The rest is history. Numerous children's and youth choirs,[3] that parallel the school system, have sprung up across the country. In fact, it seems that every town and city across the country now hosts at least one, if not more, community-based choir for school-age youth. And, a recent informal poll indicates that almost every one of these organizations is headed and/or conducted by a qualified school music teacher who had one or more successful school choirs on a daily basis. This situation begs the question: Why the need to establish a community children's choir outside the school situation?

Community Music

With the advent and proliferation of community youth choirs, it makes sense to review briefly what is termed 'community music' in the academic literature. Leglar and Smith (1996), in their research of community music, have defined seven different kinds of programs ranging from community schools to outreach and associative organizations, to ethnic preservation groups, some of which are amateur, some of which are professional. One of their categories refers specifically to the topic of this paper, community performance organizations. And, given that the rise of community youth choirs is now pervasive, it demonstrates bluntly that schools are not the only sites of true music education. Veblen and Olsson (2002) note that the teaching and learning of music can take place almost anywhere at any time; it can be either formal or informal, structured or unstructured. They provide 14 characteristics of community music activities that are important to name as part of this particular investigation because they help us to understand why parents would choose to have their school-age children participate in a particular community youth choir which requires both significant additional time outside of school and financial commitment.[4] (See table 1)

---

school choirs performing in public spaces, competitive and non-competitive music festivals, and at music conferences.

[3] To this point, I have differentiated between children's and youth choirs in order to assume a rough comparison between choristers in elementary schools (i.e., children's choirs) and choristers in secondary schools (i.e., teenage or youth choirs). From this point and only for purpose of brevity, I will use the term 'youth choirs' to include all ages of choirs that would be normally be included as part of public schooling.

[4] It is acknowledged that there have always existed private music studios in the community as well as church choirs and other community groups where children could engage in music education outside the school. Parents from privileged homes have always taken advantage of private music teachers in the community to augment their children's musical development.

Characteristics of Community Music Activities

1. emphasis on a variety and diversity of musics that reflect and enrich the cultural life of the community and its participants
1. active participation in music-making of all kinds (performing, improvising and developing)
1. development of active music knowing
1. multiple learner/teacher relationships and processes
1. commitment to lifelong musical learning and access for all members of the community
1. awareness of the need to include disenfranchised and disadvantaged individuals or groups
1. recognition that participants' social and personal growth are as important as their musical growth
1. belief in the value and use of music to foster intercultural acceptance and understanding
1. respect for the cultural property of a given community and acknowledgment of both individual and group ownership of musics
1. on-going commitment to accountability through regular and diverse assessment and evaluation procedures
1. fostering of personal delight and confidence in individual creativity
1. flexible teaching, learning and facilitation modes(oral, notational, holistic, experiential, analytic
1. excellence/quality in both the processes and products of music-making relative to individual goals of participants
1. honouring of origins and intents of specific musical practices

(Veblen & Olsson, 2002)

Analyzing the Community Youth Choir Phenomena

Young singers participate in choirs for a number of reasons which may include:[5]

1. an extension of their music education,
2 personal well-being,
3 social experience,
4 interest,
5 opportunities for travel,
6 pursuit of musical excellence,
7 sense of belonging,
8 status,
9 assimilation,
10 demographics,
11 search for the others who share their interest,
12 search for difference.

It would seem that all of these attributes should be found in a school choir situation but investigation indicates that thousands of youngsters across Canada are flocking to join elite community choirs. The reality is that number of school choirs continues to diminish while community choirs are flourishing, and these community choirs are being directed by the very same music teachers who work (or have worked) as music teachers in the school system. Analysis of this phenomenon requires further study, and a useful place to begin this

[5] Not in any priority order

analysis may be by comparing community and school choirs in terms of resources, participants, curriculum, teacher credentials, and so on. The following sub-headings are intended to provide a means to simplify this comparison.

Funding. Like community choirs, school choirs almost always exist as extra-curricular ensembles outside the regular school day in both the elementary and secondary school setting. School choirs are publicly funded through school district, although the funds are limited and actually provided to support the curricular music education classes. The conductor is almost always the music teacher in the school and is a voluntary position. Space for rehearsals and performances is provided in the school building. Since school choirs are usually extra-curricular, some fundraising through teacher and parent support groups is usually required.

Community choirs, on the other hand, have no guaranteed source of funds from one year to another and are solely dependant on registration fees, concert revenues, fundraising campaigns, limited grants, donations, or benefactor(s). Since there is no public host organization, they must pay rental for rehearsal and performance space.

Curriculum. School music curriculum is mandated by provincial government and is sequentially based according to current pedagogical assumptions about learning. Guidelines are created so there is consistency across all subject areas. Curriculum expectations are rarely monitored but they are revised, usually when a new government comes into power. The curriculum, at its best definition, is loosely structured and has little impact on the workings of extra-curricular school choirs. It is most accurate to note that the curriculum of the school is determined by the music teacher/choir director in the school who chooses the repertoire and performance venues.

Like the school choir setting, the community choir repertoire (i.e., in this case, the curriculum) is determined largely by the conductor, although board members of the organization may have input in some cases. Generally the artistic staff is left to determine its own outcomes. The repertoire may be exclusive or globally defined depending on the individual goals of the particular organization. While generally highly-structured, the curriculum may or may not be involved in long term planning.

Teacher Credentials & Experience. School choirs are almost always directed by a certified teacher, usually the school music teacher according to specific provincially set criteria. The conductor may have from 0 - 35 years of teaching experience and school choral conductors may or may not have musical background. Teachers for schools are hired for a lifetime contract based on an interview and few teachers are dismissed. Remuneration for classroom teachers is based on pay scales in the school district and would range from $35 000 to $65 000 CAN, depending on years of experience. However, since most school choirs are extra-curricular, school choir directors are volunteers in this capacity, but supported financially through their role a school teacher.

Community choirs are generally directed by highly skilled choral conductors who may or may not have any formal training. Their experience would range from 0 - 40+ years of experience and they may be self-appointed or selected through audition and interview by a board of directors or the executive of that particular organization. Contracts may be for limited or set terms as determined by the board. The community choir board usually retains the right to terminate the conductor, based on the group's conditions of appointment. Inability to bring the choir up to a performance standard (e.g., not winning competitions consistently) would provide the most obvious grounds for dismissal. Remuneration scales in Canada range from $0 - $40 000, depending on the level of responsibility outside of conducting.

Chorister Participants. Membership in a school choir is open only to students enrolled in that school and participation is voluntary. Some extra-curricular choirs have age limits and some enrol their singers through audition. Traditionally school choirs sing a wide range of repertoire but some specialize in certain types of music, such as madrigals, jazz, chamber repertoire, and so on. Studies show that extracurricular school choirs are more likely to be found in middle and upper class, traditional neighbourhoods.

Membership in community choirs is voluntary and self-selected, and not restricted to a set school boundary or geographic area. Almost all community youth choirs select their choristers according to musical precepts set by the conductor from residents from the surrounding community environs. Generally, selection is limited to those who already have some musical background–choristers generally come from those families affluent enough to afford private lessons–or show obvious talent. Unlike in the school situation, conductors can include or exclude without reason or justification and these choirs are generally populated by advantaged, dominant class families who support the arts. Although there may be a paid manager, parents are expected to volunteer to run the organization. Thus, often the whole family is involved in various capacities even if only one child is a member. Parents are generally expected to pay money beyond registration fees for such items as uniforms, travel, fundraising, and so on.

Program Assessment. In schools, there is supposed to be regular monitoring and curriculum review at the local and provincial level by government policy and arts education organizations for consistency. However, there is relatively little monitoring of any subject except through standardized testing, and since school choirs are extracurricular, there is little regulation of standards or curriculum.

Community choirs, on the other hand, are monitored by a board of directors or executive which is nominally responsible for the fiscal and artistic development of the choirs. However, the actual monitoring occurs through public performance, competition, and public acceptance.

Resources. Resources for choirs, whether school or community based, include sheet music to sing, accompanist, travel, uniforms, rehearsal and performance space, conductor availability. Schools provide school choirs with some music, a conductor, rehearsal and performance space within the school building, and perhaps bussing to a few concerts or a festival within the school district. Additional funds for such aspects as uniforms and travel would have to be supplied through fundraising activities.

Community choirs, as noted previously, rarely have a guaranteed source of funds, and must rely largely on fees raised through participating families and fundraising. They must raise funds for everything from sheet music to rental for rehearsal and performance space (often in schools or churches), as well as for paid staff if they exist in the organization.

Analysis of the Phenomenon

The comments above show that, in most cases, choral music teachers have chosen to create their own performance-based community groups in their own communities where they have to search for curriculum, resources, funding, rehearsal space and so on, instead of building their choirs in schools where many of the physical resources are provided. Given this knowledge, there are a number of the characteristics from Table 1 that require some alteration in order to describe the specific process and product of community youth choir organizations currently operating in Canada. Table 2 below provides amended wording to Table 1, using italics, more accurately reflect the intentions and actions of these groups. These amended characteristics are significant to consider in comparing and analyzing the

circumstances around the rapid development of community youth choirs and given the concern by music educators that school choirs may be disappearing.

Characteristics of Community Youth Choirs
(Amended from Table 1)

1. emphasis on a variety and diversity of musics that *will likely* reflect and enrich the cultural life of the *wider* community and its participants
2. active participation in *singing*
3. development of active music knowing
4. *relationship between chorister and conductor reflects that of the traditional model in choirs; rehearsal processes are largely teacher-centred with a focus on performance quality*
5. commitment to lifelong musical learning and access *too members of the community who show excellent potential thr*ough a screening process; *may also limit access somewhat to those who can afford fees and provide own resources.*
6. awareness of the need to include disenfranchised and disadvantaged individuals or groups *and many groups have bursaries available to encourage disadvantaged youth to participate.*
7. recognition that participants' social and personal growth are important *but* musical growth *of the ensemble is critically important*
8. belief in the value and use of music to foster intercultural acceptance and understanding
9. respect for the cultural property of a given community and acknowledgment of both individual and group ownership of musics
10. on-going commitment to accountability through *excellence in individual and group performances, including striving for a level of excellence that is not possible in the school system*
11. fostering of personal delight and confidence in *group achievements*
12. teaching, learning and facilitation modes (oral, notational, holistic, experiential, analytic) *are based on level of the group and what needs to be accomplished*
13. excellence/quality in both the processes and products of music-making relative to individual goals of participants *and goals of the group*
14. honouring of origins and intents of specific musical practices

Considering the Reasons for Change

The school choir tradition has existed for more than a century in Canada; the community youth choir movement is in its infancy. AS a result, it would be both presumptuous and pre-emptive to provide definitive reasons for such a change in the Canadian youth choral setting, given that the phenomenon is so new. Perhaps it is useful to think about the global nature of our world and its impact on the arts as one of the factors in this change process. As we move from our modern view of the world toward a phase currently termed, post-modern, we find ourselves viewing our shrinking world and its societies through vastly changing lenses. Technology allows us to view society, not as a whole, but in its reality where multiple values implode upon one another. For example, where once, 'classical' music was at the top of the hierarchy of musical standards, the future shows us a more accepting musically literate audience of difference, that includes popular music. Plurality is becoming the norm, and some community youth choirs have been developed to accentuate this plurality while others have been developed to save 'the standards.'

Summary

As noted at the outset, there has been an unprecedented increase in the development of community-based youth choirs over the past 20 or so years. In this paper, I have briefly investigated and compared current music education programs offered in the public

education sector and in communities across Canada. Through an examination of curriculum, performance and assessment levels, the academic credentials and experience levels of those teaching in both venues, the resources and funding, as well as the demographics of those who participate in the various programs, I used this paper to analyse the intended and actual results of musical learning in the two venues.

The development of community youth choral music implies a subtext of taking control over one's professional role as a choral music educator. When choral music is in the domain of the public education system, it becomes standardized and dependant upon the norms, ideologies and values of the current society and state through the curriculum and expectations of schooling. The school choral conductor is subjugated to become the deliverer of the standards through his/her school choir and reflects the ideologies of the state and the values of the school community; the community choral director, as an independent, has the opportunity to develop a choral music program that depends upon his/her professional needs and the community expectations. These needs and expectations may or may not reflect a real change in values, but they do represent a change in empowerment and development of individuality. Thus power and control rest in the hands of the former school music teacher who is now a liberated and independent agent for choral music as an expressive and communicative vehicle. Music making in community youth choirs has allowed these music teachers to step outside the boundaries, away from what might be seen as the repressing regulations and norms of schools while providing opportunities for groups of young musicians to develop their skills in groups with like-minded and equally talented peers.

George Bernard Shaw said:
I do not believe in circumstances. The people who get on in this world are the people who get up and look for circumstances they want and, if they cannot find them, make them.
Over the past 25 years, it has become apparent that numerous school choral conductors have become disenchanted with the 'circumstances' of lacking power and control in directing their school choirs. They have taken direct action to create their own opportunities to develop the performance-based choirs they want. They have such commitment to changing their circumstances and assuming power and control of their own professional work, that in most cases, they have done this voluntarily, expending hours of commitment and hard work. The performance level of most of these youth choirs is incredibly high, surpassing that of the best schools of years past. The questions left to be asked: What has been gained? At what cost have these accomplishments come?

References:

Veblen, K., & Olsson, B. (2002). Community music: Towards an international overview. In R. J. Colwell & C. P. Richardson. (Eds.) *Second Handbook of Research on Music Teaching and Learning*. New York: Oxford University Press.

Exploring images of teachers and teaching

Lori-Anne Dolloff – ldolloff@chass.utoronto.ca
University of Toronto, Canada

I had entered university sure that I was going to be a high school band director, just like my high school teacher. During my studies, however, I was captured by the Orff approach and altered my direction. The Orff approach to music teaching and learning is music for the whole child. The approach uses speech, drama, singing, playing instruments and movement to engage children and teacher in active and playful music making. It is a creative, integrated and playful approach. After years of "serious" study in the private studio, dedicated to mastering my instrument, Orff reawakened the joy of music making with others. We laughed as we improvised our own melodies and accompaniments on the xylophones and metalophones, played with the sonorous possibilities of proverbs and poetry and created dances to our composed music. It was this joy that I wanted to share with students in schools. I would open the doors of musical possibility for them, they would enjoy music and look forward to engaging in creative play. I would kindle the spirit of play that I had missed in my own music education. So with a missionary spirit, I launched into my first teaching assignment.

As I walked to school that first day I chanted the song "I Have Confidence," from the Sound of Music–feeling not just a little like Maria Von Trapp. My homeroom class went rather as I had expected, the administration of attendance and locker assignments was a chore, but predictable. At last the time came to teach my first music class–8C vocal music. 8C entered in a quiet, strangely passive manner. I introduced myself and proceeded into my best Orff schtick–carefully chosen for young adolescents. The class responded somewhat lethargically, but they did respond. I thought that all was going well until a girl in the front row said to her neighbour, in her best stage whisper, "Does she think we're having fun?" The class erupted in laughter. I was crushed. Of course I thought they were having fun. I didn't realize that they might not share my own view of the excitement and joy of Orff. From then on this class was the class from hell. I felt that I had missed my opportunity to "hook" them, and 3 times a week I just prayed that we would get through a class without anyone getting hurt. It didn't seem to matter that the rest of my classes were going reasonably well. I was equating teaching with performing, seeing the students as the audience. My image of myself as "Maria von Trapp" keeping them entertained couldn't withstand the reality of 8C.

A former student, Frances, a music education graduate kept in touch during her subsequent teacher training. She had been an enthusiastic music education student and her zest for learning continued through her pre-service year. She reveled in the experience of learning to teach the whole curriculum, and embraced "Balanced Literacy" and co-operative learning styles. These pedagogical approaches were in direct contrast to her own very strict and conservative schooling. Frances was hired straight out of teacher training to teach music and language arts at a middle school in suburban Toronto.

During the last weeks of August Frances set up her classroom just like the models she had seen while practice teaching and in university. She had the desks arranged in a circle, and planned to engage the children in small group/large group activities. The curriculum was "project-based" and would facilitate co-operative learning. All was set for

her opportunity to excite and empower her students. At last it came, the first day of school. Frances walked into her classroom full of energy and hope. She described herself later as "Miss Pollyanna, Miss Whole Language and Miss Co-operative Learning." The students also entered with energy–unfortunately it was not what Frances expected. The students came in walking on top of the desks and yelling and screaming at each other. A woman with a generally quiet demeanour, Frances panicked. She picked up the nearest object–a cowbell–and started banging on it yelling for the students' attention. Within three days the desks were in rows and the students were doing worksheets and dictionary drills–the picture of the classrooms of her days as an adolescent student. Her newly minted image of herself as the "facilitator" and "creative learning partner" changed too. In her own words, "*I went from Miss Pollyanna to Miss Bitch.* "

In sharing the first traumatic weeks of her teaching with Frances I was carried back to my own experiences with 8C and given the opportunity to gather insights into my own teacher images and their influence on me as a beginning teacher. Frances' trials and tribulations were my trials. As we traded stories we began to work through the issues of what we "imagined" and what was "real". Frances' "Miss Pollyanna" and my own "Maria von Trapp" held many assumptions about ourselves and the students that we encountered. How we see ourselves "as teachers" has a direct relationship with how we see our students "as students," and ourselves as pedagogues.

Students come to formal teacher education with a wealth of personal knowledge about teachers and teaching built up over the many years of study in school and studio. They each have many "images" of teachers competing to be role models for their own teacher "image" and they all come with vastly different perspectives on the role of the teacher. Knowles (1992) maintains that the recollection of teachers and experiences become internalized into an individual's own "teacher role identity" (p. 131); an image of his/her own teacher self that he/she brings to teacher education. Traditionally, however, music education courses, particularly methods courses, have not addressed the development of teacher role identity. Roberts (1991) and Mark (1998) posit a tension between the music education students' identity as musician and his/her identity as teacher. According to Roberts this conflict is nurtured by the structure of university music education programmes. In a study of university programmes he found that students appeared to "lack any on-going construction of their identity as teacher, except in the form of "musician" as "teacher" (p. 34).

When I ask my undergraduate and graduate music education students to write stories of educational experiences they provide rich portraits of teachers who become models for their own actions as teachers (Dolloff, in press).

> *Mr. W.. who taught band, was a warm, friendly person that I also had immense respect for as a musician. He seemed to have everything a music teacher needed. His concern for what he taught and us as his students was always apparent.* (Cathy)
>
> *I find myself acting like Mr. Q. at times in my teaching. I have drawn upon his strengths and weaknesses. ...I try to have a sense of humour when I teach. I remember my band practices in high school and how much I enjoyed them. I want to make them enjoyable for my students in hopes of having them feel how I felt at band practices.* (Lucy)
>
> *The teacher I fear becoming is one that is so laid back that I have no control over the class like my grade eight French teacher. I tend to be very laid back, wanting children to learn when they want to–and only then am I very strict. I'm afraid of not being able to be respected as being "in charge" and crossing the line of being their teacher and not just their friend. (Kelly)*

These statements offer insights into what these individuals value and believe about teachers and teaching. Teachers that live in our memories become part of the composite teacher image that we use to guide our own actions as teachers.

In "That's funny, you don't look like a teacher" (Mitchell & Weber, 1995), Claudia Mitchell and Sandra Weber effectively probe the images that we construct of "teacher" from personal experiences and from popular culture. Portrayal of teachers in the media run the gamut from Arnold Schwarzeneggar in "Kindergarten Cop" to Miss Stacy in "Anne of Green Gables." In music we have a wealth of celluloid role models–from Julie Andrews, to Whoopie Goldberg in "Sister Act", to "Mr. Holland", and more recently Meryl Streep in "The Music of the Heart". These dramatized and mythological teachers all contribute to the collective image of music teacher.

Weber and Mitchell include pictures that children and student teachers have drawn of teachers. The drawings are vivid portrayals of deeply ingrained conceptions of what it is to be a teacher. My interest was piqued. What is it that we are seeing as we imagine ourselves as teachers? Borrowing the idea of drawing from Mitchell and Weber, I began to collect pictures of what music teachers–prospective and practicing–hold as the image of "teacher."

