Proceedings of the 6th International Conference of the Greek Society for Music Education
Music: Trains, Educates, Heals

Keynote Presentations

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Medicine Intervention: a complementary therapeutic tool for the cardiovascular patient

Athanasios Dritsas

Abstract

Objectives: Recent studies have suggested that listening to music may reduce stress, alter mood profile and improve hemodynamics via a brain-heart relaxation interaction. The aim of the present study was to examine the effects of music on hemodynamics, neuroendocrine function and also on stress perception and mood derived via psychometric questionnaires. **Methods:** We studied 50 patients (pts) in the coronary care unit (CCU), 60 pts (30 as active and 30 as control group) during treadmill exercise testing and 26 pts with neurocardiogenic syncope during head up tilt-testing (TT). In addition 24 coronary artery bypass (CABG) pts were studied during the early post-op period prior to extubation. All patients were exposed to relaxing type selected music pieces via high quality headphones according to the study protocol. Subjective assessment of stress, anxiety and mood profile was measured using either a visual analogue scale (VAS) or State-Trait Anxiety Inventory (STAI) and the Profile of Mood States (POMS). Standard monitoring of arterial pressure, heart rate and ECG was carried out before, during and after all interventions. Patients with neurocardiogenic syncope (n=26) and a positive baseline TT repeated a second TT within 24hrs and were divided in a music listening group (n=13) and a non-music control group (n=13) during the 2nd TT. During TT blood samples for epinephrine, nor-epinephrine, prolactin and cortisol were taken. For CABG pts also the amount of opioid pain killers given immediately post-op was recorded. **Results:** 94% of CCU patients indicated that selected music can offer significant relaxation and 78% CCU patients showed >50 % in perceived stress reduction with music. A negative for ischemia exercise ECG result was more frequently associated with participation in the music listening group compared to controls ($p<0.01$). According to POMS score music listening favored tension-anxiety ($p<0.001$), depression-dejection ($p<0.05$) and anger-hostility ($p<0.05$). A significant negative correlation was detected between state-anxiety scores and time duration of the exercise test ($r=-0.354$, $p<0.01$). Music listening during TT prevented onset of a syncopal episode during TT compared to non-music state ($p<0.05$) in patients with neurocardiogenic syncope. Cortisol and prolactin showed a 2-fold increase during a positive TT, however this rise did not occur when TT became negative during music listening. In the post CABG music group less Pethidine (1.5±10 mg) was used compared to controls (6.25±11), ($p<0.05$). **Conclusions:** Our findings suggest that music listening has a positive effect on stress reduction and mood changes during medical interventions in patients with cardiovascular disease. These subjectively perceived changes are associated with favourable objective changes in hemodynamic indices or the neuroendocrine profile. In addition music may influence the diagnostic outcome of an exercise test or response to tilt-testing. Furthermore music may act as a pleasant distracter in various settings possibly by diverting patient attention from the medical procedure and relieve stress.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music and Human Substance

Lenia Serghi

Abstract

Music is an indispensable part of human's emotional, cognitive and social life. The last decades there is an increasing interest and extended field of research concerning the role of music, and in consequence music education, in structuring human personality. Researches and scholars of different fields, like philosophy, the sciences of music (music education, musicology, ethnomusicology), social sciences (psychology, sociology), and even neurology and biology, are making joined efforts in order to sketch the longitudinal importance of music on human substance.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Neuropsychobiological features of musical behaviour and development

Graham F. Welch

Abstract

The paper reviews recent research literature to suggest that: (a) the structure and functioning of the brain relies on the networked integration of relatively specialised modules; (b) a key property of the brain is its neuroplasticity; that is, it has the ability to form new neural connections in response to experience; (c) there is an integration in function between the human body's three main systems: nervous, endocrine, immune, which together may be considered to be a human 'bodymind' and (d) although there may be some form of hemispheric (left/right) bias in the underlying neural activity for musical perception, nevertheless, common musical behaviours that are valued and practised by social groups are normally multi-sited. Links are made into how these various elements are combined to create behaviour, development and learning, both within and beyond music.

Introduction

The advent of modern neuroimaging techniques over the past two decades or so has been marked by neuroscientists taking an increasing interest in music. This is because music is seen to relate to many different brain functions, such as perception, action, cognition, emotion, learning and memory (Pantev, 2009). Amongst their discoveries is the suggestion that the brain's underlying neural architecture is modular - in the sense that different parts of the brain have relatively specialised functions - whilst also providing evidence that musical behaviours (such as in musical performance) customarily involve many different areas (modules) of the brain networked together (Peretz & Coltheart, 2003; Stewart & Williamon, 2008; Callan et al., 2007; Brown et al., 2006). Asymmetries are often evidenced between the left and right brain hemispheres, as are relative biases towards particular neural locations, depending on the type of musical behaviour under consideration.

In general, musical behaviours in adulthood appear to depend on specific brain circuitry that is relatively discrete from the processing of other classes of sounds, such as speech or song lyrics, although it has been conjectured that certain features of linguistic and musical syntactic processing may have a common basis, such as in the perception of melody and linguistic intonation contours (Patel, 2009). Other findings support a notion that musical perception normally involves some form of cross-hemispheric processing, although this is likely to be subject to developmental processes. For example, in musically experienced adults, an initial right-hemispheric recognition of melodic contour and metre is followed by an identification of pitch interval and rhythmic patterning via left-hemisphere systems (Schuppert et al., 2000). In contrast, there are reported hemispheric weighting differences between adults and young children - and also between boys and girls - in the perception of musical syntax related to the discrimination of major/minor tonal patterns (Koelsch et al., 2003).

Singing behaviours are another example of modular co-operation. Separate systems within the brain are responsible for the analyses and combined production of lyrics, rhythm and pulse, and pitch (Peretz & Coltheart, 2003). These systems relate any incoming song and singing information to existing banks of knowledge and store of emotional experiences. In the reproduction of a heard song, the brain undertakes an initial acoustic analysis. This is then

'forwarded' to a set of discrete 'modules' that are specifically designed to extract different features, namely *pitch* content (pitch contour and the tonal functions of successive intervals) and *temporal* content (metric organisation = temporal regularity; and rhythmic structure = relative durational values). Both pitch and temporal outputs are further 'forwarded' to a personal 'musical lexicon' that contains a continuously updated representation of all the specific musical phrases experienced by us as individuals over a lifetime. The output from this musical lexicon depends on the task requirements. In relation to singing, if the goal is the reproduction of a song, then the melody from the musical lexicon will be paired with its associated lyrics that are stored in a 'phonological lexicon' (Peretz & Coltheart, op.cit.; Welch, 2005).

In essence, therefore, sung performance requires simultaneous cooperation between areas within the left and right cerebral hemispheres, respectively (Besson et al., 1998), drawing on auditory-tonal and auditory-verbal working memory. Because song lyrics are processed separately and in parallel with song rhythm and melody, there are often developmental differences evidenced in young children in their performed recall of these elements (e.g. Welch et al., 1997). There is also evidence that singing with a musical instrument, or with another singer, is not the same as singing alone, as slightly different networked neurological areas are invoked (Parsons et al., 2007).

The areas of the brain responsible for musical behaviours are believed to be a special characteristic of the human species (Mithen, 2009), with some basic musical capacities (such as a sensitivity to musical expression) being evidenced across the population, irrespective of any specialist musical training (Bigand & Pulin-Charronnat, 2006; Honing & Ladinig, 2009). Nevertheless, several neurological studies report differences between professional musicians and other adults who have no evidence of such advanced musical expertise, such as in increased cortical representation of the fingers of the left hand in string players (Elbert et al., 1995), and in aspects of brain volume that were correlated to intensity of practice in male keyboard players (Hutchinson et al., 2003).

Neuroplasticity

Overall, our potential for acquiring new musical behaviours, and extending our existing expertise is realisable through an underlying property of the brain, its neuroplasticity, by which new neural connections are formed in response to experience. Longitudinal studies involving children and adults, for example, suggest that - as might be expected- learning to play a musical instrument brings about significant changes in particular areas of the brain (Schlaug et al., 2005; Habib & Besson, 2009). Similarly, neurological changes are also evidenced when we learn to sing, with differences observable (amongst others) in those brain areas responsible for controlling pitch, projecting the voice and conveying a sense of musical phrasing (Mithen & Parsons, 2008).

These neurological changes occur because the nature of instrumental learning involves 'complex multimodal skills involving simultaneous perception of several sensory modalities: auditory, visual and somatosensory, as well as those of the motor system' (Pantev, 2009: 131). Studies of the use of neurofeedback in children's and adult's singing development, for example, suggest that educational programmes that embrace multimodal experience are likely to be highly effective in promoting vocal learning, both for naïve, developing singers as well as for intending professionals (Welch, 1985; Welch et al., 2005). Similarly, other recent research that compared the underlying neurological impact on a group of non-musicians (i.e., adults with no history of music study) either learning to play a musical sequence on a piano (termed the sensorimotor-

auditory group) or listening and making 'correctness' judgements of played sequences (auditory group) confirmed such benefits. The results indicated that multimodal sensorimotor-auditory training in non-musicians resulted in greater plastic changes in the auditory cortex than auditory-only training (Lappe et al., 2008; Pantev et al., 2009).

As might be expected, the development of musical expertise, such as in learning to playing an instrument, is associated with a concomitant increase in sensitivity to the underlying components of musical stimuli, such as in pitch discrimination ability (Tervaniemi et al., 2005). Furthermore, different types of extended musical experience are associated with subtle variations between musicians in their underlying neurological functioning. This is evidenced, for example, in the relative proportions of the brain associated with particular musical expertise, such as in MRI scans of asymmetries between expert keyboard players and string players in the amount of the motor cortex devoted to movements of the left hand (being larger for the latter group) (Bangert & Schlaug, 2006). Similarly, although musicians are reported to be better at discriminating very small changes in pitch than non-musicians, vocal musicians who also have instrumental training appear to have slightly superior pitch discrimination ability compared to either instrumental only or vocal only musicians, suggesting that combined musical experience may provide a neurophysiological advantage (Nikjeh et al., 2008).

In general, Tervaniemi (2009: 155) argues that "…at the neural level musical expertise does not have a unified profile but, instead, … the special demands of a given instrument are reflected in the underlying brain determinants in musicians."

The bodymind concept

For many centuries from the time of Plato onwards there has been an assumption in Western cultures that a non-physical entity called *mind* inhabited and operated the body. However, recent and ongoing neuropsychobiological evidence suggests that such a *Cartesian* conception of mind-body duality is increasingly untenable. Arguably, from a neurological standpoint, what we refer to as *mind* are the summative results of massive numbers of biological processes (Edelman, 1992:17) that embrace patterned, bodywide changes in interlinked operation of our nervous, endocrine, and immune systems.

According to neuroscience, in line with evidence of neuronal modularity (mentioned above) fundamental properties of human consciousness are explained in terms of networks of neuronal groups in the brain that strongly interact amongst themselves (Crick, 1994; Damasio, 1994, 1999; Edelman, 1987, 1989; Edelman & Tononi, 2000; see Thurman, 2000 for a review). An integrated, but constantly differentiating, array of interacting brain areas are anchored directly or indirectly to the thalamus and cerebral cortex. This fluctuating array of anchored brain areas has been termed a *dynamic core* (Edelman & Tononi, op.cit., 143-154) that processes a multiplicity of conscious states at a time scale of fractions of a second.

Furthermore, our complex mind processes do not just occur in the brain. All of the body's organs and systems are linked to each other, most especially by highly differentiated systems of biochemical transmitter molecules that are distributed via the body's circulating fluids (blood, lymph, cerebrospinal). In the nervous, endocrine, and immune systems, these transmitter molecules are referred to (respectively) as neurotransmitters and neuropeptides, hormones, and immunotransmitters (Feldman, et al., 1997; Pert et al., 1985; Strand, 2000). The surfaces of all bodily cells have receptor sites that have a biochemical affinity for those transmitter molecules that are relevant to the organ or system of which the cell is a part. Most of these travelling molecules and their receptors have been found in all of the body's organs and

systems; their bodywide interactions have been estimated to number in the multiple trillions (Edelman & Tononi, op.cit.). The multi-faceted potentiality of this biological integration is a primary basis for what we refer to as *mind*, embracing our conscious and other-than-conscious sensory perceptions, feelings/emotions, memory, learning and behaviour.

Consequently, therefore, humans may be conceived as *bodyminds*, a term first used by Pert, (1986)[1]. She wrote:

> I believe that neuropeptides and their receptors are a key to understanding how mind and body are interconnected and how emotions can be manifested throughout the body. Indeed, the more we know about neuropeptides, the harder it is to think in the traditional terms of a mind and a body. It makes more and more sense to speak of a single integrated entity, a 'bodymind' (Pert, 1986).

The integration of the nervous, endocrine and immune systems is evidenced in much music related literatures, such as concerning musical identity and musical learning (e.g., Welch, 2005). Performers develop musical identities in relation to their chosen musical instrument, musical genre and experiences of performance contexts. They are required to deal, for example, with variable stress levels, such as related to rehearsal studio compared to the concert hall (Creech et al., 2008). Professional musical performance embraces 'strong emotional and motivational activation' (Altenmüller, 2008). The performer relies on the self-monitoring of intra- and inter-personal feedback, both generated by internal bodily systems (such as sensory, motor and emotional networks) and also from the moment-to-moment processing of diverse sources of information from other musicians (if engaged in group based performance) and audience.

Evidence of neuroplasticity and bodymind integration in relation to musical and other-than-musical development

In addition to musical acculturation that arises through exposure to sound, including the musics of the dominant culture, the development of different types of musical expertise normally arises from extended positive musical experiences. These may be formalised within an educational setting, such as a school, studio or university, or in comparatively less structured contexts, such as via peer learning in a non-school context, or in shared early childhood musical experiences with caregivers in the home (e.g. Green, 2002; Williamon, 2004; Welch, 2006). Such expertise tends to be fostered by exposure to an 'expert', i.e., someone with a greater level of expertise who engages the learner in novel musical experiences.

Recent neuropsychobiological reviews of the evidence for *why* there are both musical and other-than-musical benefits arising from systematic musical exposure suggest, firstly, that the underlying perceptual and cognitive networks become increasingly specialised in encoding the musical soundscape associated with a particular musical genre (Hannon & Trainor, 2007) and, secondly, that systematic changes occur in the oscillatory activity of how particular neuronal networks communicate with each other – such as evidenced in changes in the recorded electroencephalogram (EEG) data of young children following a programme of Suzuki piano lessons (Trainor et al., 2009). Other recent research with young children aged 5-7 years provides

[1] Dr Candace Pert is a former Chief of the section on Brain Biochemistry for the Clinical Neuroscience Branch of the USA National Institute of Mental Health in Washington. Her most recent work has focused on psychoneuroimmunology.

evidence that 'early, intensive and prolonged skill learning leads to significant structural changes in the brain, changes that are associated with changes in related behavioural skill' (Schlaug et al., 2009). The study found that approximately 29 months of instrumental tuition resulted in significant changes in a sub-region of the *corpus callosum*, the bundle of fibres that connects the two brain hemispheres. The degree of change was significantly correlated with the amount of practice that the children undertook and was seen to be similar to differences previously reported between adult professional musicians and non-musicians (Schlaug et al., 1995).

Nevertheless, there is not always complete agreement on the other-than-musical benefits of instrumental music education. For example, one recent study of children who had received at least three years of instrumental tuition reported benefits on two outcomes perceived to be closely related to music (auditory discrimination abilities and fine motor skills), as well as on two outcomes distantly related to music (vocabulary and nonverbal reasoning skills) (Forgeard et al., 2008). However, contrary to previous research findings (e.g. Hetland, 2000), this extended length of instrumental tuition was not associated with heightened spatial skills, perhaps because the earlier studies reported were focused on tuition of a shorter time-span (up to two years), suggesting that some of the benefits of intensive musical learning may be more short-term than others.

Nevertheless, a longitudinal study of Portuguese 8-year-olds revealed that twice-weekly musical activities (focused on rhythm, melody, harmony and timbre), totalling 2.5 hours per week for twenty-four weeks, resulted in improvements in reading skills and in the discrimination of small pitch variations in speech (Moreno et al., 2009), with associated changes evidenced in electroencephalogram (EEG) amplitude data. The authors conclude that, in line with other studies (such as reported above), "relatively short periods of training have profound consequences on the anatomical and functional organisation of the brain" (op.cit.: 721). Similarly, a study of 4-5 year olds found that those with musical training showed enhanced language abilities, particularly in morphologic rule formation and memory for words (Marin, 2009).

Overall, there is an increasing and diverse range of different music-related studies concerning the other-than-musical impacts of music education. These impacts arise from the underlying neural modular networking of the nervous, endocrine and immune systems that collectively represent the human "bodymind". Examples of this diverse range of impacts reported in empirical research and related literatures include aspects of physical and psychological health and well being, as well as social benefits.

Examples of music's impact on physical and psychological health and well being

- The provision of live, familiar music for children in hospitals is seen to relieve anxiety, promote relaxation and group identity, and divert attention away from the experience of painful treatment (Preti, 2009).
- Listening to music is considered to be beneficial, such as in the performance of athletes, by promoting motivation and reducing fatigue and pain perception (Drylund & Wininger, 2008).
- In addition to extensive studies in music medicine, the literature on the use of music in therapeutic contexts is extensive, with reported psychological benefits such as anxiety reduction (Chan et al., 2006), as well as observed positive changes in physiological measures, such as heart rate and blood pressure (Etzel et al., 2006).

- As part of the growing evidence for the use of music to facilitate brain recovery following trauma, one example – Melodic Intervention Therapy (MIT) - has been demonstrated to be effective in supporting improvements in conversational speech in aphasic patients. Key elements of the therapy are vocal intonation and tapping movements with the left hand, linked to rehearsal imagery and auditory-motor feedback (Norton et al., 2009).
- A comparison of overt and imagined singing (thinking through a song in memory) suggests that most of the areas involved in the underlying motor processing (moving the vocal apparatus) are also involved in mental rehearsal (Kleber et al., 2007). However, those areas responsible for auditory control tend not to be activated during imagined singing. Frontal areas of the brain have greater activity in imagined singing, being linked to long-term memory and related emotional experiences. One new application of such knowledge has been to combine singing with brain stimulation to help stroke victims to recover speech (Vines, 2008).
- There are several studies reporting improved lung function through engaging in singing activities, such as exampled by a programme of singing twice a day for a period of four weeks (Price & Gosling, 2003), or singing for sixty minutes during a carol concert (Gilbert, 2009). More efficient breathing is likely to lead to increased aerobic capacity, cardiovascular activity and increased oxygenation of the blood, leading to increased alertness (*cf* Hoge et al., 1999).
- Similarly, studies of amateur and professional choral singing suggest that there are important psychophysiological benefits in terms of subjective emotional states (Grape et al., 2002; Unwin et al., 2002; Valentine & Evans, 2001) and increased immune function (Kreutz, et al., 2004).
- Participation in workplace choirs at telephone call centres generated improved vocal health and a sense of well being, whilst also reducing workplace absence (Jones & Beardshaw, 2009).
- Benefits to mental health, social inclusion and personal empowerment are also reported from arts engagement (Clift et al., 2009), such as in the majority of participants from a sector wide review of 102 arts (including music) and mental health projects across England (Secker, Hacking, Spandler, Kent & Shenton, 2007).

Examples of music's impact on self and social development

- Engagement in choral activity is associated with a strong sense of community and social engagement (Durrant & Himonides, 1998; Clift & Hancox, 2001). For example, the latest report on amateur choral activity from the USA (Chorus America, 2009), indicates that regular choir membership (accounting for 1:5 of the adult population) is associated with a significantly higher sense of self-reliance, willingness to engage in teamwork and more engagement in civic affairs, as well as parents reporting higher social skills in children who belong to a choir.
- Other recent data suggest that engagement in musical activities links to a greater sense of social inclusion and positive self concept, such as evidenced in studies with children, young people and adults in various countries (e.g. Northern Ireland - Odena, 2007; Israel - Portowitz et al., 2008; Italy - Welch et al., 2009a; and England - Welch et al., 2009b).

Implications for theory and practice

The intersections between music, neuroscience and social psychology offer a fruitful basis for the grounding of music education policy and practice in contemporary realities. For example, there are a number of key theoretical constructs that underpin the research evidence reported above. These concern *inter alia* the underlying neuroplasticity of the integrated human bodymind; how such neuroplasticity is reflected in our behaviour, development and learning; and the potential benefits of sustained musical activities for individual and group development, both within and through music. A critical understanding of the singularity, yet complementarity inherent in such theoretical perspectives would strengthen the likelihood that music education design, process and assessment are as effective as possible.

- *Neuroscience research* generates evidence based on the theoretical position of a linkage between observed human behaviour and the underlying structure and function of the brain; observed musical development is expected to be correlated in some way with changes in cortical structure over time (*cf* Shaw & McEachern, 2001; Schlaug et al., 2005).

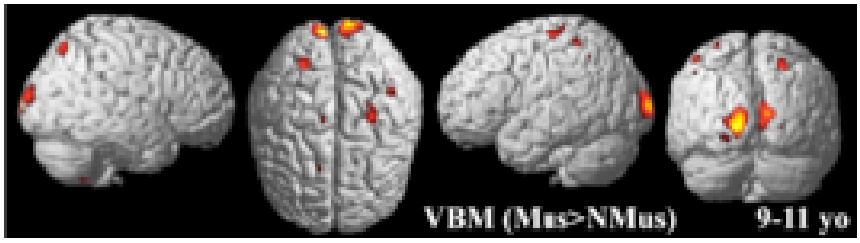


Figure 1: *Differences in grey matter between 9-11 year old instrumentalists and matched controls (Schlaug, 2005)*

- Other, recent, *neuropsychobiological research* supports a 'bodymind' view that the human nervous, endocrine and immune systems are integrated and that their functions are interwoven with our conscious and other-than-conscious experiences (*cf* Pert, 1986; Thurman, 2000).

Figure 2: *Full-body scan composite images of mother, father and developing foetus (Tsiaras, 2005*)

- Evidence from thirty years of research in the field of *social ecology* (*cf* Bronfenbrenner, 1979) suggests that human behaviour and development are almost always socially and culturally located.

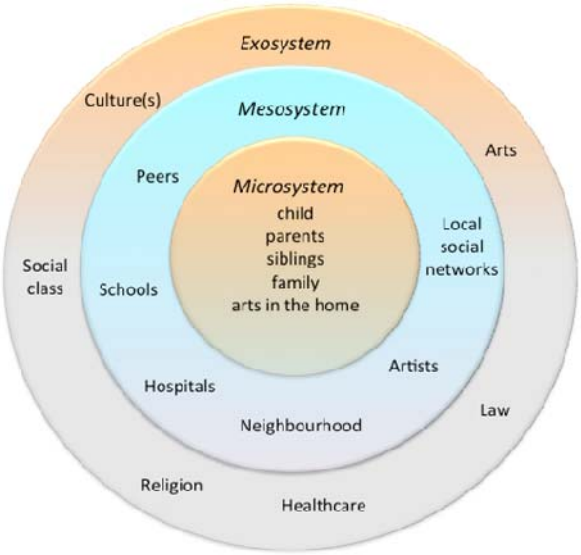


Figure 3: *A social ecology view of the interacting contexts that frame human development (after Bronfenbrenner, 1979)*

- Data derived from the application of *activity theory* (*cf* Engeström, 2001 (sometimes called cultural-historical activity theory) compliments social ecology theory and indicates that individual learning is (a) often shaped through our interaction with others and (b) mediated by symbol systems within the culture (including language and music) that are used for the representation of experiences.

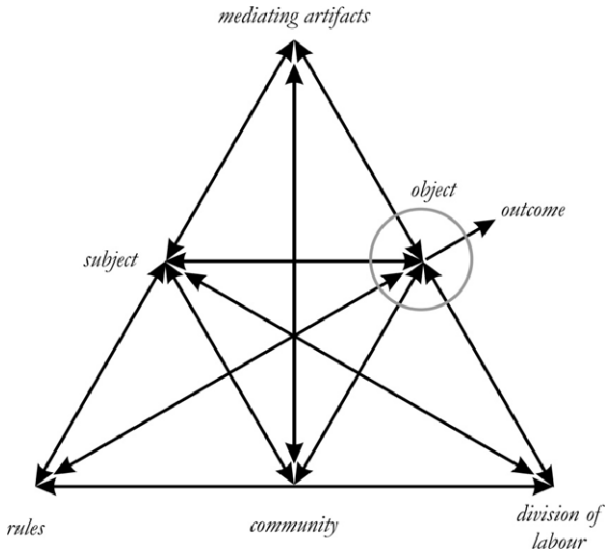


Figure 4: *Model of an activity system (Engeström, 2001)*

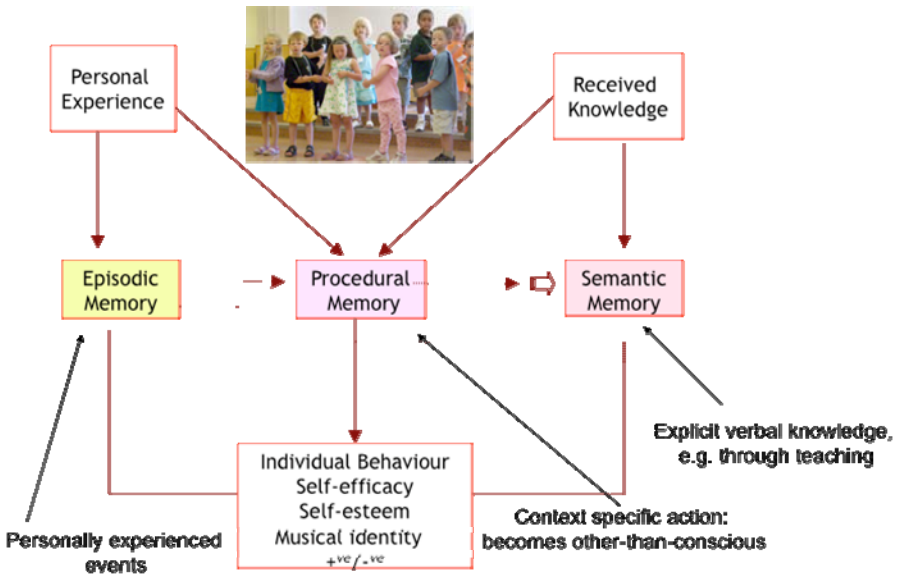


Figure 5: *The shaping of individual behaviour through different types of memory (Sternberg et al., 2000; Eraut 2004)*

- Studies within the *psychology* and *social psychology* of music (e.g. MacDonald et al., 2002; Hallam et al., 2009), as well as *music pedagogy* (e.g. Regelski & Gates, 2009), compliment the above theoretical standpoints. Together with other social science studies, these provide evidence of how musical behaviour, identity and development are shaped and enabled, and of how personal experiences and received knowledge combine to create our episodic, semantic and procedural memory (*cf* Eraut, 2004 - see Figure 5 above).

Collectively, these various literatures offer a holistic theoretical perspective on the nature and possible benefits of musical behaviour and development. Within this perspective, musical neuroplasticity – the capacity of the musical brain to alter in response to environmental demands (Hyde et al., 2009) – is evidenced in the outcomes of a complex interaction between our basic human design and the ways in which we experience our immediate, local and wider sonic worlds (*cf* Welch, 2006). This interaction - embracing reactive and proactive, as well as interactive musical behaviours - is contextualised by the dominant socio-cultural practices and values that surround the nature and place of particular types (styles, genres) of music in our daily lives.

Acknowledgements

This paper is dedicated to my friend and colleague, Dr Leon Thurman, for his inspiration over more than twenty years concerning the importance of neuropsychobiological studies to music education.

Bibliography

Altenmüller, E. (2008). Neurology of musical performance. *Clinical Medicine,* 8, 410-13.

Bangert, M., & Schlaug, G. (2006). Specialization of the specialized in features of external human brain morphology. *European Journal of Neuroscience,* 24, 1832-1834.

Besson, M., Faïta, F., Peretz, I., Bonnel A.-M. & Requin J. (1998) Singing in the brain: independence of lyrics and tunes. *Psychological Science*, 9, 494-8.

Bigand, E., & Poulin-Charronnat, B. (2006). Are we 'experienced listeners'? A review of the musical capacities that do not depend on formal musical training. *Cognition*, 100, 100-130.

Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design.* Cambridge, MA: Harvard University Press.

Brown, S., Martinez, M.J. & Parsons, L.M. (2006). Music and language side by side in the brain: a PET study of the generation of melodies and sentences. *European Journal of Neuroscience,* 23(10), 2791-2803(13).

Callan, D., Kawato, M., Parsons, L., & Turner, R. (2007). Speech and song: The role of the cerebellum. *Cerebellum,* 6(4), 321-327(7).

Chan, M.F., Wong, O.C., Chan, H. L., Fong, M. C., Yan Lai, S. & Wah Lo, C. (2006). Effects of music on patients undergoing C-clamp procedure after percutaneous coronary interventions. *Journal of Advanced Nursing,* 53(6), 669-679.

Chorus America. (2009). *The chorus impact study*. Washington, DC.: Chorus America.

Clift, S., Camic, P.M., Chapman, B., Clayton, G., Daykin, N., Eades, G., Parkinson, C., Secker, J., Stickley, T. & White, M. (2009). The state of arts and health in England. *Arts and Health,* 1(1), 6-35.

Clift, S.M., & Hancox, G. (2001). The perceived benefits of singing: Findings from preliminary surveys of a university college choral society. *Journal of the Royal Society for the Promotion of Health,* 121, 248-256.

Creech, A., Papageorgi, I., Duffy, C., Morton, F., Haddon, E., Potter, J., de Bezenac, C., Whyton, T., Himonides, E., & Welch, G. F. (2008). Investigating musical performance: Commonality and diversity amongst classical and non-classical musicians. *Music Education Research*, 10(2), 215-234.

Crick, F. (1994). *The Astonishing Hypothesis*. New York: Charles Scribner's Sons.

Damasio, A.R. (1994). *Descartes' Error: Emotion, Reason, and the Human Brain*. New York: Avon Books.

Damasio, A.R. (1999). *The Feeling of What Happens: Body and Emotions in the Making of Consciousness*. New York: Harcourt Brace.

Durrant, C. & Himonides, E. (1998). What makes people sing together? Social psychological and cross cultural perspectives on the choral phenomenon. *International Journal of Music Education*, 32, 61-71.

Drylund, A.K., & Wininger, S. R. (2008). The effect of music preference and exercise intensity on psychological variables. *Journal of Music Therapy,* 45(2), 114-134.

Edelman, G.M. (1987). *Neural Darwinism: The Theory of Neuronal Group Selection.* New York: Basic Books.

Edelman, G.M. (1989). *The Remembered Present: A Biological Theory of Consciousness.* New York: Basic Books.

Edelman, G.M. (1992). *Bright Air, Brilliant Fire: On the Matter of the Mind.* New York: Basic Books.

Edelman, G.M. & Tononi, G. (2000). *The Universe of Consciousness: How Matter Becomes Imagination*. New York: Basic Books.

Elbert, T., Pantev, C., Wienbruch, C., Rockstroh, B. & Taub, E. (1995). Increased cortical representation of the fingers of the left hand in string players. *Science*, 270, 305-6.

Engeström, Y. (2001). Expansive Learning at Work: toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133-156.

Eraut, M. (2004). Informal Learning in the Workplace, *Studies in Continuing Education,* 26(2), 247- 274.

Etzel, J., Johnsen, E., Dickerson, J., Tranel, D. & Adolphs, R. (2006). Cardiovascular and respiratory responses during musical mood induction. *International Journal of Psychophysiology*, 61, 57-69.

Feldman, R.S., Meyer, J.S. & Quenzer, L.F. (1997). *Principles of Neuropsychopharmacology*. Sunderland, MA: Sinauer Associates.

Forgeard, M., Winner, E., Norton, A., & Schlaug, G. (2008). Practicing a musical instrument in childhood is associated with enhanced verbal ability and nonverbal reasoning. *PLoS ONE* 3(10): e3566. doi:10.1371/journal.pone.0003566

Gilbert, H. (2009). *Does singing increase peak expiratory flow rate (PEFR)?* Unpublished research paper, London: British School of Osteopathy.

Grape, T., Sandgren, M., Hansson, L., Ericson, M. & Theorell, T. (2002). Does singing promote well-being?: An empirical study of professional and amateur singers during singing lessons. *Integrative Physiological and Behavioural Science,* 38(1), *65-74.*

Green, L. (2002). *How popular musicians learn*. Farnham, UK: Ashgate Press.

Habib, M. & Besson, M. (2009). What do Music Training and Musical Experience Teach Us About Brain Plasticity? *Music Perception,* 26(3), 279-285.

Hallam, S., Cross, I. & Thaut, M. (eds.) (2009). *Oxford handbook of music psychology*. Oxford: Oxford University Press.

Hannon, E.E. & L.J. Trainor. (2007). Music acquisition: effects of enculturation and formal training on development. *Trends in Cognitive Science,* 11, 466-472.

Hetland, L. (2000). Learning to make music enhances spatial reasoning. *Journal of Aesthetic Education*, 34, 179-238.

Hoge, R.D., Atkinson, J., Gill, B., Crelier, G.R., Marrett, S. & Pike, G.B. (1999). Linear coupling between cerebral blood flow and oxygen consumption in activated human cortex. *Proceedings of the National Academy of Sciences of the USA*, 96, 9403-9408.

Honing, H. & Ladinig, O. (2009). Exposure influences expressive timing judgments in music. *Journal of Experimental Psychology: Human Perception and Performance.* 35(1), 281-288.

Hutchinson, S., Lee, L., Gaab, N. & Schlaug, G. 2003. Cerebellar volume of musicians. *Cerebral Cortex*, 13(9), 943-949.

Hyde, K.L., Lerch, J., Norton, A., Forgeard, M., Winner, E., Evans, A.C. & Schlaug, G. (2009). Musical training shapes structural brain development. *The Journal of Neuroscience,* 29(10), 3019-3025.

Jones, G. & Beardshaw, A. (2009). The women making work something to sing about. SW Echo, 26-27, Tuesday 10th February, 2009. [See: www.singandinspire.com]

Kleber, B., Veit, R., Birbaumer, N. & Lotze, M. (2007). Neural correlates of professional classical singing. In A. Williamon, & D. Coimbra (eds.) *Proceedings, International Symposium on Performance Science,* 335-343. Porto 22-23 November, 2007. Utrecht: Association Européenne des Conservatoires, Académies de Musique et Musikhochschulen (AEC).

Koelsch, S., Grossmann, T., Gunter, T.C., Hahne, A., Schröger, E. & Friederici, A.D. (2003). Children processing music: Electric brain responses reveal musical competence and gender differences. *Journal of Cognitive Neuroscience*, 15(5), 683-693.

Kreutz G., Bongard S., Rohrmann S., Hodapp, V. & Grebe, D. (2004). Effects of choir singing or listening on secretory immunoglobulin A, cortisol and emotional state. *Journal of Behavioral Medicine,* 27, 623-635.

Lappe, C., Herholz, S.C., Trainor, L.J. & Pantev, C. (2008). Cortical plasticity induced by short-term unimodal and multimodal musical training. *J. Neuroscience*, 28(39), 9632-9639.

MacDonald, R.A.R., Hargreaves, D.J. & Miell, D. (2002). *Musical identities*. Oxford: Oxford University Press.

Marin, M.M. (2009). Effects of early musical training on musical and linguistic syntactic abilities. *Annals of the New York Academy of Sciences,* 1169, 187-190.

Mithen, S. (2009). The music instinct: The evolutionary basis of musicality. *Annals of the New York Academy of Sciences,* 1169, 3-12.

Mithen, S. & Parsons, L. (2008). Singing in the brain. *New Scientist,* 23 February, 28.

Moreno, S., Marques, C., Santos, A., Santos, M., Castro, S. & Besson, M. (2009). Musical training influences linguistic abilities in 8-year-old children: More evidence for brain plasticity. *Cerebral Cortex*, 19, 712-723.

Nikjeh, D.A., Lister, J.J. & Frisch, S.A. (2008). Hearing of note: An electrophysiologic and psychoacoustic comparison of pitch discrimination between vocal and instrumental musicians. *Psychophysiology,* 45, 994-1007.

Norton, A., Zipse, L., Marchina, S. & Schlaug, G. (2009). Melodic Intonation Therapy - Shared insights on how it is done and why it might help. *Annals of the New York Academy of Sciences*, 1169, 431-436.

Odena, O. (2007). *Music as a way to address Social Inclusion and Respect for Diversity in early childhood.* Study Paper for the Bernard van Leer Foundation. Belfast: NFER at Queen's.

Pantev, C. (2009). Musical training and induced cortical plasticity. *Annals of the New York Academy of Sciences,* 1169, 131-132.

Pantev, C., Lappe, C., Herholz, S.C. & Trainor, L. (2009). Auditory-somatosensory integration and cortical plasticity in musical training. *Annals of the New York Academy of Sciences,* 1169, 143-150.

Parsons, L.M., Himonides, E.T., Craig, N., Vakil, M., Papadakis, N., Turner, R.S. & Wilkinson, I.D. (2007*). Simultaneous dual-fMRI, sparse temporal scanning of human duetters at 1.5 and 3 Tesla.* Annual meeting of the Society for Neuroscience, San Diego, California USA, November 2007.

Patel, A.D. (2009). Music and the brain - three links to language. In S. Hallam, I. Cross, & M. Thaut (eds.) *Oxford Handbook of Music Psychology*, 208-216. New York: Oxford University Press.

Peretz, I. & Coltheart, M. (2003). Modularity of music processing. *Nature Neuroscience*, 6(7), 688-691.

Pert, C.B. (1986). The wisdom of the receptors: Neuropeptides, the emotions, and bodymind. *Advances*, 3(3), 8-16.

Pert, C.B., Ruff, M.R., Weber, R.J. & Herkenham, M. (1985). Neuropeptides and their receptors: A psychosomatic network. *The Journal of Immunology*, 135(2), 820-826.

Portowitz, A., Lichtenstien, O., Egorov, L. & Brand, E. (2008). Underlying mechanisms linking music education and cognitive modifiability. In S. Malbran & G, Mota (eds.) *Proceedings, 22nd International Seminar on Research in Music Education*, Porto, Portugal, 13-18 July, 2008.

Preti, C. (2009). *Music in hospitals: Anatomy of a process.* Unpublished PhD Thesis. London: Institute of Education.

Price K. & Gosling C. (2003). *The effects of vocal function exercises on the lung function of trained female singers. A pilot investigation.* Melbourne, Australia: School of Health Sciences, Victoria University.

Regelski, T.A. & Gates, J.T. (eds.) (2009). *Music education for changing times*. Secaucus, N.J.: Springer.

Schlaug, G., Forgeard, M., Zhu, L., Norton, A., Norton, A. & Winner, E. (2006). Training-induced neuroplasticity in young children. *Annals of the New York Academy of Sciences,* 1169, 205-208.

Schlaug, G., Jancke, L., Huang, Y., Staiger, J.F., & Steinmetz, H. (1995). Increased corpus callosum size in musicians. *Neuropsychologia,* 33, 1047–1055.

Schlaug, G., Norton, A., Overy, K. & Winner, E. (2005). Effects of music training on the child's brain and cognitive development. *Annals of the New York Academy of Sciences,* 1060, 219–230.

Schuppert, M., Münte, T.F., Weiringa, B.M. & Altenmüller, E. (2000). Receptive amusia: evidence for cross-hemispheric neural networks underlying musical processing strategies. *Brain,* 123, 546–59.

Secker, J., Hacking, S., Spandler, H., Kent, L. & Shenton, J. (2007) Mental health, social inclusion and arts: developing the evidence base. Final Report. Retrieved on 29-09-2009 from http://www.socialinclusion.org.uk/resources/index.php?subid=71

Shaw, C.A. & McEachern, J.C. (2001). Traversing levels of organisation: A theory of neuronal plasticity and stability. In C.A. Shaw & J.C. McEachern, J.C. (eds.) *Toward a Theory of Neuroplasticity,* 427-445. Hove, UK: Psychology Press.

Sternberg, R.J., Forsyth, G.B., Hedlund, J., Horvath, J.A., Wagner, R.K., Williams, W.M., Snook, S.A. & Grigorenko, E.L. (2000). *Practical Intelligence in Everyday Life,* Cambridge University Press.

Stewart, L. & Williamon, A. (2008). What are the implications of neuroscience for musical education? *Educational Research,* 50(2), 177–186.

Strand, F.L. (2000). *Neuropeptides: Regulators of Physiological Processes*. Cambridge, MA: MIT Press.

Tervaniemi, M. (2009). Musicians - same or different? *Annals of the New York Academy of Sciences,* 1169, 151-156.