A "collective" image of the ideal teacher was quite in evidence. Teachers were portrayed as well-organized individuals with lists of homework neatly written on the board, students actively but quietly involved in "productive" work. They were neatly dressed–usually in a dress or suit and all but one were women. One student began a picture, a head with a severe face and hair scraped back in a bun, but abandoned it as "stereotypical." Another student, Lucy, drew a beautifully colourful picture of a teacher behind a desk (fig. 1). She described the features of this teacher and then admitted that after she had drawn the picture she realized that that was what she thought we thought an ideal teacher should look like. In actuality, her own ideal teacher looked nothing like the first drawing. In her second attempt at drawing the ideal teacher we see her "true" ideal teacher (fig. 2). Described as a "jock", good-looking, and good-smelling, this teacher sports captions such as well-organized, friendly with students–all attribute of her favourite grade 8 teacher.

Jane's drawing (fig. 3) depicts the ideal teacher outside of the classroom on a picnic with her family. Jane explained that her ideal teacher has a balanced life of family and recreation. There are several important markers here that indicate the the teacher is still "on the job". She reads a schoolbook, "The History of Canada", as Jane related "to keep on top of preparation for her class." A ruler, beside her chair on the ground was purposefully not in her hand, but still close at hand to show her authority. The apple tree overhead was included as a "sign" of a teacher. In short, this teacher has her tools with her at all times, and works even in relaxation. Jane's picture tells us a great deal about her own expectations of teachers.

One of the problems of becoming a teacher, specifically a teacher of music, involves the way we have learned music ourselves. Roberts (1991) maintains that music education majors' view of themselves primarily as "musician," rather than as "teacher" leads to conflict in the development of their teacher role identity. Viewing themselves as "musician" leads to a particular subject-matter focus based on their performance instrument. As we all know, there is a vast difference between studio and classroom teaching. Often the influential teachers that emerge in our personal history work are private studio teachers. Many music education students can not describe significant music experiences from their own music classes at school. This means that their image of the music teacher, and the teaching-learning interaction is based on a model that will not necessarily work in the multi-student classroom. This mismatch is not music specific. Knowles (1992) found parallel issues cropping up in preservice teachers whose prior teaching experience had been one-on-one tutoring.

Our images of teachers, and of ourselves as teachers are complex and influential. The value of taking the time to draw our images of teachers and teaching is to be found in

the perspective that it gives us on our practice. The work of Michael Connelly, Jean Clandinin and many others stresses the centrality of teacher image to teacher practice.

> Teacher actions and practices are expressions of their images. These expressions and images develop continuously through classroom practice and more generally through experience. Images are both the coalescence of past experience and the perspective from which new experience is taken. (Clandinin, 1986, p. 173)

When we close our eyes and think of teachers we think of someone using "a teacher voice, " wearing certain clothes, teaching certain things. As we begin to teach we cling to those teacher images to define who we are and what we do. My own evolution from Maria von Trapp to university professor has been a journey of defining and expanding my images. As pre-service students explore their own images of teaching they become their own guides on their journey of becoming a teacher.

References

Clandinin, D.J. (1986). Classroom practice: Teacher images in action. London: The Falmer Press.

Dolloff L. (2000). Building professional identity: The role of personal story in music teacher education. Canadian journal of research in music education.

Knowles, J.G. (1992). Models for understanding preservice and beginning teachers' biographies: Illustrations from case studies. In I.F. Goodson (Ed.) Studying teachers' lives (pp. 99-152). New York: Teachers College Press.

McCall, G. and Simmons, J.L. (1978). Identities and interactions. New York: Free Press.

Roberts, B. (1991). Music teacher education as identity construction. International journal of music education, 18, 30-39.

Weber, S. & Mitchell, C. (1995). That's funny, you don't look like a teacher': Interrogating images and identity in popular culture. London: Falmer Press.

samspel

Community Music in Canada: Shifting Kaleidoscopes of Context and Meaning

Kari K. Veblen – kveblen@uwo.ca
University of Western Ontario, Canada

In this paper, I examine a typology of selected community music groups in Canada. Who participates? How do CM groups interact with or overlap or link with school music programs? What is their role and potential in Canadian music education?

I wish to thank all individuals and groups whose photographs were featured in this presentation and whose web sites in the appendix provide current examples of Canadian CM groups. This paper expands upon historical and current studies in the field (Veblen and Olsson, 2002) and a presentation given at the MENC (Music Educators National Conference) Adult and Community Music Education SRIG (Special Research Interest Group) in Nashville, Tennessee in 2002.[i]

The experience of group music making (and the learning that takes place in such groups) can be so compelling that it "moves" participants to bond as communities. This concept – "music making as community making" – deserves careful examination from several angles.

In this paper I examine selected community music groups in Canada as these relate to music education in schools. Who participates? What are the social dynamics of these groups? How do CM groups interact with or overlap with the schools? What is their role and potential in Canadian music education?

Categories of Community Music Groups

Leglar and Smith (1996) survey community music groups in the United states and found what they describe as "compatible pockets of diversity" (p. 95). They classify CM groups as belonging to: (1) community music schools; (2) community performance organizations; or (3) ethnic/preservation groups. The following typology (Veblen and Olsson, 2002) [ii] augments Leglar and Smith's model with four other classifications: (4) religious, (5) associative organizations with schools, (6) outreach initiatives of universities and colleges, and (7) informal, affinity groups. Furthermore, this typology is also expanded to include all of North America; research seems to indicate that similar configurations are found throughout Canada and the United States.

Veblen & Olsson's 2002 Typology **Community Music in North America**
(1) community music schools
(2) community performance organizations
(3) ethnic / preservation groups
(4) religious
(5) associative organizations with schools
(6) outreach initiatives of universities & colleges
(7) informal, affinity groups

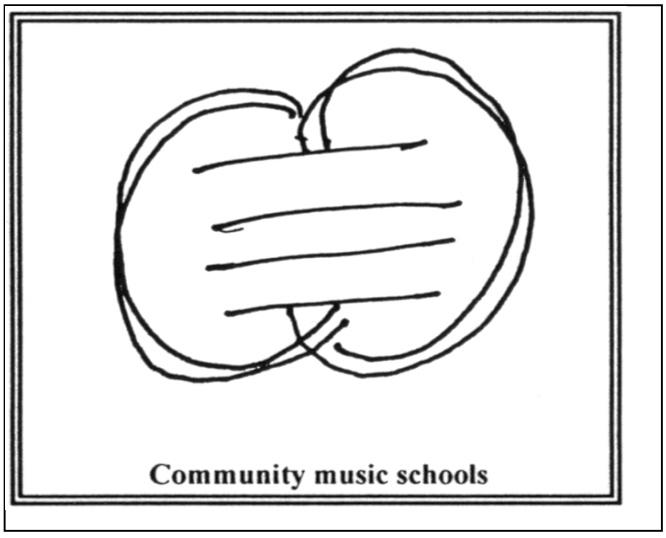
For the purposes of this paper, a majority of sources and examples are drawn from the Canadian context, although the typology and models may be generalized for all of North America. See Appendix A for CM examples from Canada. See the MENC (Music Educators National Conference) Adult and Community Music SRIG (Special Research Interest Group) web page for cases from the United States.[iii]

Community Music Schools

The first category of CM organizations is that of Community music schools. These include members of the National Guild of Community Schools of the Arts as well as individual, freestanding academies, conservatories, and community centers. The National Guild may also include schools affiliated with colleges and universities.[iv]
Some older schools associated with the National Guild originated as immigrant settlement houses at the end of the 19th century. This initiative for progressive efforts in community betterment was inspired by English efforts at that time. The Toronto Settlement House founded in the 1880s is a member of the National Guild.[v] Community music schools continue to emerge; the latest schools to join the Guild may only be a few months old.

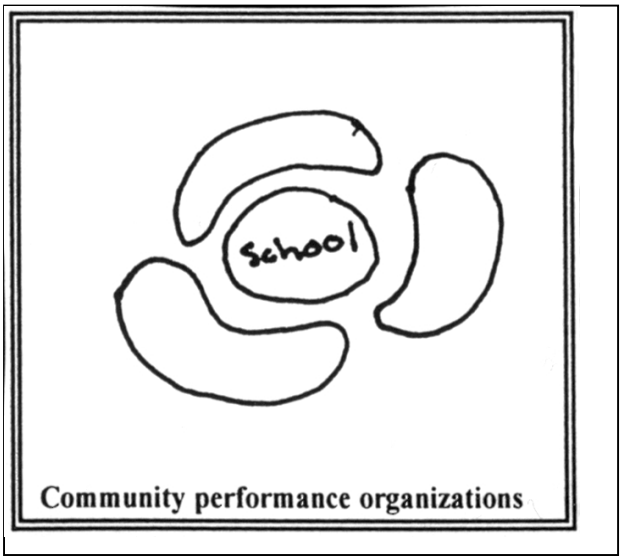
The National Guild's mission is "Arts for All." It advocates for the arts by sponsoring research, distributing publications, serving as a conduit for funding and connecting like-minded organizations. The Guild included 283 member schools throughout the North America as of 2001. The National Guild and other CM schools provide instruction in a variety of music systems, as well as expanded services.

As shown in this diagram, community music schools often merge or meld with public school music programs. While CM schools often accommodate older and younger participants as well as intergenerational groups, a variety of musical experiences supplement, enrich and extend what happens in the K-12 music classroom. Training in Orff, Kodaly, Dalcroze, Suzuki, and various early childhood methodologies may be a featured part of the CM offerings. Frequently local programs are created to supplement and enrich regular curriculum. Furthermore, the same music teachers may be employed in both settings.



Community performance organizations

Community performance organizations include orchestras, bands, choirs, and many other nonprofit groups. There are many, many local groups that fall into this category; the longevity of any particular group can range from very brief to firmly entrenched.



The 'egg-sunny-side-up' diagram for this category illustrates how CM performance organizations are (usually) not part of school programs. However, they encompass and support efforts in schools. Moreover, the members of community performance organizations often cite positive experiences in high school, for example, in choir as one motivator to go on to a barbershop, musical theatre or chorale (Bowen, 1995; Green, 1998; Holmquist, 1995; Vincent, 1997).

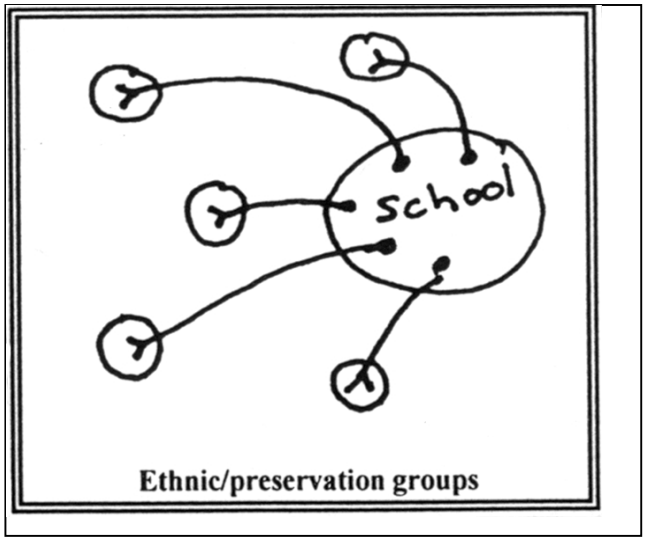
Ethnic / preservation groups

The third category of Ethnic and preservation groups includes indigenous communities such as First Peoples or native American groups, and immigrants as well as those groups who recreate, improvise, invent or adopt traditions.

Lea-McKewon (1987) notes the necessity of community intervention in preserving native music culture (within or outside of music education) In a Manitoba Ojibwa reserve. Cherished songs, instruments, dances and other folkways from a homeland may unify an ethnic group, as documented in a variety of studies. For example, Hattie Rhue Hatchette' music (1863-1958) contributed much to the cohesion of the African-Canadian community in North Buxton, Ontario (Stewardson, 1994). Gatherings often serve as a way to celebrate or build community: Ukrainian polka bands are popular in the Canadian prairie provinces (Cherwick, 1999).

However, as groups become assimilated to the new country, musical traditions may also change, as documented in a study of the German music of Kitchener, Ontario (Pieper, 1996). Furthermore, as Stormer indicates in the instance of the Wild Rose Old Fiddler's Association in Edmonton, Alberta (1997), communities may re-create idealized versions of a former context, in this case, old tyme music in rural Canada.

The Musical Pathways of Canada project initiated by Beverley Diamond (2000) is one example of exciting collaborations between tradition bearers in sites throughout Canada. In the Musical Pathways project, ethnomusicologists work with performers, singers and others to document changing musical ways.



The relationship between Ethnic/preservation CM groups and schools might be described as a seeded nest. In the diagram above, note that there are small circles outside of the central school circle, with connecting lines between. Here, community groups have autonomy beyond the school, but students and teachers from the groups also participate and learn in the school. Although an individual child's musical heritage may not be featured or even acknowledged within the music class, that student interacts with others, no doubt engaging in random transmission with other students. The ideal, of course, is to make these contributions visible and valued. See Appendix A for examples of communities where this is likely happening.

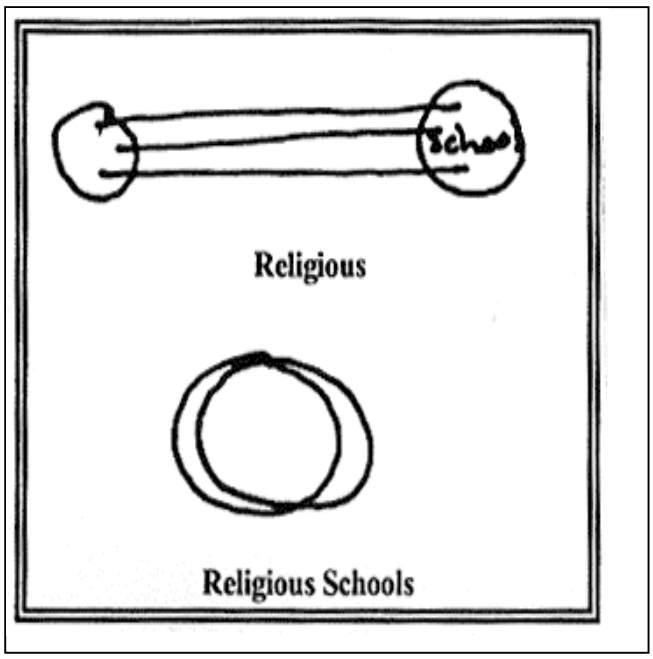
Religious

Many community musicians participate in religious contexts. They perform in solo capacities as organists, soloists, and cantors, or as members of church choirs, processional bands and other ensembles. Although these groups may perform publicly, sometimes on a weekly basis, the musicians may not feel that they are performing (for an audience). They are fulfilling a religious duty, a role in a liturgical service or worshipping.

Sometimes rituals and music are part of an immigrant or displaced community, thus preserving traditions as well as worship. Such instances may also provide examples of changing ways. One case in point is provided by Gallo (1998) who undertook a study of the dynamics of the Ethiopian Orthodox Church in Toronto. He found that immigrants to this church have adapted what was a strict and written Ethiopian musical tradition to a flexible oral musical practice, resulting in many changes in performance, aesthetics, symbolism, instrumentation and transmission.

The relationship between religious CM musical groups and schools could be visualized in at least two ways. In one way, the groups are separate with individual strands stretching between them. In this instance, the school has a mandate to remain secularly tolerant of all faiths and beliefs. In such cases, the old-fashioned "Christmas Program" may give way to a "Winter Holidays" or "Celebrations Around the World" theme, which balances a variety of religious musics or a "Winter Holidays" program, featuring popular seasonal fare, or no music program at all. However, individual students and teachers likely take active part in religious activities of all kinds.

Another common relationship would be that of the temple, parochial, cathedral or other religiously affiliated school. Students usually perform and sing as part of daily religious training. Thus, a diagram for this association might look like two tightly overlapping circles, indicating that the aims of the music program were in concord with those of the religious community.

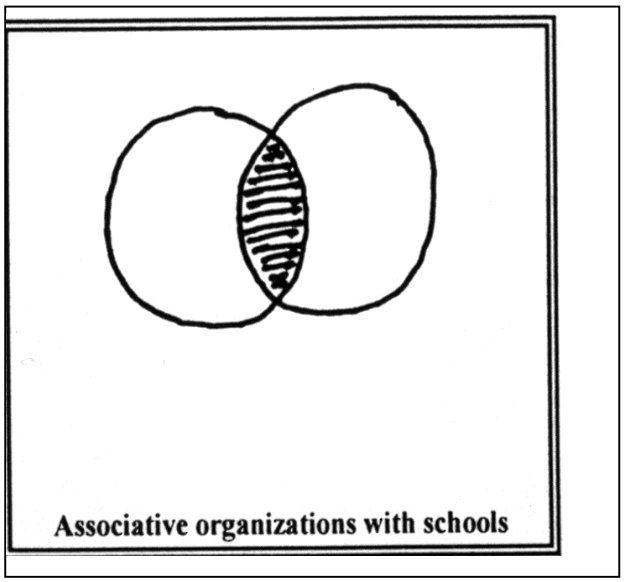


Associative organizations with schools

In North America CM frequently has a relationship to school music making, as advocates feel that a strong fabric of CM life complements opportunities in schools. Many orchestras, opera companies and other professional organizations partner with school systems, as well as with other branches of the community.

Babineau (1998, 2000) explores a number of initiatives in Canada that extend or enrich curriculum. In her 1998 study, she outlines successful orchestra outreach programs in Saskatoon, Scarborough, Timmins, Toronto, and Edmonton. Other programs which fall into the associative organizations category include Learning Through the Arts launched by The Royal Conservatory of Music in Toronto, ArtsSmarts in Montreal, ArtStarts in Schools in British Columbia, a world music program initiated by Valerie Dare in Vancouver schools, Changing Arts Programs linked to Canadian orchestras, and the Scotia Festival of Music in Halifax (2000).

Associative organizations might be depicted by a Venn diagram – two circles with an overlapping shaded area where they meet. While the music teachers in the school and members of a symphony or opera company tend to inhabit different milieu, they frequently express complementary philosophies for what they do. While collaborations usually take place in a relatively short timeframe, the dynamism and influence of these events may have far reaching results.



Outreach initiatives of universities and colleges

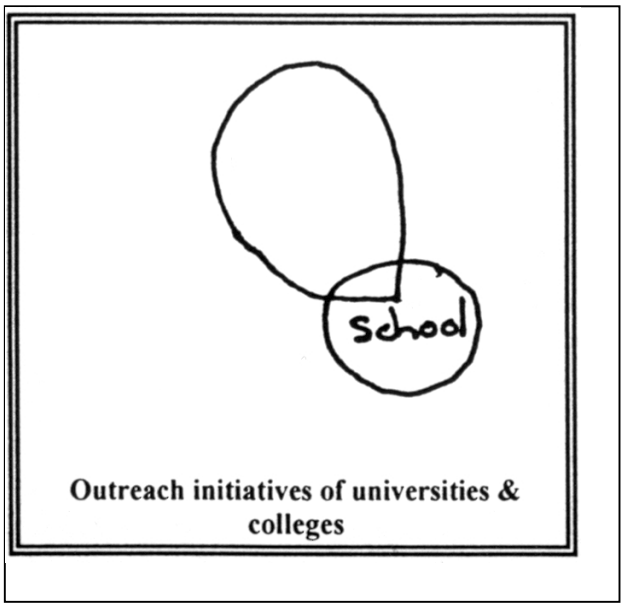
Many universities and colleges undertake outreach programs in their communities. Such programs may include choirs, bands, orchestras and other ensembles, as well as outreach efforts into schools, early childhood or senior centers as well as sponsorship of local arts and music events.

Alexander (1997) notes that a segment of the National Guild institutions, called divisional schools, has been developed by music conservatories, college and university music departments. Alexander's study surveyed the 46 divisional schools (the number of schools in 1997) to look at the relationships between affiliated collegiate institutions. Consensus from those surveyed indicated that members believed there was a need for a mission statement, advisory board, some autonomy in fund raising, in-kind contributions of space and utilities as well as employment of qualified teachers.

Lamb (2002) describes a decade of partnership between symphony, schools and university in Kingston, Ontario, Canada. Babineau's documentation (2000) of Canadian curriculum enrichments includes several outreach initiatives, including Composer in Electronic Residence through York University in Toronto, and the Music in Medicine through Dalhousie University Halifax and Arts inFusion.

A diagram of the school / outreach relationship might show the school as a circle with the university outreach extending as a point into the school. This reflects the fact that outreach initiatives usually focus on a particular age level or musical activity in the schools. Familiar outreach examples might be brass or percussion clinics in secondary school, or programs for primary grades (such as a visiting recorder group that demonstrates and plays with elementary students).

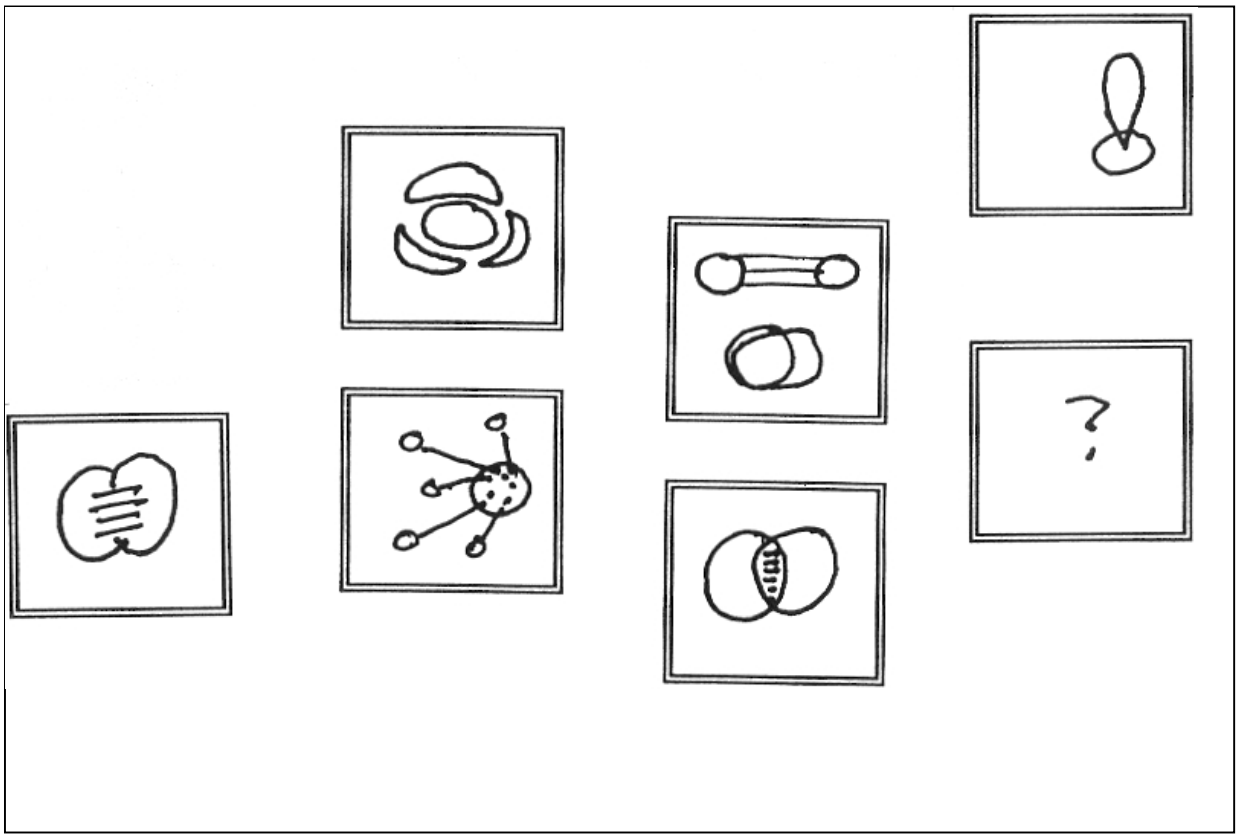
While the tertiary institution is responding to needs of the schools, the interaction may be more one-way, flowing from the university to the school. In one-way cases, then the point that extends into the schools would not be shaded. Conversely, there might be a more interactive dynamic. For example, the college may be recruiting future clientele from a "feeder" school, or a collaboration may help both pre-service teachers in training as well as students and teachers. A shaded area would indicate Interactive and reciprocal associations, thus looking more like the Venn diagrams (similar to associative organizations with schools).



Informal, affinity groups

The seventh CM classification, Informal, affinity groups, takes its name from Slobin who coined the term. He writes that affinity groups to be "charmed circles of like-minded music-makers drawn magnetically to a certain genre that creates strong expressive bonding" (1993:98).

This final category serves several purposes in the typology. It allows breathing room for new possibilities such as cyber groups or new genres of music and ways of music making. Furthermore, CM groups from all categories may consider themselves "charmed circles"; one of the salient characteristics of these informal associations is their enjoyment and bonding.



Because the category of informal affinity groups encompasses such diversity, the relationships with schools are also diverse. Consequently, the diagrams for this show all possible permutations seen thus far, as well as room to imagine other kinds of relationships.

Conclusion

I suggest that there is a rich and complex mosaic of community music groups, activities, and networks in Canada (and in North America at large). These deserve further detailed examination. Using a seven-part typology, I have attempted to organize and describe some of the ways in which CM activities and school music programs connect, intersect, or bypass each other. But clearly, much more remains to be done. Indeed, research in the field of community music is still in its infancy. I encourage readers to participate in this exciting area of music education research by (a) documenting CM activities in their local communities, (b) publishing their results on the web and in journals, and (c) building new typologies. Such efforts will be mutually beneficial for music education, community music, music making, and community making.

Sources

Alexander, C. R. (1997). Relationships between community music programs and their affiliated collegiate music schools. Unpublished doctoral dissertation, Peabody College for Teachers of Vanderbilt University.

Babineau, N. (1998). "Partners in the arts – the orchestra as community resource," In B. Roberts (Ed.). *Connect, combine, communicate: Revitalizing the arts in Canadian schools*, (pp. 223-236). Pictou, N.S.: University College of Cape Breton Press.

Babineau, N. (2000). Enriching the curriculum – enriching the community: Canadian partnerships for arts education. In M. Taylor & B. Gregory (Eds.). *Music of the spheres* ISME *conference proceedings*, (pp.12-28) Regina: Impact Printers.

Bowen, C. K. (1995). Adult community bands in the Southeastern United States: An investigation of current activity and background profiles of the participants. Unpublished doctoral dissertation, Florida State University.

Cherwick, B. A. (1999). Polkas on the prairies: Ukrainian music and the construction of identity. Unpublished doctoral dissertation, University of Alberta.

Diamond, B. (2000). "What's the difference? Reflections on discourses of morality, modernism, and mosaics in the study of music in Canada. *Canadian University Music Review / Revue De Musique Des Universités Canadiennes* 12(1) 54-75.

Gallo, A. (1998). A lone sacred space, an old musical tradition: The dynamics of the Ethiopian Orthodox Church in Toronto through its music. Unpublished doctoral dissertation, Universite de Montreal.

Green, V. B. (1998). Enhanced musical literacy through participation in the adult amateur / volunteer chorus: A descriptive study. Unpublished doctoral dissertation, Columbia University Teachers College.

Holmquist, S. P. (1995). A study of community choir members' school experiences. Unpublished doctoral dissertation, University of Oregon.

Lea-McKeown, M. Y. (1987). The importance of native music culture in education at a Manitoba Ojibwa reserve from an ethnological perspective. Unpublished doctoral dissertation, University of Alberta.

Pieper, L. E. (1996). Culture and community, Kitchener, 1911-1939: Music, radio, film, and theatre. Unpublished master's thesis, University of Guelph.

Slobin, M. (1993). *Subcultural sounds: Micromusics of the west.* Hanover, NH: Wesleyan University Press.

Stewardson, R. G. (1994). Hattie Rhue Hatchett (1863-1958): An interdisciplinary study of her life and music in North Buxton, Ontario. Unpublished master's thesis, York University.

Stormer, A. (1997). The study of an old tyme fiddling club: Re-creation of rural community (Alberta). Unpublished masters thesis. University of Alberta.

Vincent, P. M. (1997). A study of community choruses in Kentucky and implications for music education. Unpublished doctoral dissertation, University of Kentucky.

---

[i] I wish to thank David Myers for his encouragement and suggestions about models of teaching and learning in different contexts; this prompted me to reflect further.

[ii] Current research which prompted this model may be found in Veblen & Olsson, 2002. See the 2002 Community Music Activity Commission proceedings from Rotterdam, Netherlands for a comparative examination of CM organizational themes (entitled "Apples and oranges, solar systems and galaxies: Comparing systems of community music" by Veblen), which includes Joss's (1996) UK CM groupings, Breen's (1994) Australian typology, Horfilla's (2000) organization of arts groups in the Philippines.

[iii] For listings of websites which illustrate each category, see the ACME SRIG website: (ACME SRIG is the Adult and Community Music Education Special Research Interest Group, the newest interest group of the Music Educators Association).

[iv] See outreach initiatives for more on this.

[5] Two of the oldest and best known of these are the Hull House in Chicago, founded in 1889, and the Third Street Music School Settlement, founded in New York in 1894.

Appendix: Examples of Community Music Groups in Canada

1) Community music schools

National Guild of Community Schools
http://www.natguild.org/

• Ontario, Toronto -- students from Dennis AvenueCommunity School perform with partners from George Syme 55+ Center
Toronto Star 3/23/2002 article by Sarah Jane Growe

2) Community performance organizations

• Whitehorse, Yukon – Whitehorse Community Choir Kondike-Goldrush Tour 1998
http://www.yukonweb.comarts/wcc/ Wilson Studio

• Regina, Saskatchewan – Regina Golden Harvest Barbershop Chorus
http://www.gpfn.sk.caculture/arts/gharvest/index.html

• Ontario, Toronto – Toronto Argonotees
http://www,argonotes.com/images/2001/HiSteve.jpg

• Vancouver, BC – Rainy City Gay Men's Chorus
http://www.rainycity.ca/

• Saskatoon, Saskatchewan – Holy Cross Adult Community Band
http://www.geocities.cim/Vienna/Strasse/5256/

• Granby, Quebec – Harmonie de Granby (since 1864)
http://www.geocities.com/heartland/village/1864/english/english.html

• Calgary, AB – Hopkin's Old Time Radio Ensemble,1930s
Lyons, G. (1999). *Community Music in Alberta*. Calgary: University of Alberta Press.

3) Ethnic/preservation groups

• Cape Breton, NS – Cape Breton Fiddlers Association
http://www.uccb.ns.cacbfiddlers

• Cape Breton, NS – Celtic Colors Festival
http://www.celtic.colours.com/gallery.htm

• Tuktoyaktuk, NW Territories – Tuk Drum Dancers, 1982
(photo by Harry Palmer)

• Winnepeg, MB -- Folk Arts Council of Winnipeg's Folkorama Summer Fest
http://www.folklorama.ca/

• Vancouver, BC Early Music Festival
http:/www.earlymusic.bc.ca/vemp_festival.htm

4) Religious

• Montreal, Quebec -- Jireh Gospel Choir
http:wwwjirehgospelchoir.com/

• Toronto, ON -- Swaha Band at yoga centre
Toronto Star, June 29, 2002, p. J3

• Newfoundland , St. John's -- Strings of St. John's
http://www.cyberus.ca/~stjohns/c5m.jpg

• Sharon, ON -- Silver Band in 1865, part of Children of Peace
http:www.home.interhop.net/ ascgravwe/Band.html

• Toronto, ON -- Associated Hebrew Schools Kindergarten
http://www.bjetoronto.org/link.potogallery.html
• Calmar, AB – Sunday Sing Song, 1913
Lyons, G. (1999). *Community Music in Alberta*. Calgary: Calgary: University of Alberta Press.

5) Associative organizations with schools

• Vancouver, BC -- Vancouver Opera
http:www. Vanopera.bc.ca
• St. John's, NFL -- St. John's Arts and Cultural Centre 23rd Annual Teddy Bear picnic
http:www. Artsandculturecentre.com/stjohns/photos.htm
• Edmonton, AB -- Edmonton Symphony Orchestra
http:www.edmontonsymphony.com/education.htm
• Toronto, ON -- Canadian Brass
http:www.Canbrass.com/

6) Outreach initiatives of universities and colleges

• Montreal, Quebec – Concordia University Canadian Electoacoustic Community/ Communaut´Electroacoustique Canadienne
http://cec.corncordia.ca/ *Cec@bax2.concordia.ca*
• Edmonton, AB – Mrs. Hales & Alberta College students, 1925
Lyons, G. (1999). *Community Music in Alberta*. Calgary: University of Alberta Press.
• London, ON – UWO student players in outreach group
Private collection of Lois Armstrong,

7) Informal, affinity groups

• Joussard, AB -- Northcountry Fair Solstice Celebration
http:www.northcountryfair.ab.ca/solsticecelebration-environment,educ.community,talents
• Killarney, MB, -- Barbie Doll Heads
http://barbiedollheads.cjb.net
• London, ON – Stream Babies
Private collection of Wendy Saby
• Toronto, ON -- Glass Orchestra
http://www.GlassO/Gofax.htm/

Examining Philosophical Justifications for Music Education

Betty Anne Younker - younker@umich.edu
The University of Michigan

Inextricably woven throughout our attempts at articulating philosophical justifications for including musical experiences in public, private, community environments are cultural, social, and governmental issues. Some of these issues can directly impact our profession in terms of faculty, curricula, facilities, and resources, thus impacting musical experiences in formal and informal settings. Since we do not always have control over some, if any, of those issues, it is imperative that we speak to them with a grounded philosophy when informing those who may have authority over decisions that greatly affect music making across communities.

Previous to the late 1980s and early 1990s, aesthetic education was the predominant view among those exploring why we should involve children in meaningful music making experiences. Over the last 10 plus years, music educators have examined alternative views grounded in praxialism, post modernism, and democratic thinking in trying to capture the meaning and essential value of music. Some of these ideas have created conflict within the field and, at times, been misrepresented, hence producing confusion. It is imperative that we clearly understand the various views and critically examine them when justifying, at the individual level, why we involve students in musical experiences. As a community of music makers, we need to understand the very essence of music making and the impact it can have on those involved.

In this paper, Reimer's aesthetic education (1989) and musical experience-focused philosophy (2002), Elliot's praxial philosophy (1995), and Bowman's (2002) thinking on education through music will be reviewed. Parallels will be drawn between Reimer and Elliot's thinking by examining influences of Dewey on each of their philosophies, and comparisons will be drawn across Reimer, Elliott and Bowman, specifically with regards to values of music, music education, and education through music. Such definitions are formed through a variety of lenses, some situated within specific contexts and others addressing the shaping of values through attitudes and dispositions acquired through musical experiences.

When examining the differing philosophies, the cultural and social nature of education/music education must be considered. These aspects are often alluded to, or discussed explicitly, in stories about communities of music making in differing cultures, formal institutions, and collaborative settings that blend informal and formal settings (see Veblen & Johnson, in press). Another emphasis found in these stories is the importance of identifying stakeholders and involving them at all levels of such experiences. Dialoguing and making music with the stakeholders opens possibilities of effective communication about issues identified above.

An Overview of Aesthetic Education

According to Reimer (1989), the main purpose of music education is "to develop, to the fullest extent possible, every students' capacity to experience and create intrinsically expressive qualities of sound . . . to develop every student's aesthetic sensitivity to the art of music" (p. 185). To do this, we engage students in meaningful musical experiences to

heighten their aesthetic perception that, in turn, can heighten their aesthetic response. The result is an aesthetic (a musical) experience. We do this by directing their attention to the expressive qualities of music, a process that is active and doing. As we experience the expressive qualities of music, we articulate our feelings and thus explore our subjectivity in a way that can be experienced only through the arts. Cultural and social influences are involved in, and part of, the experience, particularly for those aware of those influences. Nonartistic references are strongly influential in what the experience can be but are transformed and transcended by the expressive form. We can achieve these experiences through listening, composing, improvising, or performing. Our ability to perceive and respond to the expressive qualities that are inherent in music is a potential possessed by all, thus, each student should be given opportunities to nurture this aspect of her/his humanness.

The core of study for all music programs is music of diverse cultures and traditions, and styles that is authentic of the culture, tradition, and style. Such music should be experienced in general music and performance-based programs that consist of activities requiring a balance of skills, understandings, and creative decision-making opportunities. Above all, music making should be the primary focus as students engage in experiences that involve listening, performing, composing and improvising. In addition, music educators and students need to recognize that music making is a creative act and that music programs exist to involve students in that act (Reimer, 1989).

Dewey's influence on Reimer

Reimer draws on Dewey (1934) for several salient points when articulating the meaning of music and the artistic process. For the purposes of this paper, I will focus on two of those points that are related to processes of reflective thinking and resonant with the writings of Schon (1987) and, in turn, Elliott (1995). The first point revolves around the differences between language and music in terms of understanding. Meanings and values in language are expressed by words while meanings and values in music are experienced subjectively, that is, feelingfully. Hence, meaningful music making is experienced; it is a doing activity. Conceptualizing about music through discussion, analysis, and evaluation (i.e., formal knowledge) can provide insight about the technical and expressive components of the composition, but conceptualizing is only a means to enhance the depth and scope of the musical experience, and hopefully deepen one's musical experience. The key phrases in this paragraph are "experienced subjectively" and " a doing activity."

The second point entails what occurs during the act of artistic creation. Reimer's explanation of this process (pp. 61-63) resembles Dewey's (1934) explanation of what occurs when an artist creates. In the first steps of the creative act, the artist responds immediately to what has been posed, that is an impulse that emerges from prior experiences and is activated. This could be in the form of a first playing of an opening musical line or the first shaping of a melody. When expressive materials fuel the impulse, beginnings of the musical form are experienced. The musician undergoes, in a feelingful and critical fashion, experiences that involve musical and critical thinking. An interplay evolves in which the musical materials and the musician work on each other, and the musician's sensitivity, imagination, and craftsmanship become crucial partners as expressive possibilities are explored; decisions made; responses occur; and further exploration, decision making and responding materializes. The integral role of interaction is revealed when Dewey writes: "The real work of art is the building up of an integral experience out of the interaction of organic and environmental conditions and energies" (p. 64).

This artistic process, for Dewey (1934) and Reimer (1989), involves actions that order ideas and feelings, a process that transforms ideas into perceptible forms. This process involves and develops imagination, and expresses values and meanings through music that are inexpressible in words. This occurs over time during which the musician and the music acquire an order and a form not previously possessed. The emphasis of

artistic creation then, is on an interaction that requires time, involves critical and reflective thought, and is ignited by an impulse.

Reimer (2002)[1]

In the first few chapters of his most recent book, Reimer (2002) provides insight into philosophical agreements and diversities across the profession, and then offers chapters that focus on the feeling, creating, meaning and contextual dimensions of musical experience. He offers a philosophy that is consistent with aesthetic education in that the central focus is on the musical experience as the basis for music's values and that the goal of music education is to educate for that experience. For him, musical experiencing is inclusive of both "inherent" and "delineated" dimensions. The second attribute of his philosophy, which is urged in the first few chapters, is that it is a synergistic philosophy, also inclusive rather than exclusive, in that a cooperative approach to a music education philosophy is proposed in attempts to identify agreements. Such agreements could contribute to building adequate unity–a unity that is much needed in the profession.