Tervaniemi, M., Just, V., Koelsch, S., Widmann, A. & Schröger, E. (2005). Pitch discrimination accuracy in musicians vs nonmusicians: An event-related potential and behavioral study. *Experimental Brain Research,* 161, 1–10.

Thurman, L. (2000). Bodyminds, human selves and communicative human interaction. In L. Thurman & G. Welch (eds.) *Bodymind and Voice: Foundations of Voice Education* (Rev. Ed., 134-187). Iowa City, IA: National Center for Voice and Speech.

Trainor, L., Shahin, A.J. & Roberts, L.E. (2009). Understanding the benefits of musical training - effects on oscillatory brain activity. *Annals of the New York Academy of Sciences,* 1169, 133-142.

Tsiaras, A. (2005). *The InVision Guide to a Healthy Heart.* New York: HarperCollins (see also *From Conception to Birth* (2002).

Unwin, M., Kenny, D.T. & Davis, P.J. (2002). The effects of group singing on mood. *Psychology of Music,* 30, 175-185.

Valentine, E., & Evans, C. (2001). The Effects of Solo Singing, Choral Singing and Swimming on Mood and Physiological Indices. *British Journal of Medical Psychology, 74 (1)*, 115-125.

Vines, B. (2008). Stimulating music: Combining singing with brain stimulation to help stroke victims recover speech. *Proceedings, ICMPC10,* University of Hokkaido, Sapporo, Japan, August 25-29.

Welch, G.F. (1985). A schema theory of how children learn to sing in-tune. *Psychology of Music*, 13(1), 3-18.

Welch, G.F. (2005). Singing as Communication. In D. Miell, R. MacDonald & D. Hargreaves (eds.) *Musical Communication*, 239-259. New York: Oxford University Press.

Welch, G.F. (2006). The musical development and education of young children. In B. Spodek & O. Saracho (eds.) *Handbook of Research on the Education of Young Children*, 251-267. Mahwah, N.J.: Lawrence Erlbaum Associates Inc.

Welch, G.F., Howard, D. M., Himonides, E. & Brereton, J. (2005). Real-time feedback in the singing studio: An innovatory action-research project using new voice technology. *Music Education Research*, 7(2), 225-249.

Welch, G.F., Papageorgi, I., Vraka, M., Himonides, E. & Saunders, J. (2009). *The Chorister Outreach Programme: A Research Evaluation 2008-2009*. London: Institute of Education.

Welch, G.F., Preti, C. & Himonides (2009). *Progetto Musica Regione Emilia-Romagna*: *A research-based evaluation.* London: International Music Education Research Centre (iMerc).

Welch, G.F., Sergeant, D.C. & White, P. (1997). Age, sex and vocal task as factors in singing 'in-tune' during the first years of schooling. *Bulletin of the Council for Research in Music Education*, 133, 153-160.

Williamon, A. (eds.) (2004). *Musical Excellence*. Oxford: Oxford University Press.

Presentations

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music therapy with children on the autistic spectrum: The role of their primary carers as clients and co-therapists

Christiana Adamopoulou

Abstract

It is very likely that the disturbances in communication of children who are in the autistic spectrum can be a very frustrating experience for their primary carers. Playful interactions between the parents and the child are hampered and parents often give up on trying to evoke a playful response from their child. In music therapy, any fleeting response -musical and/or non-musical-coming from the child is important and the therapist makes use of it in order to establish some basic interaction between him /her and the child. Involving the parents in this process can offer them a space where they can explore new possibilities in being with their child. In this case the function of music therapy is to support the primary carer along with the child, providing a safe space where they both have opportunities to revisit their patterns of communication. As therapy goes on, the role of the primary carers would shift; they might gradually feel more confident in initiating and establishing interactions with their child taking a more active role not only during the session but also at home. In this case the role of the parents is clearly therapeutic since the consistency between the therapeutic interventions and routine at home contributes enormously to the alleviation of the symptoms. In this presentation vignettes of music therapy with children on the autistic spectrum and their primary carers will illustrate the above analysis.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Education in Ancient Greece: an iconographical approach

Sophia Aggelidou

Abstract

When music can no longer be reproduced and there is no sound evidence, when musical instruments have been destroyed or only segments are preserved, when the literacy sources are limited or not sufficient so as to provide us with the necessary information, then images prove to be extremely valuable. The study of music iconography of ancient cultures has undoubtedly much to offer in the effort to restore musical instruments, in the revival of musical culture, as well as in the study of people's daily lives in ancient times. This paper will address through an extensive pictorial presentation, issues relating to the "formal" education of young people in Ancient Greece. The material of this presentation is based mainly on images from Attic pottery, but is, also, associated with both Greek mythology and ancient literacy sources in order to reveal the role of the teacher, the student, the pedagogue and above all the significance of music in the daily lives of Ancient Greeks.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

«Locked-In» Syndrome and Music Therapy: A case study

Mitsi Akoyunoglou-Christou

Abstract

In the last few years, a lot of interesting research has been conducted in Music Therapy with clinical findings that support its benefits for patients suffering from neurological conditions. A brief review of the latest research in neurologic music therapy will be given. One rare disease, according to the Greek Alliance of Rare Diseases, is the "Locked-In" Syndrome, a condition where the patient is trapped in his own body, being tetraplegic and aphonic, but with a fully functioning mind. A. C. is a 43 year old woman, a mother of two children, who suffered a severe stroke three years ago resulting in confinement to her bed with "Locked-In" Syndrome. The present study will review the patient's progress during the weekly music therapy sessions she attended for the last 14 months, in the island of Chios. This case study will present the observable changes that were achieved through the music therapy sessions, as well as the relationship of the patient with the music and the music therapist. In addition, the need for care and support for the whole family will be pointed out, since when one member is suffering, the whole family suffers. The therapist's thoughts will be reported regarding a) the current reality in the field of rehabilitation in rural Greece, b) the need for specialization of music therapists in the field of neurologic music therapy and c) the integration of music therapy in Neurological Rehabilitation Centers.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Megaron Orchestra Camerata and Music Library of Greece "Lilian Voudouri" go to school.

Marianna Anastasiou

Abstract

The paper will focus on a pioneering educational program of the Friends of Music Society carried out in 15 high schools in Attica during 2008-2009 with the collaboration of *Megaron Orchestra Camerata and Music Library of Greece "Lilian Voudouri"*. The educational program was developed in successive activity phases with the contribution of musicians, music educators, composers and musicologists. Camerata' s concert program in the participating schools included a new interactive music piece that required the participation of 25 students. They were able to perform with the orchestra after attending two meetings with a music educator and the composer himself. The program concluded with the visit of the students of the 15 schools in Athens Concert Hall for a performance held in Friends of Music Hall, where the new music piece was recorded in real studio conditions. Music Library of Greece "Lilian Voudouri" participated in the project in two ways: Firstly, the Library's web page hosted a number of texts, photos, sound recordings and videos concerning the music pieces performed by Camerata, so that they could be used by the students in projects under the guidance of their music teachers. Secondly, after they had accessed the virtual Library, they were given the opportunity to get to know its actual premises during their visit to the Athens Concert Hall. The presentation will be accompanied by audiovisual material of all project's phases.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The Developmental Components of Orff - Schulwerk

Dimitris Antonakakis

Abstract

This work examines the contribution of Orff Schulwerk in the development of Preschool and First School Age, children. Firstly are presented the means that Orff Schulwerk uses: speech, movement, Orff orchestra, sound experience and creative listening. Then follow the pedagogic techniques that these means are developed in Orff Schulwerk: imitation, exploration, notation, improvisation and the play. Then are delimited the sectors that the Developmental Psychology study: sensori-motor, cognitive, sentimental and social development. Then, it is examined how each means and each pedagogic technique of Orff Schulwerk, contribute in each sector of development preschool and first school age children and not only in their musical growth. This developmental value of Orff Schulwerk renders it a useful tool in the Developmental Music Therapy of children with special needs, where it is applied for a lot of decades. Finally, are presented research data to reinforcement of place that the Orff Schulwerk contributes in all the sectors of development of preschool and first school age children.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Education: Transforming scientific literacy to school literacy through school textbook

Vassiliki Charissi

Abstract

Taking into account that the school literacy field has expanded and the fact that among the basic abilities a student has to develop is the cultural expression, component of which is the music expression and communication, it is not hard for someone to comprehend the reason of the "musical literacy" terminology appearance in the international bibliography.

In this paper, we discuss the way that epistemic literacy is transformed to school literacy, in the music education field, considering, always, the role of the school related to the empirical knowledge utilization, through the didactic process, the transformation of this knowledge to epistemic one and, finally, its return to the everyday practice field.

The basic aim of this paper is to analyze the way the following three interconnected aspects of epistemic literacy are integrated in the music textbook of the sixth grade of primary Greek school: the cognition aspect, the linguistic one and the reflective- critical aspect, emphasizing on the linguistic aspect.

Applying the qualitative discourse analysis method, we are trying to map the pedagogical functions of school textbook, as the main tool for the support and development of musical literacy, on the basis of the concepts of classification, framing and the formality of the linguistic code from the field of epistemic literacy.

The results of the analysis demonstrated that the specific school textbook is mainly oriented towards the definite arrangement of the teaching rules (strong framing) taking though into account the need for social equity between the teachers and the students. The book also allows the greatest possible accessibility to the non-expert students, adopting a linguistic code of low formality.

Key words
musical literacy, scientific literacy, school textbook

Conceptual Definitions

Literacy

The wide range of meanings that "literacy" includes renders this term difficult to define. Literacy has always been the main end of educational systems, but in a narrow way, concerning mainly the ability of writing and reading and the students' familiarization with basic rules of grammar. Nevertheless, today the components that make a person literate refer not to the symbols coding and decoding but to the manner in which knowledge is managed and utilized (Kress, 2003; Cook & Cumperz, 2006). Thus, literacy has been transformed to a social phenomenon constructed by components arising out of its social and cultural context.

On this basis, researchers talk about scientific literacy which refers to the knowledge and understanding of scientific concepts, to a variety of processes required for personal decision making, participation in civil and cultural affairs and the appropriate use of scientific language and methods connected with different disciplines. It is well known that different disciplines have different scientific language and methods that generate them but they have some common

features: the prerequisite of linguistic, functional and critical literacy, the organization of its cognitive content and the textualization of this content (Matsagouras, 2007).

Taking as starting point the basic features of scientific literacy and its connection with educational aims, researchers examine its school form in conjunction with the dialectic and dynamic process that renders literacy a non-deterministic phenomenon (Roth & Barton, 2004).

School Literacy

Despite the elimination of boundaries among the disciplines that metamodern period has brought about and the interchanges of methods acquired by researchers and practitioners of different fields, scientific literacy, in its school form, appears to have more rigid standards. These differences are arisen not only by the features of each discipline but also by the different theories of pedagogy that have shaped school curricula and instructional strategies (Matsagouras, 2007; Hatzigeorgiou, 2001).

School literacy, the school form of scientific literacy, is defined as the ability of students to read and write different kinds of educational texts through (a) decoding, analysing and interpreting school texts and (b) the production of written texts as a means for knowledge construction (Matsagouras, 2007; Hassett, 2008). Hence, typical education has changed its focus and has been orientated to approach implicit knowledge that exists in personal and social aspects of students' life. To be more explicit, school, based to the students' empirical knowledge, transforms this knowledge to epistemic one, tthrough the didactic process, and, finally, connects it to the everyday practice field (Green, 2008).

In combination with school curricula and instructional strategies, school textbook is a basic tool for school literacy development, as it facilitates students to approach scientific knowledge in the form of school knowledge. In Greek educational system, school textbook possesses a significant position, as it brings curricula into effect and contributes to the formation of effective teaching conditions in order to ensure substantial learning (Glasersfeld, 1995; Kress, 2003; Green, 2008).

In transforming scientific to school knowledge, school textbooks designers, based on curricula principles and their content should support the scientific validity of school textbooks. At the same time writers should always take into account that in metemodern period knowledge is not accepted as something objective and school textbook should enable students to approach a variety of aspects of the truth. Pedagogically, school textbooks should be harmonized with students' interests in order them to be urged for active participation to the learning process. Textbooks have to provide the connection among the different cognitive subjects, as essential prerequisite for the holistic approach of knowledge and the development of students' metagognitive abilities. Moreover, they should be consistent to original material connected to situations that students experience in their everyday life, organized with main purpose the development of critical and creative thinking (Xohelis, 2005). On the above presumptions, school textbook essentially contributes to the transformation of scientific literacy to school literacy, cultivating scientific and school literate persons.

Musical Literacy

The wide range of the term "literacy" is connected to its appearance to different epistemic fields, among which is the field of music. Hence literacy is referred to students' ability to comprehend and effectively manipulate knowledge from different fields for different aims in a variety of

contexts. Common element of every kind of literacy is the prerequisite of lingual literacy both in general level and in the level of the specific epistemic field.

Especially, in the field of Music Education, a dialogue about music literacy is in progress in the scientific and artistic community. What do we mean when we refer to a "musical literate" person? How musical literacy is defined and which musical abilities constitute it? In this paper, it is not possible to give complete answers to these questions. What we try is to indicate some references in the international literature about meanings of musical literacy.

Kodaly (1971) refers that musical literacy is related to the ability of reading and writing music, decoding standard music notation and reading a musical score.

Researchers in the field of music relate musical literacy to the reading and writing music notation, in the same way that researchers from the field of linguistic literacy relate it to text reading and writing. Despite the big number of common features between written language and musical notation, as in both cases virtual symbols are used to convey sound characteristics, the main end of each system is completely different.

Stewart (2005) comments that basic aim of written language is the transfer of meaning, while music notation provides instructions for the appropriate production of music interpretation. He concludes that music notation knowledge is the basic assumption for musical literacy development but it is not sufficient for a person to be considered as musical literate.

On a more philosophical basis, Levinson (1996) argues that musical literacy is connected with functional knowledge about music in order for a person to comprehend it both as a kind of art and as scientific object. On the other had, he supports that musical literacy has to be seen in a broader aspect as one of the main characteristics of a cultural literate person.

Mills and McPherson (2007) support that a musical literate person has developed abilities that enable him/her to be engaged with musical creation, to emotionally respond to music, to express his/her ideas about some kinds of music in a critical way and, finally, to read, write, understand and interpret music notation.

In contrast with the above arguments, Bamberger (1996) comments that music notation learning is the main cause for ineffective music lessons especially for the beginners. She remarks that music educators, ignoring students' interests, insist to music notation teaching without the desirable outcomes. She mentions some music educators' phrase "forget the score and play the music" and she argues that music notation teaching should take always place in appropriate learning environments.

Moreover, Clark (2008) explains that the more a student knows about music the better his/her musical perception is.

Finally, Green (2008) refers that in order students to be musical literate, music educators have to provide them with the appropriate musical context so as to give them the opportunity to discover the different ways they respond to music.

Musical literacy and School textbook

The environment in which children development takes place before their introduction to typical education system and the variety of their musical experiences affect in essential way their musical literacy cultivation. School has to provide them with well organized and structured learning environments in order to utilize their prior musical experience through formal teaching. In Greek educational system, one of the means that determine macro and micro structure of instruction is school textbook, through which scientific literacy is transformed to school literacy for each and every school subject with the appropriate interdisciplinary connections among them.

Jorgensen (2003) refers that educational material is essential for the musical literacy development and underlines the role of western classical music, while Green (2008) stresses the effectiveness of the use of popular music during the educational process.

To develop skills that make a person musical literate through textbooks it is necessary students to approach the methodology and the appropriate vocabulary so as to express their ideas about the music which are involved with. A musical literate person has musical skills and knowledge of the components that construct the cultural context of this music (Campbell, 2002). Through school textbook, scientific knowledge is appropriately contextualized so as any kind of knowledge to be integrated to the prior cognitive schemata.

Associated with the use of language, as a tool for musical skills development, it is noteworthy that while linguistic code facilitates students' involvement with scientific music discourse at the same time music is a kind of language and consequently it is the tool for musical literacy development. In this paper it is not possible to make reference to the dialogue about music as a language, as it is a complex philosophical and sociological problem.

On the basis of afore mentioned, the main purpose of this paper is to examine the way that Greek music school textbook transforms the scientific to school literacy in the field of Music Education.

Research Process

The field of school textbook research, during the last decades, has expanded and today is a research object with numerous aspects. With this paper we try to define the different ways that scientific literacy is transformed to school literacy in music school textbooks. The analysis is based on the paradigm of Qualitative Discourse Analysis (Mayring, 2000).

Definition of research material

As research material for this study we have chosen the topic "*Big orchestras in …classical sounds*" of the 6th grade of primary school textbook. We have chosen a book of primary school, because at the moment we were writing this paper, the new books of secondary school were in press. Among the three textbooks for primary school, we have chosen that of the 6th grade because of the use of written language as the main means of communication and the variety of the text genres.

We have to refer that for the aims of this paper we co-examine the student textbook and the corresponding workbook, as the textbook writers remark that they supplement each other and should be considered as one book (Music school textbook, 6th grade, 2007).

Hence, we examine the following material:

a. Theodarokopoulou, M., Papantonis, G., Paraskevopoulou, C., Spetsiotis, I. (2007). Music 6th grade, student textbook. Athens: OEDV (in Greek).
b. Theodarokopoulou, M., Papantonis, G., Paraskevopoulou, C., Spetsiotis, I. (2007). Music 6th grade, workbook. Athens: OEDV (in Greek).
c. Theodarokopoulou, M., Papantonis, G., Paraskevopoulou, C., Spetsiotis, I. (2007). Music 6th grade, book for the music educator. Athens: OEDV (in Greek).

In the research presented in this paper, we define as transmitters the textbook designers, as the social context, in which music textbook exists and functions the modern pedagogical

theories, the dialogue about musical literacy and the contemporary Greek reality about the music instruction and as receivers all the students and educators.

Research question on the basis of theoretical context

Taking into account the theoretical context that is described in the first part of this paper, associated with the scientific, the school and the musical literacy in accordance to contemporary bibliography and on the basis of cognitive, of linguistic and stochastic-centred aspect, the following research questions are arisen:

a. Cognitive aspect
   i. Conceptual knowledge
      1. Do we meet topics that musicology examines?
      2. Are notions, terms and definitions effectively organised?
      3. Are the connections among the notion effectively defined?
   ii. Explicit / procedural knowledge
      1. Is procedural knowledge constructed on the conceptual basis of the specific cognitive field?
      2. Is explicit / procedural knowledge textualization effectively organised?
   iii. Instructional strategies and understanding levels
      1. Are skill development methods from the field of Music adopted for typical music instruction?

b. Text-linguistic aspect
   i. Which is the degree of text formality?
      1. Use of technical terms and symbols.
      2. Use of nominalization.
      3. Use of subjunctive syntax.
      4. Use of passive syntax.
   ii. Which is the degree of text coherence?
   iii. Which is the degree of conceptual coherence?

c. Stochastic-critical aspect
   i. Which is the degree that cognitive, metacognitive and creative abilities are activated?

Analysis techniques definition

For the aims of the paper we have examined the topic "Big orchestras in …classical sounds" from the school textbook of 6th grade. The specific topic covers 2 pages in student' s book, 2 pages in the workbook and 4 pages in educator' s book.

As a unit of analysis we define the 1/3 of the page. Referring to the text from the student book, it consists of 4 units of writers' text, 2 units of other writers and 2 pictures. All these units are supported by the 4 musical examples.

As analysis technique, we have chosen the paradigm of qualitative content analysis. Because of the research nature, we have based content construction technique analysis,

according to which specific topics and critical phrases were noted. Research questions were transformed into corresponding criteria of evaluative analysis.

These criteria consist of specific sub-criteria, the answers of which shape the representation of the topic that we evaluate. The results have been transcribed into four-grade Likert scale, on the basis of which we have proceeded to the following analysis.

Analysis according to the classification system

On the basis of research questions and using the methodological tools which have been described in the previous paragraph, we have collected and transcribed the data. We present the analysis results associated with the cognitive aspect, the text-linguistic and the stochastic-critical aspect.

Cognitive aspect

School textbook designers, based to school curricula, have often faced the question about the choice of the appropriate content. They have to decide about the basic criteria for the choice and organization of this content. "*Science is not a data list ready to be learned but a way to see the world and to ask about the what, who, where, how and why*" (Hatzigeorgiou, 2001).

In the unit that we examine, we have found that designers have emphasized to the "*what*". The material structure is linear, starting from the simpler progressing to the more complex with a direction from the theory to the practice. In the beginning of the unit there are some elements of theoretical knowledge about the nature of the symphonic orchestra and students are gradually involved with activities related with music listening and appreciation and expression of ideas about the notion of timbre.

The effective organization of notions allows students to organize their prior experience (Halliday & Martin, 2004; Vygotsky, 1993). According to Bruner (1996) learning is occurred when students familiarize the scientific terminology and acquire new tools for a new way of understanding and knowledge control. In the specific unit, textbook designers give the definition of the notion of symphonic orchestra. Although students have already been taught about it in previous grades, they are not considered familiar with the music instrument taxonomy. Hence, we remark that there is repetition of this taxonomy in the workbook, in a symbolic way, in accordance to the modern pedagogy theories, but without any definition of rational connection among them.

In addition, we have to notice that in the specific unit textbook writers have connected the content with the field of visual art according to the interdisciplinary theory in education.

About the nature of knowledge that the specific textbook promote, we found that explicit and procedural knowledge are constructed on the existing conceptual knowledge creating new schemata. A big part of student's book, as well as, of workbook promotes the explicit knowledge. Notions are clearly defined and in many cases, we have noted that writers give specific interpretations, reducing the available space for the development of procedural knowledge which cultivates critical and creative thinking. In student textbook, for example, is referred: "*Is it possible for us to understand classical music? Is it enjoyable? Both of these questions have the answer: YES.* […] *If we are familiarised with this kind of art, we will find out that it can makes us feel really good"*. To make some comments about the above paragraph in conjunction with the writers' pedagogical choices, we have to notice that while for the first time in the specific unit we have found a question which could be the starting point for a dialogue in

the classroom, the answer of this question is given by the writers themselves in the next paragraph (*without dispute, YES*), without giving the opportunity to students to think about it. Moreover, in the end of the same paragraph, writers use the phrase "*will discover"* which is associated with the procedural knowledge acquired through the exploration and discovering. Nevertheless, textbook designers have not created the appropriate learning environment for procedural knowledge as they promote again explicit knowledge (*we will discover that [music] makes us feel really good)*.

About the instruction of conceptual, explicit and procedural knowledge in international literature, one can find several approaches associated with different disciplines. Referring to the cultivation of musical literacy, researchers propose the use of procedural knowledge (Green, 2008; Elliot, 1995; McPherson, 2006).

Text-linguistic aspect

It is well known that language in school textbooks is not the same with language in techno-scientific ones, because it would render their content difficult to understand and consequently inappropriate for students. Hence, textbook designers have to take into consideration the students' cognitive level and respect their abilities and use the appropriate for them language (Pedagogical Institute, 1999; Matsagouras & Helmis, 2003; Kouloumbaritsi, 2003). On this basis, we examine the genre of school texts, the frequency of subjunctive syntax, the voice of the verbs, the choices about the person of the verbs and, finally the use of verbal or nominative syntax (Matsagouras, 2007).

In addition, we have examined the utilization of text in conjunction with the narrative or hermeneutic discourse in school texts. Hermeneutic discourse promotes knowledge in a specific context with rational connections in which information is transformed into knowledge, while explicit discourse is connected to the simple information transmission. In the school text, in the cases where hermeneutic discourse is used, we have noted the use of subjunctive syntax. In order to make a well organized text-linguistic analysis, we use the sub-criteria we have posed in the previous paragraph. Hence, we found that the specific unit has low degree of formality. Formality is referred to the use of that kind of words that promote the abstractive thinking (Bernstein, 1991). About the use of technical terms and symbol, we have found that the text has low degree of it and in the cases that a technical term is used, it is based to previous knowledge. We have not found increased use of nominalization as the language is mainly verbal (for example *the word orchestra is Greed and is generated by the ancient verb "orchoume" that means "to dance")*. Reading the specific unit we found that it is very close to the oral way of communication, providing the text with low degree of abstractive knowledge which is boosted by the use of indicative syntax and the active voice. In addition, the person of the syntax used is not fixed, causing confusion to the students.

Referring to the language coherence, we have to notice that high level of language coherence in a text is the result of the rational connections between linguistic subunits. In the specific unit we have found that language coherence is in low degree, as the paragraphs and the phrases are not connected with each other providing disjointed meanings.

Finally, we have examined the conceptual coherence, the degree that the general title of the unit concentrates the central meaning of the text and if the introductory paragraph prepares readers for the following paragraphs. We have examined also the microstructure of paragraphs and the macrostructure of the text, the intertextual connections and the role of the last-conclusion paragraph. Starting with the title, we have found that it refers to the central component of the unit, orchestra, but implies the second basic notion of the text, the timbre. The

introductory paragraph prepares the readers for the followings and constitutes the first definition. Considering to the microstructure of each paragraph, we have to notice that there are no connections neither rational relationships among them, resulting to a low degree of coherence. In addition, it was hard to find intertextual connection as there is no connection to prior knowledge. Finally, the last paragraph of the unit has not any recapitulative character, but adds to the text more components about the specific topic.

Stochastic-critical aspect

In this aspect, literacy cultivation through school textbook refers to creativity, exploration and critical thinking. In the framework of school textbook, we had to study the different ways of text interpretation and its connection to functional and critical literacy (Matsagouras, 2007). The unit that we have examined has low degree of stochastic-critical aspect. The text content does not promote different kinds of interpretations and only once we have noticed that students have the opportunity to develop his/her own creative abilities.

More specifically, through music school textbook students could have the opportunity to develop their critical and creative thinking not in conjunction to the linguistic text but to the musical one. School textbook had to invite students to face musical examples in a critical way, to study musical pieces structure and to progress to music creation. In the specific unit, we have found that textbook writers have proposed activities for listening and appreciating musical pieces in a creative way suggesting connections with students' paintings. Nevertheless, we have to notice that critical thinking cultivation and creativity development should be based on well organized instruction with specific methodology.

Conclusion

We have examined school textbook, one of the main tools for the cultivation of students' musical literacy, as a text of transforming scientific to school literacy.

For a person to be considered as musically literate, he/she should have to be characterized by high levels of musical sensibility and at the same time to have the appropriate knowledge, which enables him/her to develop his/her musicality. As for musicality development, school textbooks should provide students with both appropriate musical paradigms and corresponding information.

The way that scientific knowledge is transformed to school literacy is essential as it is associated to the degree that school fills its expectations about student's musical literacy development.

Bibliography

Bamberger, J. (1996). Turning music theory on its ear. *International Journal of Computers for Mathematical Learning,* 1, 33-55.

Bauer, H. (1994). *Scientific Literacy and the Myth of Scientific Method.* Illinois: Board of Trustees of the University of Illinois.

Bruner, J. (1996). *The culture of Education.* Cambridge, Mass: Harvard University Press.

Campbell, S.P. (2002). The Musical Cultures of Children. In L. Bresler and C.M. Thompson (eds.) *The Arts in Children's Lives*. The Netherlands: Kluwer Academic Publishers.

Clark, S.P. (2008). Literacy and Books about Music. *General Music Today* (Online) 21(2).

Cook-Gumperz, J. (2006). *The Social Construction of Literacy.* UK: Cambridge University Press.

Glasersfeld, von E. (1995). A Constructivist Approach to Teaching. In L.P. Steffe, & J. Gale (eds.) *Constructivism in education.* New Jersey: Lawrence Erlbaum Associates, Inc.

Green, L. (2008). *Music, Informal Learning and the School: A New Classroom Pedagogy*. UK: Ashgate.

Elliott, D. (1995). *Music Matters: A New philosophy of Music Education*. New York: Oxford University Press.

Halliday, M.A.K. & Martin, J. (2004). *E glossa tes epistimis [The language of science]*, (trans. G. Giannopoulou). Athens: Metehmio (in Greek).

Hassett, D.D. (2008). Teacher flexibility and judgement: A multidynamic literacy theory. *Journal of early childhood literacy,* 8(3), 295–327.

Jorgensen, R.E. (2003). Western classical music and general education. *Philosophy of Music Education Review,* 11(2), 130-140.

Hatzigeorgiou, G. (2001). *Gnothi to curriculum [Get to curriculum]*. Athens: Atrapos. (in Greek).

Kodály, Z. (1971). *Folk Music of Hungary*. New York and Washington: Praeger. Retrieved from http://kodaly.eu.

Kress, G. (2003). *Literacy in the New Media Age.* London: Routledge

Levinson, J. (1996) *The pleasures of Aesthetics: Philosophical essays.* New York: Cornell University Press.

Kouloumbaritsi, A. (2003). *I katanoesi sto analitiko programma, ta scholika vivlia kai ti didaktiki praxi: systimiki syschetisi kai axiologisi [Understanding in the Curriculum, the School textbooks and the Instructional practice: Systemic connection and evaluation]*. Athens: Grigoris (in Greek).

Matsagouras, H. (2004). Pragmatologika keimena gia didaktika egxiridia [Pragmatologic texts for School textbooks]. *Nea Pedia*, 111 (in Greek).

Matsagouras, H. & Helmis, S. (2003). Paragogi ekpaideytikou ylikou stin ekpedefsi [Production of Educational material in education]. In B. Psallidas (ed.) *Sxediasmos kai paragogi ekpedeytikou ylikou gia tin perivalontiki agogi [Design and production of Educational material for environmental education], Greek Symposium of the Helleniki Eteria.* Athens: Nea Synora (in Greek).

Mayring, P. (2000). Qualitative Content Analysis, *Forum: Qualitative Social Research,* 1(2). Retrieved from http://qualitative-research.net/fqs-e/2-00inhalt-e.htm

Mills, J. & McPherson, G.E. (2007). Musical Literacy. In McPherson, G. E. (eds) *The child as musician, a Handbook of musical development*. Oxford: Oxford University Press.

National Academy of Sciences (1996). *National Science Education Staderds.* Washington: Courtesy of the National Academy Press. Retrieved from http://www.literacynet.org/science/scientificliteracy.html

Xohellis, P. (2005). Ta Kritiria egkyrotitas, axiopistias kai paidagogikis katallilotitas ton sxolikon vivlion [Criteria of validity, reliability and pedagogical suitability of school textbooks]. *Proceedings of the conference: School textbook and educational material in School.* Athens: Pedagogical Institute (in Greek).

Pedagogical Institute (1999). *Plaisio axiologisis sxolikon egxeiridion [Framework of evaluation of School Textbook].* Athens: Pedagogical Institute (in Greek).

Roth, W.M. & Barton, C.A. (2004). *Rethinking scientific literacy.* New York: Routledge.

Scott, S. (2006). A Constructivisty View of Music Education: Perspectives for Deep Learning. *General Music Today*, 19(2), 17-21.

Stewart, L. (2005) Neurocognitive studies of musical literacy acquisition. *Musicae Scientiae*, 9(2), 223-237.

Vygotsky, L. *(1993). Skepsi kai glossa [Thought and language]* (trans. A. Rodi). Athens: Gnosi (in Greek).

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Dmitri Kabalevsky and music education within the canon of the socialist model in the Soviet Union

Alexandros Charkiolakis

Abstract

The compositional output of the soviet Dmitri Kabalevsky (1904 - 1987) has been multilateral and quite important. However, whatever his position is today among other musical figures of the 20th century it mostly derives from his activity in the field of music education. Kabalevsky has been a stable and traditional devotee of socialist ideas till the end of his life. His avocation with music education within the scope of his ideological platform and also his efforts to incorporate his political views within a functional music education system had as a result the development of certain educational theories that have been extensively presented through his writings and speeches and collectively in a book titled *Music and education: a composer writes about musical education* that has been published by UNESCO a year after his death. The positions he held all his life within the infrastructure of the Soviet Union, with the capstone being his position as head of the Commission of Musical Aesthetic Education of Children in 1962, have designated him as the main speaker of the Soviet attitude on the subject of music education. The main goal of this paper will be, on the one hand to present the views of Dmitri Kabalevsky for music education within the frame of historical circumstances that prevailed at those times and, on the other hand to show the implications with ideological matters that were being presented variously in the Soviet Union at the time of the composer.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The effect of a Music and Movement educational program based on play over the creative thought of pre-school students

Elena Chronopoulou

Abstract

As the interest in the area of creativity increases, educators have begun to search for ways to enhance the potential for creativity. The purpose of this study is to investigate the effect of play used in teaching of music in pre-school students over their creativity thinking. In more detail, we investigate the effect of a Music and Movement educational program based on play over the flexibility, fluency, originality and elaboration of kindergarten students. The research is based on an experiment that took place in two separate classes of the same kindergarten. Students of the first class were used as a control group and the students of the second class were the experiment group. The educational program contained 16 lessons that used play in Music and Movement Education and it applied in the experiment group (15 students). The duration of the program lasted approximately 3 months. In order to evaluate student's creativity the Torrance Tests of Creative Thinking (TTCT) were adopted in combination with researcher's participative observation and teachers' perspectives. The results of the study revealed that flexibility, fluency and elaboration increased after the end of the educational program in a greater extent in the experimental group than in the control group. However, the results showed that originality increased in both experimental and control group but the difference between the results of the two groups were not statistically significant. Furthermore, the correlation of the used variables was analyzed and outcomes concerning the structure and the philosophy of the program are presented.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Problems of young music teachers and ways of solving them: a research based on music student's teaching practice

Zoe Dionyssiou

Abstract

Young music teachers' teaching practice during their university years is important in their later career, mainly for developing an enthusiasm for teaching, developing methods and ways for preparing themselves, teaching and solving problems. The present article focuses on the problems that young music teachers face when they immerse into the music class. It draws material from literature review and field research. The fieldwork upon which this work is based draws from eighteen (18) students of the Ionian University - Music Department during their three-month teaching practice in primary schools. Data comprise: a) daily teaching plans, b) note-keeping from the regular meetings between the academic coordinator and the students during the teaching practice period, and c) questionnaire responses by the students at the completion of their teaching practice. Through a qualitative analysis of the above material, the research studies the problems that young music teachers faced in their practice and reports on ways of solving them, as it came out of their own responses and suggestions. The research contributes to a better understanding of the problems in music teaching that can be common to young and older active teachers.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

HEART **HEAR** **EAR** **ART**	**From the rhythm of the heart to the rhythm of music**

Konstantina Dogani

Abstract

It is quite common in preschool settings to initially explore heart beats and to attempt to transfer those sounds to words or body sounds. Based on the principles of active, experiential and cooperative learning, the current present tries to propose the need for a closer examination of the heart beats as well as the heart's function, so that the child will be able to realise beat in an exploratory way starting from the discovery of body sounds. At first level, after a discussion with cardiologists, future preschool teachers enriched their knowledge of the function of the heart and the heart beats in order to understand ways of hearing it. At second level, the preschool teachers organised a two-phase project titled 'rhythm of heart-body-music' in order to implement it in a kindergarten classroom. They first attempted to put it into practice themselves prior its transfer within the kindergarten. In its first phase, starting from experiential body awareness, children are searching of different ways of realising the human pulse and heart beat. Educational multimedia is then used for a more detailed hearing of the speed and the duration of those sounds. In the next step, children are going back to the real body sounds and through cooperative learning the listen carefully at another child's heart beat, trying to co-ordinate it with the touching feeling of pulse. All this process aims to conclude at the second phase of the project which is the musical interrelation and the enrichment of the cardiac sounds with voice and body sounds as well sounds from musical instruments, to accompany pieces or for musical creation through improvisational and compositional activities.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Children listen to a classical work: A study of verbal and graphic responses to a piano piece by Claude Debussy

Rivka Elkoshi

Abstract

This study considers the effect of age on children's spontaneous verbalization and invented notations responses as they listen to a piano piece for children by Claude Debussy: "Jimbo's Lullaby" from "Children's Corner Suite". 207 Israeli children 4- 9.5 years-old listened to the music and expressed their verbal and graphical impressions. Three main systems of conceptualization emerged from the data: (1) Associative depictions of mood, atmosphere and emotions by use of analogy, suggesting metaphoric or symbolic interpretation; (2) Formal responses of musical description in musical language using strict formal terminology (e.g., pitch, tempo, and articulation); (3) Compound responses of integrated Associative and Formal expressions. Results show a very strong dominance of Associative over Formal and Compound categories at all levels with a gradual decline of A-responses with age. F-and C-responses were sporadic and inconsistent at all levels. The study indicates that a certain amount of formal musical knowledge exists amongst children of different age levels. A study of children's responses to a classical work addressed to them may pave a way to a greater understanding of their music perception. This bears a number of implications for composers of music for children and for music educators who introduce young children to classical music.

Keywords
music listening, *music perception, invented notation, development psychology of music*

Introduction

Classical music in the Israeli curriculum

Over the last 40 years Israel's musicians have made significant contributions to music education in general, and the field of "classical music for children", in particular (Shapira, 2000). Since the 1980s, there has been a flowering of teaching methods for young students, which are based on their active involvement in listening and responding to recorded classical music (e.g., Strauss, 1988). As a music teacher and composer for children, my study was inspired by a desire to better understand the children's musical cognition from their own perspective as they listen to complex classical works addressed to them.

The music of Israel is a unique combination of Jewish and non-Jewish music traditions (e.g., Hirshberg, 1995). Israel, however, is a country deeply driven by cultural, social and political differences, and music has often become associated with particular cultural, social and political factions (e.g., Regev & Seroussi, 2004). Music teachers readily employ various stylistic elements that define the emerging national spirit, such as traditional Israeli folk songs, Mizrahi music, jazz, pop, rock, Yiddish, Ladino, Hassidic, and other religious Jewish music, Arab music, joint Israeli-Palestinian music, protest music, military songs, and more. By employing "neutral" art genres in school, such as classical music, teachers may often circumvent extra-musical issues and provide an atmosphere in which music is taught for its own sake (Elkoshi, 2007). Eisner points out that the teaching of the arts is its own reward:

> To use the arts primarily to teach what is not truly distinctive about the arts is to undermine, in the long run, the justifying conditions for the arts in our schools… (Eisner, in Bumgarner, 2002).

Theory

Listening is considered to be the primary means through which most people enjoy and learn about music throughout their life. However, little research has been done to determine how and when attitudes related to music listening develop (Sims & Nolker, 2002). Perhaps this is due in part to the challenges presented by research on music listening, challenges which are even greater when working with young children. This literature review focuses on the body of research related to young listeners' verbal and nonverbal responses to music.

Researchers have attempted to identify the variables that affect listener's music perception and preference, such as familiarity, musical style, tempo, instrumentation and vocal production (e.g., Abeles, 1980; Sims, 1986; Sims & Cassidy, 1997; Rodriguez, & Webster, 1997; Sims & Nolker, 2002). Sims (1986), for example, examined whether 3-5-year-old children would choose to listen longer to familiar classical compositions or to unfamiliar ones. In a later study she examined the effect of lyrics on children's responses (Sims & Cassidy, 1997). No differences were found among listening times for any of the compositions. The researchers concluded that measures of time spent listening do not indicate preference, but rather some other phenomenon of individual listening responses (Sims & Nolker, 2002).

Based on the belief that "children's verbal reports of music listening experiences can reveal how they apprehend and organize musical information" (Rodriguez & Webster, 1997:13), researchers studied children's verbal interpretive reactions to music as an indication of music perception, taste or preference (e.g., Abeles, 1980; Hargreaves, 1982; Rodriguez, 1990 in Rodriguez & Webster, 1997). Hargreaves (1982) for example, played pairs of musical selections to students (age 7-15). Each student wrote a single sentence about the relative similarity or difference between the pieces. The responses were ranked as analytical, categorical, global, affective or associative. Hargreaves concluded that children in all age groups tended toward objective responses and that their sensitivity to musical style increased with age. Rodriguez & Webster (1997) determined the nature of children's verbal responses to repeated hearings of a brief music excerpt on the basis of four systematically-designed questions, e.g., "What were you thinking when you listened to the music?" (Rodriguez & Webster, 1997:13). Results indicated age tendencies in response to three of four questions asked.

Conversely, scholars emphasized the limitations of verbal forms of response to art and music (Gibbs, 1994; Flowers, 1983, 1984; McMahon & Scott-Kassner in Sims & Nolker, 2002). A survey of studies shows that children under age 10-12 are not able to think metaphorically, and that metaphoric expression develops late in life (Gibbs, 1994). Music researchers found that compared with other modes of representation, verbalization is less effective and natural for children as a means for describing pitch direction and expressive elements (Webster, Schlentrich & Gibson, in Rodriguez & Webster, 1997). Flowers (1983, 1984) found that the acquisition of an extensive musical vocabulary is dependent upon instruction geared for that specific purpose.