Reimer suggests that for music education to be musically and philosophically inclusive, it needs to be devoted to "developing the musical intelligences (plural) of all people, along with the musical creativities of each intelligence" (email, 5/29/02). A new theory of intelligence, as a 'role-based' conception, is offered in which musical roles, as made available by each culture, exemplify how the theory applies to all intelligences. Reimer advocates that his theory of intelligence is more inclusive than traditional ones in that it recognizes the necessary aspects of feeling, the body, personality, opportunity, cultural values, etc., as aspects of intelligence. He argues for a full music education in which intelligence is indicated by the ability to reach the fullness of musical experiencing that music makes available in all of its dimensions. This fullness goes beyond performance-based programs to the many roles made available through experiencing music within each culture.

Elliott: Praxialism

According to Elliott (1995), MUSIC is a many-faceted human practice of making diverse kinds of music for diverse listeners. The aims of music education are to empower students to achieve self-growth, self-knowledge, and musical enjoyment by educating students' musicianship in balanced relation to musical challenges within musical practices (p. 129). When there is a symmetry between a student's musicianship and the challenges experienced in constructing musical works, students achieve what Elliott calls "fundamental values, or 'internal goods', of musicing and listening: self-growth self-knowledge (or constructive knowledge), musical enjoyment (or 'flow'), and self-esteem" (p. 297). Musicianship is a unique source of knowledge humans can achieve, therefore the essential content of the music curriculum and the knowledge most worth learning by all music students; it is a multi dimensional form of knowledge and is necessary for all forms of musicing. As students develop, they pass through stages from novice to expert levels of musicianship, broadening and deepening their musicianship.

In opposition to music education as aesthetic education, Elliott advocates for a curriculum-as-praxis with musical works at the center that serve as organizers for the curriculum. These musical works are offered in various complexities and are chosen according to students' level of growth and thus change accordingly. The areas of study include interpretive, structural, cultural, representative, and expressional aspects of the musical selection.

Integral to Elliott's philosophy is that all music education programs should be organized and taught as reflective musical practices in which the novice to expert musicians are immersed in the traditions, cultures, and practices of that musical

[1] A thorough reading and much reflection will be needed to discern the many valuable aspects of this book, some of which are represented here.

community or style. This thinking resonates with the writings of Schon (1987), who influenced on Elliott's thinking, and therefore, his writing. Schon discusses a student's entrance into a practicum as one that involves an immersion into the traditions, cultures, and practices of that community, often with the support of and guidance from a mentor or coach. In these kinds of settings, the student learns the "practice of the practicum" (Schon, 1987, p. 38), that is, the tools, methods, projects, and possibilities. Learning occurs by doing while interacting with colleagues, peers, and mentors.

Curriculum-as-praxis differs from the objectives-based model, which has influenced curricula theories and practices since the 1950s and which Elliott aligns with aesthetic education. Elliott (1995), in reference to Dewey, argues against this model of curriculum planning as pre-specifications of learning because of its inflexibility and step-by-step procedures that are to be followed by teachers regardless of the context or situation. His alternative, a practical curriculum inquiry involves outcomes of teaching-learning interactions.[2] Practical curriculum inquiry is one that requires teachers to reflect and deliberate in a dynamic, recursive fashion on themselves and their situations. Here solutions will be found "in the professional reflections and judgments of individual teachers engaged in specific teaching-learning situations" (Elliott, 1995, p. 254). Specific concepts and scripts are replaced with situated preparations and plans.

When discussing pedagogy, Elliott suggests that teaching expertise is fundamentally procedural and situational (p. 251). Educators find and frame teaching-learning problems during their interactions with students. These problems become increasingly more difficult and complex as students' musicianship develops. Teachers must empower students to convert unique or uncertain problems to determinate ones, an idea purported by Dewey (1933/1991). For this to occur, students must have time to experiment and explore, frame new problems as well as generate possible solutions for known and new problems, and assess accordingly.

When defining and describing reflective thinking, Elliott refers to Schon (1987) who in turn was influenced by Dewey. Schon discusses how we get through the day completing many activities without thinking about our actions, that is, we get through the day knowing-in-action. When we encounter an unexpected result, an error, a new perception of a routine task, we are surprised. We can either ignore the surprise or we can reflect on it. Hence, we reflect on our action to assess our knowing-in-action. When we encounter a surprise or problem for which there is no obvious solution, or when we encounter a problem that is not clear, we engage in an exploration and assessment of possibilities. When technical rules, procedures, and information are not sufficient enough to generate plausible solutions, we then engage in the artistry of our professional practice. We make sense of unique and uncertain problems, and in generating possible solutions, create new rules, procedures, and information. Or we *may not* stop to reflect but reflect in the midst of the action, what Schon calls and defines "an action-present–a period of time, variable with the context, during which we can still make a difference to the situation at hand–our thinking serves to reshape what we are doing while we are doing it" (p. 26). Thus, we reflect-in-action. Like knowing-in-action, reflection-in-action can be completed non-verbally. Reflecting on our reflection-in-action is another process and involves describing what has been done. The next facet is reflecting on the descriptions in an attempt to assess how we did while knowing- and reflecting-in-action.

Conclusions: A common ground

There are many similarities and differences between Reimer and Elliott's thinking. For the purposes of this paper, two commonalities will be briefly examined.

Among those who influenced Reimer's thinking, John Dewey (1933/1991, 1934, 1938) had an impact in terms of defining the meaning of art, the process of artistic

[2] See Dewey, 1933/1991; Schon, 1987 for evidence of influence on Elliott's thinking

creation, and the artistic experience. Dewey also shaped Elliott's thinking in terms of learning as a doing activity and the structure of a curriculum. Another major influence on Elliott's thinking in terms of reflective practice and practicums is Donald Schon (1987) who investigated Dewey's theory of inquiry when developing ideas of and models for reflective practice.

As a result of examining certain aspects of each philosophy and the influences on those aspects, a common ground emerges with respect to the process of making or experiencing music, and pedagogy. Reimer and Elliott's descriptions of making/doing/experiencing include a process that is involved and active, and requires reflective thinking. The musician and music interact while decision making and utilizing knowledges occur. Reflecting-in-action and reflecting about what occurred are essential means towards developing musical sensitivity/musical intelligence/ musicianship. While the terminology varies, the integral tacit characteristic of experience/praxis reflected in both philosophies, and influenced by Dewey and Schon, serve as a basic block across philosophies, thus, creating a common ground.

The second common characteristic across both philosophies is found in ideas about curriculum, particularly about how we should involve young musicians with music. Regardless of experience or age, musicians need to be involved in making musical decisions with music of diverse cultures, traditions, and styles. Problems need to be critically framed and reflectively solved by these young musicians if musical understanding/musicianship is to develop.

Bowman

In his latest publication, Bowman (2002), among many other valuable insights, defines education and education through music, and emphasizes the inconceivableness of articulating a definition of and value for music and music education. The cultural and social situatedness of music making across and within cultures is such that converging on one reason for music education is unfathomable.[3] Bowman (1994) writes, "Music education means quite a number of competing things. It includes a remarkable diverse array of beliefs, practices, and values . . . It is an abstraction, the name of a general category of actions, a tool that we use to designate quite a disparate array of particular enterprises and assumptions" (p. 27-28).

Instead of articulating a definition of and value for music and music education, Bowman articulates what is valuable about music and musical experiences:

1) Music is a fundamentally social activity grounded in sonorous experience.
2) Music involves rituals within social and cultural contexts.
3) Musical experiences is unlike any other as the musician becomes one with the music.

Clearly, Bowman does not regard music or musical experiences out of its context. The situatedness is an inextricable part of the definition and value, thus the value of and reasons for each experience are meaningful for that experience and none other.

For Bowman, education should be concerned with "the development of character and identity" (p. 64). Becoming educated involves acquiring attributes, dispositions, and virtues that reflect independence of critical thinking. This independence allows for individuals to grow indefinitely while questioning and re-visiting beliefs in light of new information and experiences. Educated individuals seek inquiry, a practice that becomes part of their being and understanding of how life is lived. The individuals learn how to look as opposed to knowing what to see, and how to refine and improve what they do. This

[3] The reader is reminded that the following represents one aspect of Bowman's thinking as found in the chapter and is encouraged to read the chapter in its entirety for a complete representation of Bowman's thinking.

product of education, i.e., the educated person, has acquired complex sets of values in addition to skills and understandings. The latter is necessary but not sufficient.

Bowman asks how might educating through music and recognizing music education's ethical and moral dimensions alter views of curricular practices and experiences. Does recognizing these dimensions allow for thinking of musical experiences as ethical encounters and are they well suited to developing attitudes and dispositions acquired by those who are educated? Bowman suggests that we not ask what *music* is to understand what *music education* is but to ask what we want education to do for students and society, and what musical experiences might have to offer. What particular musics and instructional practices can be offered and practiced for educational outcomes of developing attitudes, habits, and dispositions that are opposite of dependency and dogmatisms? What do we desire for students to become as a result of musical experiences?

When making decisions about specific aspects of music programs, specifically pedagogical aspects, Bowman offers invaluable suggestions and characteristics, some of which I have re-worded into questions and are as follows:

1) What is being experienced in rehearsals–imitation and repetition while refining technical skills or independence developed while exercising curiosity, flexibility, and experimental-mindedness?
2) What is being nurtured during ensemble experiences–conformity and submission to authority or self-reliance and creativity?
3) How is historical and theoretical knowledge being acquired–through recall and memorization of black and white information or through questions that examine consequences of what occurred and reasons for development?
4) What is being developed as a result of music listening activities–receptivity and consumption or action and production? (p. 75)

It needs to be noted that modifying the above involves instructional practice and not music thus we must be aware of and discriminate between effective and non-effective instructional practices within the educational world. This does not mean that we should lower expectations of musical performances but determine and realize effective instructional practices when inculcating students to think critically about music and to think musically. This call for critical thinking resonates with Elliott's thinking (thus Schon's and Dewey's thinking) reported above, particularly the pedagogy of students' and teachers' involvement when making music. In addition, it resembles Reimer's explanation of what occurs during artistic creation. The underlying similarity is the reflective involvement during which musical decisions are re-visited, re-examined, and re-evaluated while making music (thinking musically), and when thinking critically about the music.

Finally, Bowman suggests a number of ways of how music involvement may be suited to the educational aims he explores throughout the chapter:

> (1) A musical experience consists of "a process of becoming without a point of arrival. It is resistant, complex, fragile, elusive, and therefore deeply engaging" (p. 75). It requires an attitude of caring and commitment, an investment that represents a value. Thus it is a core or vital part of who we are.
>
> (2) Making music involves experiential knowledge that is one with action and human agency. Necessary is the improvisational resourcefulness and agility that allows for a comfort level with the unforeseen and an openness to change, and a belief in available resources for solutions to challenges presented by novel situations.
>
> (3) The social characteristic of music allows for experiencing and growth in cooperative and intersubjective understandings, which are vital to tolerance,

compassion, patience, and listening and attending to others. This characteristic is also important to constructing and sustaining social identity.

(4) Musical's ritualistic actions and the dispositions that under gird them are fundamental to the formation of character, at the individual and collective level. Hence, we are what we do.

Of these four, the last statement strongly reflects thinking that fundamentally differs from Reimer and, to a lesser extent, Elliot. It brings the value of music education beyond developing musical skills, aesthetic sensibilities, or musicianship to construction, reconstruction, maintenance, and regulation of identities at the individual and collective levels. The view on which this claim is based is performative–one that views identities as cultural performances–actions that actually generate what they enact: "doings": that constitute states of "being." (p.76).

The question of what to teach and how and when and where becomes embedded within the social ecology to which music owes its existence. Bowman suggests that we cannot separate music from the political and social and cultural ramifications but need to inquire about what, besides the music (construed as expressive sonorous patterns) is being performed, enacted, and taught. Is what is being ritually enacted in musical settings ethically, morally, or educationally desirable? We can no longer separate musical meanings from personal or social ones. If identity is performative and repeated musical acts become part of the fabric of our very selves, we need to ask whether sounding good is all there is to being good musically, and to inquire about what in addition to expressive sonorous patterns is produced in our musical settings (p. 76).

The implications arising from Bowman's chapter are many and related to music education and education in general, particularly in terms of how we view aspects education–goals, outcomes, processes, products, expectations, the system, and the responsibilities. The question is "What do we want our students to have become, acquired, experienced, as a result of their journey through music education programs?" If we truly desire students to evolve as reflective inquirers whose expectations increase with experiences, then definitions of outcomes and ways in which we engage students on a daily basis would need to change.

Reimer, Elliott, and Bowman

While Reimer and Elliott both articulate definitions for music and music education (definitions that differ), Bowman urges us to define education and "musically educated," and to determine what we hope for those students in music programs. Definitions of music and music education are situational thus he advocates for a broader lens through which we can recognize habits, attitudes, and dispositions of educated students who experience indefinite growth while questioning and re-visiting beliefs, thus actively valuing inquiry.

Bowman's discourse on active inquiry resonates with Dewey's theories of reflective thinking (Dewey, 1933/1991), thinking that is activated during creative acts (Dewey, 1934). Discussed above were the influences of Dewey's thinking on Reimer, and Schon's thinking, via Dewey, on Elliott. Again we read and reflect on the importance of critical thinking about music and musical thinking (reflecting-in-action while making music), both of which involve students in examining, questioning, testing, evaluating, re-testing, and re-evaluating.

There does appear to be an agreement about how students should be engaged with music even if disagreement occurs about definitions of music and whether or not music can be defined. The link between philosophy and pedagogy must be explicit, and with such disagreement in the philosophical circle of our profession, it is difficult to imagine consonance about pedagogy. Perhaps we need to step back and ensure the profession has a clear idea about what and how we should educate through music. Articulating the value of music can be one that resonates with recognizing the potential in all to experience

music, to construct and reconstruct identities through music, and to form character through music making. The meaning and value at the individual level is just that, thus perhaps not necessary or possible to address in terms of definition. This is not to say that we avoid understanding and articulating the value and human nature of music making, but that we look to broader aspects of education, and understand and articulate within the larger community while realizing the situtatedness of music making within each community.

In addition, the thinking of Jorgensen (1997) and Reimer (2002) with regards to a dialectical (dialogical) and synergistic approach in the philosophical world of music education warrants examination. Jorgensen suggests that we must learn to live with disunity and embrace discontinuities, dissonances, and dialects. In doing so, we need to be aware of imperfections that may not be addressed, or addressed and accepted as strengths by some and imperfections by others. In consonance with Jorgensen's thinking, Reimer (2002) calls for a synergistic attitude that reflects embracing and illuminating similarities and differences as opposed to either/or and this versus that. The latter causes fractures and confrontation in the profession. Instead, effective dialogue is called for during which those who offer rich and varied philosophical viewpoints can logically and critically examine similarities and differences that exist–not for the purpose of "winning" but for inviting strong critical examinations on which those in the field can build meaningful musical experiences grounded in philosophical thinking.

Synergistic attitudes and dialectical approaches reflect the multiplicities and pluralities of our world. In a larger perspective, we live in a world that is suffering from discord and inabilities to embrace differences. In a world of music where experiences articulate very depths of our humanness and contribute to self-growth and self-knowledge at individual levels of meaningfulness, assumptions about embracing and illuminating similarities and differences should be expected and accepted.

Conclusions

Issues relating to breadth versus depth, reform, and change contribute to what we offer as music educators in programs. How much do students need to know upon leaving public school systems and what should that understanding look like? What do students experience in programs that interweave acquisition of skills and knowledge with formation of dispositions, attitudes, and values of thinking critically/reflectively? Questions asked by music educators in school-based programs often ask questions such as:

1) How do we resolve the struggle between time to deliver content and shape performances, and empower critical/reflective thinkers who can, within diverse contexts, formulate and solve problems while educating young students in musical settings?
2) How do we resolve the struggle between content (skills, knowledge, goals) and outcomes such as attitudes and dispositions to seek, examine, and change thus values of change and life long learning?

The relationship between reasons for education and music education is strong, and one cannot examine the latter without understanding the former. If we adopt the view that the goal of education is to empower students to experience the many ways they know the world and themselves, that is the many potentials that are inherent in us as humans, then the goal would be to provide experiences in all those ways, including the arts. The reason for this goal is to ensure that all have opportunities to explore, thus realizing individual strengths that can culminate in opportunities to give to, and participate in society in meaningful ways. Contributions of individual potentials on individual and collective levels can only enhance a society's strengths and richness.

References

Bowman, W. (2002). Educating musically. In (Richard Colwell & Carol P. Richardson, eds.). *The Handbook of Research for Music Teaching and Learning*, (2nd edition). New York: Oxford University Press.

Elliott, D. (1995). *Music matters: A new philosophy of music education*. Toronto: Oxford University Press.

Jorgensen, E. R. (1997). *In search of music education*. Urbana, IL: University of Illinois Press.

Reimer, B. (1989). *A philosophy of music education*, (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Reimer, B. (2002). *A Philosophy of Music Education: Advancing the Vision,* (3rd Edition). Englewood Cliffs, NJ: Prentice-Hall.

Veblen, K. & Johnson, S. (eds.) (In-press). *Live music, shared music making: Community music in the new millennium*. London, Ontario: Studies in Music at the University of Western Ontario.

"Towards a Future Context in Canadian Music Education": Reflections on Younker, Dolloff, Veblen and Beynon

David J. Elliott – david.Elliott@utoronto.ca
New York University

I am pleased to offer a few reflections on these stimulating papers. To organize my thoughts, I wish to employ two orienting concepts: modernity and postmodernity. Why? To me, a major thread that connects these four papers is each author's explicit or implicit concern for the ways modernist and postmodernist paradigms affect music educators and music teaching today.

By way of background, and as I have explained in previous discussions (Elliott, 2002a, 2002b), 'modernity' names a period of history and the underlying belief-system of this period. Historically, the origins of modernity trace back to the eighteenth-century European Enlightenment that reached maturity at the end of the nineteenth century (Kumar, 1995; Turner, 1991). The defining characteristics and institutions of contemporary Western societies trace their roots to Enlightenment beliefs that privilege the following themes: the natural world can be transformed for the benefit of individuals and society-at-large by applying scientific thinking to all aspects of intellectual, social, cultural and economic life. The aims of modernity, says David Harvey (1989), were "to develop objective science, universal morality and law, and autonomous art, according to their inner logic or internal structure" (p. 9).

(Sidebar: The root beliefs of Suzanne Langer's theory of music and its offspring, 'music education as aesthetic education', are the root beliefs of modernity. Notice that both theories want music teachers and music students to focus dominantly on the so-called 'elements' of music – the so-called "inner logic or internal structure" of musical works. This modernist – autonomous, structural, pseudo-scientific – concept of 'music' also anchors Edwin Gordon's theory of music education).

Fueled by enormous faith in the power of science, the advance of industrialization, the growth of secularism, and the potential of 'rational' bureaucratic hierarchies, Enlightenment leaders set out to 'modernize' the world by boosting the productivity of work and social life through scientific research and means-ends (input-output) forms of organization. However, like most human constructs, modernization and its guiding belief system (modernity) resulted in positive and negative outcomes. For example, whilst the modernization of work allowed large numbers of people to achieve economic prosperity, the employees of modernist industries have been routinely dehumanized through the strict standardization and fragmentation of their tasks, the suppression of individual initiative and responsibility, strict supervision, long hours and the rigorous 'quality control' (or monitoring) of 'work output.'

We begin to see how modernity shaped western Education as we know it. Indeed, mass education through public schooling is a cornerstone of modernity and the modern nation state. On one hand, schools and universities make cultural capital and economic success accessible and achievable for many. On the other hand, the public tends to assume that it is natural to educate all children in factory-like settings based on modernity's worship of scientific-industrial constructs. These constructs include curricular 'objectives', standardized (Edwin Gordon-style) curricula, standardized achievement tests, teacher-

centered methods, restricted instructional time, and age-segregated or ability-segregated classes. Even the design, look, feel, smell and supervision of many schools and universities mimic modernist, bureaucratic institutions where standardization, centralization, mass production and mass consumption are the norm (Hargreaves, 1994).

Modernity began to lose its grip on Western society toward the middle of the twentieth century. Many characteristics of Western societies that we experience today — the era of postmodernity — began to emerge in the late 1930s. Scholars today suggest that we are living in the middle of a tense tug-of-war between two powerful social forces: the end of modernity and the advance of the postmodern world. In terms of postmodernity, we are dealing with an evolving cultural-intellectual 'energy field' that is deeply paradoxical. Hence the 'temporary' and unsatisfying term 'post-modern', which underscores that we are not certain about the defining characteristics of our epoch; all we know is that the 'ground is shifting' beneath our feet in numerous ways: socially, artistically, economically, philosophically and so forth.

For example, a major feature of current times is the paradox of flexibility. New forms of work and study have emerged during the last twenty years. The inflexible, modernist standardization of the factory system has given way to integrated, overlapping and/or rotating tasks and job descriptions. More and more, then, schools are being forced to rethink their traditional assumptions about strict subject-matter divisions, inflexible scheduling and the 'proper' length of time students should take to finish qualifications. But to what extent will demands for flexibility compromise the quality of education and our social commitment to the 'true aims of education', as each one of us conceives these notions from our modern or postmodern (or some other) belief system?

Indeed, given the tension between local and global forces, the increasing cultural diversity of 'national' populations and the free flow of information via new technologies, it is not surprising that our postmodern world is brimming with competing belief systems. Only twenty years ago, scholars, researchers, teachers and students still dealt in a fairly manageable range of cultural and religious assumptions, knowledge, and so forth. Today, every premise, every expert, and every 'solution' is open to scrutiny from multiple directions.

Another feature of our era is the advance of digital technologies. In addition to providing many innovations affecting all aspects of life, computer technologies allow individuals and organizations to cut across borders and time zones instantly. The 'virtual' world of cyberspace challenges, compromises, and eradicates many important aspects of people's geographic, national, historic and cultural 'space'. For many people, these 'breakdowns' in past 'certainties' causes personal disorientation, loss of identity, and fear. Accordingly, and paradoxically, many communities worldwide are responding to globalization by 'retreating inward' to defend their local ways of life (linguistic, cultural, religious, musical) against the advance of (what they conceive to be) a digital-technological form of imperialism or colonialism.

With these thoughts in mind, let me turn to the papers we have just heard.

Betty Anne Younker

In my view, Betty Anne begins with a problematic notion of music education philosophy. In her view, music education philosophy is equivalent to "articulating . . justifications for including musical experiences in public, private, community environments" and for "informing those who may have authority over decisions that greatly affect music making across communities."

To me, music education philosophy is the process of developing critically reasoned beliefs about the nature and value of music education for the purpose of guiding music teachers and music teaching. In contrast, developing "justifications" that might persuade politicians and parents (for example) is a matter of formulating advocacy statements. Advocacy aims to sell music programs; music education philosophy aims to inform music teaching and learning.

I see another problem in Betty Anne's conflation of advocacy and philosophy. Her assumption that we might one day find one or more justifications that will convince authorities to give music a secure place in the school curriculum overlooks the possibility I raised above: that our 'problem' has more to do with the priorities and corollaries of schooling than it does with music per se.

As for her discussions of Reimer, Elliott, and Bowman, I have offered criticisms of 'aesthetic education' and Reimer's version of this viewpoint in other publications. Suffice it to say that Reimer's latest book is only a restatement of the same Langerian ideas he has argued since 1970. Reimer's 'new' emphasis on philosophical "unity," which Betty Anne believes to be "much needed in our profession," is akin to arguing that world peace can be attained if everyone accepts one contradictory bundle of political, religious, social, cultural, and economic beliefs. In fact, Reimer's so-called "synergistic philosophy" is just another view that privileges his arguments to the exclusion of others he does prefer. And the implication that we should abandon critical discourse for the sake of "unity" has more to do with cutting off dialogue than encouraging it.

Also, whereas Betty Anne sees similarities between Reimer and Elliott, I see fundamental differences between our conceptions of the nature and value of music, the nature of curriculum, the nature of and teaching of music creating, and many other issues. Moreover, any call for "unity" in any field of knowledge today betrays the modernist nature of the caller. Today, no area of knowledge seeks philosophical unity for the simple reason that "unity" is a modernist's pipe dream.

Our profession needs even more philosophies, not a return to the long decades of philosophical monism before 1990. The health of our profession lies in diversity and dialogue, not uniformity. Indeed, as Betty Anne says, let us "critically examine similarities and differences" and invite "strong critical examinations," as I believe I offered in "Music Matters." This is what "doing philosophy" means. In the end, Betty Anne seems to acknowledge these points in so far as her discussion illuminates many more differences than similarities between the ideas of Reimer, Elliott, and Bowman.

Lori-Anne Dolloff

Lori-Anne's discussion shifts our attention to the complexities of music-teacher identity construction. Her topic is deeply postmodern. Why? Because she affirms the legitimacy of each student teacher's personal narrative and the relevance of each student's critical reflections on his/her inherited images of teaching. In doing so, Lori-Anne denies modernity's detached, assembly-line notion of teacher education. Her concern for each student teacher's individuality denies the cookie-cutter mentality of modernity's technical-rational concept of teacher preparation (via 'methods courses') and pseudo-scientific curricula (e.g., the Gordon method). Lori-Anne is not concerned to produce clones and methodolgical 'true believers'. On the contrary, her aim is to equip her students to probe their adopted ideals and images of teachers and teaching toward professional self-knowledge and self-improvement.

Kari Veblen

Kari's paper paints a rich picture of exactly the kinds of (postmodern) community music programs I mean to celebrate in my discussion of Carol's paper, above. Here we read about 'real' people working in a fascinating array of situations to achieve diverse aims. Taken as a whole, Kari's documented slice of "community music workers" in Canada testifies to the broad and deep powers of music (which we often overlook or discredit in the academy) and the ways in which school music might transform itself (or "liberate" itself and our students) if we could replace western 'schooling' with a serious commitment to Education Musics Education in the best and broadest senses.

Indeed, in reflecting on these narratives, I think continuously of the profound and varied contributions these community musicians are making to their own communities and the steps we could/should take to re-invent school music.

For example, it seems to me that university music schools might be wise to expand their institutional concepts of 'music education' by embracing community music paradigms, values, and processes, and by accepting students as prospective 'community music workers'. In doing so, post-secondary music institutions would be forced to critically examine their historically narrow and discriminatory traditions of teaching only certain styles of the WECT to certain students, in certain ways, for a limited range of reasons and values. Put another way, all music is powerfully political. Post-secondary music schools need to understand this reality. If they can make this conceptual leap, they might succeed in leapfrogging their traditional role as a major engine of western, male, capitalist hegemony.

Carol Beynon's Paper

Carol's discussion provides an excellent example of how music education exemplifies the tenets, problems, and paradoxes of modernity and postmodernity. First, she explains clearly why "a number of forces have conspired against music as a mainstream subject." To me, these "forces" are symptoms of a much deeper and broader "force" at work in North America: the longstanding domination of modernity in all areas of social life. More specifically, a major concomitant of modernity is 'cowboy-corporate-capitalism' (or the business ethos) that reduces every aspect of life to monetary issues. In this (modernist) worldview, a 'basic' subject is one that is linked directly to (or that will 'pay off' in) employment and, then, producer-consumer profit.

In other words, and notwithstanding all sorts of empty rhetoric to the contrary, North American society is <u>not</u> committed to providing all children with an Education, by which I mean a <u>balanced</u> curriculum for the <u>whole</u> child. If our 'leaders' were really interested in giving our children a true Education, then music education (poetry, theater, dance, and so on) would have a secure place in the curriculum.

Instead, and for the most part, North American society aims to provide children with little more than 'Schooling'. Schooling (as distinct from Education) is a system designed and organized on the premise that children are nothing more or less than future workers. Thus, Schooling focuses on (corporate-style) training, sifting, sorting, and indoctrination. Not surprisingly, then, the 'leaders' of our so-called education system – i.e., our School system – fail to make a significant place for music, dance (and so forth) because these subjects do not have clear and direct connections to the 'business world', to money making, and to their concomitants.

At the same time, as Carol rightly says, we see a growing number of alternatives to school music that we can sum under the heading of 'community music'. To me, the general decline of school music and the general increase in 'community music' opportunities might be viewed as a symptom of postmodernism at work. That is, and despite the valiant efforts of many music educators in our schools, the old, modernist school system neither supports their work nor satisfies the most fundamental desire parents: a balanced curriculum for the whole child. Hence the need for and rise of community music programs led by former school music teachers, professional musicians, tradition-bearers, 'community music workers', and so forth.

Moreover, because 'it' comes in many forms, community music (as a movement) has the potential to serve a much wider population of students than school music programs are designed to serve, or that conservative music teachers want to teach: for example, (a) culturally disenfranchised students who wish to learn musics 'outside' the WECT (western European classical tradition) that is still preferred by many music educators; (b) students who desire to make music but not within the traditional confines of school bands, choirs, and orchestras; (c) disabled students with special needs that school music programs cannot or will not meet, and so forth.

At the same time, it is equally clear that the paradoxes of postmodernism have serious consequences for students of all kinds. That is, whilst community music programs have the potential to provide greater musical diversity, more avenues to musical and socio-musical satisfaction, and a wider range of flexible instructional formats for many children, many other (mainly poor) children will suffer greatly if and when school music programs continue to decline in North America.

In summary, while many music educators working in today's schools achieve superb results (with and/or without administrative support), many characteristics of 'school music' (in the worst sense, or in the worst circumstances) embody the worst abuses of modernity run amok. On the other hand, excellent community music alternatives to school music (and yes, of course, there are bad community music programs, too!), tend to reflect the best aspects of 'musical postmodernity': namely, an openness to learning all musics, multiple teaching-learning styles, music-as-beneficial for all (not just 'music for the sake of music') and so forth.

ENVISIONING AFRICA-SENSITIVE MUSIC EDUCATION – What Viable Directions?

A public debate by Dr Anri Herbst – mier@wol.co.za - and Prof. Meki Nzewi[1] - meki libarts@up.ac.za

Chaired by Professors Graham Welch and Alda de Jesus Oliveira at the 25th ISME Conference in Bergen, Norway 11 August 2002 Research Commission Panel

Introduction

M[2]: *The wood fuel available in a society cooks its nourishing meals.*

A[3]: *Too many cooks spoil the broth.*

---

1 The role of the devil's advocate as taken on by Anri Herbst in this debate is a phenomenon known in many African cultures. In the Igbo culture of Nigeria the devil's advocate role is structured into serious communal debates in order to eliminate emotion and sentiments in making decisions on very critical issues affecting a whole community. In the cases Meki Nzewi studied, the community is careful not to honour a worthless but wealthy person, for instance, into prestigious communal ancestral reckoning. As such, in the tribunal to determine whether such an honour should be accorded ceremonially to a deceased, the tribunal of community members is constituted into two opposing sides. The positive, supportive panellists are pitted against the opposition panellists (the devil's advocate team) who may be intimate friends/relations of the deceased but must act out their role without subjective sentiments and emotions. As such, an objective and balanced verdict, beneficial to all concerned, will be assured. They are called *ndi uka azu*, the (deliberate) detractors in the Igbo culture. They play the role with utmost seriousness, nuisance value if you like.

Meki Nzewi, *Musical Sense & Musical Meaning*: *An African Perception*. Unpublished Manuscript.

In the South African context the praise poet or *imbongi* (singular *imbongi*, plural *iimbongi*) of the Xhosa people acts as mediator between the chief and the people, the government and the citizens, the policymakers and society. According to Russel Kaschula:

> The contemporary Xhosa *imbongi* can then be redefined as a person (man or woman), who is involved in the oral production of poetry in any given context. They often write poetry as well, using the traditional styles and techniques. Today's *imboni* is in a position to act as mediator, educator, praiser and critic between an authority and those under that authority – with the acceptance of the people as well as the authority in question."

Russell H. Kaschula, *The Bones of the Ancestors are shaking – Xhosa Oral Poetry in Context*. Cape Town: Juta, 2002, p. 47.

2 Meki Nzewi

3 Anri Herbst

M: Do you imply too many authorities and theories? It is unfortunate that a person carrying an elephant should be preoccupied digging for a cricket with his toe. So it is with modern music education authority and theory in Africa.

A: How do you get four elephants into a mini motorcar?

M: I don't get it. Do you imply a four-pronged invasion of the African music education space?

A: Easy! Two in front and two in the back!

M: Well, the car now has flat back tyres, the African heritage, and doesn't appear to be getting us anywhere, because the working imported front tyres are not pulling the car that is Africa forward.

A: How does it happen that an African mind busies itself with a Western technological analogy such as cars?

M: Because if you do not know what is attacking you, you will not know how to manage your defences. Western technology is in Africa to stay. The question is how to make sure that it does not devastate Africa.

A: Do I hear a tinge of criticism in your voice?

M: A rain of ice in tropical Africa is drenching me. The home music has lost its soul and is no longer hot.

A: Meaning? (I live in Africa too).

M: I am talking about seeing my ears with my eyes and without the aid of a mirror. My Igbo culture has a term, *ile "potency",* for assessing the effective quantity and affective quality of a musical arts presentation. This is the soul of music that has a resonance with the human soul, and is at the same time the primary proactive force in its performance context. Now I am being compelled to hear music with only soulless eyes and see performance with my spiritless ears.

A: Ah! At last we have some reference to ears. At last we are dealing with music! I would rather have a visual impression of what I hear.

M: Precisely. The African child needs multi-sensory, not narrow-sensed contact with the music he/she learns, whether or not he/she now has to take a bus ride to school.

A: Again the reference to modern technology.

M: I have no problems with modern technology or foreign practices. They are inescapable and do solve limited problems. But, for goodness sake, I need to fire my modern mental identity with the fuel provided by my viable human heritage.

A: That brings us to the dilemma of Music Education in Africa that needs to be debated from realistic perspectives. As you rightly pointed out, globalisation has come to stay and Africa cannot be isolated, especially considering that it is an influential, fertile and diversified continent of cultures. And that is what this Music Education debate is about. We are both children of Africa – born and bred on the continent. And yet we are loaded with different cultural sensitisations – or can it be that we are fooling ourselves in thinking this way? Does it make sense in the

modern context to seek for an exclusive African cultural distinctiveness, uniqueness, identity? Zygmunt Bauman has pointed to the fact that "identity studies" has become a thriving industry. According to him, "'identity' has become by now a prism through which other topical issues of contemporary life are spotted, grasped and examined."[4] He quotes Jock Young, who states that "Just as community collapses, identity is invented." In this regard identity becomes the substitute for the 'natural home' no longer available in the globalised world. In the words of Bauman: "Identity sprouts on the graveyard of communities, but flourishes thanks to its promise to resurrect."[5] How does Africa energise and update its community life and thereby sustain its unique cultural identities without succumbing to the jargon of multiculturalism? Perhaps we shall both bring greater clarity to our respective positions in this debate by situating our own musical ancestry, explaining our educational backgrounds and the events that formed our cultural personalities in terms of society and self-identification. You may commence.

M: Do the various human-cultural identities in the world really abide by a contract of equal voice? Why is the construction of problematic universal ideologies such as Bauman's not given geographical delimitation? Otherwise, it is difficult to swallow his argument without noting its omissions. Who is prescribing or negating the virtues of African indigenous systems? Modernism appears to underrate the effective as well as affective energies impacting on our minds from the graves. And so, we are busy searching the rooftops for solutions that have all along thrived at ground level. Bauman's argument is not applicable outside the so-called First world that is swallowing up others in the raging battle of globalisation. Africa makes self-destructive mistakes in abandoning the sustaining energy of identity and community in the illusion of being catered for by the mental, economic and political hegemony of globalisation. My current identity is that of a bi-culturally sensitised African musical arts theorist and composer-performer. I was nurtured as a marginal participant in the musical arts culture of the Igbo society of Nigeria, my father being an educator in mission schools. Unfulfilled longing compelled me to become an analytical insider in the indigenous cultural arts. My formal music education started, bang, at University level without any prior music literacy. Luckily I went through a fairly bi-cultural African and Western music curriculum in the University of Nigeria, Nsukka. Dr Edna Edet (nee Smith), the African-American Head of Department, groomed me to become a practising composer, performer, researcher and music-dramatist while I was still a student in the sixties. Thereafter, I went to live and study with five Igbo master musicians. Contrary to modern scholarship constructions and assumptions, the masters inducted me through practice and discourse, into the theoretical and performance principles of the African musical arts system. I exchanged the clarinet for the Igbo mother-tuned drum rows that became my contextual foundation in musical arts thinking. I did my doctoral thesis with Professor John Blacking as a mature student at Queens University, Belfast. In this debate I present myself as a traditionally sensitised, modern African, performing theorist, who is analytically observing the human and mental trends in contemporary Africa.

A: My cultural identity was also nurtured from a very young age, when my father collected a very old and defective grand piano at an auction. My days were filled with tinkering on the instrument (which had some missing notes), playing melodies by ear. Although my informal music education began earlier, formal piano lessons started at the age of five, by which time my father had acquired a decent piano – all the notes sounded! Having been brought up on a farm, the vocal music of the

4 Zygmunt Bauman, "Identity in the globalizing world". *Social Anthropology* (2001), 9, 2, p. 121.
5 Zygmunt Bauman, "Identity in the globalizing world". *Social Anthropology* (2001), 9, 2, p. 129.

Basotho tribe was always sounding in my ears. Especially since my father built a school on the farm that acted as a church on Sundays. Through these experiences I became well acquainted with the *Makwaya* style that developed as a result of missionary work in Africa. Being brought up in a family with strong traditional values, regular family festivities involved singing and variety concerts. My formal music studies continued after high school at the University of the Free State, which exclusively included Western music practices. Apart from childhood experiences, the only other contact with African music was a project at BMus Honours level, which simply involved the reading of a chapter in the *South African Music Encyclopedia*. The absurdity of the situation became very apparent during the five-year period that I spent in Germany to complete my postgraduate studies: As a child from Africa, I knew very little about African music! Since my return to South Africa in 1993, I have been trying to learn more about my African cultural environment that influenced my Western upbringing. I cannot and do not want to deny my Western roots, but I cannot belie my African present either. In my apparently mono-cultural background there have in fact always been bi-cultural elements.

M: The current dilemma is: in whose expressional idioms should the African manifest a cultural presence in the global context and contest? The outside world, for instance, ignorant about the African philosophical and theoretical dialectic, continues to blindly condemn systematic African human-cultural practices as backward and undeveloped. The vaguely modern African appears to have accepted this abuse. And as such they fail to understand that they should relate with extraneous modern world practices from a point of view of original African mental systems, The emerging facts are that there is little foreign that is not a new image of old African knowledge. Specifically in the musical arts, African practices in any cultural ramification are founded on systematic philosophies, theories and procedures of creativity and performance. It is false to apply foreign human philosophies and systemic theories to interpreting African musical arts thoughts, intentions and products. Also, there is no way that an African can create an authentic African image by posturing in a foreign soul. She could borrow the dress as appropriate in an attempt to promote an African human essence for international understanding of what is uniquely African. Herein also lies the meaning of the proverb of seeing the ears with one's own eyes: an African viewing indigenous African musical arts systems and practices with foreign ears - an illusion in practice.

A: My first reaction to your phrasing of the dilemma would be to question whether an African theory of Music Education is necessarily applicable to the modern setting. If one looks at the philosophies that govern Music Education in the world, two emerged very strongly: Reimer's aesthetic philosophy and Elliott's praxial philosophy. Don't you think that Elliott's philosophy summarises to some extent the context-based Music Education practices found in Africa? My suggestion would rather be that the problem is not so much related to the philosophy than it is to translating the theories into workable practices.