Inspired by the awakening interest in children's drawings as a investigative tool in the field of cognitive and developmental psychology (e.g., Piaget, 1973; Piaget & Inhelder, 1956, 1969; Eng, 1959; Lindstrom, 1957), musicians in recent decades have examined children's invented notation as a representation of their musical perception (e.g., Goodnow, 1971, 1972; Hargreaves, 1992; Upitis, 1985; Davidson & Scripp, 1988; Sloboda, 1988; Smith, 1994;

Bamberger, 1991; Gromko, 1994; Barrett, 1997). Studies have shown that children's invented notations shed light on musical perception and development and circumvent the obstacles of verbalization.

There appear to be two attitudes to the psychological investigation of invented notations. One school has taken the "simple acoustic" approach of presenting the subjects with short musical fragments, some composed by the researchers and some invented by the subjects themselves (e.g., Goodnow, 1971; Bamberger, 1982, 1991, 1994; Cohen, 1985; Upitis, 1985, 1987, 1990; Gromko, 1994; Domer & Gromko, 1996; Elkoshi, 2004, 2004a; Adachi & Bradshaw, in Barrett, 2006; Elkoshi et al., 2007, 2008). One study in this vein is the PAIS project which looks at children's notations to a short rhythm within a cross-cultural perspective (PAIS, 2009). Notations were classified under categories of perception such as extramusical associations, instruments, sound sequences and musical units. The study demonstrated both "universals" and differences between children of different cultures (Murphy & Elkoshi, 2004; Elkoshi, Murphy & Burnard, 2007; Elkoshi et al., 2008).

Studies in which subjects represented "real music" constitute a more recent body of literature. This kind of research has generally involved the presentation of familiar and unfamiliar songs and melodies, music composed by children or by adults and classical selections (e.g., Davidson & Colley, 1987; Davidson & Scripp, 1988, 1989a, 1989b, 1992; Davidson, Scripp & Welsh, 1988; Cohen, 1985; Barrett 1997, 2001, 2006; Hair, 1993/1994; Gromko & Poorman, 1998, 1998a; Barrett, 1999, 2000; Gromko & Russell, 2002; Fung & Gromko, 2001; Kerchner, 2001; Elkoshi, 2002, 2008; Siu-Lan & Megan, 2004; Barrett, 2006; Blair, 2006; Shockley, 2006; Elkoshi et al., 2007, 2008; Truman, 2007).

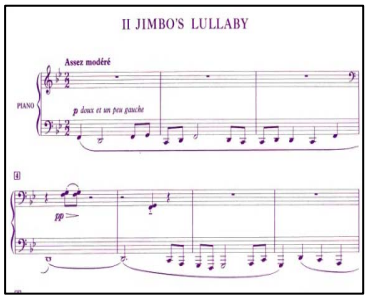
In a former study I analyzed responses to two movements from "Children's Corner Suite" by Claude Debussy: "Jimbo's Lullaby" and "Serenade for the Doll" (Elkoshi, 2008). Participants were Israeli college students: musicians and non-musicians, Arabs and Jews. The study showed that the vast majority of students of all groups yielded notations of an exclusively global/associative type and the impact of formal training, culture and musical stimuli was negligible. This study aims to expand this previous inquiry by working with young listeners.

Aim and Assumption

The aim of this study is to investigate the effect of age on young children's reactions via spontaneous verbalizations and graphic productions as they listen to a complete classical piano piece for children "Jimbo's Lullaby" from "Children's Corner Suite" by Claude Debussy. As far as can be ascertained, no previous study has addressed the effects of age on children's "natural ability" to respond verbally and graphically to a complete classical piano work composed and dedicated to a child. It was assumed that a study of children's understanding of a classical work addressed to them would bear implications for composers of music for children and for music educators of young children.

Procedure

The music selection



The music selection is the second movement "*Jimbo's Lullaby*" *(Berceus des éléphant)* from the suite for solo piano "*Children's Corner*" by Claude Debussy, composed between 1906 and 1908 (total duration: 3:53). The suite is dedicated to the composers' young and only daughter, Claude-Emma (known as "Chouchou"), who was four years old at the time. Chouchou's infant world inspired the creation of this work (Oriedge, 2007:9). The lullaby is characterized by a general slow tempo, lowest registers of the piano, soft dynamics, fluid pulse, tonal ambiguity, unresolved chords, chromaticism and expanding polyphonic textures.

Participants

Participants were 207 children, age 4.0-9.5, from one kindergarten and five schools in five major cities in Israel. Table 1 displays the distribution of participants:

City	Level		N=207
Nes-Ziona	Pre-school	(4.0-6.0)	10
Tel-Aviv	First-grade	(6.0-7.5)	25
Herzelia	First-grade	(6.0-7.5)	21
Holon	Second-grade	(7.0-8.5)	27
Holon	Second-grade	(7.0-8.5)	25
Beit-Shemesh	Second-grade	(7.0-8.5)	47
Herzelia	Third-grade	(8.0-9.5)	26
Herzelia	Third-grade	(8.0-9.5)	28

Table 1*: Distribution of participants*

Experiment

One session of 45 minutes was held with each class. The children listened to Debussy's "Jimbo's Lullaby" four times via an audio-cassette electronic system. After two hearings they were asked to express their impressions verbally. Questions like, "*What did you think when you listened to the music*?", "*What is your impression?*" were asked by the experimenter. After the next hearings, the children were asked to express their impressions graphically: "*Create in any way you like anything that you think represents the music*". A3 computer paper, crayons, colored pencils, water-colors, brushes and water-cups were provided. Finally, each child was interviewed privately to allow for further verbalizations and explanations of the graphic productions. Questions like "*how is your drawing related to the music?"* were asked during the interviews. Data included a collection of 222 notations (preschoolers provided a number of drawings), tape-recorded verbalizations, and two videotaped meetings.

Data analysis

Three main systems of conceptualization emerged from the data:
Associative, *Formal* and *Compound* responses.

(1) **Associative responses** capture the music in a global-associative way**,** characterized by idiosyncratic thoughts. A-responses include depictions of mood, atmosphere, emotions, situations, objects, actions and events evoked by the music. Listeners use analogy, images and metaphor, suggesting metaphoric or symbolic interpretation.

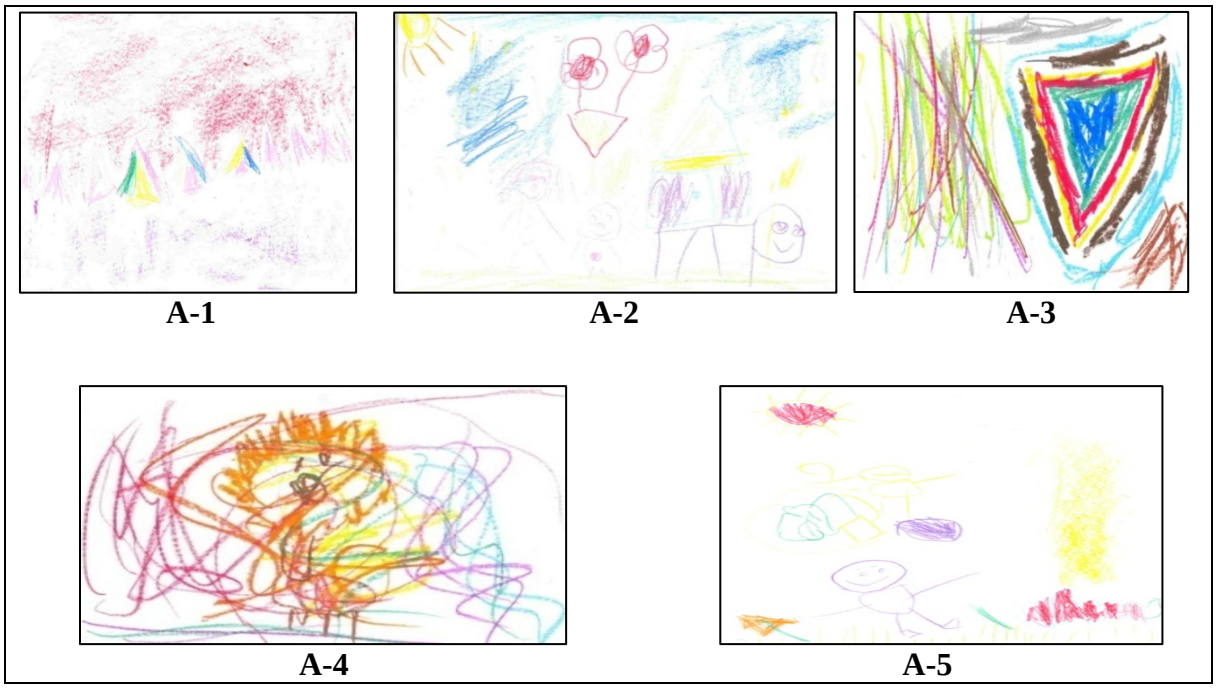
(2) **Formal responses** include references to sound, sometimes by use of strict formal terminology. F-responses capture the temporal unfolding of at least one of the musical dimensions: instrument, timbre, articulation, dynamics, tempo, rhythm, total duration, pitch, melody, melodic directionality, harmony, texture, form, musical sequences, musical units, genre, musical style.

(3) **Compound responses** include both A- and F-responses as compared with simple reactions that consist of just one type of response, either associative or formal.

The following are examples of responses from children of different age groups.

Examples

Illustrations - A: Pre-schoolers



A-1 / A-2: Lihi (girl) 5.0

A-1: *The music was sometimes fast and sometimes regular/normal.*

A-2: *I drew a flower in a pot, a boy and a girl walking to a playground with mom and dad. They encountered a cow.*

A-3 / A-4: Shachar (boy) 5.0

A-3: *Something plays very loudly, something scary, it is done in Forte.*

A-4: *The frightful tones are like a lion running wild. The lion is furious.*

A-5: Idan (boy) 5.2

I drew a trampolin and a boy jumps. It's fun.

Interpretation

A1 / A-3 express F-responses referring to tempo and dynamics, respectively. These formal drawings consist of geometrical shapes (e.g., zigzag, triangles), whereas the other associative drawings include figurative forms (objects, animals, humans). A-2 / A-5 are associative responses that draw on the children's optimism, family activities and joyful hobbies. In A-4 "frightful tones" are associated with a furious lion in a metaphoric way with scribbles demonstrating its wild movements.

Illustrations-B: First-graders

B-1

B-2

B-3

B-1: Li (girl) age 6.7

I heard a piano playing. I wish I had a piano at home.

B-2: Shahar (girl) age 7.0

My mother passed away. It really happened. She sat down among flowers, by a tree. A neighbor saw her and they ate together. The music was sad.

B-3: Shira (Girl) age 6.4

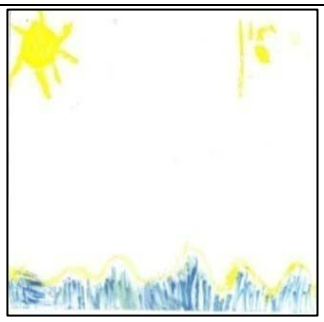
A girl returns home and her house is locked. I want to change her mouth [in the picture] and make it look sad. She has tears. She is terribly sad because she thinks that thieves will steal all her things. She is sad because she thinks that her parents and baby brother were killed...

Interpretation

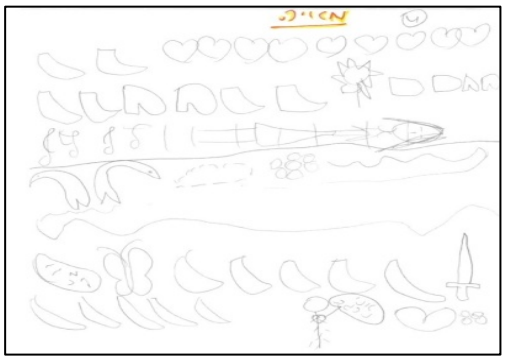
Illustrations are either associative or formal: B-1 is a *F*-response referring to the piano while B-2 / B-3 are *A*-responses which draw on children's pessimism, sadness, tears, anxiety and death.

Illustrations-C: Second-grade

C-1



C-2



C-3

C-4

C-5

C-6

C-1: Shani (girl) 7.7

I heard a piano or an organ. I drew round shapes when the piano sounds were connected and dots when they were disconnected. The piece was long.

C-2: Lin (girl) 7.10

The music was low at the beginning and then it sounded high. I drew a sea because the music sounded to me low like the sea, and a sun high above because I heard all sorts of high staccato sounds full of jumps... It was calm especially in the high music.

C-3: Maya (girl) age 7.11

At the start I heard steps, so *I drew steps* (top left). *Then I drew hearts because the music was calm and my heart relaxed. Later I heard steps, steps, steps all the time, and something scary. In the next part there were small, slow steps. This was a time of relaxation, so I lay down and rested. Then there were jumps, like dolphins swimming, beetles, flowers and ants singing, and a butterfly. And again, I heard a creepy section so I drew a sword, and then steps and again, beetles and ants drawing pictures. At the end my heart was calm.*

C-4: Hadar (girl) 7.10

I used pink and blue because the whole world is pink and blue. The music was tranquil and it was thrilling. It was fun. I felt good in my heart.

C-5: Ishay (boy) 7.7

A parachutist jumps from an aircraftin into the land of confused people. He himself is confused. The music is confusing because in the beginning it is soft like a violin and then like drums and then like a violin and then like drums again… I name it "drums" because everybody plays together.

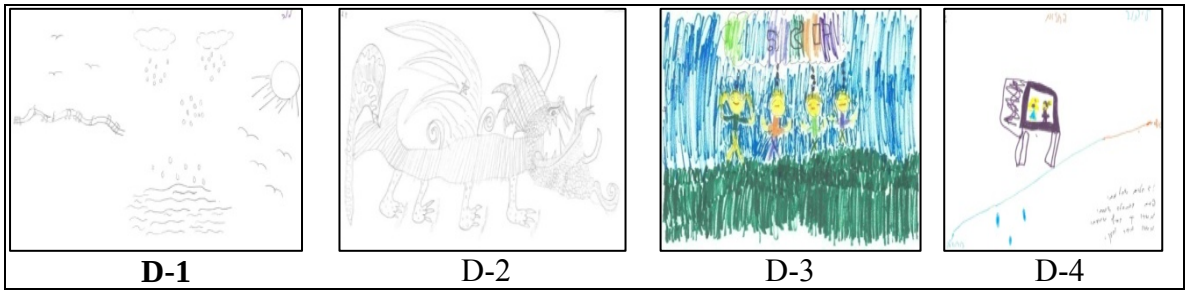
C-6: Gali (girl) 7.7

There were loud and weak sounds. It frightened me very much. I used black because it is like in the caves. I am afraid there because I have no flashlight.

Interpretation

A variety of F-responses include: pitch: (C-2), dynamics (C-5), timbre (C-1), total duration (C-1), articulation (staccato) (C-1), musical maps (C-3) and musical sequences (C-2). Invented notations include: round shapes and dots for connected and disconnected sounds, respectively (C-1); sea and sun for low and high sounds, respectively (C-2). A-responses include: metaphor, "soft like a violin… loud like drums" (C-5); events, (C-5), and emotions which are optimistic and joyful (C-3, C-4) or pessimistic and sad (C-5). C-3 is a C-response which includes a musical sequence: "steps, a calm section, a creepy section, a calm ending". A-responses include: emotions (relaxation or "creepy" sounds), objects and events. A kind of synesthesia appears in C-3 and C-6: pink and blue for tranquility; black for fearful sounds.

Illustrations-D: third-grade



D-1 D-2 D-3 D-4

D-1: Lori (girl) 8.11

Sounds were soft. I drew birds singing softly, clouds, a few raindrops and a calm sea. The music was calm.

D-2: Carmel (girl) 9.0

The music was scary. At the end the music becomes faster and loud… I drew a dragon because the music is scary at the beginning. Sounds stop every moment. It is as if a dragon is walking and I am walking too. I am hovering above the dragon.

D-3: Shai (girl) age 9.5

The music relaxed me so I drew yoga. Yoga is relaxing.

D-4: Gal (boy) 9.4

Straight lines represent quiet sounds…zigzags represent loud sounds.

Interpretation

All except D-3 are C-responses. F-responses include: dynamics (D-1, D-2, D-4) and tempo (D-2). One Invented notation includes straight lines and zigzags for quiet and loud sound, respectively (D-4). A-responses include: events (D-1, D-2), emotions that for the most part suggest relaxation (D-1, D-2, D-3).

Summary

F-responses in this sample refer to timbre, tempo and dynamics, articulation and pitch. Invented notations include codes for articulation, pitch and dynamics. Two contrasting emotions are discernible in associative reports: joy and anxiety.

Results

Young listener's verbal/graphical reactions to a classical piano piece for children reveals a world of associations, extramusical imagery, metaphors and feelings as well as some formal musical knowledge and terminology. Analysis of the responses shows differences between the groups. All kindergarteners produced A-responses, 90% of them optimistic. 60% produced C- and F-responses. F-responses include: piano (30%), dynamics (20%), musical sequence (20%) and melodic directionality (10%).

Most first-graders produced A-responses (98%), usually with optimistic ideas (85%). The rate of F-responses was low (17%). F-responses include: piano (11%), dynamics (2%), pitch (2%), tempo (2%) and musical style (2%). 11% produced C-responses.

Second-graders produced mostly A-responses (90%) with a high rate of optimistic thoughts (88%**)** and a low rate of mixed ideas (optimism and anxiety) (3%). F-responses increased to 55% including: dynamics (19.5%), piano (12%), articulation (6%), form (6%); invented notations (5%), synesthesia (5%); rhythm (4%), pitch (4%), melodic directionality (4%), tempo (4%), total duration (2%), musical maps (1%) and musical sequence (1%). C-responses increased to 39%.

A-responses decreased among third-graders to 78% and included mostly optimistic ideas (67%). F-responses decreased to 37% including: dynamics (13%), piano (9%), musical style (9%), form (5.5%), melodic directionality (4%), tempo, invented notations (2%). C-responses decreased to 20%.

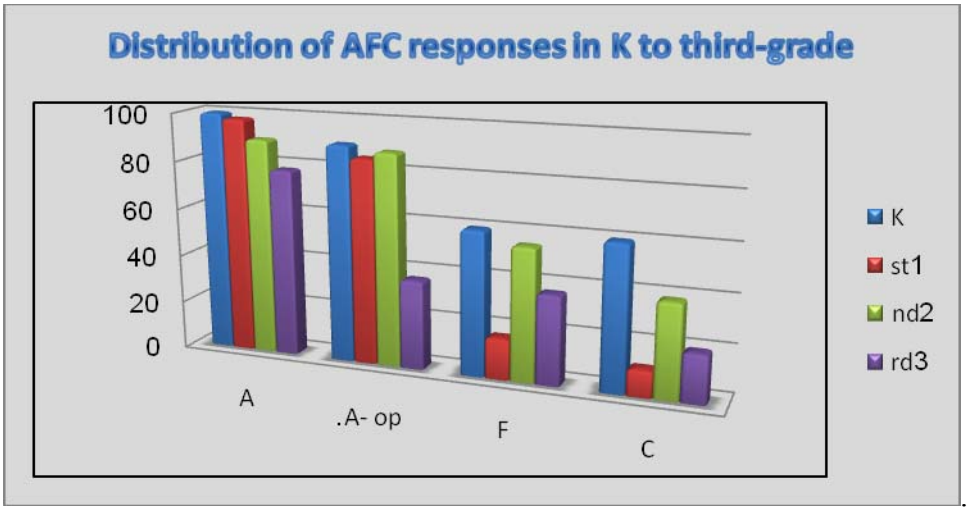
A very strong dominance of "Associative" as compared with "Formal" and "Compound" categories is discernible at all levels. The vast majority in every group yielded A-responses of an optimistic type (90%, 85%, 88%, 67%, respectively). There is a gradual decline in A-responses with age (100%, 98%, 90%, 78%, respectively). F-responses were sporadic and inconsistent across all levels. The study indicates that a certain amount of formal musical knowledge exists among children of different age levels. Piano and dynamics appeared sporadically at every level (piano: 30%, 17%, 55%, 37%; dynamics: 20%, 2%, 19.5%, 13%, respectively). A prolific variety of F-responses appeared among second-graders including: synesthesia, rhythm, pitch, total duration and musical map. Pitch responses were scarce, found only among first-graders (2%). Form and Invented notations were rare, and were present only among second- and third-graders (form: 6%, 5.5%; invented notations: 5%, 2%, respectively). C-responses were lowest among first-graders (11%) and highest among preschoolers (60%).

Table 2 displays the distribution of AFC-responses at all levels.

Group		A-responses	A-optimistic	F-responses	C-responses
	Kindergarten	100%	90%	60%	60%
	First-grade	98%	85%	17%	11%
	Second-grade	90%	88%	55%	39%
	Third-grade	78%	37%	37%	20%

Table 2: *Distribution of AFC-responses*

The prevalence of Associative responses over F-C-responses is evident in histogram 1:



Histogram 1: AFC-responses throughout levels

Conclusions and Perspectives

The prevalence of Associative responses over Formal responses suggests that young listeners (4.0-9.5) perceive a classical composition for children at a more associative and global level rather than at the analytical level. As such, there seems to be a critical distinction between the strategies of listening that are typical of children's informal listening and those that are typical of formal music training classes. Most children's responses to the general atmosphere of the music were of an optimistic nature, yet some listeners reacted pessimistically. As children grow older, A-responses decline gradually. F-responses are sporadic and inconsistent. It appears that the acquisition of a formal musical vocabulary is dependent upon instruction intended for that very purpose, as was found in former studies (e.g., Flowers, 1983, 1984). Results in this study differ from those presented by Hargreaves (1982). Hargreaves found that as children mature they tend toward objective responses and become increasingly sensitive to musical style. No such tendency was observed in this study, owing probably to substantial differences in age span, modes of representation and musical selections. The results in this study refute the claim that children under age 10-12 are not able to think metaphorically (Gibbs, 1994). It is obvious that music evokes figurative expressions, which occasionally include imagery, synesthesia and metaphor. Results in this study are similar to those obtained in my former study of adult listeners (Elkoshi, 2008). Both studies showed that the vast majority of listeners yield responses of an associative type and the impact of variables like age and culture are negligible.

Implications for music education

Since the Middle Ages European composers have been writing music for children, ranging from miniatures to operas (Cole, 2001; Maxim, 2001). Classical music for children is an integral part of Western music education (Gates, 1988). Yet, such music is not necessarily simple or childish; In fact, it is sometimes most complex and conveys intricate messages in concise and abstract

ways. A study of children's responses to a classical work addressed to them paves the way to a greater understanding of their music perception. This has implications for composers who write for children and for music educators who teach children about classical music.

It is customary to think that by composing simplified music for children composers would cause them pleasure and fun. However, naive young listeners are able to interpret complex music addressed to them and to provide verbal and graphic interpretations of such music. But, it should be recognized that the same music may evoke different emotions, ranging from pleasure to sadness and fear. Composers should realize that the main system of conceptualization that emerges as children listen to classical music is programmatic or symbolic interpretation. Still, it should be borne in mind that even pre-school listeners have some sporadic amount of formal musical knowledge. Composers should be encouraged to dedicate time and effort to the creation of profound music for young listeners.

Music educators should be encouraged to foster verbal interpretations of music, as this elicits imaginative reactions from the young listeners. Much of children's talk about music reflects their ability to think in associative ways that go beyond the literal revealing figurative aspects of language and a poetic structure of mind.

Graphical responses to music are intuitive, a phenomenon for which all listeners have a basic capability. The primary focus is not on the listener's capacity to transcribe the music - as - heard, but rather on what they choose to express in their reports. Such a task is not a test of the ability to pick out compositional elements. Rather, it evokes a more comprehensive type of listening, in which the Gestalt, rather than the individual analytical components, may be dominant. At the same time, listeners have complete freedom in choosing, relating and organizing the formal musical dimensions they wish to record. Invented notations are at the core of the creative impulse and artistic response to music, as it allows children the freedom to organize and transcribe musical information in their own way. The goal of the music teacher/researcher is to understand the child's musical cognition from his/her own perspective. Music educators are encouraged to foster graphical initiatives which elicit musical and extramusical responses amongst naive listeners.

Bibliography

Abeles, H.F. (1980). Responses to music. In D.A. Hodges (eds.) *Handbook of Music Psychology*, 105-140. Sawrence, KS: National Association of Music Therapy.

Bamberger, J. (1982). Revisiting children's descriptions of simple rhythms: A function for reflection-in-action. In S. Strauss (eds.) *U-shaped Behavioural Growth*, 191-226. New York: Academic Press.

Bamberger, J. (1991). *The Mind Behind the Musical Ear*. Cambridge Massachussetts: Harvard University Press.

Bamberger, J. (1994). Coming to teach in a new way. In R. Aiello (eds.) *Musical Perceptions,* 131-51. Oxford: Oxford University Press.

Bamberger, J. (1999). Learning from the children we teach. *Bulletin of the Council for Research in Music Education*, 142, 48-74.

Barrett M.S. (1997). Invented notation: A view of young children's musical thinking. *Research Studies in Music Education*, 8, 2-14.

Barrett M.S. (1999). Modal dissonance: An analysis of children's invented notations of known songs, original songs, and instrumental compositions. *Bulletin of the Council for Research in Music Education*, 141, 14-20.

Barrett M.S. (2000). Windows, mirrors and reflections: A case study of adult constructions of children's musical thinking. *Bulletin of the Council for Research in Music Education,* 145, 1-19.

Barrett M.S. (2001). Constructing a view of children's meaning-making as notators: A case-study of a five year olds descriptions and explanations of invented notations. *Research Studies in Music Educations*, 16, 33-45.

Barrett, M.S, (2006). Representation, cognition, and communication: invented notation in children's musical communication. In D. Miell, R. MacDonald & D. J. Margraves (eds.) *Musical Communication*, 117-142. Oxford: Oxford University Press.

Blair, D. (2006). Student-created musical maps: meaningful expressions of creative listening. *Paper presented at the "Fifteenth International MISTEC Seminar"*, Hong Kong, China.

Bumgarner, G.C. (2002). The "use and abuse" of arts advocacy and consequences for music education. *Arts Education Policy Review*; reprinted from R. Colwell (eds.) *The New Handbook of Research on Music Teaching and Learning*. NY: Oxford University Press. Retrieved from http://www.highbeam.com/library

Cohen, S.R. (1985). The development of constraints on symbol-meaning structure in notation: Evidence from production, interpretation, and forced-choice judgments. *Child Development*, 56(1), 177-195.

Cole, H. (2001). Children's opera. In L. Macy (eds.) *Grove Music Online*. Retrieved on 23-12-2007 from http://www.grovemusic.com

Davidson, L. & Scripp, L. (1988). Young children's musical representations: Windows on music cognition. In J.A. Sloboda (eds.) *Generative Processes in Music: The Psychology of Performance, Improvisation, and Composition*, 195-230. Oxford: Clarendon Press.

Davidson, L. & Scripp, L. (1989). Education and development in music from a cognitive perspective. In D.J. Hargreaves (eds.) *Children and the Arts*, 59-86. Philadelphia: Milton Keynes Open University Press.

Davidson, L. Scripp, L. (1989a / 1992). Surveying the coordinates of cognitive skills in music. In R. Colwell (eds.) *Handbook of Research on Music Teaching and Learning*, 392-431. New York: Schirmer Books.

Davidson, L., Scripp, L. & Welsh, P. (1988). "Happy birthday": Evidence for conflicts of perceptual knowing and conceptual understanding. *Journal of Aesthetic Education,* 22(1), 65-74.

Davidson, L. & Colley, B. (1987). Children's rhythmic development from age 5 to 7: Performance, notation, and reading of rhythmic patterns. In J.C. Peery, I.W. Peery & T.W. Draper (eds.) *Music and Child Development*, 107-136. New York: Springer-Verlag.

Domer, J. & Gromko, J.E. (1996). Qualitative changes in preschoolers' invented notation following music instruction. *Contributions to Music Education*, 23, 62-78.

Elkoshi, R. (2002). An investigation into children's responses through drawing, to short musical fragments and complete compositions. *Music Education Research*, 4(2), 199-211.

Elkoshi, R. (2004). Is music "colorful? A study of the effects of age and musical literacy on children's notational color expressions. *International Journal of Education & the Arts,* 5(2) September, 10. Retrieved from http://ijea.asu.edu/v5n2

Elkoshi, R. (2004a). Interpreting Children's Invented Graphic Notation. *Arts and Learning Research Journal*, 20(1), 61-84.

Elkoshi, R. (2007). Social issues in art education in Israel: commentary. In L. Bresler (eds.) *The International Handbook of Research in Arts Education*. Section 9: Social and Cultural

Issues (eds. Douglas Risner & Tracie Costantino). US: Springer International Handbooks of Education.

Elkoshi, R. (2008). A study of music listening practices through the verbal and graphic reports of college students. Abstracts, 28th ISME World Conference, Bologna, Italy (July 21-25), 49-50.

Elkoshi, R., Murphy, R. & Burnard, P. (2007). Is early musical symbolization a universal human activity? Reports from a multicultural developmental pilot study, summary papers and abstracts at the *5th International Conference for Research in Music Education*, School of Education and Lifelong Learning, University of Exeter, UK, 10-14 April.

Elkoshi, R., Murphy, R., Burnard, P., Eriksson, A. & Ballantyne, J. (2008). A cross-cultural study of children's emergent musical literacy: The PAIS project, *Symposium accepted for ISME*, July, 2008 in Italy.

Eng, H. (1931). *The Psychology of Children's Drawing*. London: Routledge & Kegan Paul.

Flowers, P. (1983). The effect of instruction in vocabulary and listening on nonmusicians' descriptions of changes in music. *Journal of Research in Music Education*, 31, 179-189.

Flowers, P. (1984). Attention to elements of music and effect of instruction in vocabulary on written descriptions of music by children and undergraduates. *Psychology of Music,* 12, 17-24.

Fung, V. & Gromko, J. (2001). Effects of active versus passive listening on the quality of children's invented notations and performances for two Korean pieces. *Psychology of Music*, 29(2), 128-38.

Gates, J.T. (1988). *Music Education in the United States: Contemporary issues*. Tuscaloosa: University of Alabama Press.

Gibbs, R.W. (1994). *The Poetics of Mind*. Cambridge: University Press.

Goodnow, J.J. (1971). Auditory-visual matching: Modality problem or translation problem? *Child Development*. 42, 1187-201.

Gromko, J.E. (1994). Children's invented notation as measures of musical understanding. *Psychology of Music and Music Education*, 22(2), 136-147.

Gromko, J. & Poorman, A.S. (1998). Developmental trends and relationships in children's aural perception and symbol use. *Journal of Research in Music Education*, 46(1), 16-23.

Gromko, J. & Poorman, A.S. (1998a). Does perceptual-motor performance enhance perception of patterned art music? *Musicae Scientiae: The Journal of the European Society for Cognitive Sciences of music*, 2(2), 157-50.

Gromko, J. & Russell, C. (2002). Relationships among young children's aural perception, listening conditions, and accurate reading of graphic listening maps. *Journal of Research in Music Education*, 50(4), 333-42.

Hair, H.I. (1993/1994). Children's descriptions and representations of music. *Bulletin of the Council for Research in Music Education,* 119, 41-48.

Hargreaves, D. (1982). The development of aesthetic reactions to music. *Psychology of Music*, 51-54.

Hargreaves, D.J. (1992). *The Developmental Psychology of Music*. New York: University of Cambridge Press.

Hirshberg, J. (1995). *Music in the Jewish Community of Palestine 1880 – 1948*. Oxford: Oxford University Press.

Kerchner, J. (2001). Children's verbal, visual, and kinesthetic responses: insight into their music listening experience. *Bulletin for the Council of Research in Music Education*, 146, 35-51.

Lewis, B.E. (1988). The effect of Movement-based instruction on first- and third-graders' achievement in selected music listening skills. *Psychology of Music,* 16, 128-142.

Lindstrom, M. (1957). Children's Art. Berkeley. University of California Press.

Maxim, C. (2001). Keyboard music: Romanticism and the miniature. In L. Macy (eds.) *Grove Music Online*. Retrieved on 23-12-2**00**7 from http://www.grovemusic.com

Murphy, R. & Elkoshi, R. (2004). *Is Phonographic Art Universal? Investigating Graphic Notations of Pre-school Children from Israel and Ireland*. Paper presented at "Sound Worlds to Discover": The 26th World Conference in Music Education – ISME International Society of Music Education, Tenerife, Spain.

Oriedge, R. (2007-9). Debussy, Claude. *The Oxford Companion to Music*. Retrieved on 14-04-09 from http://www.oxfordmusiconline.com/subscriber/article/opr/t114/e1846?q=debussy+claude

PAIS (2009). Retrieved from http://www.levinsky2006.macam98.ac.il/pais/

Piaget, J. (1973). *To Understand is to Invent*. New York: Grossman Publishers.

Piaget, J. & Inhelder. B. (1956). *The child's Conception of Space*. Norton, New York.

Piaget, J. & Inhelder. B. (1969). *The Psychology of the Child*. London: Routledge & Kegan Paul.

Regev, M. & Seroussi, E. (2004). *Popular Music and National Culture in Israel*. Berkeley: University of California Press.

Rodriguez, C.X. & Webster, P.R. (1997). Development of children's verbal interpretative responses to music listening. *Bulletin of the Council for Research in Music Education,* 134, 9-30.

Shapira, S. (2000). *Educational art music for piano in Israel* (unpublished doctoral dissertation). Jerusalem: The Hebrew University in Jerusalem (in Hebrew).

Shockley, R. (2006) Mapping music: some simple strategies to help students learn (Pedagogy Saturday X: THE ART OF TEACHING), American Music Teacher, October 1, 56(2), 34-36. Retrieved from http://www.highbeam.com/doc/1G1-152869308.html

Sims, W.L. (1986). The effect of high versus low teacher affect and passive versus active student activity during music listening on preschool children's attention. Piece preference, time spent listening, and piece recognition. *Journal of Research in Music Education*, 34, 73-191.

Sims, W.L. & Nolker, D.B. (2002) Individual differences in music listening responses of kindergarten children. *Journal of Research in Music Education*, 50(4), 292-300.

Siu-Lan, T. **&** Megan, K. (2004). Graphic Representations of Short Musical Compositions. *Psychology of Music*, 32(2), 191-212.

Sims, W.L. & Nolker, D.B. (2002) Individual differences in music listening responses of kindergarten children. *Journal of Research in Music Education*, 50(4), 292-300.

Sims W.L. & Cassidy, J.W. (1997). Verbal and operant responses of young children to vocal versus instrumental song performances. *Journal of Research in Music Education*, 45(2), 234-244.

Smith, K.C., Cuddy, L.L. & Upitis, R. (1994). Figural and metric understanding of rhythm. *Psychology of Music*, 22(2) 117-135.

Strauss, B. (1988). Music appreciation through participation. *British Journal of Music Education*, 5, 55-69.

Truman, S. M. (2007). Encouraging children's collaborative creativity in a music composition task: summary and results, *Summary Papers & Abstracts*, *The Fifth International Conference for Research in Music Education* (University of Exeter: School of Education and Lifelong Learning, 10-14 April).

Upitis, R. (1987). Toward a model for rhythm development. In J.C. Peery, I.W. Peery & T.W. Draper (eds.) *Music and Child Development*, 54-79. New York: Springer-Verlag Publication.

Upitis, R. (1987a). Children's understanding of rhythm: The relationship between development and musical training. *Psychomusicology*, **7**(1), 41-60.

Upitis, R. (1990). Children's invented notation of familiar and unfamiliar melodies. *Psychomusicology,* 9(1), 89-106.

Upitis, R. (1992). *Can I Play You My Song?, The Compositions and Invented Notations of Children*. Portsmouth, NJ: Heinemann Educational Books.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The Performance-Pedagogy Paradox in Choral Music Education

Patrick K. Freer

Abstract

Choral music education has existed in varying forms for hundreds, if not thousands of years. The formalization of choral music education in public schools is a relatively recent practice, and its success can be quantified through the number of student participants and the perception of increasing quality of school choral performances. These two characteristics, participation and performance, have generated international debate about issues of access (Harrison, 2008; Koza, 2008), instruction (Allsup & Benedict, 2008; Beynon, 2003), culture (Budiansky, 2005; Shively, 2004), and gender (Freer, 2007; O'Toole, 2005). Much of this debate is critical of the ways in which choral music education is practiced in schools. This paper will explore implications of this debate, with the suggestion that the debate is misguided. The question should not be whether choral music education *is* a viable vehicle for the implementation of music education's goals, but how choral music education *can be* best positioned to implement those goals. The author will propose that problems of quality, culture, tradition, and access arise when "choral music performance" and "choral music education" are viewed as hierarchical rather than synonymous and complementary processes. A critical understanding of similarities and distinctions is necessary for upholding the values of both performance and education. Intersections, conflicts, and potential benefits of this artistic-educative paradox will be enumerated with regard toward the enhanced role of choral music education as practiced internationally within schools, communities, and performance halls.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Searching for a musical meaning in the field of psycho-oncology
A music therapist's view

Maria Froudaki

Abstract

This study aims to investigate the meaning which music can create and communicate within a music therapy setting. A phenomenological approach has much to offer to this direction, especially within the clinical perspective of music centered music therapy. The analysis of an improvisation with a patient facing cancer can lead us to the centre of a dual musical experience. We will try a step to step observation of the different ways music tools (rhythm, harmony, melody, form, expressive components) are being used as the musical relationship between patient and therapist evolves. Aiming to get into the musical experience and observe from the inside, we may reach a better understanding of the musical interaction within the music therapy practice. Discussing all the above, we can also try to answer the questions 'why music' and 'how music'.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Teaching piano to dyslectic children

Athina Fytika

Abstract

Despite the significant advancements of the scientific field of general education on learning disabilities issues, instrumental pedagogy has just recently started to systematically explore the particular teaching strategies that need to be developed for children with learning disabilities who wish to learn how to play a musical instrument. Without an adequate teaching methodology, these children are often doomed to fail to learn how to read and play music, even though more often than not, they don't lack the musical ability or the tremendous desire to become musically active. One of the major challenges that a music teacher has to face in the case of a learning disability is its identification and the appropriate lesson planning. Using dyslexia as a reference vehicle - being perhaps the most common learning disability - the presentation will discuss the case of teaching piano to children that demonstrate one form of dyslexia. As dyslectics don't always have the same symptoms, it is important to isolate and analyze the characteristics that appear individual or combined in music education settings. Following an overview of the major piano pedagogy research on dyslectic students, a discussion will analyze the results, methodologies and teaching material designed for particular occasions. Finally, the presentation will include audio visual demonstrations of selected piano lessons to dyslectic children discussing the planning, goals, and methodology of the each lesson.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Character of musical activity and moral culture of senior pupils

Arvydas Girdzijauskas

Abstract

The research seeks to disclose relations between musical activity and the moral culture of higher grade students. Peculiarities of musical activity and of moral culture of senior students, based on the research data are presented and their interrelations are disclosed. Credible possibilities of influence of musical activity on development of moral culture by using developed strategies of optimization of musical activity are discussed.

Keywords
musical activity, moral culture, aesthetic experience, interpretation.

Introduction

Wide pedagogical experience demonstrates that children involved in active musical practice and children who are not related to musical activity, are different (Bastian, 2000; Shaw, 2000; Winner, Hetland, 2000; Navickiene, 2001; Piliciauskas, 1998; Rinkevicius, Rinkeviciene, 2006). Some authors analyze the academic benefit of music education (Schaw, Winner, Hetland), others concentrate on emotional reactions (Piliciauskas, Navickiene) or social relations (Bastian, Rinkevicius). However the benefits from musical activities, which lie in the cultural area, that is attitudes towards human values, relations with cultural norms and regulations, habits of evaluation and decision making, which are far from practical reality, skills and competencies, recognized so much nowadays, are not widely discussed in scientific and pedagogical literature. That is why the influence of musical activity on personal culture of students is worth of deeper analysis as an important field of personal and social development of a personality.

On the other hand, this research was challenged by the problems of cultural development of higher grade pupils, as it detected a crisis of moral values and behavior, consumer attitudes towards surroundings, low level of responsibility among them. Practice of music education shows that mentioned problems are not so evident among students, who are busy in musical activity. To qualify this cultural and moral difference more precisely, the term of *moral culture* was used. The moral culture was understood as *a unity of moral consciousness and character of behavior determined by it, where a particular behavior, based on an internalization of moral norms functioning in a certain culture, guarantees an acceptable activity of an individual in the cultural surroundings* (Girdzijauskas, 2008). This conception of moral culture was developed appealing on works of D'Andrade (1995), Glanzrer (2003), Kant (1803), Patlakh (2000), Kavolis (1993) Salkauskis (1990) and other writers.

This research seeks to disclose relations between musical activity and the moral culture of senior pupils. Thus, the basic question of the research is *how and what influence musical activity can make on moral culture of higher grade students, and how much this influence can be optimized***.** The object of the research is musical activity of senior pupils, its properties and relations with

components of their moral culture. Credible possibilities of influence of musical activity on development of moral culture will be analyzed.