M: I would start by questioning whether there should then be a unitary philosophy for Music Education in the world. And if so, who has been so qualified to construct an authentic unitary theory? With due respect, I note that Western theories of musical arts education, such as those of Reimer versus Elliot, and indeed education generally, continue to be contradicted over time and place, even contemporaneously. Because of these contradictions, there appears to be no clear sense of direction. At the same time, modern theories continue to get faulted in practice when they fail to prioritize human values at the point of conception - hence overlapping modifications and oppositions. African indigenous theories and philosophies remain constant, steadfast. Obviously Reimer does not recognise that

aesthetics is both contextually and practically negotiated, and that musical elitism is superficial music knowing and as such value-undermining. I will specifically address Elliot's praxial philosophy with two open-ended questions: Is the theory really an Elliot world invention? How original to Western history of ideas on Music Education and practice is it? What it discusses is exactly what has eluded modern music educational practice, but has always represented the African tradition philosophy and practice till the present – and without reference to Elliot. Colonial mental repression in Africa *ab initio* condemned as well as suppressed, and thereby excluded, the chance of testing contemporaneously viable, original African theories in the modern setting, including education. The consequences have been disastrous for contemporary Africa: the mental advancement and human cultural "representation" of Africa and Africans in the modern world context are tokenistic, often weird. The world exclaims that the African musical arts system manifests highly baffling and complex idioms as well as structural conformations, and yet appears simple. The superficial perception of such apparent contradiction has led to bizarre representations of Africa in the modern classical and popular musical arts scenes. Why has there been a problem about advancing into the modern context of Music Education and practice, the theory and practice, also the Music Education system, that produced the profound musical and human results out of a misunderstood philosophy of minimality?

A: If I read you correctly, you are saying that Elliot's philosophy is verbalising and representing what has been happening in Africa for ages? In other words, the problem does not lie with the theory, but with acknowledging its proper roots?

M: Precisely. I am relieved to note that you are on the side of fact. Elliott's philosophy has always been an African invention, practice and advancement until subverted and marginalised by glittery foreign impositions. Now it is being re-invented without credit to Africa. Hence I advocate that Africa should now wake up and apply the time-seasoned fuel that has always been its heritage to its modern musical arts education. I am desperately assuming that modern African governments and leaders are interested in speaking in an original and unique African voice in the home as well as the world market place of knowledge transaction.

A: The negative influences of colonialism on Africa become very apparent in the choice of Donaldo Macedo's title, "Decolonizing Indigenous Knowledge" in the preface of Semali and Kincheloe's publication on Indigenous Knowledge. It challenges readers to avoid "a blind romanticism of indigenous knowledge" as opposed to an even more dangerous counterpart of "charitable racism". The introduction of the music examinations of the Associated Board of the Royal School of Music in Africa contributed to the neglect of indigenous music. And yet Music Education has undergone major changes since the days of Mrs Curwen's development of hand signs and Sarah Glover's importation of the Solfa system and Orff ideologies. Although missionaries are widely blamed for imposing foreign theories of music theory and practices onto innocent African minds, it is convenient to forget that missionaries were not music educators *per se* who deliberately set out to destroy African musical practices. As a result of their intention to protect Africans from what they saw as evil, musical practices changed. And yet despite religious outsets or intentions, Africa still to a large extent maintained some of its unique practices. It is still possible for researchers to collect musical gems during fieldwork practices. As a white South African with a largely European mindset, I cannot help asking myself why Africa did not move with the changes that happened in world Music Education. When visiting schools in some African countries it became very clear to me that what is being preached in schools is what was happening in the world of Music Education during the sixties. Behaviouristic schools of thinking and learning

with emphasis on drill and repetition of isolated sonic events is still being favoured above cognitive-based education. Why can't Africa pull itself up by its bootstraps and, if not produce a uniquely African theory, at least copy recent trends in world Music Education? If what you are saying is true, namely a blind following of Western ideas, why not imitate some useful practices? And here I am not referring to South Africa, which is only 8 years into democracy. Why could African countries that have been independent for 40-50 years not produce something unique? Why always make colonialism the scapegoat? And here I wish to quote Veit Erlmann who, while admitting that imperialism and postcolonialism cannot be described as unambiguous or uncontested, said: "...these global fictions – of modern statehood, national identity, history, subjectivity, art, music, writing, and so on – result from the fact that the making of modern subjectivities in Africa and the West was not determined by mutually opposite positions: of conqueror and conquered, of master and servant. Rather, it was determined by an articulation of interests, languages, styles, and images. It is this articulation that I call the *global imagination*."[6] Donaldo Macedo succinctly expressed the dilemma as follows:

> "It is only through the decolonization of our minds, if not our hearts, that we can begin to develop the necessary political clarity to reject the enslavement of a colonial discourse that creates a false dichotomy between Western and indigenous knowledge. It is only through the decolonization of our hearts that we can begin to humanize the meaning and usefulness of indigeneity."[7]

M: Well, I can start by saying that you have opened up a whole can of disturbing worms. To start with, colonialism is not a scapegoat, but a reality. Colonialism has mutated into a more vicious evil, and has pursued a more subtle destructive mission of repression to perpetuate exploitation and expropriation. The new, sweet-tongued, colonialism is deculturating in order to enslave. There is now a pervasive, promiscuous mental colonisation, *a la* modern communication, evangelistic, economic and life style conquests of politically liberated Africa. One could ask which African nation could be said to be mentally independent in the modern scheme? This is an era of blind following of Western ideas that were stoutly resisted during the era of political-military conquests of Africa. The situation is comparable to indoctrinating/injecting a person with disorienting foreign attitudes/bodies, resulting in self-rejection/abandonment. My colleague is right that the training of modern African music educators is stuck in the dark ages of the Western music education it has copied. The reasons for this are obvious. The misguided modern African governments, policy designers and music educators cannot mentally emancipate themselves from perpetrating the inadequate Western education theories of the fifties and sixties. That is because the African has become strategically disadvantaged in accessing what is current about the modern educational resources and developments it inherited from colonialism. And yet modern Africans lack the wisdom of self-rediscovery to make their roots the cure. Policy makers and executors are, therefore, trapped in the subterfuge of self-rejection, and thereby the perpetual mental subservience deriving from this.

The tragedy is that the African mind has become so numbed by waves and traumas of Western ideological as well as fanciful ideational infestation. The result is a mental inertness and cultural-human apostasy. It is a formidable task to orient modern Africa towards re-energising itself and determining original intellectual

---

6 Veit Erlmann, *Music, modernity, and the global imagination: South Africa and the West*. New York: Oxford University Press, 1999, p. 3.

7 Donaldo Macedo, "Decolonizing Indigenous Knowledge" in Semali, Ladislaus M. and Kincheloe, Joe (Eds), *What is indigenous knowledge? Voices from the academy.* New York: Falmer Press, 1999, p. xv.

direction deriving from indigenous knowledge models. Really, why does Africa need to adopt, without pragmatic discrimination, any extraneous trends that are not attuned to an African “genetic” mindset? I assume that by "recent trends" you imply what has been theorized and designed in the context of Western Music Education history. They cannot be carelessly transplanted into Africa, without exacerbating the already endemic mental colonisation.

I reiterate that Africa needs to take a break from the inundations/haemorrhage of Western mental hegemony and take recourse to its indigenous knowledge fuel. Such a mission will prioritise recognising and relying on the articulated as well as the latent theories and principles of African indigenous knowledge systems. Otherwise, true mutual collaboration respect and advancement, as per the ideology of globalisation, will remain flippant political gimmicks. The results respecting and tapping the traditional knowledge base could benefit the outside world as much as African posterity.

You have affirmed the point I made earlier about the constant summersaults in Western educational philosophies and theories. The West continues to perpetrate the arrogance of undermining the intellectual merits, human practices and cultural products of other world blocs, first through force of conquest, now through literary coercion and subtle deception. I advocate an approach to African scholarship that, first, researches, identifies and advances indigenous knowledge authority in its own terms. Thereafter, relevant and informed foreign interpretations or prescriptions of Africa could be visited and integrated. The idea that Africans do not know the what, how and why its autonomous human knowledge history has autonomously produced, thus requiring a superior outside intellect to interpret it, is surely absurd. More pitiable is the evidence that modern Africans believe this and have renounced the imperativeness of self re-discovery, self-cognition, self-interpretation and self-advancement. My mind is empowered by the authority of African knowledge. I am therefore wary about flippantly quoting dubious published references, theories or authorities on or about Africa in order to conform to the conventions of modern scholarship brilliance constructed for the Western world, even when they hinder Africa’s recognition and redemption of her original and meritorious mental integrity. Unquoted and unheard original African voices as well as wisdom abound. It is desirable and urgent that they be rescued, articulated, re-created and performed. You are right in observing despite continuing attempts by Western missionary and intellectual crusades to eradicate African mental genius, including musical arts genius, traditional practices have thrived robustly in most African societies. The credit for this goes to the resilient force of African musical arts meaning.

A: It is agreed then that colonialism did, after all, not succeed in wiping out African musical practices, and that there still is a flickering light that can be kindled to become a fully fledged force to provide guidance to not only Africa, but the world as a whole. Thanks to Western education, my friend has mastered baffling terms such as “inundations/haemorrhage”, “mental hegemony”, to name just a few... It is painful that Africa got stuck in the fifties and sixties. And yes, Africa was left to a large extent to heal itself, and in the process was left uninformed about newer Western developments. Referring to your statement that you do not see the necessity of quoting or referring to Western theories: there may be some value to remaining unaware of new developments. As they say in the Western world: “Ignorance is bliss!” Be that as it may, splitting hairs over whoever was responsible for the dilemma in African Music Education will not necessarily bring redemption. The fact that blatantly stares us in the face is that Music Education in Africa needs to be re-invented, or more correctly, be given guidelines that will facilitate its re-birth – hence the slogan “African Renaissance” from the South African president, Thabo Mbeki.

To bring us back to the crux of this debate, I would like to quote what you said earlier today: "I have no problems with modern technology or foreign practices. But for goodness sake, I need to fire my identity with the fuel provided by my ancestry." In that statement you admitted that Africa needs to take cognisance of trends in world Music Education without sacrificing its own identity. My next question is as much directed to you as it is to myself, and to all music educators: WHAT IS IT THAT WE WANT TO ACHIEVE THROUGH MUSIC EDUCATION? Before we have clarity on that issue, debates about which philosophy and whose philosophy, seem to be irrelevant.

M: Thanks for steering us back to the pertinent issues on how to tackle and redress the dilemma confronting modern music education in Africa. I cannot, however, allow you to get away with the impression that my problem is ignorance of what obtains in the West. Rather, I am concerned with resisting injurious educational theories and products being subtly imposed to subvert original African mentality and noble human practices. Africa possesses an enormous gold-mine of knowledge about what music represents in human and societal management, and how that knowledge is to be disseminated and developed. Colonial and capitalistic educational and governance theories ingeniously have constructed a mental barrier between the African and her sense of being. My concern is to join forces with any committed colleagues (African or otherwise) in order to resolve the obstacles that militate against mining and refining that rich musical arts gold for international modern relevance.

You have proposed the momentous task of harvesting and applying the African knowledge base as a solution that would correct the inadequacies of foreign musical arts education. That solution will importantly re-institute Africa's authoritative science of sound as well as human management implicit in the sense and meaning of the musical arts practices. I therefore continue to argue stoutly that the soul and body of early music education in Africa should be modelled on the African knowledge base. Progressively, the mental marriage with other human philosophies and theories could be judiciously negotiated[8]. Your reference to the ideology of the African renaissance is most apt, assuming that anybody is seriously working with the appropriate mind-set that could make an impact on the lives and education of the African peoples. I would like to remind us all that in Africa the musical arts constituted the advance force for attitudinal as well as overall societal reformation or regeneration. If only modern African political and economic leaders would re-strategise the positive force of the musical arts! In any case, that is what the Pan African Society for Musical Arts Education (PASMAE), although yet a baby, is already pursuing vigorously. Still, Africa cannot exist or progress in isolation in the modern world dispensation. In the continuing discussion of issues I remain very convinced about the contributions of world trends and colleagues to the way that Africa advances its original human identity – mental as well as material.

Now, I will answer to your concern about what we want to address in modern formal Music Education in Africa. I propose a diversified, humanity-driven educational philosophy, methodology and content. It should be such that modern music education capacitates and sensitises the learner for parallel career options within and across the multiple fields of musical arts practice: classical, traditional and popular. The three fields have enormous positive values to contribute towards human life as per the lessons of the African music arts milieu. The three fields also make use of the same objectives of musical arts: creativity, production, human management and socialisation generally. This emphasises the imperative of an

[8] Meki Nzewi, *Strategies for Music Education in Africa: Towards a Meaningful Progression from Traditional to Modern*. In Caroline van Niekerk (Ed.) ISME '98 Conference Proceedings. 1998, pp. 456-486.

Africa-sensitive derivation of educational philosophy, materials and teaching/learning framework. For me, this is not a mere theoretical exercise. We have successfully made strides in a practical direction by researching and promoting traditional models. We have developed the African modern classical drumming and vocalic lilting styles, and composed written repertory for modern music learning and concert presentation. Also, we have written mentally modern musical arts educational texts for primary and tertiary levels of education. The texts derive principally from indigenous African knowledge models.

A: In principle I agree, but all this jargon of a "humanity-driven education philosophy" is very ephemeral. Into what kinds of "tangible" outcomes does it translate? Without suggesting that this is the ultimate word, I think that David Hargreaves's outline of the driving forces for formal Music Education in his recent publication *Musical Development and Learning – The International Perspective* could act as a way to stimulate some ideas. (Please refer to Appendix A)

M: As we introduce Hargreaves's contribution to the knowledge about music and humanity, I wish to state categorically that in the African milieu the musical arts are philosophised, designed and created as well as interactively appreciated as a species-specific product[9]. At the same time, it is intensively a context-stimulated creative intention and conformation.

Music is not just an exercise in the aesthetics of sound. It transacts life values and directs the society as well. As such, what we want to avoid losing in the modern African environment is a situation where an African child in his or her human-cultural base ceases to be generally ennobled for life by accessing value-rich music. In short, modern music education should re-capacitate the culturally mal-oriented modern African child to become a cognitive and, thereby, creatively contributing participant in music for life. This should be the general goal of Music Education, as in traditional model, whether or not the child continues to study music after the formative years in primary and secondary schools.

A: There is world-wide outcry to re-institute moral and family values, and since music has been the carrier of these values in traditional Africa, it seems sensible that the development of these values should be emphasised in a philosophy of Music Education for Africa. Apart from developing the ability to function as a responsible citizen in a local setting, it becomes necessary for the African child to situate him- or herself within an international setting. In capacitating the African child to "become a cognitive and thereby critical participant in music for life", the skill of reading and writing staff notation becomes inevitable. There is great need to incorporate into such a philosophy the strong nurturing and advancement of African traditional music values in a way that will enable traditional practices to transcend the status of becoming a museum piece or an animal in a zoo for tourist fancies. African music as an archaic attraction that avoids any form of creative "contamination" is not my vision for Music Education in Africa. Such irresponsible notions accompanying the viewpoints of some in academia that "classical music" has no place in Africa are untenable. It is peculiar that this argument is never presented in North America or Asia, where the indigenous cultures have incorporated classical music. I promote a rich cultural African environment that nurtures its indigenous knowledge systems, while at the same time taking cognisance of other cultural developments. This concludes our introductory mind-setting part of the debate and we will now address more specific issues related to the outline of an Africa-sensitive philosophy. At this point I would like to hand over to the chairpersons to moderate the proceedings.

---

9 John Blacking, "The Value of Musical Experience in Venda Society." *The World of Music*, XVIII 2, (1976), pp. 23-28.

* Chairpersons moderate debate points A-F

A. Music learners, particularly in elementary, secondary and community music education, come into learning situations with presumably limited musicality. As such they are treated as not already being musically knowledgeable and, therefore, not competent contributors in a learning context; the music teacher is positioned by college training as the bearer and disseminator of musical knowledge. Learners could develop competence, inherent or through practice, and should be encouraged to contribute materials, experiences, creativity, practice and analytical opinion in learning situations.

M: The traditional African practice is that a healthy pregnant mother is encouraged to participate fully in musical arts activities for the purpose of pre-natal sensitization of the foetus to structured movements. The child, as soon as she can walk, is encouraged to participate in adult musical activities. The child is not bound or restricted by the age-sex discriminations regulating active participation in certain music types and groups. Hence, at early age most children already demonstrate the artistic proficiency required for adult ensembles, and could replace an absent adult performer. African adults do not construct toy music instruments categorised as children's instruments. An average African child of school age could thus be on a par with a capable adult music artist in practical terms even if not in theoretical terms. As such the most critical qualification for a musical arts teacher in Africa is to be competent in organising and explaining, in the context of classroom ensemble experience, what the children could already have performance competence in. Fortunately, most African music instruments do not demand much in terms of technique and skill for a person to participate adequately in public ensemble performances. The intention is to include all in creative and performance activities. Performance skill is developed in the context and constancy of participation in live presentations, given the basic sense of pulse that an average African person possesses from childhood. However, some mother instruments demand exceptional skill for the attainment of recognition as a mother musician.[10] Even then, the African practice of performance composition mediates the self-destructive syndromes and psychosis of a star-performer cult that is the vogue in the modern musical arts scene. The performance composition principle ensures that nobody ever attains the peak of mother-musicianship deriving exclusively from creative-performance expertise. Every performance session commands a fresh, contingent re-composition of the standard significant piece. Outstanding competence is, however, recognised, discussed and compensated in traditional African practice. A celebrated traditional African artist lives a normal, psychically balanced life. This is a humanistic virtue that

[10] In the African conceptualisation of creativity the source of creative inspiration is a feminine deity, the Mother Earth. The principal instrument in an ensemble is regarded as a mother instrument as such. The leader in an ensemble should rightly be regarded as the mother musician in the African conceptualisation.

Africa-sensitive musical arts education needs to re-inculcate in the modern African psyche.

A: All people can hear music and are surrounded by music on a daily basis. Most pupils enjoy listening to music and can sing songs or will immediately start tapping a structured rhythm when given a drum. And yet teachers often give them the impression that they do not know much about music. Wittgenstein concluded that important aspects are often overlooked because of their simplicity and familiarity.[11] Factual knowledge has driven the world, and the slogan that knowledge equals power has been part of my own upbringing. Knowing *about* is often more important than knowing *how to*. Despite Bloom's inclusion of the affective mode of teaching in his taxonomy, the powerful teaching method of unlocking knowledge that is present in the form of intuition has not been thoroughly explored. According to Gruhn[12], intuitive listening can be equated to a language of feelings. The feelings that we experience consciously and unconsciously are ways for us to understand music. The affective quality of music is immediately unpacked and perceived cognitively. Underneath the feelings that are evoked by a piece of music are several other layers of understanding that can be penetrated. Bamberger[13] echoes the idea that learning refers to more than the content of institutionalised teaching. It includes the gaining of skills that enable the learner to have a comprehensive conversation with the music. In listening to the music common to one's own culture, people learn intuitively at an early age to recognise beginnings and endings of motifs and phrases. Comments such as "it does not make sense" imply that the features generating groupings and boundaries inherent to a specific style or culture differ from the ones that the listener is used to.

The quest for a revolutionised teaching method is as valid for the Western music world as it is for African societies. A survey of classroom teaching completed in South Africa in 1993 revealed that the mathematical theoretical, chalk and talk methods were insufficient in most of the government schools. This finding was made on a strongly Western-based class music curriculum.[14]

B: Music education, in content and methodology, at the primary and secondary levels, should give more weight to guidance than to instruction. The music teacher is a mediator in a democratic transaction of music knowledge (which is a powerful learning process), not an autocrat. As such the music teacher is a motivational senior learner, who at the primary level may not necessarily be a specially trained musician, given loosely structured learning guidelines for every class level.

A: Ladislaus Semali coined the term "indigenous literacies" as an important basis for any further learning to take place. These literacies form a complex set of abilities that students bring to the classroom. These abilities include their indigenous language to relate their history, stories of everyday life, traditions, poetry, songs,

---

11 Wittgenstein as quoted by Jeanne Bamberger, *The Mind behind the Musical Ear - How children develop musical intelligence.* Cambridge: Harvard University Press, 1991, p. 7.