The presumption that musical activity can affect moral culture theoretically was based on modern art theories, recognizing connections between art and non-artistic reality (as works of Adorno, 1984; Carroll, 2001; Dewey, 1996, Eaton, 2001; Gardner, 1992; Goodman, 1976; Gadamer, 1999; Hospers, 1964; Johnson, 2007, etc.). The theory of *suggested art propositions,* developed in the field of analytic art philosophy and represented by works of Hospers (1964), Weitz (1980), Beardsley (1982), etc., thoroughly explaining the cognitive function of art, is outstanding in this case. This theory presents the process of interpretation of art, revealing the primary, direct meaning of art works, which is implicated by means of expression of a work of art (it does not perform a cognitive function), and deep meaning, which performs a cognitive function, because it is related to the experience of a perceiver. Because of this generated meaning, artworks, including music, are considered to be the specific models of reality, which are understood and interpreted through narratives.

According to Johnson (1997), Carroll (2001) and other writers, narratives help us to understand ourselves and surrounding reality, our self-consciousness is basically belt on them. Artistic narratives express the connections between a work of art and the reality in the common cultural context of a creator and a viewer or a listener. They consist of sequence of percepts (events, propositions, concepts, states of mind, emotions, etc.), linked to each other by causative relations (Carroll, 2001). Narratives, which we build while listening to music or performing it, are kind of stories in possible imagined situations, in which we are the main actors.

While musical works are rarely related to a specific plot or situation, the beholder is generating narratives form abstract allusions, emotions and metaphors. That is why they often do not provide new moral knowledge. Narratives, generated on abstract basis, encourage us to rethink existing values, attitudes and relations (Mullin, 2002; Nussbaum, 2003; Carroll, 2001), while the emotional effect of music helps to internalize discovered meanings and insights, to find evaluative attitude towards surrounding world (Budd, 1995; Nussbaum, 2003; Bitinas, 2004).

Methodology

In order to prove the presumptions mentioned above, an empirical research was designed and accomplished. It was performed by an opinion poll of higher-grade students from different types of schools, offering a variety of music programs from different towns of Lithuania. Students (15 - 19 years old) from secondary schools, secondary school with enriched music programs, arts gymnasiums providing professional music education, and choir singing schools were included in the research. A total of 390 pupils were questioned.

Searching for possibilities of influencing moral culture by musical activity, firstly the research of the peculiarities of musical activity, suggested in different types of schools, was performed. In order to design the research instrument the structure of musical activity was defined and the features of effectiveness of musical activity were determined. It was considered that musical activity consists of several modes, such as 1) performing music, 2) learning music language and theory, 3) creating, improvising, arranging, 4) listening to and interpreting music. The *features of*

effectiveness of musical activity were determined for the study in order to explore different aspects of musical activity from the perspective of personal attitude of the students to it. That is:

1. Personal *significance* of musical activity (as development of musical capacities, experiencing aesthetic emotions) and social *significance* (including performance of social roles, providing aesthetic gratification to others, etc.) were expected to show what meaning students find in musical activity.

2. Personal, social and cognitive *purposefulness* of musical activity were defined with the aim to reveal the variety of goals which students have while analyzing and understanding music, and taking part in other musical activities.

3. *Direction* of musical activity was studied in order to reveal the usage of musical modes and to reveal favorite genres of music.

4. *Dynamism* of musical activity was designed in order to show the level of independence of musical choices and the level of initiatives in activity.

5. *Humanity* of musical activity was studied with the aim to find how much the circumstances of music education are based on cooperation, confidence and respect for students.

Musical activity was explored according to these features of effectiveness. The research disclosed important peculiarities of musical activity. Most important features will be presented in this article.

For the further research the theoretical-empirical model of moral culture was designed. It was highly influenced by cognitive anthropology (D'Andrade, C. Strauss, 1992; Schwartz, White, C.A. & Lutz, 1992) and studies in the philosophy of culture (Kant, 1803; Kavolis, 1993; Salkauskis, 1990). Notional-evaluative, emotional and practical-creative components of moral culture were distinguished. Elements of content of each component were defined, and criteria of evaluation of these elements were determined. The diagnostic research of moral culture, based on this model, was provided, using the originally created methods presented for students as an opinion poll. The same 390 students from the same schools were questioned as during the investigation of the character of musical activity. Interval between surveys comprised five months. Answers to questions of both questionnaires were expressed in ordinal scales. Answers to some open questions (e.g. evaluating behavior and situations) were transferred into ordinal scales. The data was elaborated with SPSS program version 13.

Disclosed peculiarities of musical activity and moral culture of higher grade students enabled to explore interrelations between their components, find statistically significant correlations, and forecast (on basis of these results) how musical activity can influence moral culture of students more effectively. The received data was used while designing educational project, which was implemented in Vyduno secondary school (Klaipeda, Lithuania) during five months. The project was realized seeking to prove the efficiency of developed strategies of optimization of musical activity making influence on moral culture of students.

Results of the research

Musical activity was analyzed according earlier presented features of effectiveness of musical activity, that is *significance, purposefulness, direction, dynamism and humanity*. Analyzing the significance of musical activity, the aim was to elucidate the point of view of students towards the

meaning, which they find in different opportunities provided by musical activity, in this aspect they usually take (fig. 1). Standard deviation value *SD* 0,966 - 1,296 show not high data scatter.

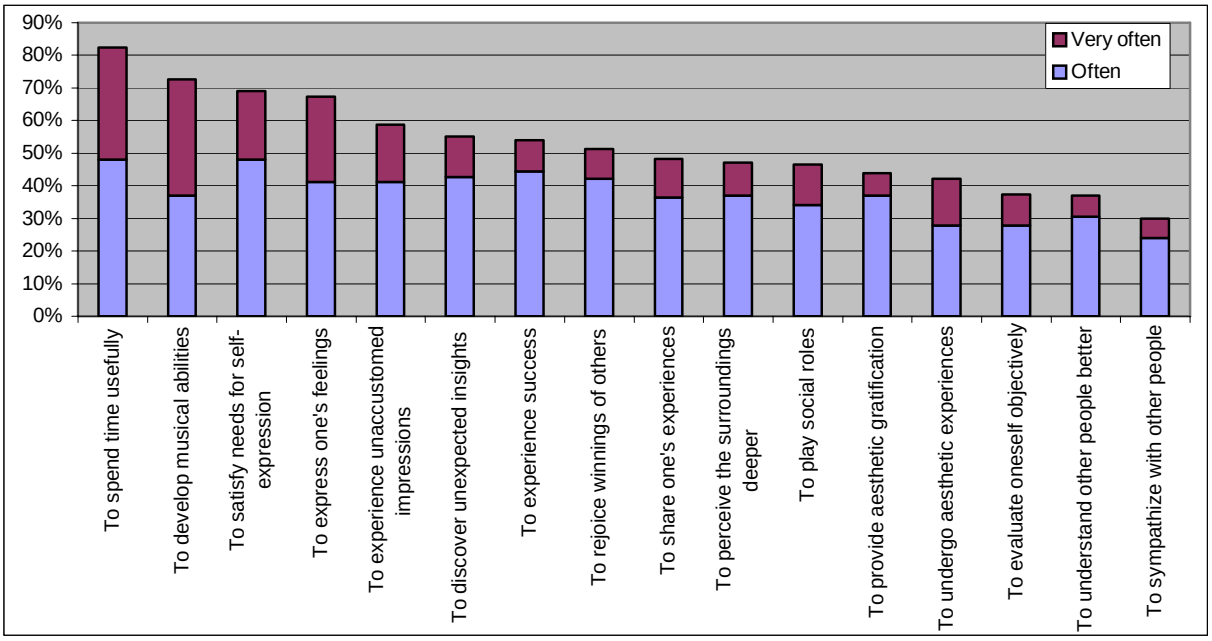


Figure 1. *The frequencies of personal and social significance of musical activity*

It has been proved that the personal significance of musical activity (possibility to spend time usefully, to develop musical abilities, to satisfy needs of self-expression) is more often recognized by students than social significance (to play social roles, to provide aesthetic gratification to others, to understand other people better, etc.). It has also been discovered that students more often pursue personally significant activity goals. This outcome has some positive perspective, as cognitive goals in musical activity are pursued by students quite often.

An insufficient choice of socially significant musical activities and a weak participation in musical creation have also been revealed. Received data (*SD* 0,542 – 1,488) show that musical modes in educational process are used out of proportion, because most pupils (97,9 %) often listen to music; two thirds (71,7 %) make music themselves (play or sing); about a half of pupils is involved in concert activity (55,7 %) and learning music language and theory (47,1 %); only one third of pupils (28,9 %) create music (compose and improvise). Two thirds of the pupils (65,6 %) voluntarily participate in musical activity. The investigated students more often choose classical and popular music in their musical activity than religious or ethnic music. Just more than a half of them decide to join a musical activity independently. Less than half of the students dare to show their feelings and feel that a teacher cares for them as individuals. Therefore the musical activity of higher grade students lacks social significance, and the level of dynamism and humanity of this activity is not very high either.

The research of moral culture of students revealed situation and condition of moral culture of students, and some important peculiarities of it. Some of them will be presented here.

According to the data of the research (*SD* 0,716 - 1,226) the values of *respect, honesty, responsibility, justice, sensitiveness, altruism, loyalty and love for people* are recognized as important by the investigated students. However, less than a half of them could explain the significance of these values. Problematic situations presented to the students' evaluation revealed that the level of behavioral evaluations does not correspond to the level of recognition of moral values: the largest group of the students explained their evaluations in terms of their own welfare, not paying much attention to the values they considered to be important. This leads to a conclusion that the level of the notional-evaluative component of moral culture is not high.

Analyzing the data of emotional component of moral culture (*SD* 1,308 - 1,843) it was found, that *communicative, altruistic, praxical (concerned with satisfaction from achievements at work, positive results)* emotions, which are related to moral values, are significant for the investigated students. On the other hand, the emotions, which have weaker links with moral values or even do not have any links with them at all (*gnostic, glorious, romantic, hedonistic, pugnacious*), are also recognized partially.

Studying the data of practical-creative component of moral culture (*SD* 0,724 - 1,162), it was disclosed that higher grade students often succeed in expressing the most important moral values by stable behavior - they are able to behave with respect and honesty, to be loyal, to get along with cultural surroundings harmoniously, to take care of others. At the same time the stability of behavior embodying *justice* was ascertained as low, and the stability of behavior embodying *responsibility and altruism* - as not very high. Thus, the level of the practical-creative component of moral culture is not very high.

Some interrelations, found among certain parameters of musical activity and components of moral culture, confirmed the presumption that musical activity can have some influence on moral culture of higher grade students. Some of these relations need to be disclosed.

Significant correlations between aesthetic emotions, experienced while performing and appreciating music, and stability of moral behavior were found. One can see in the table No. 1 that emotions, perceived while performing and appreciating music, are related with moral behavior that is *preserving traditions, cultural heritage, keeping carefully valuables created by others, getting along with cultural surroundings harmoniously, creative actions, etc.*

Aesthetic emotions, perceived while / Behavior	Creating music	Performing music	Appreciating music	Listening to music
Preserves traditions, cultural heritage		0,147**		-
Flexibly adjusts to demands of surroundings			0,136**	-
Keeps carefully valuables, created by others		0,150**		-
Gets along with cultural surroundings harmoniously			0,165*	-
Inventive in applying new ways of behavior	0,142**	0,141**	0,123*	-
Creatively responds to surroundings		0,152**	0,111*	-
Sensitive to beauty of art and nature	0,144**	0,218***	0,273***	-

*p<0,05; **p<0,01; ***p<0,001

Table No. 1. *Correlations between aesthetic emotions and behavior*

Some unexpected results were obtained as well. It was found that emotions, experienced while listening to music, which is practiced often by 97,9 % of children, have no correlations with other components of musical activity and moral culture. The development of music listening skills, linked with the ability to interpret music, turned out to be a pedagogical task of high importance.

Significance of musical activity turned out to have important relations with moral culture of higher grade students as well. Correlations found between significance of musical activity and recognition of moral values are presented in the table No. 2

Features of significance / **Moral values**		Development of musical capacities	Finding new insights	Experiencing aesthetic emotions	Evaluating oneself	Sharing ones experience	Performing social roles	Understanding other people better	Providing aesthetic gratification to others
Respect	Can listen to others	0,157*				0,145*	0,217**		0,151*
	Recognizes value of others						0,194**		0,208**
Responsibility	Responsibly performs ones duties						0,171*		
Love for people	Loves people and life	0,181*			0,208**				
Honesty	Behaves according conscience	0,187*	0,172*	0,269***			0,213**	0,178*	0,209**

*p<0,05; **p<0,01; ***p<0,001

Table No. 2. *Correlations between significance of musical activity and recognition of moral values:*

The analysis of the data presented above revealed that *social significance of musical activity* has more and stronger relations to the components of moral culture than *personal significance*. Socially significant features of activity (as performing social roles, providing aesthetic gratification to others) are meaningfully related to the recognition of moral values, such as respect, responsibility, honesty. It has become evident that musical activity, *providing aesthetic gratification* to the others, is vitally important to the stability of moral behavior (flexibility of adjustment to the demands of surroundings, getting along with cultural surroundings harmoniously, keeping carefully valuables, created by others, etc) . These results show the great importance of socially meaningful musical activity, such as concerts and projects, for the development of moral culture of students.

The research data disclosed that purposefulness of musical activity is interrelated with moral culture as well. Found correlations between goals of musical activity and stability of moral behavior showed up to be quite significant. They are presented in table No. 3.

Goals of musical activity **Moral behavior**	To analyze and under-stand music	To know and evalu-ate one-self	To find new insi-ghts	To experi-ence new impres-sions	To commu-nicate with interes-ting people	To provide aesthetic gratifica-tion to others	To experien ce aesthetic satisfac-tion	To share ones experi ence
Preserves traditions, cultural heritage				0,186*	0,189*	0,222**		
Behaves sensitively, altruistically	0,205**							
Gets along with cultural surroundings harmoniously		0,176*					0,172*	0,224**
Behaves tolerantly	0,149*		0,208**					
Behaves rationally	0,210**	0,148*		0,150*	0,202**	0,180*	0,154*	
Behaves honestly			0,149*					

*p<0,05; **p<0,01; ***p<0,001

Table No. 3. *Correlations between goals of musical activity and stability of moral behavior*

One can find that connections between goals of musical activity having cognitive meaning (as a wish to evaluate oneself, to discover new insights, to experience new impressions) and certain actions (preserving traditions and cultural heritage, expressing values of sensitiveness, altruism, tolerance and honesty) are quite numerous. This result discloses possible importance of interpretation of music, based on cognitive function of musical activity, for the development of moral culture of students.

Dynamism of musical activity was found to be meaningfully related to notional-evaluative and practical-creative components of moral culture (Girdzijauskas, 2008). Particularly significant relation was ascertained between *independence of activity* and aesthetic emotions experienced while performing music. As aesthetic emotions are closely related to the stability of moral behavior, the independence of musical activity can be very purposeful in the development of moral culture. It could be mentioned there that more mature moral culture is exhibited by pupils of choral singing music schools, who chose musical activity voluntarily.

Humanity of musical activity (expressed in cooperation, confidence and respect) turned out to be related to the stability of moral actions. That is why humanity, warmth, and confidence of music education are important for the moral culture of students as well.

It must be noted that the correlations between the analyzed data are not high, however, all presented data is statistically significant. Because of that the data can be analyzed as revealing main tendencies of interrelations between components of musical activity and moral culture of students. Disclosed results correspond to pedagogical experience and explain some differences in between moral culture of students which are involved in different musical activity. That strengthens the significance of disclosed interdependencies.

Educational project

On the basis of the data, revealed in the diagnostic research of moral culture and musical activity, the project of the development of moral culture was designed and implemented in Vyduno secondary school (Klaipeda, Lithuania). Since the research revealed rather low level of notional-evaluative component of moral culture, it was believed that reaching a higher level of this component could positively affect the level of the practical-creative component, and thus, reach a higher level of moral culture of the investigated students. On this basis the goal of the educational project was set - *to assist higher grade students in reaching higher level of the notional-evaluative component of moral culture by more optimally using opportunities provided by musical activity in a secondary school.* For pursuing this goal four strategies of optimization of musical activity were designed, based on the research data: 1) stimulation of independent involvement of students into musical activity, 2) harmonization of employment of musical modes while developing moral culture, 3) stimulation of more profound aesthetic experiences, and 4) development of abilities to interpret music in cultural context. The mentioned strategies were implemented (during five month) in *music lessons,* providing an opportunity to listen to, analyze and interpret musical works, to study music language and theory; in *choir activity,* permitting to perceive social significance of choral singing and to play significant social roles; in the *musical project* "Folk Music in Modern Colors", providing favorable conditions for manifestation of music creation mode, experience and perception of aesthetic emotions; and in *activities* organized by class teachers, allowing to integrate musical activity with the everyday school life of the students.

While implementing mentioned strategies, some methods and principles were followed. Seeking to *stimulate independent involvement of students into musical activity,* students were provided with various alternatives of choices while organizing events, festivals, and projects and by inviting interesting people to join school projects. The motivation of choice was enhanced by raising the mastery of music performance and by paying attention to the attractiveness of the activity goals to the investigated students. Students were encouraged to relax, to experience aesthetic satisfaction, to acquire knowledge, and at the same time to perceive other, more significant goals of musical activity.

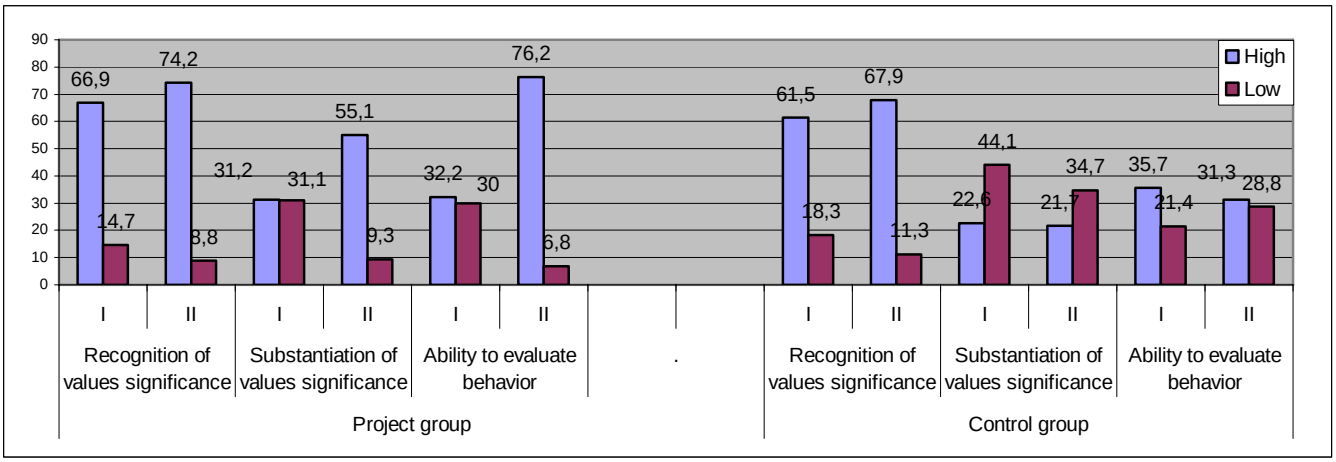
While seeking to *harmonize the modes of musical activity,* students were provided with a rich, valuable, and all-round aesthetic experience in all the types of musical activity, owing to which the modes of activity acquired common contact points, joined into the united system. *Music performance mode,* providing rich aesthetic experience, was used more actively. Musical activity, providing aesthetic gratification to others, was very much welcomed. Music listening mode was made more effective by presenting more diverse tasks, selecting more suggestive music works (e.g. rich with emotions romantic music, such as songs of Schubert, ballads of Liszt and Chopin, songs without words of Mendelssohn, etc.), and teaching students to interpret them. More favorable conditions for musical creation were created as well, stimulating the creative initiative of students, using informal communication.

While seeking for a *deeper experience of aesthetic emotions* in musical activity, the cultural and historical context of musical works was widely described. This created a possibility to imagine the circumstances of the creation of a musical work and the surroundings of a lyric hero's activity. Correspondingly students were prepared and prepossessed for listening to and performing music, introducing for them new music intonations gradually. In such case students could get used

to them and better experience their emotional meaning. Humane and safe surroundings, stimulating aesthetic experiences were created for musical activity.

While developing *the ability to interpret music in cultural context,* the students were stimulated to look for interrelations between the peculiarities of music language and associations inspired by it. Efforts of students for finding associations were directed into certain fields, such as character of movement, bodily experience, felt emotions, attitudes towards surroundings, social interrelations, characters of actors, etc. Also it was attempted to develop the ability of students to discover the deep meaning in a musical work, to perceive the interrelations between the primary view of created musical work and the personal experience or the cultural surroundings of a composer. Musical works distinguishing themselves through figurative intonations, rich images, and associations, easily related to real-life phenomena, were selected for the interpretation.

After the project some changes in the moral culture of higher grade students were achieved. These changes were estimated after the second session of the research, carried out after the educational project. The research data of the project group was compared with the data of the control group. Some significant results are presented in figure No. 2.



I – research before the project, II - research after the project

Figure 2. *Changes in the level of the notional-evaluative component of the moral culture of students from the project and control groups*

The utmost changes were observed in notional-evaluative component of moral culture. After the project the share of the students in the project group characteristic of high level of ability to evaluate moral behavior increased significantly - from 32.2 % to 76.2 %, i.e. by 44.0 %, while in the control group the level of moral evaluations after the project even decreased a little. Also, the share of the students in the project group who could explain the significance of values increased from 31.2 % to 55.1 %, i.e. by 23.9 %, meanwhile, in the control group this share decreased by 0.9 %. All the mentioned changes are statistically significant ($p < 0,05$). The observed changes tell about the efficiency of strategies, implied in the project. These changes helped to confirm the research hypothesis that moral culture of higher grade students can be influenced by application of planned strategies in musical activity. It is believable that more significant changes in the

components of moral culture could be achieved by implementing strategies of optimization of musical activity in longer period of time.

Conclusions

1. The data of the research revealed some salient features of musical activity of higher grade students. It was found that personal significance and purposefulness in musical activity matter more to higher grade student than social significance and purposefulness. Insufficient choice of socially purposeful musical activity and weak use of musical creation have been revealed as well. The investigated students more often choose classical and popular music than religious or ethnic music. Just more than half of the investigated students voluntarily decided to join a musical activity.
2. The data of the research of students' moral culture showed that the level of *notional-evaluative* component of their moral culture is not high. It was believed that reaching a higher level of this component could positively affect the level of practical-creative component, and through that contribute to reaching a higher level of moral culture of the investigated students.
3. It was found that *social significance of musical activity* is meaningfully related to the recognition of moral values. It has become evident that musical activity, *providing aesthetic gratification* to the others, is vitally important to the stability of moral behavior. Connections among *cognitive goals of musical activity* and recognition of moral values were established.
4. The condition of musical activity being revealed and its interrelations with moral culture enabled the establishment of the strategies of optimization of musical activity, aimed to influence moral culture: 1) *stimulation of independent involvement of students into musical activity,* 2) *harmonization of employment of musical modes,* 3) *stimulation of deeper experiences of aesthetic emotions in musical activity*, and 4) *development of abilities to interpret music in cultural context*.
5. Having applied the strategies mentioned above in the educational project, some statistically important changes of notional-evaluative component of moral culture were identified, testifying that ability to evaluate moral behavior and to explain the significance of moral values increased significantly. At the same time the recognition of moral values (responsibility, loyalty and justice) expanded as well. The latter changes assisted in corroborating the research hypothesis that higher grade students' moral culture can be influenced by the application of planned educational strategies in musical activity.

Bibliography

Adorno, T.W. (1984). Aesthetic Theory (Transl. C. Lenhardt). New York: Routledge and Kegan Paul.

Beardsley, M.C. (1982). Aesthetic Experience. In M.J. Wreen, D.M. Callen (eds.), *The Aesthetic Poit of View: Selected Esseys*. Ithaca: Cornell University Press.

Bastian, H.G. (2000). *Musik(erziehung) und ihre Wirkung*. Eine Langzeitstudie an Berliner Grundschulen. Mainz: Schott.

Budd, M. (1995). *Values of Art. Pictures, Poetry and Music*. The Penguin Press.

Bitinas, B. (2004) *Hodegetika. Ugdymo teorija ir technologija.* Vilnius: Pedagoginio universiteto leidykla.

Carroll, N. (2001). Beyond Aesthetics. UK: Cambridge University Press

D'Andrade, R. & Strauss, C. (1992). *Human Motives and Cultural Models*. UK: Cambridge University press.

Dewey, J. (1966). Having an Experience. In M. Rader (eds.) *A Modern Book of Aesthetics*. New York: Holt Rhinehart and Winston.

Eaton, M.M. (2001) *Merit, Aesthetic and Ethical*. New York: Oxford University Press.

Gadamer, H.G. (1999). *Istorija, menas, kalba*. Vilnius: Baltos lankos.

Gardner, H. & Davis, J. (1992). Kognityvine revoliucija ir jos poveikis. In V. Matonis (ed.) (2000), *Is Siuolaikines meninio ugdymo koncepcijos. Meninio ugdymo teorija JAV*. Vilnius: Enciklopedija.

Girdzijauskas, A. (2008). *Development of Moral Culture of Higher Grade Students Through Musical Activity* (unpublished doctoral dissertation, The summary). Klaipeda: Klaipeda University.

Glanzer, P.L. (2003). Did the Moral Education Establishment Kill Character? An autopsy to The Death of Character. *Journal of Moral Education*, 32(3).

Goodman, N. (1976). *Languages of Art*. Indianapolis: Hackett.

Hospers, J. (1964). *Meaning and Truth in the Arts*. Archon Books.

Johnson, M. (1997). *Moral imagination: Implications of Cognitive Science for Ethics*. USA: The University of Chicago Press.

Johnson, M. (2007). *The Meaning of the Body. Aesthetics of Human Understanding*. USA: The University of Chicago Press.

Kant, I. (1803). *Uber Pedagogik*. Herausgegeben von Friederich Theodor. Konigsberg, bei Friedrich Nicolovius.

Kavolis, V. (1993). *Moralizing Cultures*. Maryland: University Press of America.

Mullin, A. (2002). Evaluating Art: Morally significant imagining Versus Moral Soundness. *The Journal of Aesthetics And Art Criticism*, 60:2.

Navickienė, L. (2001). *Emocinio imitavimo metodas muzikos pamokoje.* Vilnius: Mokslo aidai.

Nussbasum, M. (2003). *Upheavals of Thought: The Intelligence of Emotions*. UK: Cambridge University Press.

Patlakh, B. (2000). Moral Culture. In S. Shermukhamedov (eds.), *Spiritual Values and Social Progress*. USA: Council for Research in Values &

Salkauskis, S. (1990) *Rastai I tomas*. Vilnius: Mintis.

Shaw , G. L. (2000). *Keeping Mozart in Mind*. San Diego: Academic Press.

Schwartz, T., White, G.M., Lutz C.A. (1992). *New Directions in Psychological Anthropology*. Great Britain: Cambridge University Press.

Veicas, M. (1980). *Teorijos vaidmuo estetikoje. Is Grozio konturai*. Vilnius: Mintis

Winner, E., Hetland, L. (2000). *Beyond the Soundbite: Arts Education and Academic Outcomes*. Los Angeles: The Getty Center.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The Peculiarities of creative expression in the singing of Junior school age children

Girdzijauskiene Ruta

Abstract

In the article the results of the research on junior school children's creative expression in singing are presented. Two hundred and five of junior school age children participated in the study. The bulk of the material was collected through observation. Additional data were obtained through analysis of video recordings. Information was also collected from the subjects of the study. The research data showed that the level of creative expression in singing is not high among junior school age children. Almost one third of the subjects were assigned to the low level of creative expression in singing, and only one fourth - to very high level of creative expression in singing.

Keywords
Creativity, creative expression, singing, junior school age children.

Introduction

Creativity and the problem of its development have been widely discussed lately by the representatives of sciences of psychology and pedagogic. Naturally, in such a dynamic society school faces the task to develop an individual capable of solving his/her own and society problems, of responding creatively to the challenges of modern world, of giving meaning to his/her life.

Intensive research on creativity began in the middle of the last century, but until now there is no common conception of it. Some scientists (Wallas, 1945; Piirto, 1999; Treffinger, 1979; Butkienė, Kepalaitė, 1996; and others) analyze creativity as a process which consists of separate stages: perception and formulation of an idea or a problem, active consideration of the problem, search of probable solution variants, its development, evaluation, and realization. Many psychologists (Guilford, 1950; Torrance, 1988; and others) determine creativity as thinking of a person. One of the most famous researchers of this phenomenon J. P. Guilford defines creativity as divergent thinking, which is free, flexible, rejecting everything what is evident and usual, concentrating attention to several possible solutions of a problem. The other group of authors (Taylor, 1999; Finke, 1990; Simonton, 1999; Weisberg, 1999; and others) describes creativity as ability or a complex of abilities (capability to discover the essence, to decline wrong presumptions and stereotypical ways of thinking, to orientate and find a solution in non-standard situations, and etc.). Among previously mentioned concepts of creativity an evident tendency to describe creativity as a quality of a person (Edvards, 1989; Sloboda, Howe, 1991; and others) or a complex of qualities distinguishes (Jovaiša, 1993; Cropley, 1999; Walberg, Arian, 1999; and others). Scientists present a distinctive complex of qualities characteristic to a creative personality.

As it is seen from a brief review of creativity conceptions presented, the problem of creativity is being widely analyzed. But pre-school and primary school children's creativity lacks more

exhaustive research because children's creativity is different in comparison with that of adults. The peculiarities of children's creativity are still urgent to be analyzed. On the other hand, creativity manifests itself and forms only when a child is active, participates in one or other activity, including music activity as well.

The focus of attention in the research on children's creativity in music activity has been on the creative process and the ensuing musical product (Balkin, 1991; Webster, 1991; Wiggins, 1995; Welwood, 1991; Davidson, 1991; and others). Investigations of creativity in musical practice tend to spotlight improvisation and composition. Other creative areas of musical practice, such as performance, listening to, and evaluation of music, tend to receive fragmentary attention.

The peculiarities of creative expression in singing need to be analyzed separately from other activities because creative expression has a distinctive consistent pattern. The urgency of the research on creative expression in singing is especially important in junior school age children's education because: 1) Singing does not require any special preparation or knowledge of creative activity, therefore, it is the most accessible type of music activity in junior school age; 2) Voice is the first musical instrument which a child can control even before starting the school. The issue of a creative child's participation in singing is especially relevant in Lithuania where music education revolves around rich vocal traditions.

Investigators of singing as of a sphere of creative activity (Ware, 1998; Piličiauskas, 1998; and others) agree that performance of a musical text is not in itself a creative act. Singing can be called creative when a performer has a distinctive conception of the piece and consciously strives to transmit that conception to the listeners.

When performing music, peculiar meaning falls on knowledge of what and how it should be performed. A performer has to understand the intentions of a composer, style of a composition, traditions and standards of performance, interpretations of previous performers. A singer also creates for himself/herself a subjective conception of musical symbols noted down by a composer, looks for appropriate ways of conveying it, foresees the peculiarities of the development of a musical composition (Elliot, 1997; Ware, 1998; Henry, 1996). Therefore, interpretation of music can be described as solution of problems.

Performance of a musical composition in scientific literature is compared with the stage of illumination of creative process pointed out by G.Wallas (1945). During it one blends with emotional contents of a composition, musical idea is given meaning by voice, face expression, and body movements. The main means of musical expression, used to render the artistic view of a composition, are artistically suggestive sound, characteristic of precise intonation, rich timbre, correct articulation and breathing, expressive phrasing and etc. The success of music interpretation depends on emotionality and artistry of a performer as well. In this sense a performer's face and body movements' expression is important as it reflects the concernment of a person performing music, tendentiousness of position, artistic experiences (Ware, 1998; Balkin, 1991; Reimer, 2000; Piličiauskas, 1998; and others).

However, there is a difference between the facility of professional singers and young children to perform music creatively. Unfortunately, there is not much research in the aspect of creative music performance of children. Therefore, the **aim of this study** - to reveal the peculiarities of creative expression in the singing of junior school age children. **The object of the study** - the peculiarities of creative expression in the singing of junior school age children. **The research methods:** analysis of education documents, philosophical, psychological, pedagogical,

musicological literature; the inventory of creative expression in the singing of junior school age children; adapted Dembo-Rubinstein test; observation of music lessons, conversation with music teachers; statistical data analysis.

The methods of the research

As it was already mentioned, the researchers of creativity in music activity encounter many problems: the variety of creativity conceptions, the specificity of children's creativity, the lack of the research on creative music activity, and other. Therefore, in the beginning of the research we tried to determine the contents of creative expression in the singing of junior school age children.

With this aim theoretical and empirical model of creative expression in the singing of junior school age children was formed. The analysis of literature encouraged us to choose the standpoint of creativity as a personality feature. *Originality, fluency, flexibility, sagacity* of a child's thinking and activity were chosen as the main qualities of a creative personality. Referring to the main parameters of creativity, the empirical indicators of junior school children's creative expression in singing were excluded: pupils' creativity through singing activity is revealed by unconstraint of music performance (singing is light, without tension, the mood of a musical composition is deeply felt, different moods are used while singing, adaptation to the ensemble occurs), sensitivity (different moods are used in singing, adaptation to the ensemble occurs), purposefulness (more important pieces of a song are pointed out, peculiarities of vocals are applied), expressiveness (the character of a song is conveyed expressively, the ways of a song performance, which have been discussed, are added).

The research has been organized referring to the inventory based on theoretical and empirical model of junior school children's creative expression in singing. The bulk of the material was obtained through analysis of video recordings. During the research 50 pupils of 3rd-4th forms, each of whom performed two well known to them songs of different character, were filmed. Depending on the character of singing, pupils were ascribed to one of four levels of creative expression in singing: very high, high, middle, low.

Two hundred and five 3rd- 4th form pupils from three primary schools in Lithuanian towns took part in the research. The children's teachers were involved in purposeful observation of their pupils' singing and assessed how often they successfully demonstrated creativity. The main criterion of evaluation was the stability of excluded features of creative expression. Teachers evaluated how often pupils succeed in performing one or other act. Four levels of creative expression were excluded: very high (when a pupil almost always succeeds in performing one or other act), high (often succeeds), middle (just sometimes succeeds), low (almost never succeeds).

It should be noted that primary discussion with music pedagogues showed that teachers encountered difficulties in identifying creative musical performance during the assessment of children's singing. Therefore, video recordings were watched together with teachers, pupils' singing was analyzed, consultations on how children should be evaluated were held. Such preparation of music teachers to take part in the research assisted in obtaining objective research results.

Information was also collected from the subjects of the study. Adapted Dembo-Rubinstein test was used: pupils were presented with tasks, where a vertical line was drawn next to each empirical indicator. It was explained to the children that the upper point of the line meant that

they succeeded in performing one or other act almost always, the middle point –sometimes, and the lower point – that so far they were not successful, and etc. Children were asked to mark the place in the line, which would reflect their opinion about how often they succeeded in performing a song creatively. Children's answers were evaluated in a ranking scale.

The results of the research

Perhaps the most exhaustive data was retrieved from the teachers who assessed the stability of excluded features of creative expression in the singing of junior school age children.

	Criteria of creative expression in singing	Empiric indications	The level of creative expression			
			low	middle	high	very high
Fluency	Unconstraint	singing is light, without tension	9,8	26,3	38,5	25,4
		mood of a musical composition is deeply felt	7,8	27,8	37,1	27,3
Flexibility	Sensitivity	different moods are used in singing	13,2	30,7	31,7	24,4
		adaptation to the ensemble occurs	7,3	22,9	37,6	32,2
Sagacity	Purposefulness	more important pieces of a song are pointed out	14,6	31,7	38,1	15,6
		peculiarities of vocals are applied	21,5	31,7	31,7	15,1
Originality	Expressiveness	character of a song is conveyed expressively	7,8	27,3	38,5	26,3
		the ways of a song performance, which have been discussed , are added	11,2	35,6	37,5	15,6

Table 1: *The Peculiarities of Creative Expression in the Singing of Junior School Age Children (%)*

We noticed that pupils most often succeed in singing freely and sensitively. Two thirds of pupils sing lightly, without tension, while performing music they feel the mood of a composition, expressively convey the character of a song. This confirms the proposition that the ability to experience the contents of a song being performed emotionally and to express it externally (mimic, pantomime) is characteristic to pre-school and junior school age children. According to the propositions of the scientists who investigated emotions (Izard, 1980; Jakobson, 1978; Teplov, 1947; Katinienė, 2000; and others), pupils of this age are characteristic of emotional sensitivity, ability to express their emotions distinctively externally (they are more distinct than those of adults).

It was also ascertained that three fourths (37,6% almost always succeed, 32,2% often succeed) of the respondents are successful at adapting to the ensemble while singing, and it is not surprising. The activity analysis of music pedagogues showed that teachers pay a lot of attention to the choice of repertoire attractive to pupils and corresponding to the peculiarities of their age. It is possible that

such data was influenced by purposeful attempts of children to perform the songs that they like creatively and take part actively in new to them form of music performance (singing in an ensemble, a choir).

A little different situation turned out after the analysis of the data on purposefulness of singing. It appears that almost a half (31,7% sometimes succeed, 14,6% never succeed) of the subjects experienced difficulties in revealing important moments of contents of a song. Similar results were obtained after summarizing the data on the application of vocal peculiarities while conveying artistic view of a song: one fifth of pupils (21,4%) are not successful at doing that and a third (31,7%) is successful just sometimes. We suppose that such data tells about the lack of experience in singing, as well as in music interpretation of this age pupils. It should be noted that many Lithuanian music pedagogues have got the qualification of a choir leader. Thus, teachers' competence in this sphere is high enough. Therefore, a presumption can be made that music teachers were just more demanding to their pupils in this aspect.

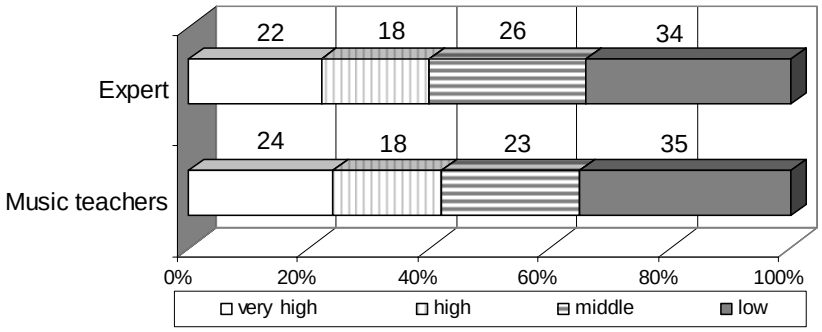
It was also ascertained that pupils are the least successful at supplementing (with movement, mimic) to the performance of a song (11,2% are mostly unsuccessful, 35,6% - rarely successful). We think that these results are also partially predetermined by poor pupils' experience in creative activity. Moreover, after the analysis of methodic recommendations to teachers, published in Lithuania, it was noticed that many of them are oriented to the development of vocal skills. Meanwhile, stimulation of pupils' creativity in interpreting musical compositions is almost not being discussed about. It is possible that the pedagogues who evaluated pupils have less experience in this sphere.

With the aim to reveal the peculiarities of creative expression in the singing of junior school age children more exhaustively, information was gathered from the subjects themselves. It was believed that a pupil's point of view to himself/herself, to his/her strength and abilities is a very important pledge of successful creative activity. After comparison of the data obtained from teachers with the data retrieved from pupils, it was noticed that pupils evaluate themselves much more higher than the pedagogues who teach them. For example, when comparing pupils in accordance with average level, teachers point out that there are more than a third of such pupils. Meanwhile, there are only 7,3% of pupils who think the same. After comparison of the results of self-evaluation from teachers and pupils by separate indicators, we can notice similar tendencies: in all cases the majority of the subjects point out that they are successful at singing often. For example, even a half (51,7%) of third-formers and fourth-formers believe that they often sing lightly, without tension, and 42,9% - very often (in the opinion of pedagogues, correspondingly 38,5% and 25,8%). Only some pupils point out that they are still not successful at this activity.

Incongruence of teachers' and pupils' evaluation is not surprising. Many pedagogues and psychologists point out the inadequacy in this age pupils' self-evaluation. In the opinion of J. Piaget, while evaluating and describing himself/herself, a primary pupil uses a very small amount of independent parameters. According to the assertions of the author, it is related to the immaturity of a personality of this age child and undifferentiated sphere of meaning evaluation. Lithuanian psychologist A. Petrulytė (2001) points out that the majority of primary pupils evaluate themselves positively, and most often they evaluate themselves by the efforts they put in and not by the reached results. These propositions are confirmed by the results of the research of the scientists who investigated adequacy of junior pupils' self-evaluation. Authors indicate that 44% of pupils' and teachers' evaluations coincide. Twenty-seven percent of pupils overestimate their knowledge, 15%

- underestimate. On the other hand, it is possible that such data was influenced by poor experience of children's self-evaluation. Observation of teachers' activity showed that music pedagogues rarely ask pupils to describe their own singing as well as their classmates', almost never encourage to analyze successful or unsuccessful activity

After the analysis of the obtained research results on creative expression in the singing of 3rd-4th form pupils, the aim was to ascertain general distribution of the subjects according to the levels of creative performance as well.



Distribution of Junior School Age Pupils According to Levels of Creative Expression in Singing: Evaluation of Music Teachers and Expert (%)

As we can see, junior school age pupils are not very creative in singing. Almost a fourth of the subjects are ascribed to the middle level and even a third of them – to the low level of creative expression in singing. Just a sixth of the subjects can be described as creative in music performance and a fourth – as very creative.

After the comparison of information obtained from video recordings with the results of teacher observation, no greater difference was noticed among distribution of pupils according to the levels of creative expression. We can affirm that after proper instructions of teachers, they are capable of identifying creative expression in the singing of junior school age pupils.

Conclusions

The research data showed that the level of creative expression in the singing of junior school age children is not very high. Almost one third of the subjects were assigned to the low level of creative expression in singing, and only one fourth – to very high level of creative expression in singing.

Pupils are the least successful at supplementing to the already discussed performance of a song, there is lack of purposefulness and expressiveness of performance. They are the most successful at performing music freely and sensitively, two thirds of the third and fourth form pupils often sing lightly, without tension; the mood of a musical composition is deeply felt, different moods are used while singing. The following confirms the proposition of scientists that the ability to experience the contents of performed songs emotionally and to express them externally (mimic, pantomime) is common to pre-school and primary school children.

Pupils of this age evaluate their singing much higher than the pedagogues who teach them. The majority of the subjects think that they succeed in performing a song. Meanwhile, in the opinion of pedagogues, there are twice less of such children.

Teachers encountered difficulties in identifying creative musical performance during the assessment of children's singing. However, after the acquaintance of the pedagogues with the parameters of creative music performance, after the discussion about children's evaluations in this aspect, teachers can be objective evaluators of creative expression in the singing of junior school age children.

Bibliography

Balkin, A.(1991). The creative music classroom. *Creativity in the music classroom*. MENC.

Butkienė, G., Kepalaitė, A. (1996). *Mokymasis ir asmenybės brendimas*. Vilnius: Margi raštai.

Cropley, A. J. (1999). Definitions of Creativity. *Encyclopedia of Creativity*, 2. ACADEMIC PRESS: California.

Davidson, L. (1991). Tools and environments for musical creativity. *Creativity in the music classroom*. MENC.

Edvards, P. (1989). *Artificial life: An overview*. Cambridge, MA: MIT Press.

Elliott, D. J. (1997). Teaching musical creativity. *Music education as praxis*. University of Maryland.

Finke, R. A. (1990). *Creative imagery: Discoveries and inventions in visualization*. Hillsdale, NJ: Erlbaum.

Guilford, J. P. (1950). Creativity. *American Psychologist*, 5.

Henry, W. (1996). Musical creativity. *Music Educational Journal*, 3.

Jovaiša, L. (1993). *Pedagogikos teminai*. Kaunas: Šviesa.

Katinienė, A. (2000). *Vaiko muzikinės kultūros ugdymas darželyje*. Vilnius: Presvika.

Petrulytė, A. (2001). *Kūrybiškumo ugdymas mokant*. Vilnius: Presvika.

Piirto, J. (1999). *A Survey of psychological studies in creativity. Investigating creativity in youth: research and methods.* Hampton press.

Piličiauskas, A. (1998). *Muzikos pažinimas*. Vilnius: LAMUC.

Reimer, B. (2000). Muzikinio ugdymo filosofija. *Šiuolaikinės meninio ugdymo koncepcijos*. Vilnius. Enciklopedija.

Simonton, D. K. (1999). Creativity from a Historiometric Perspective. *Handbook of Creativity.* Cambridge: Cambridge University press.

Sloboda, J.A., Howe, M.J.A. (1991). Biographical precursors of musical excellence. *Psychology of music*, 19.

Taylor, E. I. (1999). Archival Investigation. *Encyclopedia of Creativity*, 2. ACADEMIC PRESS: California.

Torrance, E. P. (1988). *The nature of creativity as manifest in its testing*. Cambridge: Cambridge University Press.

Treffinger, D. J. (1979). *Programmed instruction in creative problem solving.* Educational leadership.

Walberg, H. J., Arian, G. (1999). Distribution of Creativity. *Encyclopedia of Creativity, 2*. ACADEMIC PRESS: California.

Wallas, G. (1945). *The art of though*. London: C.A.Watts.

Ware, C. (1998). *Basics of vocal pedagogy*. The McGraw-Hill Companies.

Webster, P.R. (1991) Creativity as creative thinking. *Creativity in the music classroom*. MENC.

Weisberg, R.W. (1999). Creativity and Knowledge: A Challenge to Theories. *Handbook of Creativity*. Cambridge: Cambridge University press.

Welwood, A. (1991). Improvisation with found sounds. *Creativity in the music classroom*. MENC.

Wiggins, J. (1995). Learning though creative interaction with music. *General Music today*, 8.

Изард, К. (1980). *Эмоции человека*. Москва.

Теплов, Б.М. (1947). *Психология музыкальных способностей*. Москва: АПН РФСР.

Якобсон, П.М. (1978). *Эмоциональная жизнь школника*. Москва.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music perception of individuals with cochlear implant

Christiana Kalatzoglou & Lefkothea Kartasidou

Abstract

The acceptance of cochlear implantation as an effective and safe treatment for deafness has increased over the past decades. Since 1960 an increased number of individuals with a hearing loss have obtained sensations of sound through the direct electrical stimulation of surviving cochlear neurons. The cochlear implant is a sensory prosthetic device that has been designed primarily to enhance verbal communication and it is little wonder that the issue of music perception remains essentially unexplored. Furthermore, since music is a prevalent art form and social activity, better understanding of musical perception by cochlear implants users may provide insights into issues of user satisfaction in daily functioning. One of the first challenges in this new area of research is the process assessment and training of music perception that are suitable for the technical features of the device and for the individual abilities and characteristics of cochlear implant users. This study endeavors to review the studies that have been directed towards cochlear implant users' perception of non speech sounds, especially music. Aim of this paper is to discuss published experimental results in terms of both psychophysical observations and device function and to conclude with some practical suggestions about how music perception might contribute to music education of individuals with cochlear implantation in Greece.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

"The Fabulous Adventures of Alexander the Great": Psychological Aspects of a Cross-Cultural Approach to Youth Opera

Miranta Kaldi & Ioanna Etmektsoglou

Abstract

An educational approach which touches the innate musical sensitivities of young people is the performance of operas and music theatre works written specifically for them. They educate and 'heal' through what one might call significant experience. Such an example is David Blake's youth opera "The Fabulous Adventures of Alexander the Great" which was put on in the summer of 1997 on the island of Lesvos as part the European Arts Program "Kaleidoscope". Three youth choirs from Europe participated in this music performance project. From a psychological point of view, "music performance as a source of knowledge is a reflection of human experience - it gives the student information about the *self* gained from the student's interaction with the music. […] As a form of constructive knowledge it develops self-image and self-esteem, perhaps the most important information the child can get". (Rao, 1993, p. 7). The staging and performance of a youth multi-cultural opera may provide opportunities for personal growth in perceptual development, cross-cultural understanding, self-knowledge and negotiation skills. During the rehearsals, the music-movement groups could provide challenges in a safe context, encouraging individuals to take risks, and surpass themselves, both on personal and artistic levels. The impact of this particular project will be demonstrated through the participants' responses to a questionnaire focusing on a) its effect on their cognitive, emotional, and physical state, b) their emotions and thoughts after the completion of the project, and c) insights they gained both into themselves and the others.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Am I "good" in music? A Relationship between gender and students' self-beliefs

Charikleia Katsochi

Abstract

Undoubtedly, music has a significant role in children's and especially adolescents' personal and social life. However, not all students have positive attitudes concerning music as a school subject (Harland et al., 2000). In particular, research concerning students' gender and their preferences for various musical activities or musical instruments examined the role of self-beliefs, as well as students' perceptions concerning their musical abilities. Results of various studies confirm that music is considered as a "feminine" subject and has not a high position in the school curriculum, as well as in students' preferences (Harrison & O'Neill, 1999, 2000). It has been found that girls tend to perform better in school music examinations (Agak, 2002) and, also, have more positive competence beliefs and values for instrumental music than boys (Eccles et al., 1993). Additionally, gender associations has been verified to affect students' interest and preferences concerning various musical activities and instruments, limiting musical opportunities and the acquisition of musical experiences (Green, 1997; Harrison & O'Neill, 2003; Harrison, 2003). The present review of literature concerning the relation between students' self-beliefs and gender in music education, could support the procedure of reassessment and reformation of the various teaching practices that have been used during the processes of musical teaching and learning. The scientific study of the way students perceive and experience their musical "realities" inside the school context could assist in the transformation of music education in Greece.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Therapy and Autism. A Supportive Intervention in Pre-school and School Age

Lucia Kessler-Kakoulidi

Abstract

In the present project I clarify the significance of music therapy in the field of Special Education and more particularly in the solution of the difficulties of people with pervasive developmental disorder. Then, I analyze the difference between Music Therapy-Psychotherapy and Therapeutic Educational Music Therapy (Dalcroze Method) that finds its application to people with autism. For many years now, it functions as a supportive intervention which meets the multiple difficulties of these people. I explain the possibilities of this method and the ways that it meets and resolves the problems that these children and adolescents have (by facing difficulties in social interaction, communication and speech). Furthermore, I emphasize the role of Therapeutic Educational Music Therapy in the early intervention and in the empowerment of children with autism towards their inclusion in the educational system and in society generally. I explain the basic principles of the method (the role of rhythm, music and movement), the techniques and the requirements for the effectiveness of the sessions, as well as and its practical application to the domain where people with autism face difficulties (speech and communication). In the end, I note firstly the need to revise the way that society understands people with autism and secondly the significance of early intervention and support with music therapy for all people with special needs and their families. As a result a better quality of life is ensured for these people and their families.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

A holistic approach on the childbirth experience using music as a conditioning aid: a pilot qualitative study

Amalia Klimi

Abstract

Aim of this study is to investigate music's effects on childbirth's experience and how music or other sounds can influence this experience. In order all the above to be better comprehended, studying experience and opinions of women - who have the possibility and the choice to listen to music during childbirth - is necessary. Such efforts have not been held in Greece until nowadays.

A qualitative approach was chosen, according to the research protocol of Caryl Ann Browning (Browning 2000), for this study's purposes. The sample consists of three (3) primiparas, who filled this study's inclusion criteria. These women attended childbirth education classes and accepted to participate voluntarily in this study.

At least three music therapy sessions were scheduled by the music therapist, in order the women to be prepared for childbirth using music as a conditioning aid. The music therapist visited the mothers-to-be at home, where music was carefully selected according to their own preferences. The music therapist did not attend women's childbirth - which took place in private clinics –on women's demand. The women's partners were responsible for the use of music during childbirth. A few days after childbirth the mothers gave semi-structured interviews with open-ended questions. Right after the interviews- which were recorded- the mothers filled in a questionnaire, specifically designed for this study's needs.

After data analysis, it appears that music could potentially be a conditioning aid, when properly used, not only prenatally but also during labor and delivery. Labor and delivery are facilitated in various ways under music's assistance, while postnatally benefits for the baby occur. The same findings that come out of previous similar studies are detected. Moreover, indications on improvisational music therapy (e.g. with use of voice) and information that concerns sound environment during childbirth occur. However, no evidence came out as far as a) music's effects during delivery and b) music therapist's presence during childbirth are concerned. The initially chosen research protocol (Browning 2000) was modified for this study's purposes and resulted in a new, enriched protocol. Although this study's results are considered to be valid and reliable, the conclusions can not be generalized because of the study's accepted limitations. The appropriate use of music in obstetrics requires a more complete investigation and the conduction of further qualitative research. An interdisciplinary holistic approach of this particular issue is necessary, not only in clinical practice, but also as far as research is concerned.

Keywords
Music, music therapy, labor, delivery, childbirth experience

Introduction

Birth is undeniably an important life event worldwide, which is usually signaled by childbirth experience. It is commonly accepted that childbirth is defined so much by intense pain for the mother-to-be as by deep and intense sentiments, which are shared by the whole family (Bryanton,

2008; Hodnett, 2002; Waldenström et al., 1996). Maternal satisfaction is tightly connected to the way each mother experiences childbirth (Callister 2004, Terry & Gijsbers 2000, Waldenström et al., 1996). The whole family's (mother, father and newborn) well-being and bonding, as well, strongly depend on the woman's perception of childbirth experience (Andersson et al., 2006).

Furthermore, music appears to be a basic catalyst in various events - pleasant or unpleasant - which mark people's lives around the world. In a holistic approach of childbirth's experience, music is able to play an important conditioning role, supposing it is appropriately used.

Livingston (1979) pointed out the following: "There is music to accompany and augment any type of life activity; childbirth and the times that precede and follow it are no exception". She was one of the first to support vigorously that music can be used as an important conditioning aid during childbirth and that it is therapeutic for all the family members in the following ways: 1) women can effectively use music during physical exercise, as well as while practicing self-concentration, relaxation and breathing techniques throughout pregnancy, childbirth and the post-partum period, 2) many fathers-to-be show greater interest in guiding and encouraging their partners when absorbed by sounds and rhythm, 3) music can be an important sensory stimulus for the newborn.

Until nowadays many studies investigating music's role during childbirth have been conducted. It is proved that it can be an excellent additional conditioning aid for the woman in labor as it is non-invasive, non-medical, has no known side effects and its cost is low (Browning, 2000; Simkin & Bolding, 2004). Most of these studies have led to the following conclusions:

- music has a tranquilizing effect and assists women in labor in their effort to relax (Allison, 1992; Browning, 2000; Gonzalez, 1989; Hanser et al., 1983; Phumdoung & Good, 2003)
- listening to music throughout childbirth decreases women's stress (Clark et al., 1981; Gonzalez, 1989; Wiand, 1997)
- relaxation and breathing techniques (e.g., Lamaze techniques) are reinforced and become more helpful for women in labor, when they listen to music during childbirth (Browning, 2000; Clark et al., 1981)
- music significantly helps women through labor to concentrate and focus their attention wherever is needed (Allison, 1992; Browning, 2000; Hanser et al., 1983)
- music coordinates and gives rhythm to women's breathing (Browning, 2000; Hanser et al., 1983)
- women's attention is distracted from labor's pain and discomfort (Browning, 2000; Phumdoung & Good, 2003)
- music appears to decrease labor pain's and discomfort's intensity (Browning, 2000; Clark et al., 1981; Hanser et al., 1983; Phumdoung & Good, 2003; Wiand, 1997).[1]
- listening to preselected music during labor and delivery appears to increase pain tolerance (Simkin & Bolding, 2004)
- support offered by important people, present in childbirth (e.g. partner), becomes more effective with the help of music (Clark et al., 1981)
- it appears that the hospital staff becomes more supportive (Clark et al., 1981; Stevens, 1992)

[1] Music's effect on pain management requires further investigation (Prasertcharoensuk & Thinkhamrop, 2004).

- women in labor perceives the experience of childbirth as more positive when she listens to music throughout the process (Allison, 1992; Clark et al., 1981)
- women's expected fears during childbirth are decreased by not being able to hear medical discussions or other hospital sounds which probably fire stress and anxiety (McDowell, 1966)
- it seems that listening to music during labor and delivery contributes, to a great extent, in maternal satisfaction through childbirth experience (Allison, 1992; Gonzalez, 1989)
- music is likely one of the most effective aids to relieve women throughout childbirth (Allison, 1992)
- music probably functions as an anxiolytic factor for those attending childbirth (e.g. partner, hospital staff) (Allison, 1992; Hanser et al., 1983; Livingston, 1979)
- women in labor probably acquire a feeling of control with the help of music (Browning, 2000; Stevens, 1992)
- probably some of the musical selections, used during childbirth, signal and symbolize the baby's delivery (Browning, 2000; Stevens, 1992)
- music is proved to be an excellent way of non-verbal communication, a fact that establishes it as a precious conditioning aid for childbirth (Stevens, 1992)
- music reinforces or elevates women's moods and enhances their self-confidence (Browning, 2000; Simkin & Bolding, 2004)
- music has the power to influence the "mind-body" relationship (Browning, 2000)
- music causes various sentiments and is capable of bringing together unknown people and creating a familiar environment (Stevens, 1992)
- music contributes in creating positive associations' throughout labor and delivery and it can be used in conjunction with women's own imagery (Browning, 2000)
- music during childbirth provides energy and motivation (Kershner & Schenck, 1991)
- music throughout labor and delivery can be used to celebrate the arrival of the new family member in life (Browning, 2000; Kershner & Schenck, 1991).

Aim of the present pilot qualitative study is the further investigation of music's effect on the experience of childbirth. The final objective is, not only, the investigation of how music or other sounds can influence childbirth experience, but also, these particular issues to be comprehended in a better way.

The following research questions are to be answered conducting this study:

(I) In what way does music facilitate labor and delivery?

α. Are this study's results similar to previous ones'?

b. What kind of adjustments were done on the initially chosen research protocol (Browning, 2000) for this pilot study in Greece?

(II) What is there to be suggested for the future in Greece as far as music's use as a conditioning aid for labor and delivery is concerned?

α. How are previous research protocols that concern music's use as a conditioning aid for labor and delivery are enriched?

Methods

Design

Due to this study's objective, the research was designed to be carried out as follows: Primiparas willing to use music as a conditioning aid through childbirth were sought.
They were prepared by a specialized music therapist, according to Caryl Ann Browning's research protocol (Browning, 2000).
A few days after childbirth, the mothers were interviewed by the researcher and answered filled in questionnaires about their experiences. The interviews were recorded.

Sample

This study's sample, which consists of 3 women - sufficient enough for this study's length (Ansdell & Pavlicevic 2001, 190-191) - was chosen according to the following criteria:

a) Primiparas who participated in childbirth education classes were sought. The researcher had to cooperate with a particular association which promotes and supports natural childbirth in Greece, in order to select the sample. She made special leaflets (almost 50) which were given to pregnant women who were getting prepared for childbirth by this association, after she had presented herself her research plan to them.
b) The participants had chosen to give birth in private maternity clinics.
c) The women accepted to participate voluntarily in this study. Major condition for the conduction of this study was the participants' informed consent, in addition to the permission given by the clinic's administrative authorities.

Research protocol

The initially chosen research protocol (Browning 2000) was modified and adjusted to the participants' needs by being enriched with flexibility.

At least three music therapy sessions were scheduled by the music therapist, in order the women to be prepared for childbirth using music as a conditioning aid. The music therapist visited the mothers-to-be at home, where music was carefully selected according to their own preferences. The music therapist did not attend women's childbirth, on women's demand. Their partners were responsible for the use of music during childbirth, instead. A few days after childbirth the mothers gave semi-structured interviews with open-ended questions. Right after the interviews - which were recorded - each mother filled in a questionnaire, specifically designed for this study's needs.

Data collection

A combination of data collection methods was used in order to guarantee validity and reliability of the results:
Data 1: Semi-structured interviews with open-ended questions.

Data 2: A questionnaire, especially designed for this study's purposes.
Data 3: Notes from music therapist's archive.

Data analysis

Data 1: The recorded interviews were fully transcripted, word to word.
Seven basic categories of findings occurred through "coding" process **(**Table 1**)**.
Data 2: The filled-in questionnaires were analyzed using a qualitative approach, in order to check if previous studies' results are detected in this study's findings.
Data 3: The music therapist's notes, which were kept during the music therapy sessions with the participants, were appropriately used in order to enrich the results that came up from Data 1 and Data 2 analysis.

Research material that came up from all the above was used - combined to research background - to form this study's synthesis (Discussion), which leads to the conclusions.

I. WOMEN'S NEEDS	a. Sentimental needs b. Practical needs
II. CHILDBIRTH EXPERIENCE	a. Maternal expectations b. Reality of childbirth c. Delivery
III. THIS STUDY	a. Thoughts about participation b. Research protocol c. Musical preparation d. Thoughts & doubts
IV. SUPPORTIVE NETWORK	a. Partner b. Hospital Staff c. Expert-music therapist
V. SOUND ENVIRONMENT	
A) MUSIC	a. Music's capabilities b. Musical choices & preferences c. Improvisational music therapy
B) OTHER SOUNDS	a. Sounds with positive or negative effects
VI. AFTER CHILDBIRTH	a. Postpartum period b. Baby

Table 1

Findings

The results that came out from **Data 1** analysis are presented right below:

I. WOMEN'S NEEDS

a. Sentimental needs

The mothers-to-be seem to need:

a) familiar people & familiar environment during labor and delivery (the whole sample)
b) different musical choices that could support intense sentiments (e.g. anger) (1 out of 3 participants),
c) a more active approach compared to the one chosen (1 out of 3),
d) use of music during delivery (1 out of 3),
e) use of music for celebration (1 out of 3),
f) partner's preparation (1 out of 3),
g) proper use of music by the hospital staff (1 out of 3),
h) presence of an expert (music therapist) during labor and delivery, so that her expectations are met (because of his/her professionalism) (2 out of 3 participants).

Most pregnant women seem to have an increased need for familiarity (it is created via a) communication, b) companionship and "alliance" with other people) (1 out of 3 participants).

b. Practical needs

The participants expressed their need for

a) larger space (1 out of 3 participants),
b) specific technical equipment (1 out of 3),
c) soundproof rooms where the childbirth takes place (1 out of 3).

At least three (3) scheduled meetings with the expert music therapist proved to be necessary for all the participants.

II. CHILDBIRTH EXPERIENCE

a. Maternal Expectations

As far as their childbirth experience is concerned, the participants expected:

a) familiarity (familiar people, familiar environment) (the whole sample),
b) quietness, tranquility (1 out of 3),
c) music (the whole sample),
d) labor and delivery without medicine (1 out of 3 participants).

b. Reality of childbirth

Actually, the participants described their childbirth experience using the following exact words and phrases:

a) pain of labor and delivery (the whole sample),
b) various sentiments:
   - shame (because of exposition) and loneliness (search of companionship and "alliance" with others) (1 out of 3 participants)
   - feeling of power (1 out of 3)

c) lack of possibility of choice & decision-making (for matters regarding childbirth), which had a negative effect on the mother-to-be (1 out of 3)
d) exhaustion, fatigue, impatience (1 out of 3)
e) amnesia (little before the extrusion, transition stage) (1 out of 3),
f) "out-of-body experience, "getting lost", as if you fall in a gap (1 out of 3 participants) .

c. Delivery

None of the participants listened to music during the delivery for various reasons:

a) difficulty in concentration (1 out of 3 participants),
b) incomplete preparation of the companion (1 out of 3),
c) absence of a special music therapist (1 out of 3).

III. THIS STUDY

a. Thoughts about participation

The mothers-to-be felt the urge to participate in this study because of the following:

a) all of them love music and have faith in its power,
b) faith in the power of nature, informing and education (1 out of 3 participants),
c) good introduction in the research, flexibility in the approach of the experts (the whole sample)
d) the music consisted :
   - a part of the expectations concerning childbirth experience (2 out of 3),
   - a mean of communication with the partner
   - a way to embrace common experiences with the partner or the baby's conception (1 out of 3 participants).

b. Research protocol

a) All the participants were benefited from the protocol's flexibility and its adjustment according to their own needs
b) One of the participants implied that in case of the protocol's lack of flexibility:
   - the data collected would be limited
   - there would be a serious danger for the research not to be completed.

c. Musical preparation

a) All the participants agreed that their musical preparation by the music therapist was in perfect balance with their childbirth education, facilitating their expectations concerning their childbirth experience.
b) The musical preparation by the music therapist offered the mothers-to-be various choices, directions, self-confidence, realism and a feeling of control (1 out of 3 participants).
c) It encouraged various possibilities that the mothers-to-be already had (e.g. possibility of visualizing) (1 out of 3).

d. Thoughts and doubts

All the participants shared at first similar thoughts and doubts concerning this study: the presence of other - less familiar - individuals besides their partner in the delivery room (e.g. author and/or music therapist) seemed rather stressful.

IV. SUPPORTIVE NETWORK

a. Partner

a) One of the participants talked about her partner's difficulty to cope with the double role of the partner/responsible for the use of music because he was too stressed. Another's partner didn't manage to cope at all, probably because of his lack of preparation and training.
b) The third participant was really pleased with her partner's understanding to her needs. Moreover, she implied that partners are capable to cope with the double role of the partner/responsible for the use of music as long as:
    - they get prepared for childbirth and
    - they get trained by an expert-music therapist too.

b. Hospital Staff

a) All participants agreed that it is essential that the hospital staff shows respect to their need for tranquility.
b) One participant had doubts concerning the use of music or songs by hospital staff not properly trained. She also stressed the importance of proper use of music by the hospital staff.

c. Expert-music therapist

a) One participant, whose partner is a musician, agreed to the expert's (music therapist's) presence in the delivery room under conditions.

b) The rest of the participants believe that the expert's presence in the delivery room is necessary because of his/her professionalism and, consequently, commitment to do his/her best so that the mother's-to-be expectations are met.

V. SOUND ENVIRONMENT
A) MUSIC
a. Music's capabilities

a) Music was proved to be a perfect conditioning aid during childbirth for all the participants:
   - offering relaxation and
   - encouraging visualizing (pictures, memories & representations from the past)

b) Music helped 2 out of 3 of the participants throughout childbirth
   - get concentrated, drawing their attention away from pain
   - as a "helping hand" / "salvation board" to hold on to, as if a familiar person was present.

c) Music helped one participant maintain her good mood, breathe normally and sleep between intense contractions.

d) Music gave another participant the power to go on and get in contact with her inner self. Moreover, music created a dreamy atmosphere and offered relief and even pleasure during the difficult phases of childbirth. According to her narration the changes in the dynamics of music seemed to be quite similar to the "ups and downs" of labor's contractions.

e) Music was proved to be a useful conditioning aid in childbirth preparation during pregnancy:
   - combined with breathing techniques' practice (2 out of 3 participants),
   - encouraging the creation of imaginary pictures or entire fairy tales and the communication with their partners
   - embracing mutual experiences with their partners and embracement the baby's conception (2 out of 3 participants).

b. Musical choices and preferences

a) All participants' musical choices and preferences were rather subjective and varied according to their culture, their personal taste, their character, their musical education, etc.). Two of the participants were quite strict while selecting music for childbirth. E.g.:
   - one participant used familiar as well as less familiar musical tracks [mainly classical baby-music (no sudden changes of tempo), ethnic music (no lyrics), chill-out music with nature sounds (e.g. water sounds) and various piano music collections (e.g. Keith Jarrett's music), perhaps because she took piano lessons for 8 years as a child]
   - another participant was continuously revising her musical choices [mainly classical music collections - that happen to be most familiar and quite effective during the hardest parts of labor and delivery - which were used most for childbirth preparation (e.g. Rachmaninoff's, Schubert's and Vivaldi's music), ethnic music (either without lyrics or Buddhist, Chinese or Indian chants) and chill-out music with nature sounds (e.g. water sounds)]

- the third participant chose mainly songs in her mother language and in English language as well, probably because she is an immigrant who teaches English.

b) There were indications concerning
- the use of selected music for the newborn (1 out of 3 participants)
- the selection of musical tracks by the woman in labor herself during childbirth, guiding her partner and the hospital staff (1 out of 3 participants).

c. Improvisational Music-therapy

Two participants used their voice throughout childbirth preparation as well as during labor and delivery. So, there were indications concerning
- encouragement of the use of voice (both during pregnancy as well as throughout and labor and delivery)
- improvisational music therapy as a conditioning aid for childbirth.

B) OTHER SOUNDS

a. Sounds with positive or negative effects

a) One participant said that the fact that she could listen to other babies crying in the delivery room had a positive effect on her. On the other hand, not listening to other women's sounds was frustrating.
b) Another participant felt uncomfortable because of various sounds she could hear from outside the clinic (e.g. horns of cars, etc.). She also mentioned other sounds that could possibly have negative effects (e.g. cell phone ring/sound, continuous monitoring of fetal heart rate, etc.)

V. AFTER CHILDBIRTH

a. Post-partum period

First hours of post-partum period: all the members of the new family listen to music together, which relaxes and calms them down (2 out of 3 participants).

b. Baby

a) Music
- has tranquilizing effects on babies (2 out of 3 participants)
- is probably a recognizable stimulus for babies (1out of 3 participants)

b) There was an indication concerning selected music's use for the newborn, as one participant did so.

As far as **Data 2** analysis is concerned, it came out that most of the previous similar studies' results are detected in the present study's findings. Some of them are presented below:

A. MUSIC (IN GENERAL)

All previous similar studies' results concerning music in general are detected in the present study's findings. All participants agreed that:

- music has the power to affect the mind-body relationship,
- background music seems to induce relaxation under stress
- music can potentially bring profound humanness to the clinical environment in ways not accomplished by traditional medical approaches
- music helps reduce stress, anxiety and discomfort significantly
- music reinforces or elevates women's moods.

B. CHILDBIRTH (IN GENERAL)

As far as using music in childbirth is concerned, similar studies' results are detected in the present study's findings, except for the following:

- "Music provides the mother-to-be with a sense of control during childbirth": two of the participants agreed, while the third answered "DON'T KNOW/CAN'T ANSWER".
- "Music in childbirth can be used for celebration": one of the participants agreed, while the third answered "DON'T KNOW/CAN'T ANSWER".

All participants agreed that music in childbirth

- should be a strictly personal, family-centered technique
- facilitates relaxation techniques
- can offer energy and motivation
- should vary during each of the relaxation/breathing segments, as a particular selection may or may not be relaxing for everyone
- should be chosen strictly by the mother herself.

C. CHILDBIRTH PREPARATION

As far as using music in childbirth preparation is concerned, this study's results confirm previous similar studies' findings.
All participants agreed that:

- music during their preparation creates a relaxed atmosphere and can be a common communication code between the couples
- the music should be familiar to the mother before labor begins, and she should allow herself some time daily to listen in a relatively relaxed state
- several different tapes should be made, to avoid boredom
- "Music should constitute an integral tool for women's preparation for childbirth": two of the participants agreed, while the third answered "DON'T KNOW/CAN'T ANSWER".

D. DURING LABOR AND DELIVERY

As far as listening to music during labor and delivery is concerned, similar studies' results are detected in the present study's findings, except for the following:

- "Music helped me focus on my support people throughout labor": all participants answered "DON'T KNOW/CAN'T ANSWER".
- "Listening to music reduced my needs in analgesia throughout labor and delivery": two of the participants agreed, while the third answered "DON'T KNOW/CAN'T ANSWER".

All participants agreed that:

- music assisted with relaxation and focusing attention
- couples should choose their own music, as this helps to create more togetherness and security for the couple and gives them more control over the hospital environment
- hospital staff should improve its understanding to the purposes of music's use throughout childbirth
- breathing techniques are easier to adapt while listening to music
- listening to music affects one's perception of pain during labor and delivery.

E. PARTICIPANTS' STATEMENTS

All participants made various comments and statements concerning the present study, which were expected as this is common in previous similar studies.
It is remarkable that all participants:

- were fully satisfied with the music's use methods throughout childbirth
- agreed that music a) enhanced relaxation and b) facilitated concentration.

F. POSTPARTUM

All participants of this study commented on the postpartum period in various ways, similarly to previous studies' participants. However, they all shared something in common: the music helped to calm and pacify their babies after birth.

G. ABOUT THE MUSIC'S USE

In this study the participants' answers concerning the use of music varied, as in all previous studies. However, they totally agreed on the following:

- the recordings must be of high quality, yet easy to use and reliable
- music collections with relaxation music seemed more familiar and they came out to be the most helpful ones
- none of the participants listened to all the music they had selected for childbirth.

H. THE MUSIC THERAPIST

Data collected in previous similar studies concerning the music therapist were not detected in the present study's findings, as

- two of the participants agreed that "In childbirth, music therapy should be carried out by a trained professional who is knowledgeable about its techniques", while the third one answered "DON'T KNOW/CAN'T ANSWER"
- each participant gave a different answer in the part of the questionnaire where the following question was asked: "Would the presence of a music therapist be beneficial?"

Further research in this particular field is certainly necessary.

Discussion

Various factors (such as education, views, financial situation, culture, religion, human relations and the relationship with the partner etc.) obviously influence all kinds of life experiences, including childbirth. Women's expectations, as far as motherhood and childbirth are concerned, combined with labor pain define this particular experience (Bryanton, 2008; Hodnett, 2002; Waldenström et al., 1996). The partner's role and his relationship with the mother are proved to be important for their common transition to parenthood (Lemola, 2007; Figueiredo et al., 2008) and influences the entire family's well-being (Andersson et al., 2006).

The fetus participates in his own way in childbirth's process which is complex and concerns both, the mother and himself. We should keep in mind that fetus's senses (sight, touch, sense of hearing, etc) are already aroused (Anand & Hickey, 1988; Laeky et al., 2005; Eswaran et al., 2007). The following question appears: "How could music possibly affect all kinds of factors, which influence childbirth experience?" In this study the partner's role was encouraged with music's help while maternal expectations seem to have been facilitated. New information about the sound environment - where childbirth takes place - came out in this study, which could be used for further research.

Maternal satisfaction is connected not only with the experience of childbirth (Callister, 2004; Terry & Gijsbers, 2000; Waldenström et al., 1996) but also with the transition to motherhood (Green et al., 1990; Green, 1993; Mercer & Ferketich, 1994). From this study's data it occurs that music did contribute to mothers' satisfaction through childbirth. It would be interesting if musical choices concerning childbirth would be further studied. Also, the effect of music in the fetus's journey should be further investigated. Finally, the need that was expressed by certain mothers for improvisational music therapy (e.g., with the use of voice) should be taken under consideration. An interdisciplinary research approach is definitely needed, so that all factors mentioned above - in addition to the interaction among them - could be further studied.

As far as the presence of the music therapist during childbirth is concerned, the following paradox was observed in the present study:

- - Data 1 analysis shows that two of the participants expressed the need for a music therapist to be present during childbirth, as he/she is properly educated and is committed to do his best in order that women's expectations concerning childbirth are met. The third one - perhaps due to her partner's profession (musician) - was positive to the music therapists'

presence, under one essential condition: that women are prepared with the music therapist's assistance more systematically, so that the familiarity needed is developed.

- - Each mother gave a different answer in the part of the questionnaire where the following question was asked: "Would the presence of a music therapist be beneficial?"

From all the above it is confirmed that music therapists' presence during childbirth is a multi-dimensional and complicated issue. Their active participation in teaching childbirth education classes seems to be an essential step, in order that the sensitization is the widest possible.

This study's data analysis has clearly shown that music can definitely be a great conditioning aid in childbirth experience when used properly - that means both during pregnancy as well as throughout labor and delivery. Previous similar studies' results in the same field have led to similar conclusions, too. However, no evident conclusions have come out as far as the use of music during delivery is concerned. Furthermore, it has been implied that music can be truly beneficial for the whole family, including the newborn, during the postpartum period. Finally, no side effects occur with regard to music's use during delivery according to the data collected until nowadays.

To sum up, this study's results are - more or less - similar to previous studies' findings concerning the same field of research (Allison, 1991; Browning, 2000; Browning, 2001; Clark et al., 1981; Durham & Collins, 1986; Gonzales, 1989; Hanser et al., 1983; Phumdoung & Good, 2003; Wiand, 1997; Stevens, 1992). An interdisciplinary research approach is definitely needed, so that all factors mentioned above - in addition to the interaction among them - could be further studied.

As far as this study's conduction is concerned, Data 1 analysis has shown that modifying the research protocol was absolutely necessary, in order to be adjusted to the participants' own needs. The researcher strictly followed specific guidelines and made everything possible to avoid all kinds of biases, so that validity and reliability were ensured (Ansdell & Pavlicevic, 2001; Ansdell, Pavlicevic & Procter, 2004).

The results of this study are considered to be valid and reliable, although the conclusions that came out - as expected - can not be generalized because of the sample's size. In conclusion, it is pointed out that the wealth of data collected **(Data 1, 2 and 3)** is remarkable. The entire research material that came out of this study could not possibly be appropriately used to a full extent.

Conclusions

- Music is, indeed, a conditioning aid, that can be used not only during childbirth preparation but during labor and delivery, as well .In various ways, it helps pregnant women and women in labor, while, additionally, profits for the newborn also occur.
- It comes out that an interdisciplinary holistic approach of using music during childbirth is necessary, so much in the level of clinical practice as in the level of research.
- The sensitization of all being interested - couples, hospital staff (obstetricians and midwives) and administrative authorities - towards this matter is indubitably necessary, in order that the use of music during childbirth can be applied in a wider frame.
- The specialized and systematical training of the maternity clinics' personnel and parents-to-be, as well constitutes an essential condition for the sensitization of everyone involved.

- Music therapists' involvement in teaching childbirth education classes is proposed as an essential step towards the complete training of all being interested and, consequently, for their widest sensitization.
- The present study's conclusions cannot be generalized, given its accepted limitations. The role of music in obstetrics needs to be further investigated and the conduction of further qualitative studies appears to be necessary.
- The research protocol proposed, in order that music's effects on childbirth experience is studied further , is a combination that includes basic elements from both Browning's (2000) qualitative study and Gonzalez's (1989) approach.

Bibliography

Allison, D. (1991). Music Therapy at Childbirth. In Bruscia, K. (eds.) *Case Studies in Music Therapy*, 529-545. Phoenixville: PA Barcelona Publishers.

Anand, K.J.S. & Hickey, P.R. (1998). Pain and its effects in the human neonate and fetus. *Journal of Prenatal and Perinatal Psychology and Health,* 3(2), 103-123.

Andersson et al. (2006). Depression and anxiety during pregnancy and six months postpartum: A follow-up study. *Acta Obstetricia et Gynecologica Scandinavica*, 85(8), 937-944.

Browning, C.A. (2000). Using music during childbirth. *Birth*, 27(4), 272-276.

Callister, L.C. (2004). Making meaning: Women's birth narratives. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 33, 508-518.

Clark et al. (1981). Music-therapy-assisted labor and delivery. *Journal of Music Therapy*, 18, 88-109.

Eichhorn, D. & Verny, T.R. (1999). The biopsychosocial transactional model of development: The beginning of the formation of an emergent sense of self in the newborn. *Journal of Prenatal and Perinatal Psychology and Health*, 13(3-4), 223-234.

Eswaran, H. (2007). Auditory evoked responses: A tool to assess the fetal neurological activity. *Applied Acoustics*, 68(3), 270-280.

Figueiredo et al. (2008). Partner relationships during the transition to parenthood. *Journal of Reproductive and Infant Psychology*, 26(2), 99-107.

Green, J.M. (1993). Expectations and experiences of pain in labor: Findings from a large prospective study. *Birth*, 20, 65-72.

Green, J.M. & Baston, H.A. (2003). Feeling in control during labor: Concepts, correlates, and consequences. *Birth*, 30(4), 235-247.

Gonzalez, C.E. (1989). The music therapy-assisted-childbirth program: A study evaluation. *Journal of Prenatal and Perinatal Psychology and Health*, 4(2), 111-124.

Goodman et al. (2004). Factors related to childbirth satisfaction. *Journal of Advanced Nursing*, 46, 212-219.

Hanser et al. (1983). The effect of music on relaxation of expectant mothers during labor. *Journal of Music Therapy*, 20, 50-58.

Heise, J. (1975). Thoughts and Comment toward Better Preparation for Involved Fatherhood'. *JOCN Nursing*, September/October, 1-4.

Hodnett, E. D. (2002). Pain and women's satisfaction with the experience of childbirth: A systematic review.The Nature and Management of Labor Pain. *American Journal of Obstetrics & Gynecology*, 186(5), 160-172.

Kershner, J. & Schenck, V. (1991). Music therapy-assisted childbirth. *International Journal of Childbirth Education*, 6(3), 32-33.

Lemola et al. (2007). Maternal adjustment five months after birth: The impact of the subjective experience of childbirth and emotional support from the partner. *Journal of Reproductive and Infant Psychology*, 25(3), 109–202.

Livingston, J.C. (1979). Music for the childbearing family. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 8(6), 363-367.