12 Wilfried Gruhn, *Der Musikverstand*. Hildesheim: Georg Olms, 1998, p. 7.

13 Jeanne Bamberger, *The Mind behind the Musical Ear - How children develop musical intelligence.* Cambridge: Harvard University Press, 1991.

14 Sarita Hauptfleisch, *Effective Music Education in South Africa - Main Report.* Pretoria: HSRC, 1993.

theatre, proverbs, dreams, etc.[15] It is thus a myth that students attend school as empty vessels that should be filled.

Since the first democratic elections in South Africa in 1994 Music Education has been undergoing major changes. A curriculum that focuses on specific outcomes and integration between subjects as well as between the arts is propagated against the background of a pupil-centred approach. It is also expected from the general class teacher in primary schools to handle not only the teaching of music, but also dance, drama and the visual arts.

As much as I strongly believe in and propagate the idea that teachers should tap into the intuitive knowledge already present,[16] I am greatly concerned about the practicalities that surround this approach. My serious doubts whether general teachers can teach music were strengthened when visiting a sample of 15 primary schools in the Cape Peninsula earlier this year. General teachers are adequately equipped to use music in a supportive role to strengthen the teaching of other subjects. And they all reported, although with some reluctance, that the integrated approach is very popular amongst pupils and that they themselves would not return to earlier methods. However, the teachers themselves admitted that they feel lost at not having had any or not enough formal music training to focus on developing music skills.

This became very clear when observing a few integrated lessons of pupils in Grades 2-3. There were some real gems and I felt privileged to be able to form part of this. These lessons included the singing of songs, movement and playing of percussion instruments to strengthen concepts related to, for example, insects. The lesson as a whole was a complete performance and very satisfactory to watch and take part in. Music was glorified in its supportive role, but no formal or informal music teaching took place. Instrumental playing never went beyond making a "noise" at the appropriate time in a story that was told. It never rose above the level of sound effects. Is that music teaching? The teachers often sang the songs too low for that age group and did not present role models in intonation. Another reality that one has to face is the fact that teachers in urbanised areas were generally not exposed to the same level of informal training found in the rural areas. Only three of the 41 teachers that I interviewed in a research project for (Swedish International Development Association (SIDA) earlier this year indicated that they took part in traditional dancing.

I would like to state categorically that the generalist teachers in South Africa and in most other African countries are NOT equipped to bring about a re-energisation of the African heritage. The informal training received by attending church, singing in a choir or dancing in a disco does not prepare the general class teacher for this mammoth task. Many teachers from this generation have not taken part in traditional music practices. The general class teacher should continue to use music in its supportive function while a specially trained music teacher should take care of the music instruction that will have indigenous music at its core. African governments have money to sponsor sports genres, which are essentially Western in nature, while neglecting the one product that contributes largely to the

[15] Ladislaus M. Semali, "Community as Classroom" in Semali, Ladislaus M. and Kincheloe, Joe (Eds), *What is indigenous knowledge? Voices from the academy.* New York: Falmer Press, 1999, p. 106.

[16] Anri Herbst, "Developing Musical Intuition: An Approach to Music Education". In Caroline van Niekerk (Ed.), *Selected Conference Proceedings from the Conference held in Lusaka, Zambia, 21-25 August*. PASMAE, 2002, pp. 56-72.

continent's uniqueness, namely its many musics. There is furthermore an urgent need to scrutinise the training of specialist music teachers on the African continent.

M: In Nigeria also an attempt has been made to introduce what is called cultural arts subjects at the primary level of education. The education policy set out to have music, dance and drama taught as an integrated subject area. The syllabi deriving from the policy are, however, vague, being too remote from the Nigerian human-cultural realities as well as resources to make sense of the policy. This bold attempt to recognise the traditional African practice could be deemed a failure in practice. Part of the problem has already been identified by my colleague as the absence of capable or committed music teachers, considering that those who have received any disciplinary training whatsoever were wrongly oriented, and trained to rely solely on the Western concept and models of music education. Worse still, the teachers' knowledge of Western classical music is too poor.

Recognising this dilemma motivated me in 1984 to research, design and write series of progressive Comprehensive Music Texts for Africa: six for primary schools and three for tertiary institutions including teacher training colleges. The texts are formulated as practical guides that generate self- or group-administered musical arts education. The objective is to produce holistic, activity-oriented learning texts that would inform and model meaningful musical arts education curricula and practice in Africa generally. The primary school series took into account my position that, given well-structured learning texts, any interested teacher or parent can effectively administer literary musical arts learning in early education. The approach is a theory-through-practice musical arts learning procedure, and derives from the African democratic learning process and paradigm[17]. My colleague's report about music being used as support for the teaching of other school subjects calls for serious circumspection. The idea and practice are of course commendable. The usefulness of music for teaching other subject areas must not be discouraged too emotionally. The mission of music as an omni-facilitator is still being served.

Africa has viable indigenous models of music as omni-facilitator that have not been researched and sourced. Music should, however, be constituted as a necessary and autonomous subject area before being applied to servicing other disciplines. Otherwise a primary value of music as a species-specific creative intention would be undermined. The point about competent music teachers is critical, as the teacher quality determines the success or failure of any educational objective or activity. The following qualities of an effective musical arts teacher must be taken into account in the African environment: Is the teacher motivated through adequate remuneration as well as recognition of productivity and merit? Is it broad-based or narrowed in disciplinary specialisation? Does the training of the teacher infuse her with a pragmatic disposition - researching improvising and experimenting? Or does it produce regurgitators of facts, seeing that African music making is a pragmatic process? Are there learning and performance interactions with the musical arts experts as well as events in the community where the school is located? Are there adequate guiding (open-ended) texts, not prescriptive texts, for musical arts education? An open-ended text allows space for teachers and learners to contribute as well as exchange knowledge and research activities in order to make learning a democratic process? One of PASMAE's priority initiatives is the mobilisation of cells of Musical Arts Education Action Teams (MAT). The acronym

[17] Attempts to publish the six Comprehensive Primary Music Texts and three Comprehensive Tertiary Music Texts have been frustrated for over fifteen years due to the difficulty in finding a publishing house that would handle African materials that do not promise instant profit. Publishing companies in Nigeria foreign-owned and indigenous, insist on publishing only educational texts that are direct paraphrasing of approved syllabi and curricula in use.

MAT is appropriate because the sleeping mat in the African worldview is a symbolic and regenerative metaphor. The MAT initiative encourages music educators in neighbouring school locations, and who are deployed at various levels of education to discuss ideas and problems (local and policy related) on a regular basis. It requires them to also research and generate mutually enriching solutions to problems for peculiar school and human environments, basic to the African philosophy of mutuality: when different persons direct urine (related perturbations) at the same spot (problem), they produce steam (coactive energy/synergy of action). Practical guidelines, which at the same time recommend viable directions for action, have been designed. With seed funding from the South African-Norwegian Education and Music Programme (MMINO) in May 2002, the PASMAE executive mobilised pilot MAT activities that have already produced preliminary reports[18].

A: It may sound as if we have the answers! Far from it. But as my mother drilled into me: where there is a will, there is a way! The suggestions put forward here are practical attempts to find solutions. To steer us back to the original debate point, I would like to refer back to the following statement: "The music teacher is a mediator in a democratic transaction of music knowledge (which is a powerful learning process), not an autocrat." In realising that music educators in Africa are generally lacking and/or ignorant of resource material for Africa-sensitive Music Education, the idea was born to make a live recording of the Benefit Launch Concert on 16 April. At this concert indigenous music was performed alongside Western music and music from the African Diaspora. The concert resulted in a double CD album of more than two hours of music that can be used in the classroom. Great care was taken in the programme construction to include instrumental and vocal styles that developed in Africa. On the basis of the concert items a Music Education publication is being developed in a collaborative effort involving some 30 scholars and teachers from the African continent. Teaching models embedded in African archetypes will be discussed by using a concert item as a point of departure. For example: musical storytelling is an important way of teaching in traditional Africa. In one chapter the structure, purpose and educational value of music stories will be discussed from the viewpoints of their societal, holistic and musical values, followed by an illustration of their practical application based on one of the concert items. The idea of the publication is not to give ready-made recipes to teachers, but to demonstrate to them how to be mediators in the democratic transaction of music knowledge.

[18] The PASMAE 2003 conference will focus on seminar/workshop activities to tackle solutions to some of the problems identified in the MAT cells reports. Guidelines for the leaders of the MAT cell groups appear in Appendix B.

C: Activity-based, all-inclusive music learning procedures, which simulate the community environment, instigate life-long involvement in music, whether as performer or audience member. Music learning in schools should be organised to include children from all classes/age brackets in any one learning group as in community music making and learning contexts. (Every music-making context is a learning event as well). [Problem: the co-operation of school authorities to arrange for the blocking of music periods and forming learning groups from all classes.] Music is a recreational-contemplative learning activity. Thus the tendency for some heads of schools to relegate music classes to unpopular periods in the school timetable, such as at the end of the school day, could be positively accommodated by applying the recreational-contemplative philosophy. Structured and supervised extracurricular, after-school, musical arts meetings is a community musical arts project - it compensates, as a continuing education in the musical arts, for the increasing absence of communal recreational activities in the urban and rural environments. Any motivated music educator should be actively involved, deriving as many multidimensional benefits as the learners. It should be recognised that there is a formality in play activities. Games such as soccer, tennis, rugby, imply formal procedures. Modern musical arts education could be structured as formalised learning-through-play activities.

A: The proposed theory is not entirely new. Gardner referred to these aspects in *The Unschooled Mind* and the prospect of moulding the classroom to become an example of real life has been thoroughly discussed by Dewey's progressive school movement. As much as I subscribe to this theory, I have serious doubts whether it could work in modern Africa. The closest that one could come to this ideal would be to involve all age groups in choirs, ensembles and theatrical productions. To accommodate this as a regular event in a school's timetable seems to be problematic: parents usually work during the day and often have to travel long distances to their places of work, making adult participation in musical arts events during school hours problematic. Not all pupils are involved in the choir/ensemble, and the problem remains what to do with the group that is not involved. In South Africa the idea of an artist-in residence has also been promoted strongly. By this is meant that community artists should be involved in teaching that is facilitated by a teacher from the school. Noble as this idea is, schools do not have money to pay these artists. Unless governments include the payment of these artists in the school's general budget, these ideas will remain only wonderful dreams. Stating all these hurdles does, however, not imply that we should stop looking for answers. Maybe there are Music Educators from other parts of the world that have found a workable solution that they could share?

M. The reason that some teachers lament scheduling official music period for the end of a school day or week, is that the learners are arguably mentally and physically exhausted. Whatever is categorised as negative at a surface level or examination has positive aspects at the deep level of evaluation. When we fail to take this into serious account, the positive nature of what appears negative eludes us. And this happens generally in modern life. Hence condemnation is often the flippant response to what baffles or does not conform to a mindset. The African musical arts have the structurally innate magic to energise or regenerate the mind and body. In traditional Africa subsistence occupations could be physically exhausting and mentally stressful. Living conditions compelled constant improvisation. At the end of most days the mass participation type of musical arts would be staged to generate mass physical and psychical therapy. Participation enhances a sleep-cure and re-charges the mind and body for the next day. Scheduling school music at the end of day or school week should not be a problem as such in effective music

education. What should be negotiated is blocking the period for all the classes in such a way that a music learning meeting should mix learners from all classes, ages and sexes - where applicable. The strategy of mixing already has the positive energy of mediating self-consciousness. Every teacher in the school could then be involved, as the session would emphasise performance and creativity in which teachers are motivators. This would make music a popular subject. A specialist music teacher's task would then be to visit various groups for purposes of discussing the theoretical content and philosophical/psychological merits of group-generated musical arts activity in the context of performance. The specialist teacher could also discuss the experiences of mixed group music during individual class music lessons as the case may be.

D: Music learning is about the configuration and production of phonofacts (creativity and performance) as much as it is about the role of music in the transaction of society as well as life (personal/interpersonal/group). As such, music education in Africa should generate an environment and procedure for inculcating the extra sonic values and potential of various music genres and types. Ideally musical arts activities should contribute towards the multidimensional intellectual and physical health development of the learner. Holistic, musical arts education is healthy and creative because it dramatises and "dances" the facts of life such as family, food, occupations, as well as addressing social-religious-economic-political-societal problems.

Incorporating into modern music education, the contextual, humanistic and performance imperatives of the musical arts creates a stimulating activity that becomes strategic for processing the literacy imperative (reading, writing and composing) of modern music education.

M: This particular issue positions the African experience in our modernist re-thinking of music. It enables the appreciation of the factors that determine the scope of a musical arts product. The simplest melody could generate profound responses and values. A simple piece could be humanly relevant and proactive, while an elaborate and complex musical arts work could transact only ephemeral aesthetics. Learners must know and experience the humanistic and contextual objectives that guide the features of musical structures as well as ensemble relationships in order to appreciate the deep human as well as societal underpinnings. Learners must experience the thrill of spontaneity, creativity and inter-dependence, in the context of performance collaboration. An understanding of the extra-musical values of African musical arts types will then inculcate a sense of achievement as well as pride in one's cultural genius. This issue then emphasises the need to probe the African philosophy of producing prodigious results with minimal elements. It is a lesson for the musical arts teachers who misguidedly believe that an abundance of foreign resources is necessary for qualitative modern music education in Africa. Effective and qualitative musical arts education as per the African indigenous model means multifaceted training with the value objectives of socialisation, health, co-operation, creative disposition, etc. Modern African governments could re-strategise traditional musical arts practice as being the most affective as well as effective partner for disseminating and transacting critical societal issues in school and civic communities. Practical classroom music learning is equally an experience-coded design for educating the African child as well as the masses on all life issues that are of concern to a government. This does not detract from the emphasis on musical arts literacy and theory in musical arts education.

A: In Semali *et al*, indigenous knowledge as peoples' cognitive and wise legacy resulting from of their interaction with nature in a common territory, was defined as knowledge that is constantly regenerated. Indigenous knowledge furthermore has the following qualities:[19]

It is local, holistic and agrapha (oral). It is alive and is not to be found in archives and laboratories. It is closely knitted into everyday life. And very importantly, it is regenerated and recreated in indigenous responses to technological, market and state innovations. The holistic nature of indigenous knowledge is reflected in human relationships and in close connections with nature. Finally, this knowledge is transmitted through oral/aural traditions.

In the light of the above definitions of indigenous knowledge, it borders on stupidity to ignore the valuable lessons to be learnt from it. At this point I would like to caution that holism should be treated with great circumspection. As much as holistic learning was the aim of the Comprehensive Musicianship movement in the 1970s in the USA, there was a move away from courses in which constant links were "enforced" between the different disciplines in Western music in the late 1980s. The bird's eye view neglected necessary detail. As much as context is an overall binding and steering factor of knowledge, lack of detail could result in a grey mass of unarticulated features. It will be the task of music educators in Africa to integrate holism with analysis and synthesis.

E: Early introduction in music education in Africa of the theory, samples and human background of Western classical music beyond basic, conventional musical literacy is colonialist. It perpetrates cultural alienation. The resources and content of early music education (elementary level in particular) should enable learners to recognise that as much as music is a common human heritage, respect for, and knowledge (practical as much as literacy) about, one's own musical heritage engenders human pride and boosts cultural identity in the global context.

The modern media constitute an inevitable danger in humanizing music education because the music they disseminate distorts young people's perception of the value and nobility of heritage. Modern music education can mediate the negative effects by positivising the permissiveness of popular music. As such, adopting the philosophy of proceeding from the familiar to the remote recommends the inclusion of appropriate popular music samples as viable resource materials for learning the theory and facts of musical construction and literacy. Modern classical and other-world music materials could be gradually included at any appropriate level.

M: A balanced mind orders/understands its home base before venturing to order/understand others. This maxim also applies as much to the music educator giving leadership in what she knows as to the content of music education starting with whatever is available in the home environment of the learner. I reproduce the statement on the objective as well as the content-guideline for the Comprehensive Music Text for Africa series already referred to above: "Every child needs primary knowledge of, and competence in, the music of her culture. This is a musical foundation she needs in order to appreciate the music of other cultures without loss of human pride or cultural integrity. Every African society boasts a unique and

[19] Mahia Maurial, "Indigenous knowledge and schooling: a continuum between conflict and dialogue" in Semali, Ladislaus M. and Kincheloe, Joe (Eds), *What is indigenous knowledge? Voices from the academy.* New York: Falmer Press, 1999, pp. 62-63.

viable musical arts heritage. And a philosophy of musical arts education has been an important feature of the traditional African worldview and societal management. African traditional societies recognised that music is a strong force in societal engineering. Participation in musical arts activities produces socialised citizens with a well-adjusted psyche and value base. The creative and cultural content of the musical arts disciplines could nurture critical and value-oriented modern African personalities. Adequate materials for effective theoretical, creative and practical musical arts education are available in abundance in the African traditional musical arts rationalisations and practices. A modern course of study in the musical arts that derives from African traditional musical arts heritage is training in the understanding of the mechanics of musical sound, creativity and production. It should incorporate the study of traditional instrument technology as well as the traditional strategies for applying musical arts to the mass communication needs and social-political systems of a society. The study must take account of the nature and features of movement, dance and drama, which are integrated in musical arts creativity as well as performance in the African concept and tradition. The ethics and social values of the musical arts as well as the musical processes of socialising an individual are important extra-musical aspects of traditional musical arts rationalisations that must inform modern musical arts education."

On the basis of this, I boldly assert that the United Nations agencies as well as other well-meaning world bodies and governments that channel funds to societal and human developmental issues in Africa are doing the right things most wrongly. They approach African human and societal dynamics with alien and largely ineffective perspectives as well as implementation strategies. They never bother to find out how Africa thinks, perceives and transacts human/societal issues generally. To start with, most of the advertised funding that target Africa gets directly or indirectly re-cycled back to the treasuries of the United Nations as well as other donor governments and peoples, either by intent or by adopting the wrong modalities. The funds and good intentions therefore scarcely ever make any palpable impression on the lives or minds of their intended African populace. The modern media, seminars and sermonizing measures that have so far been preferred are ineffective because they are so remote from the average African sensibility about serious or relevant communication. A very small percentage of the copious funds invested into structuring and communicating the desired messages or issue as classroom or community musical arts education activities would produce effective-affective life-truth impact. Education in music specifics would also be achieved in the process. The impressive African way is to personalise and clarify a message through theatre. In the African psyche and transaction of life theatre is in phase with real life, NOT an abstracted make-believe system. When the children discuss their classroom experiences with parents as well as perform such messages in the school communities, an entire human community has been mobilised to the take the issue seriously. The necessary but neglected school-community interaction cum inter-stimulation would have been achieved.

There is also a need to caution that the modern electronic media enervates and sedates the African mentally, physically, creatively and attitudinally. Children and adults sit in front of these electronic monsters and mind-benders all day and night with reluctant breaks for school, work and the basic survival chores. The modern 'civilised' world calls this development. I, as a traditionally civilised African, deem it mental and physical disadvantaging. A generation and posterity of human vegetables and idiots is being bred by chance or design. What is happening is a fanciful exercise in coercing human degeneration, not because the modern electronic media are not beneficial, but rather because the attractions are not

humanly rationalised in material and content. Thus they retard instead of boost creative energy. At the same time they systematically disorientate the African populace (imperceptibly but steadily), hopefully not by grand design. Africa-sensitive musical arts education could mediate the danger if properly instituted, supported and executed.