McCrea, B.H. & Wright, M.E. (1999). Satisfaction in childbirth and perceptions of personal control in pain relief during labour. *Journal of Advanced Nursing*, 29(4), 877-884.

McDowell, C.R. (1966). Obstetrical applications of audioanalgesia. *Hospital Topics*, 44, 102-104

Mercer, R.T. & Ferketich, S.L. (1994). Maternal-infant attachment of experienced and inexperienced mothers during infancy. *Nursing Research*, 43, 344-351.

Phumdoung, S. & Good, M. (2003). Music reduces sensation and distress of labor pain. *Pain Manag Nurs*, 2, 54–61.

Pierce, B. (2001). The practice of toning in pregnancy and labour. *Journal of Prenatal and Perinatal Psychology and Health*, 15(3), 217-224.

Prasertcharoensuk, W. & Thinkhamrop, J. (2004). Non-pharmacologic labour pain relief'. *J Med Assoc Thai*, 87(3), 203-206.

Sadler et al. (2001). Maternal satisfaction with active management of labor: A Randomized Controlled Trial. *Birth*, 28(4), 225-235

Simkin, P. & Bolding, A. (2004). Update on non pharmacologic approaches to relieve labor pain and prevent suffering. *J Midwifery Womens Health*, 49(6), 489-504.

Stevens, K. M. (1992). My room – not theirs! A case study of music during childbirth. *Journal of Australian College of Midwives*, 5(3), 7-30.

Terry, R. & Gijsbers, K. (2000). Memory for the quantitative and qualitative aspects of labour pain: a preliminary study. *Journal of Reproductive and Infant Psychology*, 18(2), 143 - 152.

vanTeijlingen et al. (2003). Maternity satisfaction studies and their limitations: "What is, must still be best". *Birth*, 30(2), 75–82.

Waldenström et al. (1996). The childbirth experience: A study of 295 new mothers. *Birth*, 23(3), 144-153.

Wiand, N.E. (1997). Relaxation levels achieved by Lamaze-trained pregnant women listening to music and ocean sound tapes. *Journal of Perinatal Education*, 6(4), 1-8.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

School Music Education: Investigation of the aiming in the new school music textbooks for the Primary School according to the B.S. Bloom's taxonomy

May Kokkidou, Eleftheria Athanasiou & Catherine Dimitriadou

Abstract

The design of teaching processes throughout school curriculum is strongly connected with decisions about strategies which aim at definite objectives. The importance of setting teaching objectives has been a matter of pedagogical interest on theoretical, research and practical level since the middle of last century. Various taxonomy systems of teaching objectives were compiled, with that of B.S. Bloom and his colleagues (1948) as the most prevalent among them. According to this, teaching objectives are classified in three categories: cognitive, emotional and psychomotor. The present paper refers to the investigation of the goals of the written activities included in the new music school textbooks for Greek Primary School. Particularly the school books published in 2008 for the 3rd- 4th, the 5th and the 6th grade were examined, in order to be classified according to Bloom's taxonomy. The results are expected to reveal whether the school textbooks in question give special priority to activities of some of the above categories. In addition, they are expected to show if these books' structure is consistent with the general principles of the formal school curriculum, as well as if the activities proposed aim at objectives referring to common axes in regard to the student textbook and the exercise book of each grade. According to our first findings, most activities concern both cognitive and psychomotor objectives, while emotional ones mainly pertain to the upper grades. The research is still under development.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

"Why do young people listen to music: to feel upset, upgraded or uplifted?": a field study

May Kokkidou, Eleni Tsakaridou

Abstract

The nature of music has fascinated musicians and music-lovers for hundreds of years, while at the same time philosophers and academics have been trying to develop theories to explain the magical effect of music on people. Quite a number of studies in various countries have found that the young devote a significant part of their free time to listening to their favourite music, or in general to spending time with music. Some young people declare that they consider music as important as oxygen or water, as an element that defines their identity and their course through life (Rideout, Roberts & Foehr, 2005). Consequently, music plays a particularly important role in their emotional, social and cognitive development. Some authors have concluded that music is a "life position" and as such lies beyond the scope of explanation (Plummeridge, 1998). Noam Chomsky observes characteristically, "that which we usually call music is not an acoustic phenomenon but a grouping of social-political concepts". For this reason, the scientific community marks up the importance of researching young people's experience of and views on music.

The present study attempts to identify and investigate the reasons which urge the young to make music part of their everyday lives. First came a preparatory study in which subjects were asked the open question, "Why do you listen to music?". The responses were processed, using Content Analysis, and from the results a questionnaire was put together, with 20 categories or circumstances covering reasons for listening to music; 700 young people responded to these on ten-point scale, so declaring the reasons for which they choose to listen to music. The findings suggest that among the reasons for which the young listen to music, the following stand out: to enjoy themselves, to relax, to isolate themselves from their social environment, to relieve their feelings, to reminisce, and for company.

Keywords
music, listening to music, musical experience, free time, the young

Music, Person, Society: an introductory framework

For hundreds of years, the nature of music has fascinated musicians and music-lovers, while at the same time philosophers and academics have been trying, and continue to try, to develop theories that might explain the magical effect of music on humankind. Music, person, society and culture constitute the interrelated elements of musical life (Gates 1998). The nature of musical experience has been studied in the context of psychological research (Deutsch, 1982; McAdams & Bigand, 1993; Sloboda, 1985) and under the aspect of the perception of music, in the cognitive sciences (Deliège & Sloboda, 1997; Francès, 1958; Handel, 1989).

Music is an important part of the current human environment since it expresses things that would otherwise remain unsayable, transcends frontiers and cultures, can transform grief into joy, or *vice versa*, and is linked people's basic modes of interaction with their surroundings. The value

and function of music in our lives is made up of dynamic interactions with the social, cultural, political, religious and economic environment. Sweeping changes in communications systems, globalization, technological development and changes to our way of life have had a catalytic effect on the available means of listening to music and also on the time we can devote to this (Stållhammer, 2003, 2004; DeNora, 2000).

Most people consciously aspire to spend some time with music, whether as listeners or as creators and performers. Music can stir us emotionally and we use it to arouse certain moods: a readiness for relaxation or for movement, a mood of nostalgia or reminiscence, a desire for rest or contemplation. In many everyday activities, music makes up the "scenery" for action or experience. Medical scientists state that systematic listening to music can lower blood pressure, both systolic and diastolic, by up to five points (mm/Hg), and reduce the heart rate by three or four beats per minute. Furthermore, recent studies show that music can lower levels of the hormone cortisol (hydrocortisone), which is responsible for anxiety, can relieve stress in heart attack patients and can help some patients better to withstand pain (Wigram, 1995).

Quite a number of studies in a large number of countries have found that young people devote a significant part of their time to listening to their favourite music and to music in general. Many young people declare that they consider it as vital as oxygen or water, as an element which defines their identity and their course through life (Rideout, Roberts & Foehr, 2005; Stållhammer, 2000, 2004; DeNora, 2000; Crafts et al., 1993).

Listening to music may also be a collective action, creating emotions and dispositions in a group of individuals, acting as a tie between group members and providing them with a common culture and identity (McAdams & Bigand, 1993; DeNora, 2000).

Today's youth construct their own musical life, deciding to which music they will enjoy themselves or fall in love, which CDs they will buy, which concerts to attend, which songs they will sing, what music they will download from the internet; they choose to keep company with people who share their tastes in music, while selecting or rejecting places of entertainment according to the music to be heard there. They have the chance to cut themselves off from their surroundings, including the noise pollution of busy streets, by putting on the headset of an iPod or a Discman. Moreover, increasing numbers of young people decide actually to create music, now that music composition software gives them the opportunity to compose, arrange and mix music (Stållhammer, 2004).

Experience of music has many aspects; it has to do with the building up of musical knowledge and with the process of contact with music. Musical knowledge is dependent on experiences that are founded on somatic experience - the life of the body in its psychokinetic context; it is situated within a biological, psychological and cultural framework (Lakoff & Johnson, 1999; Iyer, 2002; Saslaw, 1996). Writing on the effects of music on mind and body, Reybrouck (2005) proposes a model of empirical knowledge that approaches knowledge as an activity which is structured physically and somatically within an environment which shapes that experience. Reybrouck's central conceptualisation is the *musical exchange*, a term that covers both well-established musical behaviors – such as listening, performance and composition - as well as more general kinds of perception such as investigation, selective engagement, the focusing of attention and other forms of interaction with the world of sound. Within this framework, he proposes that we should no longer refer to listeners or performers, since these instances refer to only a few of the

ways in which we may *make exchanges with music;* rather, we should talk of *users of music*, as a wider category referring to people's behaviours in relation to musical stimuli (Reybrouck, 2004).

Music arouses the listener kinetically, mentally and spiritually in such a way that he or she becomes a participant in its creation or re-creation. Such behaviour has to do with an endogenous phenomenon based in the central nervous system (Reybrouck, 2001; Decety, 1996; Jeannerod, 1994). In particular, musical performance and creativity constitute a complex skill connected with many composite brain functions and requiring the simultaneous processing of multi-modal sensory and kinetic data through multi-modal feedback mechanisms (Gaser & Schlaug, 2003).

The Study: sample and methodology

Quite a few studies in many countries around the world have found that young people devote a significant amount of their free time to listening to their favourite music (Stållhammer, 2004). Music therefore plays a particularly important role in their emotional, social and cognitive development. For this reason, the scientific community notes the importance of studying the musical experiences of the young as well as their views on music. With this in mind, a preparatory study was designed in which 29 young people aged 18 to 24 were asked the following questions: *How do you see the role of music in your life? Why do you choose to listen to music?*

From the answers we derived twenty situations or circumstances in which young people listen to music.

Next, a study was designed with the aims of investigating and classifying the reasons for which the young listen to music. For research purposes a 20-item questionnaire was developed, each item consisting of a reason for which one might choose to listen to music. These formed closed questions with a response on a ten-point scale from 1 (complete disagreement) to 10 (full agreement). The resulting data were processed using both descriptive and inductive statistical methods. Specifically, in order to discover whether there were distinctions between the young people's positions according to gender, to age, and to whether or not they had studied music, the techniques used were the t-test and single factor analysis of variance (Oneway ANOVA). In the results section of this paper, we present the statistically significant differences found by these tests.

The participants in the main study were 700 young men and women from Greece, students at the Aristotle University of Thessaloniki, the University of Macedonia and the University of Western Macedonia, chosen at random, aged from 17 to 25. More specifically, there were 300 men and 400 women, mean age 20.5 years with a standard deviation of 3.27. Of these participants, 38% had been actively involved in music, having studied music in some way, while 62% had never studied music.

Results

The data from the young people's answers to the 20 items were analysed by Factor Analysis, after ensuring that the data were suitable for such analysis by using the Kaiser-Meyer-Olkin measure of sampling adequacy (0.801) as well as Bartlett's Test of Sphericity ($\chi^2 = 2706.33$, $p < 0.001$). Factor Analysis revealed six factors which accounted for 57% of the total variance in the sample (Table 1).

Factor (a Cronbach)	*Percentage of variance accounted for*	*Weighting*	*Reasons (Questionnaire Items)*
Meeting personal needs / dealing with daily life (77.3%)	11.40%	0.747	For company
		0.702	For consolation
		0.675	To isolate myself from my social environment
		0.461	To relax
		0.438	To get to sleep
Mental tasks (72.9%)	10.92%	0.758	To take decisions
		0.727	To organise my thoughts
		0.653	To reflect on music
Emotional reasons (79.3%)	9.67%	0.832	When I am unhappy
		0.654	When I am happy
		0.517	To reminiscence
		0.505	To relieve my emotions
Enjoyment / physical relaxation (75.3%)	9.45%	0.773	To dance
		0.729	To sing
		0.618	To have fun
A background to creative tasks (82.6%)	8.95%	0.786	To accompany the execution of other tasks
		0.679	To create something
Passive reasons (69.6%)	6.60%	0.688	Because there is music in the places I go to enjoy myself
		0.687	Out of habit
		0.436	I never listen to music on my own initiative

The first factor, accounting for 11.4% of total variance, includes five items/reasons which have to do with meeting personal needs, with dealing with everyday life; the loadings are from 0.438 to 0.747. The coefficient of reliability for this first factor is 0.773. This first grouping of reasons was considered of only moderate importance by the subjects (M = 5.47, sd = 1.87); that is, only to a moderate extent do they listen to music in order to meet personal needs. More specifically, the most important reasons are considered to be relaxation (M = 8.50, sd = 1.76) and company (M = 6.77, sd = 2.80), followed by consolation/relief (M = 4.93, sd = 3.12), while it is rarer for them to listen to music in order to get to sleep (M = 4.93, sd = 3.12) or to isolate themselves from the social environment (M = 4.26, sd = 3.18). A significant gender difference was found as to the first factor (t = 3.841, df = 659, p < 0,001). Women were statistically more likely than men to listen to music in order to meet personal needs (M = 8.5, sd = 1.76 for women, against M = 5.93, sd = 1.88 for men). Neither the age nor the music studies variable correlated with any significant difference on this first factor.

The second factor, accounting for 10.92% of total variance, includes three items/reasons having to do mental processing and the furthering of mental tasks, with loadings from 0.653 to 0.758. The coefficient of reliability for the first factor was 0.729. Subjects considered this factor to be of relatively little importance (M = 3.89, sd = 2.23), that is, they do not consider the three reasons for listening to music subsumed to this factor to be of great importance. More specifically, as concerns the reflective processes in the second factor, it was only to a moderate degree that participants declared that they listened to music in order to reflect on that music (M = 4.45, sd = 2.29), to a similarly moderate degree that they listen to music in order to organise their thoughts (M = 4.15, sd = 2.90), and to a lower level that their reason is to help them make decisions (M = 3.12, sd = 2.41). Those who have studied music tend more to reflect on music than those who have not (t = 4.381, df = 660, p < 0.001), with M = 4.51 (sd = 2.23) for the "music students" against M = 3.66 (sd = 2.16) for those who have never studied music. Gender and age groups show no significant differences in their responses for the second factor.

The third factor, accounting for 9.67% of total variance, includes four items/reasons with loadings from 0.505 to 0.832. The coefficient of reliability is 0.793. This factor has to do with emotional reasons for listening to music, which were regarded as particularly important by the participants (M = 6.93, sd = 1.99). Specifically, they declare that they listen to music, above all, when they are happy (M = 7.47, sd = 2.43), when they reminisce (M = 6.96, sd = 2.78), when they wish to relieve feelings of stress (M = 6.85, sd = 2.96) or when they feel unhappy (M = 8.5, sd = 1.76). There is a significant gender difference (t = 4.381, df = 660, p < 0.001); emotional reasons for listening to music are considered more important by women (M = 7.16, sd 1.97) than by men (M = 6.46, sd = 1.95. There are no significant differences on this factor for the age or music studies variables.

The fourth factor, including three items with loadings from 0.618 to 0.773, accounts for 9.45% of total variance; it has to do with enjoyment and physical relaxation, which are considered quite important (M = 6.87, sd = 1.90). The coefficient of reliability is 0.753. As to the separate items in this factor, participants reported that they listen to music principally in order to enjoy themselves (M = 8.71, sd = 1.72) and to a lesser degree in order to dance (M = 6.17, sd = 2.97) or to sing (M = 5.72, sd = 2.82). Again, there is a significant gender difference on this factor (t = 7.496, df = 676, p < 0.001); women consider the reasons in this factor to be more important (M = 7.24, sd

= 1.80) than do men (M = 6.11, sd = 1.89). There are no significant differences on the age or music studies variables.

The fifth factor combines two items, with loadings of 0.679 and 0.786, which have to do with using music as accompaniment to or assistance with creative tasks. This factor accounts for 8.95% of total variance, with a reliability coefficient of 0.826. It is considered as of only moderate importance (M = 6.10, sd = 2.55). Specifically, it is only to a moderate degree that participants report that they choose to listen to music to assist creativity (M = 6.19, sd = 2.89) or to accompany the carrying-out of other tasks (M = 6.00, sd = 2.96). Older listeners were significantly more likely than younger to accompany creative tasks with music ($F_{2,671}$ = 5.162, $p < 0.01$). That is, those up to 19 years of age report a moderate level of listening to music for reasons falling under the fifth factor (M = 5.79, sd = 2.62, with those aged 20 to 24 reporting a slightly higher level (M = 6.22, sd = 2.44), while those aged 25 and over reported a higher level again (M = 6.99, sd = 2.64). At the same time, young people who had studied music were more likely to use music to accompany creative tasks than were those who had not (M = 6.74, sd = 2.44 : M = 5.82, sd = 2.55). There was no significant difference for gender on this fifth factor.

The sixth and final factor, accounting for 6.60% of total variance, covers three items/reasons with loadings of 0.486, 0.678 and 0.688. This factor has do do with the case of listening to music passively, without the listener's active participation or decision. The reliability coefficient is 0.696. Reasons subsumed to this factor were not considered to be of particular importance by the participants (M = 4.31, sd = 3.13). To be specific: the most important reason here was that the music happened to be being played in the places that the subjects frequented (M = 6.42, sd = 4.96). To a lesser degree, participants listen to music out of habit (M = 4.46, sd = 2.97), while it is extremely rare for participants to declare that they never listen to music on their own initiative (M = 1.36, sd = 1.25). No significant differences were here observed for the gender, age or music studies variables.

Discussion

Musical environment and social background are interrelated, while both influence the reasons for which young people choose to listen to music (Stållhammer, 2004).

The process of investigating the importance of music in people's lives implies a shift from an ontological approach (*What is music?*) towards an epistemic approach (*What is musical knowledge and how is this acquired?*). The user of music actively engages with the world of sound, activating mechanisms that perceive, process and react to the musical message. That is to say, users of music functions as "open systems" that guide their own selves in their construction of knowledge about music and in their interaction with their musical environment through certain behaviours (Reybrouck, 2004). Within the triad of *individual-environment-interaction,* music may be thought of as an environment that sets a challenge, brings about change and influences the individual's mode of reaction (Ingold, 1992:40-41). In any case, it is the individual who decides how to react to the musical stimulus, how he or she will adapt to the musical environment (Reybrouck, 2004).

According to the results of the present study, young people choose to listen to music above all for emotional reasons (when they are happy or unhappy, when they reminiscence, or to relieve feelings of tension), and in the second place to enjoy themselves and give vent to themselves

physically (dance, song). To a more moderate degree, music is involved in in young people's everyday lives for purposes of relaxation, companionship, comfort and isolation from the environment, while to about the same extent the young regard music as a supportive environment for other work, or as a background which assists with creative processes. Finally, it appears that it is to only a limited degree that young people choose to listen to music to reflect on music itself, to think, to organize their thoughts and to make decisions. The results show that young people choose to have an active relationship with music; while quite a few report that they listen to music merely because it is present in the places they frequent, very few declare that they listen to music only out of habit, and it is extremely rare for them never to listen to music on their own initiative. We may therefore say that young people reject the idea of a passive connection with music.

The individual's emotional relationship with music, whether this is a matter of the joy that music can bring or, indeed, of the angst that is provoked by certain pieces, has been shown to be the most important component in the role of music in young people's lives. Other researchers, too, have emphasised this parameter, discussing the ways in which music stimulates emotions, creates moods and transforms the everyday environment (Becker, 2000; Blood & Zattore, 2001; Clynes, 1989).

The importance of factors that have to do with fun, dance and song has also been noted by previous workers. Among the ways in which we categorise responses to music, the bodily (somatic, physical) response holds an outstanding position, while some other forms of response are difficult to assimilate to any specific category (Lidov, 1987). Tia DeNora (2000:86) stresses that we should never forget that music is a matter of sound waves that are felt by the body even in cases of hearing disability. The listener experiences music as a *movement in time* while at the same time experiencing the movement of his or her own body. Music suggests movements, but these are also influenced by an active response, by the need to align ourselves with others in shared activity and by emotional involvement (McNeil, 1995). Within this framework, Godøy (1997), distinguishes a separate category of "sound-producing actions-reactions" with reference to music: clapping, whistling, singing, tapping one's feet, and so on. Reybrouck (2005) stresses that when we listen to music we do not focus on its acoustic properties but, rather, we are swept away by other, non-musical elements; for this reason it is impossible to establish any objective causal relationship between music and the response to music.

Music can be used to meet basic needs such as relaxation, company and isolation from the environment; a number of researchers have related this to the stabilising, or balancing, role of music in human existence (Hodges, 1996; Storr, 1992).

Furthermore, in this study's ranking of the reasons for which young people listen to music, there is to be found a degree of agreement with Börje Stållhammar's (2004) study, which compared the views of young people in Sweden and Great Britain on their relationship with music. In Stållhammar's study, it seemed that the main reason why young people listen to music is relaxation and escape from daily routine (the *escaping role*). The second is a need to channel their feelings – they choose to listen to music when they are happy, when they are in a bad mood, when they feel depressed; their current disposition influences their choice of music (the *essential role*). The third most important reason has to do with the importance of the existence of music to their lives (the *existential role*).

According to John Shepherd (1993:104), music seems to bring about, above all, a bodily, physical response; cerebral or intellectual activity is less important. The user of music attempts to comprehend the music stimulus, not by examining its acoustic properties, but rather by

understanding the ways in which music affects us, energises us, agitates or even hurts us (Lidov, 1987). This evaluation is consistent with the findings of the present study, insofar as it seems that young people who have studied music more often choose to listen to music in order to reflect on the music itself, in comparison with those who have never studied music. It also seems that young people who have studied music are more likely than the others to make use of music to accompany other activities.

Music is not something apart from human life; it is not an object with which we come into static contact. Musical experience demands an interaction with sound, an interaction with intellectual, emotional and bodily dimensions (Blacking, 1995; Westerlund, 2002). Previous studies confirm the tendency found in the present study, that the human relation to music is essentially an active relation (Stållhammar, 2004; DeNora, 2000).

As for any age differences, no significant distinctions among our three age groups were found, with the exception that those aged 20 to 25 or over 25 were more likely to employ music as support for other activities than were the younger group, 18 - 20 years of age.

As to gender, significant differences were found for certain factors. In particular, it was found that women choose to listen to music for emotional reasons and to help themselves to face up to daily life at a statistically significant higher frequency than do men. Moreover, women are more likely than men to declare themselves as choosing to listen to music in order to have fun or to unwind physically (singing, dance).

In brief, the findings of the present study are that young people listen to music principally in order to express themselves emotionally and to enjoy themselves, reacting physically (dance, singing), secondarily in order to be "healed" of everyday anxiety and to relax, then thirdly in order to be "educated" through music and to support some other mental task. It has also become clear that young people choose an active relation with music.

Selected Observations and Suggestions

These days music has become a social need, a human right. The forces that influence the musical life of young people should be an object of investigation in the field of music education. In the absence of research and action we leave the musical guidance of the young at the mercy of (Gates, 1998):

- the impact of the mass media
- the impact of the advertising industry, which "sells music out", exploiting it as a product so as to attract the buying public
- various political or economic tendencies that, on the one hand, may encourage a xenophobic orientation and an ethnocentric view of music, or, on the other, promote an imported lifestyle, marginalising any other form of musical expression
- the system of creating rock or pop stars, which bombards young people's daily lives with the music of ephemeral artists, with no aim other than profit

Investigation of involvement with music in young people's everyday lives may help us to understand the phenomenon of listening and to answer two fundamental questions: "What do we listen to?" and "How do we listen?" As we attempt to make a broad assessment of the importance and value of the acoustic and musical environment, so we can identify the dimensions and

characteristics of conscious listening. The identification of these characteristics can help in creating a psycho-physiology of musical perception (Gaver, 1993:287).

Any datum that casts light on ways of building new musical experience can be used in the classroom in the selection of appropriate methodology and content for the curriculum. For example, when we know young people's musical habits and preferences, we can integrate thesee into the lesson, arousing their interest and connecting the lesson with real life while focusing on the need to remain critical towards the phenomenon of the consumption of music.

Intensified sesearch in this field will identify appropriate means for the purposeful use of music in the classroom, in music teaching-learning, and in the use of music as a cross-curricular tool at all levels of education.

Bibliography

Becker, J. (2001). Anthropological Perspectives on Music and Emotion. In P. Juslin & J. Sloboda (eds.) *Music and Emotion.* Oxford: Oxford University Press.

Blacking, J. (1995). *Music, Culture and Experience*. London: University of Chicago Press.

Blood, A. & Zattore, R. (2001). Intensely pleasurable responses to music correlate with activity in brain regions implicated in reward and emotion. In M. Raichle (eds.) *Proceedings of the National Academy of Sciences.* September 25, 98(20), 11818-11823.

Clynes, M. (1989). *Sentics: The Touch of the Emotions.* Dorset: Prism Press.

Crafts, S.D., Cavicchi, D. & Keil, C. (1993). *My Music.* Hanover and London: Wesleyan University Press.

Decety, J. (1996). Do imagined actions share the same neural substrate? *Cognitive Brain Research*, 3, 87-93.

Deliège, I. & Sloboda, J. (eds.). (1997). *Perception and Cognition of Music*. Hove: Psychology Press (Taylor & Francis).

DeNora, T. (2000). *Music in Everyday Life.* New York, NY: Cambridge University Press.

Deutsch, D. (eds.). (1982). *The Psychology of Music*. New York - London: Academic Press.

Gaser, Ch. & Schlaug, G. (2003). Brain Structures Differ between Musicians and Non-Musicians. *The Journal of Neuroscience*, 23(27), 9240-9245.

Gates, T. G. (1998). International Theorizing in Music Education: The Work of the MayDay Group. In C. V. Niekerk (ed.) *Proceedings of the 23rd International Society for Music Education,* 198-211. Pretoria: ISME.

Gaver, W.W. (1993). How do we hear in the world? Explorations of ecological acoustics. *Ecological Psychology*, 5(4), 285-313.

Godøy, R.I. (1997). Knowledge in Music Theory by Shapes of Musical Objects and Sound-Producing Actions. In M. Leman (eds.) *Music, Gestalt and Computing. Studies in Cognitive and Systematic Musicology,* 89-102. Berlin - Heidelberg: Springer Verlag.

Handel, S. (1989). *Listening. An Introduction to the Perception of Auditory Events*. Cambridge - London: MIT Press.

Hodges, D. (1996). Human Musicality. In D. Hodges (eds.) *Handbook of Music Psychology.* San Antonio: Institute of Music Research.

Ingold, T. (1992). Culture and the perception of the environment. In E. Croll & D. Partin (eds.) *Bush base: forest farm – culture, environment and development,* 39-56. London: Routledge.

Iyer, V. (2002). Embodied Mind, Situated Cognition, and Expressive Microtiming in African-American Music. *Music Perception*, 19(3), 387-414.

Jeannerod, M. (1994). The Representing Brain: Neural Correlates of Motor Intention and Imagery. *Behavioural Brain Sciences*, 17, 187-202.

Lakoff, G. & Johnson, M. (1999). *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Lidov, D. (1987). Mind and body in music. *Semiotica*, 66(1/3), 69-97.

McAdams, S. & Bigand, E. (eds.). (1993). *Thinking in sound. The cognitive psychology of human audition*. Oxford: Clarendon Press.

McNeil, W. (1995). *Keeping Together in Time: Dance and Drill in Human History.* Cambridge, Massachusetts: Harvard University Press.

Reybrouck, M. (2005). A Biosemiotic and Ecological Approach to Music Cognition: Event Perception between Auditory Listening and Cognitive Economy. *Axiomathes. An International Journal in Ontology and Cognitive Systems*, 15(2), 229-266.

Reybrouck, M. (2004). Music Cognition, Semiotics and the Experience of Time: Ontosemantical and Epistemological Claims. *Journal of New Music Research,* 33(4), 411-428.

Reybrouck, M. (2001). Musical Imagery between Sensory Processing and Ideomotor Simulation. In R.I. Godøy & H. Jörgensen (eds.) *Musical Imagery*, 117-136. Lisse: Swets & Zeitlinger.

Rideout, V., Roberts, D.D. & Foehr, U.G. (2005*). Generation M: Media in the lives of 8 18-year-olds*. Menlo Park, CA: Henry Kaiser Family Foundation.

Saslaw, J. (1996). Forces, Containers and Paths: The Role of Body-Derived Image Schemas in the Conceptualization of Music. *Journal of Music Theory*, 40(2), 217-244.

Shepherd, J. (1993). Music and the Last Intellectuals. In H. Jörgensen (eds.) *Philosopher, Teacher, Musician: Perspectives on Music Education.* Urbana and Chicago: University of Illinois Press.

Sloboda, J. (1985). *The Musical Mind. The cognitive psychology of music*. Oxford: Clarendon Press.

Stålhammar, B. (2000). The spaces of music and its foundation of values – music teaching and young people's own experience. *International Journal of Music Education,* 36, 35-45.

Stålhammar B. (2003). Music Teaching and Young People's own Musical Experience. *Music Education Research*, 5(1), 61-68.

Stålhammar, B. (2004). Music-Their Lives: The experience of music and view of a number of Swedish and English young people. *Action, Criticism, and Theory for Music Education,* 3(2). Retrieved February 2009 from http://act.maydaygroup.org/articles/Stalhammar3_2.pdf

Storr, A. (1992). *Music and the Mind.* New York: Free Press.

Westerlund, H. (2002). *Bridging Experience, Action, and Culture in Music Education*. Studia Musica 16. Helsinki: SibeliusAcademy.

Wigram, T. (1995). *The Psychological and Physiological Effects of Low Frequency Sound and Music*. USA: Music Therapy Perspectives - International Edition. NAMT Publications.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Education as a Factor in the Configuration of Social Behaviour in Adolescents: results of research regarding peer-group relationships

Anthoula Koliadi-Tiliakou

Abstract

The present study is based on the general consensus on the importance of music education in children's social maturation and the development of positive social behavior, which may lead to social acceptance by others. The aim of the study is the examination of the relationship between music education and social behaviour, specifically peer relationships among teenagers. Firstly, an illustration of the concepts of "social behavior" and "social acceptance by peers" is attempted and research data concerning the effect of music and music education on social behaviour and relationships among teens are described. Further, the results of research into Greek music school students are presented. Firstly, the research aims to analyze the relationship between children's musical self-perception and their social behaviour, as well as their social acceptance by peers. Secondly, the research aims to explore group differences regarding the above social domains among music school students and non-music school students. Data analysis showed a) a positive correlation between musical self perception and social behaviour, as well as peer relationships as far as music school students are concerned and b) statistically significant group differences, with music school students showing a higher score as regards social behaviour, ands non-music school students showing better peer relationships. Finally, consideration is given to the importance of peer relationships and positive social behaviour, as well as the contribution of music teachers.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Exploring music learning through brain research: The emerging role of Neuroeducation

Dimitra Koniari

Abstract

There are three challenges with regard to developing a meaningful link between brain research and music education. Question 1: How does the brain work in relation to music? Question 2: How does music activity influence brain functioning? Question 3: How does this knowledge help music educators or educators in general to form their teaching strategies in relation to music? Insights into neural networks supporting music thinking, listening, performing, and learning offers a new window of research in the field of music education, enabling music educators to explore educational questions (on effectiveness of their teaching strategies) on a neurobiological base. The emerging field of Neuroeducation can provide the necessary framework where neuroscientists and music educators can work together in order to implement neurobiological findings on the music educational praxis. The present paper reviews briefly the current status of the field of Neuroeducation, discusses the importance and challenges of Neuroeducation at the music educational praxis (illustrating examples from the recent neuromusical literature) and suggests future prospects.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Reusable learning objects

Lilly Kotsira

Abstract

The educational needs of the 21st century have made technology a necessary part of teaching today. Today with the help of technology, a teacher can move from a lesson plan to a more specific learning tool, adapted for a particular class. These multi-media tools would be accessed via a database and available to teachers around the world. One of the strategies for the production of such learning tools, which allows for them to be interactive and easily accessible, is the Reusable Information Object Strategy. In this presentation we will see two such learning tools and show the steps taken, from the initial ideas to their use in the computer laboratory and to their assessment by the students. The first RLO is called 'Morning Awakening'. Its goal is for the children to understand that notes on a page give us information about the tone and the length of sounds in a musical piece. The second RLO is called "Listen to how you sound". Its goal is for children to understand that certain words describe certain sounds which in turn have particular feelings attached to them thus giving a text another dimension.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music as a means of understanding mathematical concepts: Suggestions for teaching the concept of probabilities

Theano Koutsoupidou

Abstract

There is an inner relationship between music and maths since ancient times, with numbers being a fundamental concept for the development of rhythm and Pythagoras's monochord the basis of musical harmony. In current school curricula the integration of music and maths is encouraged through the development of common activities both in pre-school and primary education. The present paper is based on a cross-boundary project, which involved three universities from different areas of Greece and Cyprus: the University of the Aegean, the University of Crete and the University of Cyprus. The project aimed to develop a web portal that would suggest integrative game-based activities for the professional development of nursery teachers in the areas of language, physical sciences and maths. The design of the activities that would integrate music and maths focused on how to teach the concept of probabilities, and was based on findings related to the cognitive development of nursery school children in the areas of maths and music. The project led to twenty-two different activities in maths, four of which were based on the integration of music and maths. The activities involve both individual and group work. They cover a variety of music objectives, such as understanding of rhythm and different rhythmic values, getting familiar with simple percussion instruments, and developing listening and creative movement skills. This paper will present the four activities that integrate music and maths and will suggest possible ways of expanding the existing materials and ideas.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

What is the right Instrument for a disabled child to play?

Ludger Kowal-Summek

Abstract

At the end of their primary musical education, at the age of six or seven years, a lot of children, handicapped or not, want to learn to play a musical instrument. What instrument they want to play depends mostly on their different individual interests. In the last quarter of their primary musical education they learned to know a lot of different instruments and they will also learn how to play them. It is the job and the responsibility of the teacher to help all the children to find that musical instrument they are able to play.

As a first aspect the teacher has a lot of different games to prove the sensual and motor assumption and to help each child to find its right musical instrument. The right musical instrument is that, what a child wants to play, but it is also that, that it is able to play.

A second aspect will be the motivation for playing this or that musical instrument. To build up a continual motivation for playing a musical instrument, you'll have to bind up these games in attractive lessons. It's not enough just to present them the musical instruments by pictures or by musical examples. They have to test them on their own.

A third aspect will discuss the preference of a musical instrument and aspects of the individual personality.

Keywords
primary musical education, musical instruments, games, motivation, personality development

Preface

At the end of their primary or maybe you would say pre-school musical education, at the age of six or seven years, a lot of children, disabled or not, want to learn to play a musical instrument. What instrument they want to play depends mostly on their different individual interests. In the last quarter of their primary or pre-school musical education they learned to know a lot of different instruments and they will also learn how to play them. It is the job and the responsibility of the teacher to help all the children to find that musical instrument they want and they are able to play.

In the 70th of the last century Probst (1991) formulated two theses which are very important for me and my contact with all the following theories:

1. Each human being is fundamentally able to listen to, to play and to feel every kind of music.
2. But there will be different graduates
    a. in the intensity to experience music
    b. in the mastery of technique
    c. in grasp and verbalizing music (cit. Probst, 2006:8).

Music Teachers at normal or special schools do have the same problem when it comes to the question for learning to play the right musical instrument. But those two theses by Probst make sure that you can help disabled children to find the right instrument and that you'll find it in the end.

Werner Probst (1991), one of the great German musical teachers for disabled children, and his team developed in the 70th and 80th years of the last century games to help those children to find out their own musical instrument (compare Held, 1981; 1983a, b; 1991). Before a teacher starts to introduce the different musical instruments to the children, disabled or not, he should ask himself two questions:

1. What sensory motor condition must a child have to play this or that instrument?
2. Which of those conditions does the child have?

I think it's not enough to show the children pictures of the different musical instruments, to clear their functions or listen to their sound. The best method to find out the right instrument for a young player is making music by playing the instruments (compare Bacsalmasi et al., 2007; Köneke, 1998; Marx, 2005, 2008; Zarius et al., 2008).

If you now think about musical education with disabled children you have to consider two points of view:

1. A subjective point of view: the right instrument is that what he or she wants to play;
2. An objective point of view: the right instrument is that what he or she is able to play.

And it will be a pedagogical job to connect these two points of view.

Games to observe the sensory motor conditions for playing a music instrument

If you work with disabled children it is not very easy recognize their individual conditions. For this Held (1981; 1983a, 1983b; 1991) developed those games

1. to rate the individual ability to announce frustrations and
2. to give a prospective teacher some advices for the coming music instrumental lessons.

The games are not there to show a person what he or she is not able to do, but to see and to show what is possible and to develop possibilities to help. But if you do that like this, you will never have a safety that it works.

But let's start with the games now (cit. Kowal-Summek, 2009 in prep). You can divide the games into five groups:

1. motive force and cohesion (for wind instruments)
2. motor activity (for keyboard, wind, stringed instruments and drums)
3. sensory motor (for all instruments)
4. visual perception (for all instruments)
5. acoustic perception (for all instruments).

To describe and to play all those games it would need a practical workshop. Playing and watching these games you'll find out many different things about the individual person. But you have to consider, that these games should only be a part of a lesson not the only content of a whole lesson. The goal should to find out what makes it difficult for a child to learn this or that musical instrument.

During my own lessons I consider that disabled as well as not disabled children have a lot of fun playing these games although they hate tests. And never the less, at the end these games are tests. If you want to play all these games you'll need more than three month.

In Germany today you'll find some educational books for learning to play a musical instrument which consider those games (compare Marx, 2005, 2008).

Motivation

A second aspect will be the motivation for playing this or that musical instrument (compare Petrat, 2000, 2007). To build up a continual motivation for playing a musical instrument, you'll have to bind up these games in attractive lessons. It's not enough just to present them the musical instruments by pictures or by musical examples. They have to test the musical instruments on their own.

If you want to try to get to the bottom of motivation, you will find different theories of motivation (compare de la Motte-Haber, 1985; Holodynski et al., 2002; Oerter, 1998; Rudolph, 2003; Schölmerich & Lengning, 2004; Weiner, 1994) and different answer to the question what motivation is. Curiosity is one of the most important motives for a child to turn towards a musical instrument. But curiosity has to change into permanent interest. Curiosity and interest determine human behavior for the whole life, if it is not blocked by to much work (compare Oerter, 1998:768).

Curiosity is a human basic need like hunger, thirst and sleep. The stronger curiosity is the stronger is the preoccupation with the musical instrument. The curiosity is very high, when there is an average discrepancy between the curiosity and the actual knowledge. To satisfy its own curiosity, parents for example should not permanent regularize their child.

Curiosity and interest are not the same. A short-term curiosity can change over a period into a long-term interest. The person to person relationship seems to have very much influence on motivation, a chronically earlier point of pedagogical influence (compare Bowlby, 2006; Schölmerich & Lengning, 2004; Reiserer & Mandl, 2002; Wild et al., 2001).

During this process it seems to be very important, that the systems of motivation become independent from actual incentives. Another point is, that a subjective experience while the intensive activity is also associated with an appropriate environment for children to learn.

The development of an interest is affected to three needs: competence experience, autonomy and integration into social structures. But there may be some other aspects like the gender problematic, the increasing relevance of the peers, teachers at school and so on.

Another point applies intrinsic and extrinsic motivation. Intrinsic motivation means that someone is motivated by himself; extrinsic motivation means that someone is motivated by external gratifications. The factor which plays an important role in the context of intrinsic motivation is self-efficacy. I have the ability to handle and reach my goals on my own. Extrinsic motivation causes addiction to external gratifications. But learning a musical instrument cannot always be intrinsic motivated, sometimes it also needs extrinsic motivation.

The Phase of Motivation

The phase of motivation is that time, in which the children learn to know the instruments. You will find this phase in every instrumental learning book. You have to introduce the instruments to the children, but that's not the only function. As a teacher you have to learn them about the sound of each musical instrument and you also have to show them how to play the different instruments. For this it's not enough to show some pictures of the different instruments, you should have the original instruments so all children could play them if they want to. To receive an impression of the

different musical instruments it is necessary for the children to be engaged in trying to play these instruments over a period of nearly three months. Each group of instruments should be at the children's disposal for three or four weeks.

It is important from the beginning not only to learn something about the different instruments but to play them, to make music from the beginning. For this for example you set picture-books to music like "Swimmy" by Leo Lionnie.

It is the story of a small black fish living by a riff with its brothers and sisters. One day a large fish came and ate them all but not Swimmy. All other fish were gone, so it felt very lonely and decided to swim into the sea. So Swimmy learnt to know all the other creatures which live into the sea. Its journey went on and at the end Swimmy met some other fish. They look like its former brother and sisters and they were very anxious like them. They decided to play a trick and they all together formed a large fish and swam into the sea. Now it was the others turn to swim away. But Swimmy and its new friends could meet all the creatures into the deep sea now.

A colleague of me and I set this story to music with disabled children at the age of five to six years. Remembering the sound of the different musical instruments the children decided by looking at the pictures and by listening to the story which instrument should set which creature to music. Swimmy, the main figure, was played on recorder by my colleague.

Preference of a Music Instrument and Personality

If you think about learning to play a musical instrument, you can, as we did, think about games, about motivation or about a practical phase of motivation, but you can also think about proportion between a person's preference of a music instrument and its personality.
For the last point we can distinguish different approaches (cit. Kowal-Summek, 2009 in prep.):

1. Orientation towards the personality (cit. Nohr, 1997; Vogl, 1993)
2. Theory of learning (cit. Vogl, 1993)
3. The multifactoriell approach (cit. Vogl, 1993)
4. The systemic approach (cit. Vogl, 1993)

Each approach is a very different thing. But none of them may have the whole truth for its own.

At the end we do have different methods to look at the relationship between the personality of a child and its music instrumental choice. For me there is no difference between a disabled or not disabled child and there is no difference between a child and a grown up.

Conclusiones

At the end you will have some different ways to help disabled or not disabled children to find their musical instrument. None of these methods for its own is the decisive one, but if you see them together, they can help teachers to find the right musical instrument for disabled children.
The games may give you a first impression, but that'll be not enough for a longer-term prediction. For that you'll need knowledge about motivation and how to develop motivation. A third point you'll have to consider is the individual personality.

Bibliography

Ahnert, L. (eds.) (2004*). Frühe Bindung. Entstehung und Entwicklung*. München/Basel: Ernst Reinhardt Verlag.

Bacsalmasi, K. (2007). *INKA - Das Instrumentenkarussell. Instrumente ausprobieren, singen, spielen und vieles mehr.* Lehrerband (incl. CD und großem Orchesterposter) und Schülerheft. Zürich: Conbrio, Hug & Co. Musikverlage.

Bowlby, J. (2006). *Bindung*. München/Basel: Ernst Reinhardt Verlag.

De la Motte-Haber, H. (1985). *Handbuch der Musikpsychologie*. Laaber-Verlag. Laaber.

Held, J. (1981). Entwicklung und Effizienz von Methoden zur Beobachtung sensumotorischer Voraussetzungen für das Instrumentalspiel mit Körperbehinderten (unveröffentlichte Diplomarbeit). Uni Dortmund.

Held, J. (1983a). Instrumentalspiel mit Körperbehinderten. *NMZ,* Februar/März 1983, 21.

Held, J. (1983b). Kräfte, teils haltend teils bewegend. *NMZ,* Juni/Juli 1983, 22 ff.

Held, J. (1991). Spiele zur Beobachtung sensumotorischer Voraussetzungen. *Probst:* 1991, 43 ff

Holodynski, M. & Oerter, R. (2002). Motivation, Emotion und Handlungsregulation. In Oerter/Montada (eds.) (5th edition), 551 ff

Köneke, H.W. (1998). Musikinstrumente. So sehen sie aus - so klingen sie - so funktionieren sie. Ein Wegweiser in die Instrumentenkunde für den Grundschulunterricht (mit CD). (edition: grundschule). Kallmeyersche Verlagsbuchhandlung. Seelze

Kowal-Summek, L. (2009, in prep.). Welches ist das richtige Instrument? Gedanken und Anregungen zur Instrumentenwahl unter besonderer Berücksichtigung der Förderschulen. In: Dartsch, Meyer & Stiller (eds.). ConBrio Fachbuch. Regensburg.

Krapp, A. & Weidenmann, B. (eds.) (2001). Pädagogische Psychologie. 4. vollständig überarbeitete Auflage. Beltz *PVU.* Weinheim, (4th edition).

Marx, E. (2005/2008). Schnupperkurs. Konzept und Materialien für ein Instrumentenkarussell. Lehrerhandbuch und Arbeitsblätter. Breitkopf & Härtel. Wiesbaden u. a.

Nohr, K. (1997). Der Musiker und sein Instrument. Studien zu einer besonderen Form der Bezogenheit. (Reihe Perspektiven Bd. 3). Tübingen.

Oerter, R. (1998). Motivation und Handlungssteuerung. In Oerter/Montada (eds.), 758 ff, (4th edition).

Oerter, R. & Montada, L. (eds.) (1998). *Entwicklungspsychologie. 4. korrigierte Auflage.* Weinheim/Basel: Beltz*PVU* (4th edition).

Oerter, R. & Montada, L. (eds.) (2002). *Entwicklungspsychologie. 5. Vollständig überarbeitete Auflage.* Weinheim/Basel: Beltz*PVU* (5th edition).

Petrat, N. (2000). *Psychologie des Instrumentalunterrichts*. Gustav Bosse Verlag. Kassel

Petrat, N. (2007). *Motivieren zur Musik. Grundlagen und Praxistipps für den erfolgreichen Instrumentalunterricht*. Kassel: Gustav Bosse Verlag.

Probst, W. (1991). *Instrumentalspiel mit Behinderten. Ein Modellversuch und seine Folgen*. Mainz: Schott Verlag.

Probst, W., Schuchardt, A. & Steinmann, B. (2006). *Musik überall. Ein Wegweiser für Förder- und Grundschule*. Westermann: Verlag. Braunschweig

Reiserer, M. & Mandl, H. (2002). Individuelle Bedingungen lebensbegleitenden Lernens. In Oerter/Montada (eds.), 923 ff, (5th edition).

Rudolph, U. (2003). *Motivationspsychologie*. Weinheim/Basel/Berlin: Beltz*PVU*.

Schölmerich, A. & Lengning, A. (2004). Neugier, Exploration und Bindungsentwicklung. In Ahnert (eds.), 198 ff.

VdM (2000). *Empfehlungen zur Gestaltung des Früh-Instrumentalunterrichts* (Arbeitshilfen) 2. Aufl. Bonn: VdM-Verlag (2nd edition).

VdM (eds.) (1996). *Neue Wege in der Musikschularbeit* (Arbeitshilfen). Bonn: VdM-Verlag.

Vogl, M. (1993). *Instrumentenpräferenz und Persönlichkeitsentwicklung. Eine musik- und entwicklungspsychologische Forschungsarbeit zum Phänomen der Instrumentenpräferenz bei Musikern und Musikerinnen*. (Studien zur Psychologie und Therapie in der Musikpädagogik Bd. 4, hrsg. von R. Wagner). Frankfurt: Peter lang Verlag.

Weiner, B. (1994). Motivationspsychologie. 3. Auflage. Weinheim: Beltz*PVU* (3rd edition).

Wild, E., Hofer, M. & Pekrun, R. (2001). Psychologie des Lerners. In Krapp/Weidenmann (eds.), 207 ff, (4th edition).

Zarius, K.H. (2008). *MoMo. Monheimer Modell Musikschule für alle! Flächendeckende Kooperation von Musikschule und Grundschule. Strukturkonzept* (Unterrichtsmaterial - Planungshilfen, incl. CD). Hrsg. von der Stadt Monheim a. R.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Menopausal effects: A pilot investigation on professional voice users' perceptions

Filipa M. B. Lã

Abstract

Professional voice users place great demands on their voices, thus being more susceptible to vocal changes, such as those associated with hormonal variations. The menopause is a biological certainty in a woman's life, involving significant alterations in the hormonal background. However, the extent to which these hormonal changes affect professional voice user's voice quality, self-identity, general well-being and career management has not been systematically investigated. To identify these effects and related implications from a professional voice user's point of view, face-to-face semi-structured interviews were undertaken with eight different voice professionals (i.e. classically trained singers, jazz singers, actresses, and school teachers). The results suggest that physical and vocal changes are identified in association with the menopause, and perceived as negatively impacting self-vocal efficacy, self-identity, self-confidence, and general well-being and quality of life. Additionally, care of the voice and career management strategies seemed to be modified in accordance to these felt changes. Opinions concerning the effects of hormone replacement therapy (HRT) on voice and on physical and psychological well-being are divergent amongst different voice professionals. This pilot study highlights the urgency and necessity to develop further understanding of vocal, physical, psychological and sociological well-being during the menopause and HRT use, especially to those whose lives depend on their voices.

Keywords
Professional Voice, Menopause, Hormone Replacement Therapy, Voice Quality, Self-Identity, Quality of Life, Career Management

Contextualization

The climacteric period is a phase of a woman's life during which significant reduction on concentrations of oestrogens and progesterone occur and the oestrogen/androgens ratio becomes androgen dependent. According to different hormonal concentrations and clinical symptoms, this period can be divided into three stages: (i) perimenopause (characterised by the occurrence of irregular menstrual cycles and elevated concentrations of follicles stimulating hormone (FSH)); (ii) menopause (the day that corresponds to 12 consecutive months with absence of menses); and (iii) post-menopause (period after the menopause, when peri and menopausal symptoms become mild or imperceptible) (Rees & Purdie, 2006). These climacteric hormonal variations are often associated with several physical and mental symptoms that can negatively impact on woman's quality of life (QoL), such as: irregular periods, hot-flushes, vaginal dryness, urogenital atrophy, reduced skin and collagen content, decreased libido, sleep disturbance, mood swings, increased levels of anxiety and depression (Lindholm et al., 1997; Amore et al., 2007). In relation to the voice, several vocal symptoms have been associated with these climacteric hormonal variations, such as: vocal fatigue, lowering of the speaking voice, difficulties with vocal control, lack of intensity, reduction of vocal

pitch range, hoarseness (Boulet & Oddens, 1996; Abitbol, Abitbol & Abitbol, 1999) and feelings of excessive mucus in the throat (Lindholm et al., 1997). However, the extent to which these climacteric vocal symptoms might interfere with work, career management and livelihood of professional voice users (i.e. school teachers, university lecturers, journalists, politicians, women working at "call centres", singers of different musical genres, choir members, and actresses) has still not been explored.

The majority of previous work has been focussed on physical aspects of voice production and on the care of the voice, but not on issues related to psycho-sociological impacts of voice and lifelong implications for career management. Additionally, few studies have been concerned with the older female voice, and especially with the population of female professional voice users (Linville, 2001).

The only reported study concerned with voice production during the climacteric period and professional voice user's perceptions involved a questionnaire survey comparing the perceptions of female and male classical singers (aged 40-74 years). In general, all singers felt that their vocal timbre had changed with age (Boulet & Oddens, 1996). The results showed that the majority of respondents (77% female singers and 71% male singers, acting as controls) believed that vocal changes happen around the age of 50 years. The most reported vocal change was huskiness (25% females, 6% males), followed by loss of high notes (69% females, 47% males), reduced vocal fold's suppleness (72% females, 47% males), and less vocal control (36% females, 24% males). In general women felt that physical changes that occur in the fifties interfere with their singing abilities, with 65% of women reporting that these vocal changes were associated to the menopause. The authors speculated that vocal changes experienced during the menopause may be due to decreased concentrations of oestrogens and increased free androgens, leading to reduced suppleness and thinning of the vocal muscles. These in turn would lead to problems with vocal emission, vocal control and the ability to sing high notes. Reduced oestrogen may also have indirect effects on the larynx, because lower concentrations of oestrogens are related to a decrease in collagen in the connective tissues of the body, and the larynx is not an exception. In respect to timbre changes in both female and male voices around the fifth decade, the authors believed that these might not be necessary related to endocrinological changes, but rather related to professional use of the voice and aging (Boulet & Oddens, 1996).

The other studies reported in the literature concerning the menopause and effects on the voice were focussed only on aspects of voice production (Lindholm et al., 1997; Abitbol, Abitbol & Abitbol, 1999; Meurer et al., 2004; Schneider et al., 2004; Laureano et al., 2007;), and those studies concerned with perceived psychosocial impacts of the menopause were most focussed on the female population in general regardless professional voice use (Collins & Landgren, 1997; Machado, Aldrighi & Ferreira, 2005). With the increasing expectations of high QoL within the aging population at work place, it is important to investigate the physical, psychological and sociological perceived implications of climacteric hormonal variations on those whose careers depend on the use of their voices. Thus, this pilot qualitative research aims to investigate professional voice users' perceptions in relation to climacteric hormonal variations and respective impacts on: (i) well-being and general QoL; (ii) self vocal-efficacy and related working capacity and career management; and (iii) psychosomatic issues such as self-identity, and self-esteem in relation to professional use of the voice.

Methods

To encourage the exploration of professional female voice users' perceptions, feelings and understandings, semi-structured interviews were conducted with 8 professional voice users (aged between 61 and 71 years; mean age = 64.875), all drawn from several schools of music and drama within different countries in Europe (Portugal, Spain, Scotland and Sweden), and sampled using a "snowball" technique. The participants were then allocated into 3 different groups of voice professionals: group A - four professional singers from different musical genres, all currently active performers, with national and international careers (i.e. Fado, Jazz, Early Music, and Opera); group B - 2 actresses (a drama teacher and an active theatre and TV actress); and group C - 2 teachers (a school teacher and a signing teacher at the conservatoire).

A plan of the interview was made (as a guideline) focusing on: age of menopause; perceptions of general well-being, quality of life, vocal efficacy, working capacity and career management during the menopause; and the impact of menopausal perceptions on psychosomatic issues such as self-identity and self-esteem. All interviews (which lasted approximately 30 minutes each) were recorded on a digital voice recorder (VN-2100PC Olympus), saved into a wav file on a portable computer, and later transcribed in word processing computerised program for analysis.

After listening to, transcribing and reading all interviews, the data was analysed using a thematic approach, since this methodology is widely used in qualitative research, enabling data to be reduced to key themes (Maxwell, 1996). Data were then grouped according to the following categories: (i) perceptions towards menopausal symptoms; (ii) description of identified menopausal symptoms; (iii) age at which these menopausal symptoms started to be perceived; (iv) perceived impact of these symptoms on: general well-being and QoL; voice quality and vocal-efficacy; working capacity and career management; and (v) history of HRT use.

Results

Perceptions of well-being and general quality of life during the climacteric period

All interviewees reported to feel physical and psychological symptoms related to the menopause, which clearly affected their well-being. Amongst the physical symptoms, night sweats and vasomotor symptoms (i.e. hot flushes) were the most reported ones (6 participants), followed by general tiredness and vaginal dryness. Amongst the psychological symptoms, irritability, anxiety and nervous disturbances were reported as the most significant ones. The extent to which these symptoms were felt diverged amongst participants. The majority of them (6 participants) reported to be negatively affected by menopausal symptoms to a point in which their QoL was impaired. The remaining participants (2) reported to feel only mild symptoms, almost imperceptible.

It was very difficult for the participants to precise how long these menopausal symptoms lasted, as the majority of respondents (5) were prescribed with HRT; however, it was easy to determine the mean age at which the menopause occurs as the majority of participants felt menopausal symptoms for the first time between the age of 47 and 50 years old.

Perceived impact of menopause on voice quality and vocal-efficacy

The most common vocal symptom reported by the interviewees as interfering with their perceptions of vocal-efficacy was difficulty in controlling the blending of registers. This was reported not only by singers (the jazz singer and the early music singer), but also by the school teacher. Lack of projection was another reported vocal symptom associated with the menopause. Vocal dryness, decreased vocal range, deeper speaking voice, vocal fatigue and diminished vocal stamina were also pointed out as strong vocal changes that were perceived as being associated with the menopause.

Perceived impact of menopause on career management

For those participants experiencing significant menopausal symptoms, the menopause was a period during which their attitudes towards their voices and careers have changed. For example, technical aspects of voice production and the care given to their voices were taken into account more carefully, as reported by the jazz singer and the early music singer, who reported the necessity of warming-up the voice, before practice and performance, a habit that she didn't have before the menopause. Additionally, this singer reported that the menopause significantly changed her vocal mechanism, so that she had to cancel public performances for 3 months, and sick for the help of a phonetician in order to learn how to overcome these vocal changes. The opera singer reported to have to adapt her technique in order to overcome vocal changes associated with the menopause. The actress and the fado singer explained that apart from voice modifications, the sweating and the hot flushes had a negative impact on their performances, and sometimes even would impede them from performing.

Perceived impact of menopause on self-identity/self-perception

Menopausal changes were reported to affect the way these professional voice users perceived themselves, thus impacting on self-identity, self-perception, and general the quality of life (QoL). Higher levels of anxiety towards the performance related to the increased self-awareness due to bodily and vocal changes were reported to jeopardize the quality of the performance. This was mentioned by the singers (with the exception of the fado singer) and teachers. The menopause was perceived as part of the aging process, which, at the beginning, contributed to decreased feelings of self-esteem, later overcame by focussing on keeping professional engagements and normal professional activity as much as they could.

Discussion

Generally speaking, it can be concluded that the menopause was recognised as a period during which vocal and physical symptoms occur, which negatively affect QoL. Vocal efficacy seemed to be diminished during the menopause, especially for professionals who belong to level 1 of Koufman and Isaacson's (1991) classification of professional voice users (i.e. those whose career depend on the exceptional quality of their voices, such as singers and actresses) (Stemple, 1993). This perceived diminished vocal capacity contributed to changes in vocal attitudes during the

menopause, such as adapting different vocal technique methods, practicing specific exercise, choosing different repertoire. Attitudes towards career management were also adapted in accordance to menopausal physical and vocal symptoms; for example, decreased frequency of performance engagements, and special concerned to the care of the voice during the menopause.

Implications for the future

Professional voice users greatly depend on their physical, vocal and psychosomatic well-being to face the biosocial demands of their professions. This qualitative study highlighted that menopausal physic and psychosomatic changes (including vocal symptoms) are perceived to significantly impair perceived QoL, working capacity and career management of different professional voice users, specially those whose successful management of their careers depends on the maintenance of highly exceptional voice quality (i.e. singers and actresses). Applying Maslow's hierarchy of needs to the optimisation of vocal performance (Gleitman, 1991), it can be inferred that optimum vocal performance might be compromised when normal psychosomatic bodily function, which are the foundation stone for a normal voice function, are impaired by hormonal variations that occur during climacteric years. In addition, feelings of less vocal efficacy would contribute to less self-esteem and thus, a negative attitude towards the achievement of a good performance, with feelings of increased anxiety and diminished ability to focus on other important aspects of her performance, such as communication, emotional expression and musicality (the later important especially to singers).

Despite this, few studies were able to provide a systematic explanation on how climacteric years and associated bio-social changes affect those who use their voices as a "tool of trade". Voice production is a complex phenomenon (especially when its use is applied to artistic achievement), as it depends on a delicate balance between several bodily, psychological and mental systems. Thus, it is urgent to develop further research studies, using a holistic methodological approach and investigating voice production in conjunction with its related psycho-sociological implications, focussing on the specific needs of this professional's population.

Bibliography

Abitbol, J., Abitbol, P. & Abitbol, B. (1999) Sex Hormones and the Female Voice. *Journal of Voice*, 13, 424-446.

Amore, M., Donato, P., Berti, A., Palareti, A. Chirico, C., Papalini, A., & Zucchini, A. (2006) 'Sexual and psychological symptoms in the climacteric years' *Maturitas* 56: 303-311.

Boulet, M.J. & Oddens, B.J. (1996) 'Female voice changes around and after the menopause - an initial investigation' *Maturitas*, 23, 15-21.

Collins, A. & Landgren, B-M. (1997) Psychosocial factors associated with the use of hormonal replacement therapy in a longitudinal follow-up of Swedish, *Maturitas*, 28, 1-9.

Laureano, J.M., Sá, M.F.S., Reis, R.M., Ferriani, R.A., Romão, G. . & Aguiar-Ricz, L.N. (2007) 'Letter to the editor: Impact of menopause and hormonal replacement therapy on harmoni-to-noise-ratio of the voice' *Maturitas* 56, 223-224.

Lindholm, P., Vilkman, E., Raudaskoski, T., Suvanto-Luukkonen, E. & Kauppila, A. (1997) 'The effect of postmenopause and postmenopausal HRT on measured voice values and vocal symptoms' *Maturitas* 28, 47-53.

Linville, S.E. (2001) *Vocal Aging*. San Diego: Singular Thompson Learning.

Machado, M.A.M.P., Aldrighi, J.M. & Piccolotto, L. (2005) 'The meanings attributed to the voice by menopause women' *Revista de Saúde Pública* 39 (2), 261-269.

Maxwell, J.A. (1996). *Qualitative Research Design – An Interactive Approach*. Applied Social Research Methods Series. Vol. 41. Thousand Oaks: SAGE Publications.

Meurer, E.M., Wender, M.C.O., Corleta, H. von E. & Capp, E. (2004) 'Phono-articulatory Variations of Women in Reproductive Age and Postmenopausal' *Journal of Voice* 18, 369-373.

Schneider, B., Trotsenburg, M., Hanke, G., Bigensahn, W. & Huber, J. (2004) 'Voice impairment and menopause' *Menopause: The Journal of The North American Menopause Society* 11, 151-158.

Rees, M. & Purdie, D.W. (2006) *Management of the Menopause: The Handbook*. Abingdon: The Royal Society of Medicine Press Limited.

Stemple, J.C. (1993). *Voice therapy, clinical studies*. St Louis: Mosby-Year Book, Inc.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music education as a means of socio-emotional development in early childhood

Maria Magaliou

Abstract

Children's sound socio-emotional development during early childhood is essential for their later academic success and their even incorporation into society during adult life. Research has showed that children who display problems in their socio-emotional behavior till the age of six run serious risks in their later life, like school abandonment, low academic success, even delinquency or drug abuse. For the above reasons contemporary programs of early childhood education place particular emphasis on the reinforcement of children's social skills and their emotional development. The question about the role music education may play in children's socio-emotional development has occupied research in music education. Music educators and music therapists have underlined the great importance of singing, music improvisation, kinesthetic response to music and other musical activities on children's socio-emotional development. Furthermore, research about the early socio-emotional and musical development of infants has pinpointed the important role of music in the first social interactions between mothers and infants, while ethnomusicologists' studies have underlined that social interaction is interrelated with the processes of musical creation and performance in non-industrialized societies. The present paper attempts a brief presentation of music educators', music therapists' and ethnomusicologists' views about the role of music education in children's emotional development and the development of their social relations, as well as of the conclusions of relevant research with young children in Greece and other countries.

Introduction

It is nowadays a common view of educators, researchers and parents that children's healthy socio-emotional development since early childhood should be regarded as a basic priority of the educational system. In a society which changes with exceptionally rapid rhythms and demands that people can be adapted to constantly changing conditions it is very important for educational programs to cultivate children's abilities to cope with their emotions, to make choices and decisions, to co-operate and communicate with other people and to maintain genuine and essential human relations.

According to the CASEL Organization (*Collaborative for Academic, Social and Emotional Learning*), which aims at the promotion of research and educational practice in the area of social and emotional learning, the main educational objectives in this area are self- knowledge, self-management, social awareness, relationship skills and responsible decision-making. In the area of self-knowledge recognition of personal emotions, abilities, needs and values are fostered, as well as self-esteem. Self-management has to do with control of negative emotions, discipline and respect of common rules and the ability to set goals and try to achieve them. Social awareness relates to respect to others, empathy[1] and recognition and acceptance of people's differences. Relationship

[1] The term "empathy" is used to describe the inclination to care about others and the desire to help them in a difficult situation, the ability to perceive other people's emotions or even to share them, and generally to put oneself in another person's perspective.

skills have to do with communication, establishment and maintenance of social relationships with people of the close and the broader social environment, co-operation, negotiation, as well as seeking help from others when it is necessary. Finally, responsible decision-making relates to the ability to realise our problems and invent positive and effective solutions for them (Collaborative for Academic, Social, and Emotional Learning, 2008).

Early childhood is especially important for later social and emotional development, as well as for the even incorporation in the social environment during adult life. The role of early childhood education is essential, so that children gain self-esteem, broaden their social interactions and attain self-management (Dewolf & Benedict, 1997). Research has showed that children, who face difficulties in their socio-emotional development during the age of zero to six years, have a great possibility to have low academic success in later educational levels, to abandon school and adopt offending behaviour during adolescence, and even to face problems like difficulties in adapting to the working environment, unemployment and drug abuse during adult life (Gresham & Reschly, 1987; Katz & McClellan, 1991).

Within the frame of questioning about the formation of the appropriate conditions for social and emotional learning, the query about the role music education can play in socio-emotional development has occupied music education theory and research. It has been claimed that music education has a positive effect on emotional development and directly relates to social interaction and interpersonal communication (Peery & Peery, 1986; Forrai, 1990; Serghi, 1995) and that this relation starts since infancy (Papousek H., 1996; Hodges, 2002). It has also been argued that music plays an important role in the attainment of self-knowledge, in the formation of personal and group identity (Hodges, 2005). According to Peery & Peery (1986:3) we reproduce "many of the behaviors and experiences that are necessary for human communication" through music.

Since the ancient time the beneficial effect of music on human soul had already been pinpointed and its importance for emotional balance had been stressed. A characteristic expression of these beliefs can be found in the myth of Orpheus, who could calm wild beasts and the dark powers of the Underworld, using the power of his music. Pythagoras had claimed that the universe, the human soul and music are conditioned by the same harmonic principles. Plato had also argued that music has been given to man in order to calm the sufferings of body and soul, while Aristotle and his followers had pinpointed the emotional power of music, claiming that the excitement caused by music can remove every other psychological tension (Prinou-Polychroniadou, 1989).

The importance of music as a means of interpersonal communication during the prenatal period and infancy

Scientists who examine prenatal development have pinpointed that the early development of hearing, comparatively to the other senses, gives music an advantage as far as its emotional impact on man is concerned. Researchers have found that the hearing system fully functions three to four months before birth, as well as that the fetus perceives environmental sounds, the mother's voice and musical sounds and reacts to them (Lecanuet, 1996). During the foetal period the most regular stimulus the fetus gets is his mother's heart- beat. This sound is characterised by periodicity (approximately 72 beats per minute) and is therefore related to rhythm, one of the most fundamental characteristics of music. This contact with rhythm is one of the first experiences of the senses in the

microcosm of the womb. It has been found that newborns daily exposed to the familiar -from the foetal period- sound of an adult's heart-beat were comforted by it and earned weigh more easily (Sack, 1960, 1962, in Bunt, 1994:76). This fact shows that the frequency of the heartbeat can function as a kind of "a primitive rhythmic experience, which has an extremely calming effect on the fetus and is preserved as a fundamental bodily-emotional experience in the whole life of men" (Prinou-Polychroniadou, 1989:38).

The importance of music as a means of interpersonal communication during the first stages of socio-emotional development is pinpointed by research about the first social interaction between mother and infant. The relationship between mother and infant is the first relationship of social interaction and is concerned as one of the most powerful and permanent psychical bonds that constitutes the model for later social relationships (Bowlby, 1969, 1973; Raymond-Rivier, 1989). The role of music in the procedures of communication and emotional interaction between mothers and infants is a matter of research. Research until now has showed that musical abilities participate in the procedure of human communication since the beginning of life, since an important number of the interactions between the newborn and the mother are based on the manipulation of vocal sounds (Papousek, H., 1996). As it results from the microanalysis of the interactions between mothers and the infants, mothers modulate the speech directed to the infants with changes in dynamics and use rhythmic and melodic patterns to convey meanings and communicate with them. This special kind of "musical speech" that adults direct to infants has been characterised as "motherese speech" (Hodges, 2002:2) and as the first "prelinguistic alphabet" (Papousek, M., 1996).

Infants learn from a very early age to communicate using the same acoustic-musical elements to express their needs or various emotional moods (Hodges, 2002). Adults adjust the acoustic-musical interchange with infants in the feedback they get from them. They correspond with sensitivity to the changes of their emotional situations, adjusting the musical elements of their speech to them (Papousek & Papousek, 1987). It is characteristic that Bullowa (1979) uses musical parallels to describe the first play between mother and child: "Movement, sound and rhythm are essentially the common experience of mother and child- synchronic and dynamic schemata of counterpoint and syncopation".

The role of song in the establishment of the early emotional bond between mother and child has been marked by Trevarthen (1990) and Fridman (1973, in Miller, 1986:207), who claim that the mother should sing to her baby and answer his sounds, in order to build "an acoustic bond between the two". Thurman, Chase & Langness (1987:26) agree with this position, suggesting that:

> Song combines speech and music and offers a level of cognitive and emotional experience for parents and babies that speech alone cannot offer […] Singing adds the special expressive power of music to an already feelingful communication […]The integration of singing into the daily fabric of such activities like walking, sleeping, feeding, bathing, […] and playing deepens the bond, makes the daily routines of parenting more pleasant and can orient babies to more positive personalities.

It has also been argued that mothers possess a special repertory of lullabies and infants' songs, which are characterized by higher pitch, slower tempos and more expressive voice quality than their usual way of singing, and which are used as a means of communication between them and their babies (Welch, 2005:118). The great importance of music as a channel of communication and social interaction within the frame of the first interpersonal relationships of the infant implies

that music will continue to be important in the child's later emotional interchange with his environment.

Unfortunately, as children grow up and develop the ability of linguistic communication, their musical-vocal interactions with adults gradually disappear, not because their disposition for vocal-musical play reduces, but because the majority of adults stop using it as a means of communication and consequently stop reinforcing and feeding it back, preferring linguistic communication (Dowling, 1999).

Musical activities and their importance on the social and emotional development of children in early childhood

When children enter organized education, music education can give them new opportunities to use music as a field of emotional expression and interpersonal communication. Musical activities, like song, movement to music, personal or group musical improvisation with the voice or the musical instruments, can contribute to the social and emotional learning, as it has been defined in the introduction of the present article (CASEL, 2008). While the child participates in various musical activities he has the opportunity to come in contact with other children and adults, to communicate with them through music and to socialize (relationship skills), to learn to respect other people and to creatively work with them, as well as to accept differences between people (social awareness), to acquire self-control and self-discipline (self-management). Especially the procedures of exploring and experimenting with music give opportunities for children to feel internal satisfaction and self-confidence, to develop positive self-consciousness (self-knowledge), as well as to share pleasant experiences of group musical creativity with their teachers and peers.

As Greenberg (1992:115) characteristically pinpoints,

> music education […] builds group feeling and identity […] enables children to learn from each other […] and most importantly, it provides a suitable means of large-group learning and response, both of which are pertinent to such musical activities as singing, playing instruments and creative movement.

Furthermore the composition of their own music can help children in the development of strategies in *decisionmaking.* As Barrett (1996) characteristically marks, aesthetic decision-making is a non verbal procedure, during which children manipulate the constructive elements of music, according to their own choices and decisions, in order to create original musical compositions.

Song, beginning with the first vocal explorations of the infant and the mother's lullabies, offers abilities of emotional expression and communication (McDonald & Ramsey, 1978). It is characteristic that many children choose a familiar song as a "transition tune" which helps them to reduce their stress and communicate more effectively with their environment. The "transition tune" relates to the concept of the "transition object". The "transition object" is defined by psychologists as an object that represents the interim between the internal world and the external environment and offers the child a feeling of emotional security, acting as a shield of protection from the external

world (Winnicott, 1971, in Bunt, 1994)[2]. Furthermore, group singing is often described as an activity during which children experience the feeling of participating in the group and of sharing a pleasant activity with their peers and teachers. According to Rimsky (1995: 10) there is

> […] a certain connection between singing the same tune and being involved in the same harmonies and being in a harmonious relationship: people sometimes say that they speak the same language. The same language infers that people communicate successfully, being co-operative intellectually […] as well as emotionally […]

Forrai also points that "a song can generate different moods, through which a child's emotional world becomes richer, more varied, deeper […]. While singing […] the child enters in a new kind of relationship with […] his classmates and the environment (1990:14).

Music and movement activities can also reinforce social interaction. When they move to music or dance, children try to fit their movements with those of adults and other children and share with them a pleasant activity. As Moog has argued (1976) movement is one of the first musical activities, through which the young child is socialized, while Warner (1999) maintains that an appropriate music education program, which -among others- emphasizes movement activities, can develop children's self-confidence and feeling of self-worth.

In addition, improvisation with the voice or the musical instruments can comprise a means of emotional expression of the child and of interaction with the other members of the group. Musical improvisation can become a means for the exploration of feelings. The musical instrument, which is the vehicle of the improvisation, can be supposed to obtain the qualities of a "transition object" (Winnicot, 1971, in Bunt, 1994:96-97). As Alvin argues (1977, in Bunt, 1994:96-97), the musical instruments can be supposed to be extensions of the body through contact, with the hands and the mouth. The instrument/object can be charged with all kinds of personal emotions of the person who improvises and at the same time it can be used as a medium of communication with another person.

Furthermore, group musical improvisation creates the appropriate circumstances so that children interact socially and emotionally with other children and teachers and co-operate in order to succeed the final product and share a pleasant and reciprocal musical and social experience. Within the frame of common musical improvisation "musical co-operations" between children are often made and children come closer to each other and share pleasant emotions (Flash, 1990). It is indicative that Orff, in the music education approach of whom musical improvisation has an important position, regarded the process of "getting played in to one another" as a presupposition and at the same time a basic aim of group musical creativity (Orff, 1978: 22).

[2]According to Winnicott (1971) during the first months of life the mother fully adapts to the child's needs and desires, and as a consequence the infant is unable to separate himself from the other and creates the illusion that the mother and himself constitute a unified entirety. But as the infant grows up the mother dispels this illusion, introducing gradually increasing defeats in the fulfillment of his needs. In this way she allows him to travel from objectivity to subjectivity, to accept reality and to feel the experience. This development causes stress and disappointment to the young child. The "transition object" comes to play an important role in coping with this stress. It is a true object, like a fuzzy animal or a blanket, etc, or a non-material "object", like a word or a melody, that can fulfill the same role. It is called "transition object" because it is neither something internal or an illusion, nor an external object for the infant. It is part of the mother, part of himself, intermediate between the fantastic and the real, between security and insecurity. It allows the child to accept the mother's absence, keeping her symbolically present, as well as to have new experiences without disordering his internal balance. This interim is a place when all the emotions are allowed: love, hatred, affection, or even crudeness (Winnicott, 1971; Mitchell & Black, 1995; Abram, 1996).

Musical abilities can also contribute to the acceptance of differences between people. The acquaintance with different musical cultures, within the frame of music education, comprises one way in which children can perceive multiculturalism, can discover and learn to respect the musical traditions of other cultures, a fact that is extremely important in our time, when societies are in their majority multicultural. The recognition and acceptance of differences between people through multicultural music education can lead children "[…] to self respect but also to respect to other people's personality and become the basis for the creation of a climate of confidence, acceptance and co-operation in the classroom, as well as in the broader community (Adamopoulou, 2002:183).

A model for the exploitation of the opportunities music education offers for the development of social relationships is offered by the spontaneous music learning procedures in non-western cultures, like imitation of adults by children, peer teaching and learning through initiation, in certain stages of life in the social entirety (O' Connor, 1985 in Serghi, 1995:73). In traditional music songs are memorized, taught and handed down from one generation to the other. From time to time song and music are modified in time and place, so that they fit the needs and the taste of the performers. According to Nettl (1973:4) "a traditional piece of music is representative of the musical taste and the aesthetic judgment of all the people who know it and use it, instead of being the product of an isolated or even lonely creator". In contrast to "art music" in which musical performance and creation are thought of as a privilege of a musical elite and most people participate in the musical experience only as listeners, in traditional music everyone can undertake the role of the performer and the creator.

As Blacking (1967, 1973), Small (1983) and Addo (1997) point, participation and interaction are fundamental ideas in the traditional music of African cultures. In most kinds of music everyone has the chance to participate by singing, clapping hands or dancing. As Nketia (1975) argues "these bodily reactions […] offer the chance for a social interaction within a musical frame" (in Small, 1983:82). In the society of the Venda tribe in Africa, music is a way in which children participate in the social life of the group since a very early age. Since birth already, they share with their mothers their musical experiences, strapped in their backs, and take part in all the group musical activities. As they grow up and they start passing more time with other children than with their mothers, they attain a more active role in the group's musical activities.

According to Blacking (1967: 31) in Venda's community songs unite young people in the expression of common feelings, in a way that ordinary speech and action can not so easily succeed. Furthermore, group music creation and performance leads people to a collective feeling of their experiences, thus creating a greater conscience of the self and of their obligations towards other people (Blacking, 1973:58-59). The development of such a sense of collectiveness is important for the formation of a society in which everyone is interested in and fights for the common good and not only for the personal interest.

Research findings about the role of music education in children's socio-emotional development

The views of music educators, ethnomusicologists and the researchers of the infant's early musical and socio-emotional development about the socializing role of music education have been maintained from the findings of research, which has showed a positive effect of music education in

various aspects of children's socio-emotional development. Some of such research projects from the area of preschool and primary education are mentioned in the following paragraphs.

Hood (1973 in Hanshumaker, 1980) examined the effect of daily music teaching on children's personality. He compared two groups of children of the third-grade. The one group (experimental group) was involved in music teaching daily, while the other group (control group) took music lessons only once in a week. The results showed a predominance of the experimental group in the area of social adjustment, as it was evaluated with the use of the California Test of Personality.

Serghi' s (1995) research, which was conducted in Cypriot kindergartens also showed the positive effect of music education on pre-school age children's socialization. In this research the effect of interdisciplinary teaching, with music as a keystone, on the personality of 4-6 years old children was examined. The experimental group was taught with the method of interdisciplinary teaching, while the control group was taught according to the specified official curriculum. Socialization was one of the areas in which a predominance of the experimental group over the control group was found. The results of the research showed that the systematic music education of the child positively effects on his socialisation "having as a result the acquisition of a feeling of self-confidence by the child and his easier social adjustment" (Serghi, 1995:123).

Similar results were drawn from the longitudinal research of Forrai (1997), which lasted for three years. The aim of the research was to compare a group of children from 6 to 40 months old, who took part in a music activities program (experimental group) to another group of children of the same age (control group), as far as their linguistic abilities, their abilities in rhythmic movement and their development on the area of socio-emotional development were concerned. The results showed that children of the experimental group outperformed children of the control group in their tendency to start social interactions with other people and indicated much more often positive emotional reactions.

Another longitudinal research that pinpointed the role of music on the social development of primary education children was the one conducted by Bastian, Hafen, Koch & Kormann (2000) in primary schools of Berlin from 1992 till 1998 with the view to examine the effect of extended music education in various aspects of children's development. The research was based both on qualitative and quantitative methods in order to achieve a profound analysis. One of the main conclusions drawn from the research was that, at the end of the research, students who had taken part in the program of extended music education (musical instruments instruction and participation in musical ensembles) seriously outperformed those who had not taken part in such a program as far as their social abilities and their social acceptance by their peers were concerned. In the classes were the extended music education program was applied socially isolated students were remarkably fewer than in ordinary classes. In addition, in a research conducted by Jordan-Decarbo and Galliford (2001), which examined the effect of a music education program on 3 months to four years old children, a positive effect of the program on children's kinetic, cognitive, linguistic and socio-emotional development was found.

Finally, a research in a Greek kindergarten (Magaliou, 2007, 2008) found a positive effect of musical activities, with an emphasis on kinetic and iconic representations, on the socio-emotional development of 4-6 years old children. During the research, which was based both on qualitative and quantitative data, the role of musical activities, with an emphasis on kinetic and iconic representations of music, on the musical and socio-emotional development of children was

examined. As far as socio-emotional development is concerned, the statistical processing of the quantitative data, as well as the analysis of the quantitative data, led to the conclusion that the applied music education program had a positive effect on children's ability to co-operate effectively, to start and participate in social interactions with peers and adults, to express their feelings in socially acceptable ways, to retain a satisfying level of self-management, to conform with the rules of group life and to work with self-confidence in the school environment.

Research mentioned above emphasized the important role music education can play for the emotional development of children and for social interaction in early childhood education. Nevertheless, in a relatively recent review of research about the role of music education, the need to further research the role of music education on socio-emotional development, on behavior modification and on the reinforcement of therapeutic aims is stressed. As is characteristically argued (Scripp, 2002:135)

> The inclusion of music as a tool for solving social-emotional and behavioral issues that exist at all levels of public education should be addressed by future research. Teachers will not be able to fully understand music's impact on education without knowing how learning in and through music serves as a window onto the interactions among social-emotional issues, behavior modification, and the ability to learn.

The possibilities music education can offer towards this direction should be seriously be taken in mind, so that planned music education programs cultivate the group spirit and the ability to co-operate, to strengthen children's self-confidence and feeling of self-worth and to create favorable presuppositions for emotional development. Especially in our time, which is characterized by social isolation and competition, as well as by lack of authenticity and genuineness in human communication, the possibilities for the development of "social intelligence" (Goleman, 1995) through musical activities should become a priority of music education.

Bibliography

Abram, J. (1996). *The Language of Winnicott. A Dictionary of Winnicott's Use of Words.* London: Karnac Books.

Adamopoulou, M. (2002). Diapolitismiki mousiki ekpedeusi ke elliniki pragmatikotita (Intercultural music education and the Greek reality) (*Music Education , 11* (III), (Special edition: Proceedings of the 3d Panhellenic- International Conference of the Greek Society of Music Education, Volos, 28-30 June 2002), 176-186.