A: Here, my friend, I can only agree with you to a certain extent. The value of "mother-tongue" music education has been widely discussed and applied by educators such as Bartok and Kodály. The South African government supports the ideology of mother-tongue education for the first six years of learners' education. Again, if Africa had copied this world-wide return to folk music as basic music education, it would not have been necessary to reinforce this trend. Then as to the value of technology: as much as computer games have turned a large number of children into obese, bleak souls sitting in front of a computer screen, there have been powerful contributions to attract students to music education via composing and ear-training software. I strongly agree with you that technology could endanger active music making with people moving mice on mouse pads instead of plucking strings of mouth bows and guitars. However, I would like to illustrate my argument with a personal observation of the positive effects of technology: I have a nephew who was taught to play the clarinet for two years, while at the same time receiving music theory and music history lessons. His instrument playing also involved exposure to the classical guitar. After a period of war in the house, the parents finally gave up on coercing the boy to take his music seriously. What brought him back to music was technology! Playing the guitar in a band and composing songs using computer software turned this unenthusiastic student into an 18-year-old man who is seriously considering a career as a band musician. One has to be careful not to throw out the baby with the bath water.

F: The philosophy that makes music education an elitist engagement robs the classical music genre of an audience, particularly a young audience, thus increasingly making bleak the prognosis for an audience for classical music in the future. The original concept and practice of music was egalitarian. The increasingly elitist refinement of music education and production at all levels scares away a future audience for serious music. Creating a future audience mandates recognising that practical and cognitive music knowing is the natural privilege and entitlement of all learners. As such every learner must be given a chance not only to "know" music, but to also perform music in public. A non-fee-paying school or community audience is the context for such performances. As a non-fee-paying audience it should be a supportive audience and not a discriminatory, elitist, audience. Deviation from the norm could have positive values. Hence clowns could be celebrities. As such, participation in school and community performances should be democratic and avoid the elitist demands that could make sense in fee-paying audience contexts. Special training for the more capable learners could be additional to the democratic music learning activities, and special performances could be arranged to encourage such particularly gifted/capable performers.

M: An English adage cautions: "All that glitters is not gold". An Igbo maxim warns: "Beauty in itself is not a virtue." Public performance of any type or quality imbues the performer with self-confidence. While a case is being made for nurturing specialist creators and performers, it is imperative that the school in Africa should be an egalitarian forum that empowers every child to participate and perform, irrespective of the degree of expertise. The common denominator is enthusiasm, which in a school situation should be encouraged in the interest of every learner.

School music is losing its audiences world-wide simply because it is becoming so sophisticated that demand for it diminishes, with increasing academic contrivance of the elitist language of excellence. If the musical arts are for the people, then let them have it, and appreciate the poor (fun) with the great (astounding) performance. One person's poor performance is another person's impressive show. There is always joy in witnessing genuine effort. A "poor" singing voice could, for instance be dramatic or, otherwise, be dramatically deployed in a performance by an imaginative leader. Such a voice in a group could be a metaphor of life, interrogating obsession with perfection and conformity. And there is some psychological health in contemplating such a metaphor.

A: I cannot agree with you more! Since it is my prerogative to end this session, I would like to throw more tinder into the bush that could ignite further debate amongst musicians. All educators should be practising musicians. All education should emanate from the performance angle in order to keep music alive. Education should never become a goal in itself, only a path to contribute towards a performance-orientated society.

APPENDIX A

Aims and Objectives of Music Education[20]

- Specifically musical aims and objectives
  - Musical objectives
    - Specific skills
      - Sight-reading
      - Singing
      - Ear Training
      - Performance skills
    - General skills
      - Emotional expression in performance
      - Musicological understanding
      - Aesthetic appreciation and discrimination
      - Creativity in improvisation and composition
  - Personal objectives
    - Creativity
    - Self-expression
    - Character-building
    - Moral development
- Social and cultural aims and objectives

Although there is a tendency in certain countries to favour certain objectives, musical, personal and social/cultural objectives can be joined in one curriculum.

[20] David Hargreaves and Adrian C. North (Eds.), *Musical Development and Learning – The International Perspective.* London: CONTINUUM, 2001, pp. 226-230. Summary in bullet format by A Herbst and presented in Appendix A.

Appendix B

Guidelines for Musical Arts Education Action Team (MAT) Cells

Initiative of the Pan African Society for Musical Arts Education (PASMAE)

by Professor Meki Nzewi

General:

- The names and school locations as well as types of schools of members are important. Also important is the level of formal/non-formal musical arts education of members of a team, as well as other relevant curriculum vitae. A submission should contain the names and institutions of participating members.
- What are your experiences of organising and working with a MAT team? How often can your group meet, and what are the constraints to having regular meetings as well as documenting the outcomes of such meetings? Are meetings and discussions beneficial to members?
- If the group is enthusiastic, what other kinds of practicable assistance would you need for more effective interactive collaboration as musical arts educators?

Factors that encourage and discourage music instruction/activities in the schools in your area:

- How much time is allotted to formal music lessons in the school timetable? How adequate is this time allocation, and how is it utilised to best advantage?
- Describe extra-curricular music activities after formal school periods (in the same way as sports activities happen outside classroom periods). What constraints are experienced in organising practical extra-curricular music activities?
- Describe any interference or encouragement from parents/guardians, fellow teachers, school authorities, education departments and any other stakeholders in mounting practical music projects. What strategies have been adopted to capitalise on or contend with such positive or negative factors, respectively?
- Since participating in public performances stimulates interest as well as generating self-expression/confidence/merit, are opportunities for music presentations by pupils within the school or community pursued?
- Do you have any inventory of the types and origin of music commonly heard or performed in the school/home/community environment of the learners? Are any learners involved as performers or audience, in the community or in the school? For how many hours, on average, in the day/week are the learners/teachers involved in practical or listening music experiencing outside the classroom?
- Are there any constraints to forming music clubs within the school/community? (Such clubs/class-groups could perform during school or community events. The clubs/groups should allocate to the learners/members roles in organisation, performance and publicity/promotion/marketing duties, with the teacher as a motivator. School music clubs/groups could generate revenue/material benefits from public performances.) If any attempts have been or are being made, what are problems and benefits?
- Are the teachers actively involved in any personal music making - what type of music and for what practical or personal objectives?

Classroom music learning activities:

- Have local musical arts artistes been invited to perform in the school so that learners could observe critically, then discuss as well and write up experiences as part of classroom evaluation exercises? (Outstanding local musical arts personalities, including performing pupils, could be interviewed in the class by the learners as to creative and performance procedures and experiences.) How do such performers create new tunes, work with existing tunes, rehearse and prepare themselves and the musical arts type for public presentations? How do they relate to the audience attitudes/responses during and after performances? How do they feel while and after performing? How do they assess the reception of their presentations? How do they relate with fellow performers during and after performances? What are the joys and problems/expectations of being a performer, and in playing their types of music in the contemporary society?

- Have practical activities (such as recreating an observed musical arts performance) been adopted in the classroom to illustrate the elements and structural principles of music such as pitch/tone, texture, melody, rhythm, melorhythm, harmony, part-relationships, starting, ending, presentation form, points of climax, and music writing/reproduction, etc.?

- Have the learners carried out any field research inquiries to find out from members of the immediate community the purposes and values of music in people's personal lives, transacting community living and relationships, also the religious, political, social, business affairs of the society? (Reports of inquiries should be discussed, critiqued and documented as part of classroom learning resource material.)

- What are the musical arts preferences and dislikes of parents as well as any other members of the community the learners can access for interviews? What are the scales of preference, and for what reasons? In what capacities do or have parents/guardians/others participated in musical arts performances from childhood? How would they like their children to participate in musical arts making, and for what reasons, also what types? Do they encourage the children learning music in the classroom, or taking part in musical arts performances outside the classroom, and for what reasons? What music types would they encourage or discourage their children to participate in within the school learning environment, and for what reasons? Would the parents/guardians/others like to visit the school to watch or interact with the pupils in musical arts rehearsals and presentations? What do they normally pay attention to when participating in, observing or listening to a musical arts performance - melodic interest, harmonic/polyphonic relationships, dance, instruments, solo group improvisation/extemporisation, singing voice, dramatic actions, costume, audience interaction, etc.? How is a good or poor performer in dance, drama singing, or on instruments assessed, and in what specific terms? What musical arts types have disappeared in the community? Would the parents/community members wish them back/recreated, and for what values/virtues? Will they assist in recreating such musical arts type/s with a school group?

- Have musical arts performances, live or recorded, been useful in any specific instances in the lives of the learners? Are the learners interested in participating in school or community school groups? For what reasons, and in what roles? Would the learners take up music as a career, and what type of music, also for what reasons?

Teaching/Learning Methods:

- Have the learners observed, as a learning/critical group, any public music event in the community or school with a view to discussing and documenting all aspects of their experiences as a classroom learning activity? Such an exercise should discuss the musicological content, also the theatrical features (dance, drama, sport). How did the actions relate with the music sound? How did the artistes relate with one another structurally and inter-personally? How was the musical arts type relevant to the event/occasion/context? Did any music or movement/dance gesture signal, symbolise or conduct any significant actions/-scenario/messages? What are the significant audience responses and relationships with the performers? What indices of evaluation were articulated or demonstrated by interviewed members of the audience as well as performers? What are the personal evaluations of the learners? These should discuss the highlights and the nature as well as the quality of artistic features: instrumental performances, dances, dramatic activities, oratory, singing style and voice, tuning, combination of voices/instruments, improvisation/extemporisation. What formal structures were observed, such as types of solo and chorus structures and physical relationships? Where there noticeable leadership structures and roles? Were there extra-musical signals and symbols in instruments, sound and behaviour of all present, and how did these relate to the musical arts presentation? How about the class forming a performance team to re-create excerpts from the observed musical arts event, improvising with body sounds and classroom objects as need be? This exercise will anchor the intellectual (critical) perception of aspects of the music event. (The activity could be tried outside the classroom.)

- Are any locally available music materials and instruments being used to teach conventional musical concepts and structures? These will include musical arts types/styles performed in the community that demonstrate concepts and theories of melody, harmony, textural relationships, form, creative procedure etc. Local keyboard instruments, for instance, could be used to teach harmonic, melodic and rhythmic principles as well as idioms as applicable to, and present in the music of the learners' culture.

- How do the other teachers, including the School Head, react to classroom as well as extra-curricular musical arts activities? Learners could be encouraged to interview teachers as well as peers in other class levels. Relate the responses to those obtained from school outsiders/sponsors - leaders in politics, religion, social and business life and policy makers in education. This should be a strategic classroom learning project. How would the persons interviewed like to have music (and what music genres, categories, types, cultures) practised/learnt or not be studied, in the school/ community? What support are they prepared to give?

- How does the curriculum/syllabus you are operating make practical sense or otherwise in your school situation, taking into account the practicability, cultural relevance, background of learners, instructional facilities and music available in the school location? Identify what is or is not practicable or applicable in the school situation, given the facilities as well as the learners' attitudes. What measures have been adopted to make sense of or adjust to any shortcomings or non-practicable/applicable curricular recommendations and contents?

- How does the content of the training received/not received as a music teacher make practical or cultural sense with respect to experience in the teaching field, teaching resources and cultural applicability? What are the advantages or

shortcomings deriving from the type of training as a music teacher received? What should be included, omitted, and/or emphasised in the training of music teachers such as received in order to make musical arts teachers more secure, relevant and functional?

- Has any attempt been made to involve volunteer local musical arts artistes to assist in classroom instruction/demonstrations on instruments, singing, acting, dancing, etc., also to explain the nature, history, context/human meaning, values, effects/affect and organisation of musical arts performances in the community?
- Is there any systematic teaching of the music instruments and performance types in the culture as formal and/or graded study? Can the local specialists be recruited as volunteer instructors, or sponsored by parents/guardians/patrons?

Facilities:

- What audio, visual and audiovisual equipment is available for learning purposes? Are they personal property or provided by the school? Are they really any handicap? Can the teacher/learners not use alternative (live) examples/illustrations for specific learning activities and illustrations?
- What music instruments, indigenous or foreign, are available for learning and practical music making? Do they belong to the school/teacher/learners? What indigenous instruments could be used for effective teaching of aspects of music theory?
- What other, teaching aids such as music-writing board/papers, textbooks, costumes, etc. are needed and available or improvised?
- What physical space, within and outside the school buildings, is available and suitable for theoretical and practical music learning?

References

Bamberger, Jeanne — *The Mind behind the Musical Ear - How children develop musical intelligence.* Cambridge: Harvard University Press, 1991, p. 7.

Bauman, Zygmunt — "Identity in the globalizing world". *Social Anthropology* (2001), 9, 2, pp. 121-129.

Blacking, John — "The Value of Musical Experience in Venda Society." *The World of Music*, XVIII 2, (1976), pp. 23-28.

Erlmann, Veit — *Music, modernity, and the global imagination: South Africa and the West*. New York: Oxford University Press, 1999.

Gruhn, Wilfried — *Der Musikverstand*. Hildesheim: Georg Olms, 1998.

Hargreaves, David J. and North, Adrian C. (Eds) — *Musical Development and Learning – The International Perspective.* London: Continuum, 2001.

Hauptfleisch, Sarita — *Effective Music Education in South Africa - Main Report.* Pretoria: HSRC, 1993.

Herbst, Anri — "Developing Musical Intuition: An Approach to Music Education". In Caroline van Niekerk (Ed.), *Selected Conference Proceedings from the Conference held in Lusaka, Zambia, 21-25 August*. PASMAE, 2002, pp. 56-72.

Kaschula, Russell H. — *The Bones of the Ancestors are shaking – Xhosa Oral Poetry in Context*. Cape Town: Juta, 2002.

Macedo, Donaldo — "Decolonizing Indigenous Knowledge" in Semali, Ladislaus M. and Kincheloe, Joe (Eds), *What is indigenous knowledge? Voices from the academy.* New York: Falmer Press, 1999, p. xv.

Nzewi, Meki — *Musical Practice and Creativity – An African Traditional Perspective.* Bayreuth: Iwalewa-Haus, University of Bayreuth, 1991.

Strategies for Music Education in Africa: Towards a Meaningful Progression from Traditional to Modern. In Caroline van Niekerk (ed.) ISME '98 Conference Proceedings. 1998, pp. 456-486.

Semali, Ladislaus M. and Kincheloe, Joe (Eds) — *What is indigenous knowledge? Voices from the academy.* New York: Falmer Press, 1999.

Music and the Brain: Interaction with Biology, Psychology, and Neurology

John W. Flohr – jflohr@twu.edu
Professor of Music, Texas Woman's University, Denton, Texas, USA
Wilfried Gruhn – w.gruhn@mh-freiburg.de
Professor of Music Education, Music Academy, Freiburg, Germany
Donald Hodges, Director, Institute for Music Research, University of Texas at San Antonio, USA

The Norwegian word *Samspel* refers to the working together in music and other areas of human activity. Meaningful research about music and the brain has often resulted from *Samspel or* collaboration. Music brain research requires expertise from several fields including music, neurology, biology, psychology, anatomy, developmental psychology, and computer science. Several models of *Samspel* are illustrated in Table 1. *Samspel* may be partnership, leader/consultant, team and one or more of the models may be combined. Three researchers have utilized *Samspel* in their investigations of music learning and the brain.

Germany

In Freiburg, Germany Wilfried Gruhn and others collaborate to investigate the areas of music learning, music processing, emotional response, music expertise, and motor control in musical performance (Gruhn & Rauscher, 2002). The University of Music Freiburg researchers have worked with researchers at the Institute of Music Physiology and Music Medicine in Hannover and the Medical School of the Universities at Freiburg and Tuebingen to investigate the development of mental representations evoked by different teaching strategies, the processing of time structures in the brain, the support of music in the training of cochlear implant children, and the correlation of music aptitude and general intelligence by measuring mental speed with oculo-motor studies. Further research will especially focus on common research projects that connect researchers from different areas to intensify efforts to come to a better understanding of the procedures that underlay musical learning and understanding.

San Antonio, USA

In San Antonio, Texas, USA, a series of studies have been conducted with a partnership involving a musician (Don Hodges), a neurobiologist (Peter Fox, M.D., Director, Research Imaging Center, University of Texas Health Science Center at San Antonio), a cognitive neuroscientist (Larry Parsons, Head, Cognitive Neuroscience Division, National Science Foundation), and a music scientist (Steven Brown, post-doctoral fellow, Research Imaging Center, University of Texas Health Science Center at San Antonio). These studies have been conducted with support from Yamaha, the National Association of Music Merchants, and the Texaco Foundation.

The San Antonio studies implemented brain-imaging techniques of PET and fMRI to study neural systems underlying musical performance, the neural basis of the comprehension of musical harmony, rhythm, and melody, and mapping musical invention in the brain (Parsons, 2001).

Denton, USA

In Denton, Texas, USA, Flohr began in the early 1990s collaborating with Daniel Miller, a psychologist and current president of the National Association of School Psychologists. Later Flohr and Miller established partnerships with researchers in several fields including another psychologist (Roger deBeus, Clinical Coordinator of Neurotherapy Services in Virginia), a kinesiologist (Harry Meeuwsen, Director Kinesiology at University of Texas at El Paso), a adaptive physical education specialist, Ronald French, Professor, Texas Woman's University) and early childhood music expert (Diane C. Persellin, Professor, Trinity University). The studies gained support from the National Academy of Recording Arts and Sciences and the Texas Woman's University Brain Behavior Laboratory.

All of the work engaged young children of 4-7 years in research and the brain imaging work was restricted to EEG brain imaging techniques. For a discussion on techniques see (Flohr & Hodges, 2002). The first two studies examined differences in brain activity during music listening for children at age five years and seven years (Flohr & Miller, 1995). The next set of studies examined influences of music instruction and listening on young children's brain electrical activity (Flohr, Miller, & deBeus, 2000; Flohr, Miller, & Persellin, 2000).

Samspel– the working together in music and other areas of human activity–or collaboration has served Flohr, Gruhn, and Hodges well. Research studies that would have been impossible to launch without *Samspel* or collaboration were launched, finished, and supported by outside funds because of the expertise and contributions of researchers from several fields. The models of *Samspel* (table 1) are viable and dynamic ways in which to further investigate music education questions and bring interested experts together for a common purpose.

Table 1–Samspel: Models of Collaboration

Type	Characteristics
1–Partnership	Two or more persons from same or different fields work together. All decisions are mutual.
2–Leader/consultant	One person is research leader. Leader brings in consultants from other fields. For example, if a psychologist were the leader and wishes to have music expertise, a music researcher would be asked.
3–Team	One person is the leader, but all work as a 'team' to make decisions.
4–Team/university	Many teams reside in research universities.
5–Team/multi-team	Several teams are given the same or similar research agenda (e.g., common in drug trials).
6–Funded/out-source	A group from model 1-5 collaborates with a funding organization. An individual, foundation, or business announces support for any research or a research topic. For example the National Association of Music Education (USA) recently announced a call for research on day-care center music.

References

Flohr, J. W., & Hodges, D. (2002). Music and Neuroscience. In R. Colwell & C. Richardson (Eds.), *The New Handbook of Research on Music Teaching and Learning* (pp. 991-1008). New York: Oxford University Press.

Flohr, J. W., & Miller, D. C. (1995). Developmental quantitative EEG differences during psychomotor response to music. Paper presented at the Texas Music Educators Convention, San Antonio, Texas: ERIC Document PS025653.

Flohr, J. W., Miller, D. C., & deBeus, R. (2000). EEG studies with young children. *Music Educators Journal, 87*(2), 28-32.

Flohr, J. W., Miller, D. C., & Persellin, D. C. (2000). Recent Brain Research on Young Children. In *Music Makes the Difference: Music, brain development, and learning* (pp. 37-43). Reston, VA.

Gruhn, W., & Rauscher, F. (2002). The neurobiology of music cognition and learning. In R. Colwell & C. Richardson (Eds.), *The New Handbook of Research on Music Teaching and Learning* (pp. 445-460). New York: Oxford University Press.

Parsons, L. (2001). Exploring the functional neuroanatomy of music performance, perception, and comprehension. In R. Zatorre & I. Peretz (Eds.), *The biological foundations of music.* (Vol. 930, pp. 211-230): Annals of the New York Academy of Sciences.