Addo, A. O. (1997). Children's Idiomatic Expressions of Cultural Knowledge. *International Journal of Music Education,* 30, 15-25.

Barrett, M. (1996). Children's aesthetic decision-making: an analysis of children's musical discourse as composers. *International Journal of Music Education*, 28(1), 37-62.

Bastian, H. G., Hafen, R., Koch, M. & Kormann, A. (2000). *Musik(erziehung) und ihre Wirkung.* Mainz: Scott Musik International.

Blacking J. (1967). *Venda Children's Songs.* Johannesburg: Witwatersrand University Press.

Blacking J. (1973). *How musical is Man?* Seattle: University of Washington Press.

Bowlby, J. (1969). *Attachment and Loss. Vol. 1 Attachment.* New York: Basic Books.

Bowlby, J. (1973). *Attachment and Loss. Vol. 2 Separation.* New York: Basic Books.

Bunt, L. (1994). *Music Therapy: An Art Beyond Words.* London: Routledge.

Collaborative for Academic, Social, and Emotional Learning CASEL] (2008). *Social and emotional learning and student benefits: Implications for the Safe School/Healthy Students core elements*. Washington, D.C.: National Center for Mental Health Promotion and Youth Violence Prevention, Education Development Center. Retrieved on 22/4/2009 from http://www.casel.org/downloads/EDC_CASELSELResearch Brief.pdf.

Dewolf, M. & Benedict, J. (1997). Social Development and Behavior in the Integrated Curriculum. In H. Craig, D. Hart, C. Burts, and R. Charlesworth (eds) *Integrated Curriculum and Developmentally Appropriate Practice Birth to Age Eight*, 258-284. State University of New York Press.

Dowling, W. J. (Ed) (1999). The Development of Music Perception and Cognition. In: D. Deutsch, *The Psychology of Music,* 603-625. New York: Academic Press (first edition 1982).

Empathy: *Wikipedia the Free Encyclopedia*, retrieved on 10/8/2009 from http://en.wikipedia.org/wiki/Empathy.

Flash, L. (1990). Changing Perceptions of Music with Reception Children. *British Journal of Music Education*, 7(1), 43-65.

Forrai, K. (1990). *Music in Pre-school* (translated by J. Sinor). Budapest: Corina.

Forrai, K. (1997). The Influence of Music on the Development of Young Children: Music Research with Children between 6 and 40 Months. *Early Childhood Connections,* 3(1), 14-18.

Goleman, D. (1995). *Emotional intelligence.* New York: Bantam Books.

Greenberg, M. (1992). *Young Children Need Music.* Englewood Cliffs, N.J: Prentice Hall.

Gresham, F. L. & Reschly, D. J. (1987). Dimensions of Social Competence: Method factors in the Assessment of Adaptive Behavior, Social Skills, and Peer Acceptance. *Journal of School Psychology*, 25, 367-381.

Hanshumaker, J. (1980). The Effects of Arts Education on Intellectual and Social Development: A Review of Selected Research. *Bulletin of the Council for Research in Music Education*, 61, 10-28.

Hodges, D. (2002). Musicality from birth to five, *IFMR News 1*(1). International Foundation for Music Research (Retrieved on 22/4/2009 from http://12.22.222.84/Publications/)

Hodges, D. A. (2005). Why study music? *International Journal of Music Education*, 23(2), 111-115.

Jordan-Decarbo, J. A. & Galliford, J. (2001). The Effects of a Sequential Music Program on the Motor, Cognitive, Expressive Language, Social/emotional, and Musical Movement Abilities of Preschool Disadvantaged Children. *Early Childhood Connections*, 7(3), 30-42.

Katz, L. & McClellan, D. (1991). *The Teacher's Role in the Social Development of Young Children.* Urbana, IL, University of Illinois: ERIC Clearinghouse on Elementary and Early Childhood Education. ERIC ED 331 642. (Retrieved on 22/4/2009 from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/22/e9/56.pdf).

Lecanuet, J. (1996). Prenatal auditory experience. In I. Deliege & J. Sloboda (eds.) *Musical beginnings: Origins and Development of Musical Competence,* 3-34. Oxford: Oxford University Press.

Magaliou, M. (2007). *I simvoli ton mousikon drastiriotiton sti mousiki anaptixi ke tin kinonikosinesthimatiki anaptixi ton pedion prosxolikis ilikias mesa apo kinitikes ke ikonikes anaparastasis (The contribution of musical activities to the musical development and socio-emotional development of pre-school age children, through kinetic and iconic representations).* Doctoral dissertation, Ionian University, Department of Music Studies.

Magaliou, M. (2008). I kinitikes ke i ikonikes anaparastasis tis mousikis ke o rolos tous sti mousiki anaptixi ke tin kinonikosinesthimatiki anaptixi ton pedion: mia piramatiki ereuna stin prosxoliki ekpaideusi (Kinetic and iconic representation of music and their role in the musical development and the socio-emotional development of children: An experimental research in pre-school education). *Musical Pedagogics,* 6, 66-89.

McDonald D. & Ramsey, J. (1978). Awakening the Artist: Music for Young Children. *Young Children*, 33(2), 187-193.

Miller, L. B. (1986). Children's Musical Behaviors in the Natural Environment. In J. C. Peery, I. W. Peery, & T. W. Draper (eds.) *Music and Child Development,* 206-224. New York: Springer Verlag.

Mitchell, S. A. & Black, M. J. (1995). *Freud and beyond: A history of modern psychoanalytic thought.* New York: Basic Books.

Moog, H. (1976). *The Musical Experience of the Preschool Child* (translated by C. Clarke). London: Schott & Co. Ltd.

Nettl, B. (1973). *Folk and Traditional Music of the Western Continents.* U.K: Prentice Hall.

Orff, C. (1978). *The Schulwerk* (trans. M. Murray). New York: Schott Music Corporation.

Papousek, H. (1996). Musicality in Infancy Research: Biological and Cultural Origins of Early Musicality, In I. Deliege. & J. Sloboda (eds.) *Musical Beginnings: Origins and Development of Musical Competence,* 37-55. Oxford University Press.

Papousek, M. (1996). Intuitive Parenting: A Hidden Source of Music Stimulation in Infancy. In I. Deliege. and J. Sloboda (eds.) *Musical Beginnings: Origins and Development of Musical Competence,* 88-112. Oxford: Oxford University Press.

Papousek, H. & Papousek, M. (1987). Intuitive Parenting: A Dialectic Counterpart to the Infant's Integrative Competence. In J. D. Osofsky (eds.) *Handbook of Infant Development,* 669-720. New York: Wiley.

Peery, J. C. & Peery, I. W. (1986). The Role of Music in Child Development. In J. C. Peery, I. W. Peery, & T. W. Draper (eds.) *Music and Child Development,* 3-31. New York: Springer Verlag.

Prinou-Polychroniadou, L. (1989) *Mousiki ke psychologia: Isagogi sti mousikotherapia (Music and Psychology: Introduction to Music therapy)* Athens: Thimari.

Raymond-Rivier, M. (1989). *I kinoniki anaptiksi tou pediou (The Child's Social Development)* (greek translation M. De Castro). Athens: Kastaniotis.

Rimsky, A. (1995). Working together. *Music Teacher*, September 1995, 10-15.

Scripp, L. (2002). An Overview of Research on Music and Learning. In R. L. Deasy (eds.) *Critical Links. Learning in the Arts and student Academic and Social Development*, 132-136. Washington: Arts Education Partnership.

Serghi, L. (1995*). Prosxoliki Mousiki Agogi: I Epidrasi tis Mousikis mesa apo ti Diathematiki Methodo Didaskalias stin Anaptixi tis Prosopikotitas ton Pedion (Pre-school Music Education: the Effect of*

Music through the Inter-disciplinary Teaching Method on the Development of Children's Personality). Athens: Gutenberg.

Small, K. (1983). *Mousiki, kinonia, ekpedeusi (Music, Society, Education)* (Greek translation M. Grigoriou). Athens: Nefeli.

Thurman, L., Chase, M., & Langness, A. P. (1987). Reaching the Young Child through Music: Is Pre-Natal and Infant Music Education Possible? In J. Dobbs (eds.) *ISME Yearbook*, Vol. XIV. International Society of Music Education.

Trevarthen, C. (1990). Signs before Speech. In T. A. Sebeok & J. U. Sebeok (eds.) *The Semiotic Web.* Berlin: Mouton de Gruyter.

Warner, L. (1999). Self-Esteem: A Byproduct of Quality Classroom Music. *Childhood Education*, 76(1), 19-23.

Welch, G. (2005). We are musical. *International Journal of Music Education,* 23(2), 117-120.

Winnicott, D.W. (1971). *Playing and Reality.* London: Routledge.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

All children by nature have a musical brain

Georgia G. Markea

Abstract

The children's brain in Primary School is biologically musical. The embryo in the third month can hear and remember musical patterns and can associate them with feelings which they provoke. As infant he or she has developed to a certain extent musical skills. Studies have shown that what makes the difference is the way in which musicality can be developed in the environment in which a child grows up. For example, the parents' musical preferences, as well as if the child is involved in Music from earliest years and with a teacher suitable for this, influence decisively the musical education the child will receive. Studies show that the earliest contact with music studies improves significantly the development of an already musical mind. Indeed this influence does not relate only to the development of musical skills but also to different skills related to sciences and arts. This proposal aims at the description and analysis of views of neuromusical researchers about the extent to which a child's musical abilities constitute an innate imperative but also can be developed by the teaching itself.

Keywords
music and brain, music and education

Are we all musical?

"We are all musical; we just need the opportunity", claims Welch (2001) and certainly he is right. Music is a language and expressing it in words constitutes a natural activity for us; so also our need to sing derives from our very same nature. Music was born with speech. In ancient Greece indeed our language was called "prosodic" because it was sung. As characteristically mentioned by ancient writers on harmony, "Greeks used to sing through words and speak through song".

International research has shown that when children are born not especially gifted in music, if they begin from an early age to study a musical instrument they will develop further skills, with positive results not only in music, but also in whatever other field they choose. Indeed recent research (see Gorman, 2005) shows that involvement with music can check the destruction which occurs in brain cells with Alzheimer's disease.

Nevertheless, the human brain in each case is musical. Consequently we are all able to sing, whether in tune or out of tune. Also, irrespective of the level of our musical abilities, we all have the same disposition to express musically, listen to, or perform ourselves the melodies which touch our hearts.

The fact that music educators teach students who biologically are always in command of a musical brain significantly facilitates their work. In any case the music educator can trust the abilities of all his students, as well as express high expectations for them. On the other hand, students could develop their skills to the highest level if at the same time they did the requisite practice. This readiness to study is inspired in them chiefly by their teacher or by an individual from their background (family or friends) who they really love and want to please him/her through their progress.

Even the exceptionally talented Mozart possibly would not have achieved the same success in music if he had not been so industrious as well. As characteristically mentioned in the book Mozart (see Solomon, 1995), this great composer was successful since "he simply wanted to learn music". In short the existence of musical abilities which a musical brain affords is not sufficient. Even Mozart's progress in music was significantly due to the fact that he actually studied a great deal. In constant study his true love guided him to music itself, a matter, however, which again stems from what he commanded, as we all do - a musical brain.

What occurs in the inner part of the human brain?

According to research carried out in the Centre concerned with the Education of Gifted Children on Rhode Island in America, one of the prevailing myths about our brain is that we employ only 10% of it. In contrast, in neurological studies carried out up to the present moment, it has been demonstrated that there is not a single person on earth who has any part of his brain albeit small, unexploited. This favours us educators if a person considers that in the course of our teaching we address ourselves to students of whom 100% of their brain is functional. Besides, it leads us to stricter self-assessment when we measure the results of our teaching.

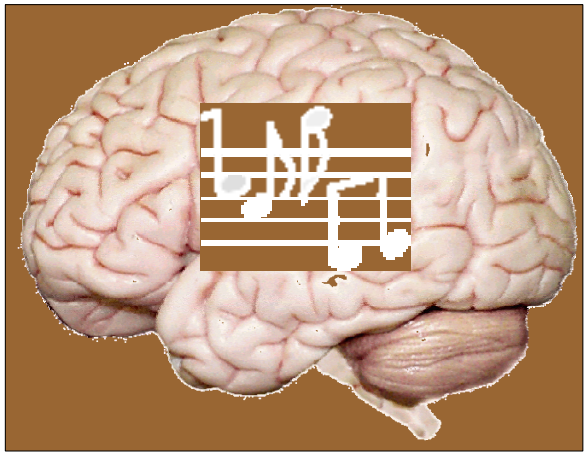


Image 1: *Human brain and music*

As far as what happens in our brain concerning the development of our musical skills, Trainor et al. (2002) confirm the view that our brain is musical from birth. The researchers in question claim that the registering of special elements of music takes place automatically in the human brain and consequently there exists a certain part of our brain which is mainly concerned with music.

According to research carried out, the brain of a professional musician who has been studying music since a very early age presents a disproportionate size in the acoustic crust (see Zatorre et al., 1998; Pantev et al., 1998). Likewise, in a study on the brain of Einstein (his brain has been preserved for purposes of research) by the pathologist Thomas Harvey, a small clot was located in his kinetic crust. This usually relates to musical ability. In fact Einstein played the violin from a very early age. One further finding from the same research which deserves to be mentioned is that genius in whatever branch of science or art has nothing to do with the size of the brain, but with difference in its structure (see www.press-argolida.blogspot.com). As noted, Einstein's brain differs chiefly in this respect from the average.

Are the musically talented created or born?

We are all by our nature gifted with musical abilities. An exception is the case of 'Congenital Amusia' (see Peretz, 2001), which nevertheless most probably is acquired and brought on by damage to the brain chiefly owing to lack of a suitable environment during the course of critical periods for the development of musical ability. Also, one other special case for children is the exceptionally talented in music who could really survive or learn music no matter their environment (see Markea, 2005).

Most students command a musical brain. Nevertheless, finally their development in music will depend chiefly on the environment in which they grow up. For all of us, our first favourite music was our mother's singing when we were still in her womb. With her singing began the acquired development, just in our foetal stage, of our musical skills. Indeed, as has been demonstrated, it is of great significance whether our mother's singing was in a musical tone. This will function as a 'diapason' and will later 'tune', correctly or not, our own singing also. Moreover, according to the musical preferences of the background in which we develop, we usually choose what music we will listen to for the rest of our lives.

The attempt to develop motivation for learning music in each children's background has been demonstrated to contribute to their musical development. According to Deci & Ryan (1985), when students' motivation proceeds from within themselves, they are instigated by external factors, or their behaviour is based on the choice which proceeds from their own decision and is boosted by their self-awareness, which is also the basis for autonomous orientation. According to McPherson & Davidson (2006) also, students succeed in music when they have acquired their own motivation, their own goals and sense of purpose for learning to play music. Then they will form their own methods for dealing with technical or musical difficulties on each occasion and will find under their own responsibility the way to secure the necessary time for their daily study as well as tailoring the world of their study according to their own tastes. Also, they will be able to evaluate their playing by themselves. In each case, even the exceptionally talented students, will have better results if there are people around (such as their teachers, parents or relatives and friends) to support them in their studies.

Gagné (1991; 1995) distinguishes the terms "gifted" and "talented". A gifted person is considered to be the one who has natural abilities in a certain field, while a talented person is one whose abilities are moulded and developed within the environment. In each case, whether we characterize a student as 'talented' or 'gifted' it will be difficult for us to evaluate with certainly the level of talent which he commands. And this is because even the students who attend the same classes never have the same truly musical background. This is usually influenced by the student's musical environment (chiefly family). If children's parents have the appropriate culture they will have succeeded in guiding them promptly to study music or at least to love the world of art. Also the social background of children can have a positive or negative influence on their interest in music as well as their performance in it.

The connection between innate musical talent and the appropriate learning environment is what leads to the most perfect outcomes in the music lesson. Nevertheless, according to research carried out in the Greek environment (see Markea, 2005), it seems that the exceptionally talented students on each occasion get better results than their fellow-students, not however because of the teaching or the environment in which they develop, but chiefly because of their innate talent.

Conclusion

If we accept that we are all by nature musical, our expectations for our students can really become greater, but also the interest of the community in the music lesson is in urgent need of being increased. In the contemporary Greek educational system which rests on interdisciplinariness, in accordance with which all topics complement each other, Music cannot but constitute in itself "nothing more nor less" than a major subject.

Bibliography

Deci, E.L., & Ryan, R.M. (1985). *Intrinsic Motivation and Self-determination in Human Behavior*. New York: Plenum.

Gagné, F. (1991). Toward a Differentiated Model of Giftedness and Talent. In N. Colangelo & G. A. Davis, Allyn & Bacon (Eds.), *Handbook of Gifted Education*. Boston: MA.

Gagné, F. (1995). From Giftedness to Talent: A Developmental Model and Its Impact on the Language of the Field. *Roeper Review*, 18(2), 103-111.

Gorman, C. (2005). *Music and the Mind*. www.time.com, 14 November 2005.

Markea, G.G. (2005). *Talent in Piano Playing: A Study of Exceptionally Gifted Soloists*. Athens: Athens Institute for Education and Research. ISBN 960-88672-1-5.

McPherson, G.E. & Davidson, J.W. (2006). Playing An Instrument. In G.E. McPherson (Eds.), *The Child As Musician: A Handbook of Musical Development*. Oxford: Oxford University Press.

Pantev, C., Oostenveld, R., Engelien, A., Ross, B., Roberts, l.E., & Hock, M. (1998). Increased Auditory Cortical Representation. *Nature,* 392, 811-813.

Peretz, I. (2001). Brain Specialization for Music: New Evidence from Congenital Amusia. In B. Zatorre & I. Peretz (Eds.), *The Biological Foundations of Music. Annals of the New York Academy of Sciences,* 930, 153-165.

Solomon, M. (1995). *Mozart.* London: Hutchinson.

Trainor, L., McDonald, K.L. & Alain, C. (2002). Automatic and Controlled Processing of Melodic Contour and Interval Information Measured by Electrical Brain Activity. *Journal of Cognitive Neuroscience*, 14(3), 430-442.

Welch, G.F. (2001). United Kingdom. In D.J. Hargreaves and A.C. North (Eds.), Musical *Development and Learning: The International Perspective*. London: Continuum.

Zatorre, R., Perry, D., Beckett, C., Westbury, C., & Evans, A. (1998). Functional Anatomy of Musical Processing in Listeners with Absolute Pitch and Relative Pitch. *Proceedings of the National Academy of Sciences*, 95, 3172-3177.

www.press-argolida.blogspot.com, PRESS-Argolida: Καθημερινή Ηλεκτρονική Εφημερίδα της Αργολίδας, 27 Απριλίου 2009.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The course of Harmony in the musical schools and the need of change of teaching philosophy

Vassilis Mitropoulos

Abstract

The course of Harmony is taught in the three final classes of Lyceum of musical schools and covers three hours from the weekly program. The way with which the content has been distributed in the classes is supported in the program of study of special course of harmony, as it is presented in royal decree Official Journal of the Hellenic Republic: 229/11-11-1957, which fixes the way of teaching of theoretical courses in the Conservatoires. The particular way of teaching, as well as the way of examinations, aims in the technical training of students in combination to the "spelling" of notes of accentual music, ignoring entirely the functionalism of harmony and hence the essential comprehension of reasonable succession of chords, as a mechanism of support of a completed melodic line. The proposal includes, the redeployment of matter in the classes, the comprehension of significance of a melodic skeleton, that is to say the choice of concrete notes of a melody from which a chord succession is structured, the manufacture of a bass line, and the comprehension of harmonious functional processes through their historical development, as this is presented in the three more important periods of accentual music: the baroque, the classicism and the romanticism. The approach is more materialized mainly by piano, as well as by simple orchestral compositions of the most important representatives of the musical periods that were mentioned before (Bach, Handel, Czerny, Mozart, Beethoven, Chopin, Mendelssohn, Schubert). The musical examples that are presented include the way of harmonious analysis of compositions and indicative, new type, exercises are proposed, that aim in making clear the technical training of students, such us the comprehension of harmonious operations.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The multiple roles of music as they are presented in Aristotle' s Politics

Eirini Nikolaou

Abstract

As Aristotle was seeking for the educational and training power of music, he came in front of its multiple possibilities. Music appears as the basic contributor of felicity through amusement and relaxation (παιδιὰ), through goodness (ἀρετή), as a mean of the cultivation of the mind (διαγωγήν) and as a mean of moral training (παιδεία). The most important value is the one which connects ethos (ἦθος), the power that music has on feelings and soul. Thus music can affect and improve human character through the impact it has on human soul. The reason why musical compositions have the ability to affect character is that the harmonies and the rhythms contains representations of states of character (ὁμοιώματα) of all ethical and sentimental conditions and as a result hearers soul can be affected and changes can be made. This characteristic of music can be useful for young people education if it is used in the proper way. Aristotle also examines the relation between music and purgation (κάθαρσις). Music can offer a kind of release of emotion, in other words it provides a way to be reborned as if a special therapy is applied. This last power of music is not very much connected with the education of young people but mainly with the general education of citizens.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music and Medicine: The relationship between music and medicine: historical inspection. "Music to heal the soul, the body and the mind"

Garyfallia E. Ntziouni

Abstract

Seeking the very beginning of the relationship between music and medicine, one should go way back to human history, where the primitive man believing in the existence of evil spirits and rendering illness to their bad mood, included music into the process of healing. A historical retrospection proves that the course of music in relation to healing evolved (since Hippocrates and Plato's time and maybe even before that) to a scientific field with deductions based on studies of that time and free to a large extent (if not completely) from magical beliefs and mythic remainders. To begin with, there was the Magician - Doctor who used music in an attempt to detect the "sound mark" of the patient or of the evil spirit by which he was possessed in order to heal him. Later on, music was used by the priests - doctors for curing purposes. The ancient Greek legends, mythology and the narrations concerning the curing qualities of music, are valuable indications of the respect the Greeks have showed towards it. A great number of ancient Greek reports prove the catalytic contribution of music to therapy. These reports are actually the roots of the modern use of music in medicine. Music is presented as an important medical means through the incantation, even since Homer's time. Later it appears to heal physical diseases. A striking example of the above is the use of the sonic vibrations of the pipe for the cure of sciatica by Democritus. From Chiron Centaur and Asclepius, Hippocrates and Galenus to modern musical medicine and music therapy, the allegation that music therapeutically treatment is as old as music is proved to be correct.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Modern Pedagogic Methods and Training of the Teachers in Music

Nikolina Ognenska - Stoyanova

Abstract

The main aim of this paper is to present the interactive methods as a contemporary tool for training students to be music teachers.

How do the interactive methods differ from the traditional methods for training students? The interactive methods create conditions for the learners to show significant interest in the discussions, for expressing their own opinions, for respecting the others' opinions and accepting them, for overcoming the communication barrier, for holding their viewpoints, for teamwork, etc. These are qualities and skills necessary for the contemporary personality not only for their professional realization, but also for the daily communication with people. Through the interactive methods the learners' cognitive function is activated, the interest in the studied issue is stimulated, an interdisciplinary of cognition could be reached, there is attractiveness of the teaching process, creative thinking is formed, etc.

The paper examines the interactive methods that are used when teaching "Teaching Methods in Music" to students. There have been presented the results of the inquiries carried out with the learners concerning using the interactive methods in education.

The paper is a result of the project "Modern pedagogic methods and music activities in the classroom", supported by SWU "Neofit Rilski" - Blagoevgrad, Bulgaria.

Keywords
interactive methods, music education, teacher training

Introduction

For years teaching pupils and students was organized in a way that they were passive listeners and were receiving the knowledge without any effort from a teacher or a university lecturer. Getting information, memorizing, control of the acquired knowledge and others are realized within this teaching process. The learners learn the knowledge presented and later retell what they remember in nearly the same words, which the lecturers have used. In the past that educational system gave good results but the changes in the society and mainly the using of Internet, computer and television in our daily routine has brought about the change of the way of teaching nowadays. The contemporary generation grows up in an environment that is completely different from the time when the educational system was created which is still used with the learners. Today the students are interested in different subjects and there is a great deal of information which they can have a use of. That is why this teaching method has been found as a boring and inefficacious one by the students and that's why the problems with the discipline in class are more and more increasing in the last years, whereas fewer and fewer students attend their lecturers' class at university.

The change that should be made in the educational system could be figuratively presented as the tale about the fisherman which sounds like this:

> Once upon a time there was a fisherman. Each time when he went fishing a poor and hungry man came to him in order to ask for fish to eat. The fisherman gave him a piece of fish several times but one day he told him: I have thought a long time over the fact

> that how I help you as I give you a piece of fish every day. What is going to be happened if a time comes when I will not be here – you can die starving. Isn't it better to teach you how to fish? (Gyurova, 2006).

The moral of the tale is that it's time to change the traditional way of organizing the teaching process. It should be changed from a process where only the teacher is responsible for the knowledge into a process where the learners are also responsible for acquiring skills and knowledge along with the teacher. Within such kind of a process a teacher and students influence over each other as equal partners in conditions of active participation of all learners. The necessity of changing the way of training the future teachers in music determines the object of the present research - studying the subject "Teaching Methods in Music". The topic of the research work is the interactive methods in "Teaching Methods in Music". The result of everything mentioned above is the main aim of this paper - *to present the interactive methods as a contemporary tool for training students to be music teachers by teaching subject "Teaching Methods in Music"*. In order to be achieved the following tasks have been assigned:

1. To be selected and adjusted the interactive methods that can be used in "Teaching Methods in Music" according to the subject contents.
2. To be researched what difficulties students face during their pedagogic practice before getting a diploma and to be planned accordingly the interactive methods for overcoming the difficulties, indicated by students.

A preliminary preparation is necessary in order to be selected the most appropriate interactive methods for studying the subject "Teaching Methods in Music". It consists of: analysis of the subject contents and dividing it into separate themes; review of the interactive methods and to be decided which of them could be used with the subject themes.

Interactive methods

Most of us have probably heard of and used interactive methods at their work. What are interactive methods? Their name comes from the word "interaction" which means active work where all participants influence each other. Therefore two important parties could be seen in the interactive methods – presence of intense activity and interaction among all participants in order to be solved the assigned task. (Gyurova, 2006; Ninova, 2006). Through the interactive methods it is gained not only knowledge, but skills and qualities too, which give the opportunity knowledge to be acquired for a long time. One and the same method could be used for forming different qualities and skills. On the other side, several methods could be used for forming a particular kind of skill or quality. It should be pointed out that it is not necessary for the whole lecture to be organized using interactive methods. They could last for different time duration and could be used at different moments in the structure of the lecture. The pedagogue's skill is to determine at which moment what kind of method is the most appropriate and necessary, how to combine the interactive methods with the traditional ones concerning the achieving a definite aim, i.e. how to find the balance between the traditional and the interactive methods in one lecture when acquiring knowledge.

There are different classifications of the interactive methods that are presented in detail in the book *The Interactivity in the learning process* (Gyurova, 2006). The most frequently used interactive methods are swot - an analysis, a method of incomplete sentences, a pyramid, an avalanche, an aquarium, lightning, brainstorming, twirling (circle), a panel discussion, brain cards, role-playing games and others.

In the present article the methods that are greatly applied when forming the students' skills and qualities, connected with practising their future job - teacher in music, will be introduced.

Interactive methods the subject Teaching Methods in Music

In order topics to be set within which the interactive methods could be used most effectively, it has been carried out an analysis of the contents of the subject "Teaching Methods in Music" as a result of which it has been divided into separate parts. It could be drawn a conclusion out of the analysis made that the interactive methods could be used within the following units and topics:

1. Within the basic music activities
   - **For creating emotional adapting before presenting** a piece of music or a new song
   - **For a comparison of** the models and the way of getting the students into voice that are in primary and pre-secondary schools
   - **When characterizing** the models for getting into voice and the skills that are formed
   - **For creating emotional adapting** before performing for the first time a song or a musical composition
   - **When creating** "a musical picture" over an assigned topic
   - **For composing** constructive tasks in order to be performed already learned songs
   - **For suggestions** for producing musical instruments for children out of waste materials
   - **When discussing** problems for which there are different opinions (for or against singing from music at school; for or against giving knowledge of a musical topic, structure, expressive means in music and so on, connected with the perceiving music and others)
   - **When characterizing** the models of getting into voice
   - **For teacher's self-training** in order to perform the instrumental composition or to prepare a song
   - **When having a talk** about the song's text while studying and preparing it or about the musical and artistic image after hearing the musical composition
   - **For acquiring** the succession when preparing a song or when perceiving the instrumental composition and others
   - **For acquiring** the knowledge about the songs, musical compositions and their composers, about the folklore regions in Bulgaria and the differences among them and so on
2. Musical abilities
   - **For a comparison of** the methods for forming musical abilities (the three (five…) similar (different) things)
   - **For relating** the specific ability to the knowledge and skills that are formed
   - **When acquiring** the sequence of teaching methods while forming the musical abilities
   - **For accomplishing and analyzing tasks** for forming a specific musical ability
3. Working with a student in music
   - **About determining** the topic of the lesson using a definite page of a textbook or particular tasks
   - **When working out** an idea for a lesson using a definite page of a textbook

- **When working out** an idea for exposing the lesson topic in music
- **When working out** a plan synopsis of a lesson
- **For relating** the tasks to a definite lesson with musical abilities that are formed

4. The teacher in music
   - **About the characteristic** of the music teacher's qualities
   - **When determining** the students' readiness for pre-diploma practice
   - **About forming skills for an adequate reaction** in unusual or special situations in class (a student breaks the rules during the whole class; a student loses consciousness during the class and others)

When analyzing the interactive methods and their applicability to the pointed above school contents of the subject *Teaching Methods in Music* it has been found out that the following methods are greatly applied:

Twirling (circle)

Nature of the method: It is used for generalizing the specific character of the different phenomena, for gathering information, for revising the basic knowledge and others. The pedagogue has preliminarily prepared sheets of paper with tasks. Students are divided into groups of 3 to 4 people and each group receives a sheet of paper. The teacher explains the task and determines the time for completing it. When the time is over the sheets of paper are exchanged among the groups. Each group adds for the same time information to the task of the other group or makes amendments in it, if necessary. Each groups works with a different marker in colour in order to be clear when discussing which decision or suggestion to which group belongs. This exchange continues up to the moment when each sheet of paper reaches the initial position (the first group it belongs to). Then discussion of the answers follows.

It is applied to:

- an analysis of the definite knowledge and skills that are formed through the assigned task
- composing tasks according to given by the teacher condition
- formulating lesson topics according to a given musical ability
- formulating topics for working out "a musical picture"
- suggestions for emphasizing/synchronizing some moments of the plot of "the musical picture"

Recommendations: The time for each group should be one and the same. While discussing each group chooses a speaker that should represent it. If there is a suggestion that is not included in the group but the student, who suggests it, sticks to it, then the suggestion is discussed in the whole class.

Pyramid

Nature of the method: The method is used for gathering information and rationalizing the knowledge. At first each one works alone, later they should be combined in couples, then in groups of four and so on in a geometric progression. The aim is to be reached a unified opinion in each group.

It is applied to:

- Composing tasks for forming a musical ability in students
- An analysis of definite knowledge and skills that are formed through the assigned task

- Formulating topics for working out "a musical picture" through playing musical instruments
- Developing an idea for emphasizing/ synchronizing the plot of "the musical picture"
- Preparing a lesson according to an assigned topic
- Determining the music teacher's qualities

Recommendations: The teacher should choose a topic that doesn't have a simple answer or it is not too extensive (For example, unsuitable topics are: What age did W.A. Mozart live? Or Formulate all the topics for working out "a musical picture"!).
In the end it is reached to the opinions of the two groups which are later discussed and written on the blackboard. The results obtained could be a basis for an independent work at home.

Technique "The three (four, five…) important things

Nature of the method: It is used as an independent technique or as an element of another method. Through this technique skills for revealing essential signs and things or finding the common and the different one are formed. The participants compare two pieces of information and find out what is different in them, i.e. what separates them and what is common between them, i.e. what unifies them.

It is applied to:

- Characteristics of the models of getting into voice and the skills that are formed
- Defining the lesson topic according to a given page of the textbook or assigned tasks
- Performing the musical composition or the new song
- Comparing the getting-into-voice of the pupils at primary and pre-secondary school
- Comparing the methods for forming musical abilities

Recommendations: the attention should be drawn to the most essential characteristics which determine the most specific features of the compared elements.

Brainstorming

Nature of the method: It is used in order to be activated the non-standard thinking, creative fantasy of the participants. The teacher assigns the topic and everyone should make the most unusual and original decision. All of them are put down without being discussed at the moment. After terminating the suggestions the given ideas are discussed as it is possible to made combinations among them. At last it is decided which of them could be used in practice.

It is applied to:

- Creating emotional adapting before presenting a new song or a new instrumental composition
- Suggestions for musical instruments for children or other musical objects, toys, utensils and so on for synchronizing preliminarily defined plot, story, situation and others
- Suggestion of topics for working out "musical pictures"

Recommendations: When presenting the task it should be explained that the suggestions could be unusual and they could even sound preposterously. After being made the suggestion is not immediately discussed. You should assign an independent task to the students in order to think a little how the suggestion made through the method Brainstorming could be later used within other tasks or for other purposes. For example, after defining the object that could be used for "emphasizing/synchronizing" a definite phenomenon or occurrence, "a musical picture" could be worked out.

Lightning

Nature of the method: it is used for focusing at the beginning of the lesson, for acquiring the knowledge already given and others. The teacher determines the topic or the scope of the knowledge that will be assimilated. He or she throws a small ball or another appropriate light object toward one of the students (pupils) and asks a short question with a simple answer. The student answers quickly and immediately throws the object back to the teacher or to another student as asks them a question and so on.

It is applied to:

- Introducing through singing the question: What's your name? –and respectively singing the answer – the name
- Relating the titles of the songs to their composers
- Relating the titles of the instrumental compositions to their composers
- Learning the way of modeling the musical elements – moving, graphic or putting them down with a note system. For example, how the rhythm is graphically depicted, how tone pitch is movingly performed and so on
- Relating the composers' name to the epoch they were composing in

Recommendations: you should explain in advance what the students (pupils) should do without explaining the aim to them, i.e. it is not necessary for them to know that they will acquire the knowledge of the songs and the composers' names. The questions should be short and to the point. (for example, instead of asking : Who is the composer of the song: "Our flag has three colours"?, only the title of the song is mentioned because the learners know in advance what the questions will be about).

With the schoolchildren it is better the ball to be thrown back to the teacher in order he or she to ask the next one a question. While with the students the ball could be tossed among them and they could ask one another questions. When throwing an object only the question is asked without mentioning the name of the person who should answer.

Asking Questions

Nature of the method: There is a learning situation given. The students should ask questions in order to lead the schoolchildren to knowledge.

It is applied to:

- A lecture on the text of the song that is prepared/studied
- Revealing the lesson topic
- A talk about the musical and artistic image after hearing the musical composition

Recommendations: The questions should be to the pointed, clearly stated and lead to the answer. They should be arranged logically, especially when revealing the new lesson topic.

Swot-Analysis

Nature of the method: The name of the method is defined from the first letters of the words that show what characteristics are studied through it:

Strengths
Weaknesses
Opportunities
Threats (Gyurova, 2006)

It is applied to:

- An individual self-assessment of the graduating students before starting their pre-diploma pedagogic practice about their readiness, worries, etc.
- Getting acquainted with the class – The teacher is orientated which student which activity is good at, bad at and what kind of worries they have that are connected with the education in music

Recommendations: After carrying out the method the results could be analyzed with all the participants and together could be discussed the troubles and the weak sides as ways of overcoming them are outlined. In that way the teacher gets acquainted with the class and therefore could plan the work so that it could be interesting and maximum useful for the pupils.

When carrying out the SWOT method, the teacher should determine the optimum time for accomplishing the task and then should also determine a number of characteristics, connected with the fourth indexes which the examined should fill in.

Role-Playing games

Nature of the method: It is used for solving a situation or simulating a school situation for accomplishing tasks by the students.

It is applied to:

- Solving a situation where a schoolchild behaves in an unsuitable way in class
- Solving a situation, where a schoolchild insists on listening to music that he/she has brought in class ,, but not the one that the teacher has planned
- Getting into voice with the group
- Preparing and studying a song
- Presenting a new musical composition
- Working out a task with the group and others

Recommendations: The task should be clearly stated. According to it in the end a lesson should be drawn from it and there should be drawn a lesson between the role-playing and the real situation.

Compositions/Essays

Nature of the method: The method could be carried out in groups (in a written form or orally together with all students). The teacher prepares in advance key words or a topic which the composition will be based on. If the method is carried out in groups, it and Twirling (circle) or Pyramid method combine.

It is applied to:

- Working out a plan synopsis of a lesson according to an assigned topic
- Composing a plot of "a musical picture" to the musical activity playing the musical instruments for children (choosing the acting persons, time and place of action, actions that occur, etc)

Recommendations: That method combines well with the methods of Brainstorming, Pyramid, Twirling (circle). Key words are taken out of this method and are later used in the plot.

Through the Pyramid and the Twirling a profound and more interesting knowledge is achieved and more information is gathered too. It could also be used for gathering information that is processed later in class or as an independent work given to students.

Debate

Nature of the method: The method represents an argument between two groups about a particular topic which both have contrary views on. The third group is the one that should be convinced in one of the points of view. The method needs well-supported opinions expressed, answering directly the statements of the other group, comparing their own opinion to the one of the opponent. Each group aims at convincing the third neutral group that its statements are better supported.

Used when discussing the problems:

- For and against singing from music
- For and against giving knowledge, connected with perceiving the music

Recommendations: The main motto within this method is "Respect the others", i.e. it is not allowed anyway to hurt the personality of any of the participants.

Brain cards

Nature of the method: It is used for presenting the information clearly, aiming at acquiring it in an easy way and for longer time. The pedagogue prepares a text which the students will work with. He/she explains the tasks and determines the time for executing it. Each brain card is discussed as the pedagogue makes a summary in the end.

It is applied to:

- Creating succession schemes when forming a particular musical ability;
- Relating the knowledge of musical elements to the particular musical ability;
- Presenting the performers' activities in a scheme;
- Presenting the type of tasks for forming the musical abilities;
- Giving information out of a definite page of the textbook to facilitate the schoolchildren.

Recommendations: When working out the graphic model there should be looked for the logic connections in the text given and the key words that could be presented be visual methods.

In connection with *the second task* in the present article – to be studied what perplexes the students most during their pre-diploma practice at school and to be planned accordingly interactive methods for overcoming the difficulties pointed by the students – an inquiry was carried out after completing their practice at school. Analyzing the students' answers in the inquiry it became clear that the greatest problems they met were connected with working out the plan synopsis of a lesson, working out "a musical picture" with schoolchildren, revealing the lesson topic, determining the knowledge and skills that were formed using the particular task, related to the musical abilities, working with the textbook in music and others. The students' answers served for developing particular interactive methods for each of the pointed problems through which the future students will learn.

In the present paper it will be presented the way which is used in order a task for creating "a musical picture" to be worked out. That's a task given by the students as one of the most complex tasks when working with schoolchildren.

A musical picture

The musical picture is a plot of a particular topic that could be given to the schoolchildren as a ready-made product or they could create it using a suggested by the pedagogue topic. They decide how to add a sound to it and what instruments or musical objects to use to achieve that,

i.e. each part or action of the plot to be reproduced. A narrator is chosen who should join the separate parts in a sensible story. Two basic musical activities are combined in the task – the creative one and playing musical instruments for children.

The succession used in order the task to be accomplished is the following:

1. Determining the topic which will be used for creating the musical picture
2. Composing a plot using a particular theme where there exist clear figurative moments that could be presented through musical instruments for children or other "musical" objects.
3. Determining the words of the narrator who combines the separate actions.
4. Choosing the devices (musical instruments, toys, objects, utensils, etc) thanks to which the particular heroes or plot actions will get sounded.
5. Performing the musical picture.

The pointed sequence could be realized with the students using the following tasks:

Taks 1.

Problem: Formulating topics for "Musical pictures"

Methods: Brainstorming and twirling (circle).

Pedagogue's preliminary preparation: The pedagogue chooses general topics out of which the students should formulate particular topics for "musical pictures" (For example, Winter, Summer, Spring, Autumn, Zoo, Games, etc). Then he/she prepares sheets of paper where each topic is written on a separate one.

Organizing and way of fulfilling the task: The students are divided into groups of four. Each group has a sheet of paper with a different general topic (for example, I group – Summer, II gr.- Spring, II gr. – In the Zoo, IV gr. – In the Kindergarten. For 10 min each group should formulate the particular topics for "the musical picture". For example, I gr.: On the water slide, Walking along the beach and so on; II gr. – On a picnic in the forest, Go hunting in the forest, etc. After that it follows an exchange of the sheets of paper among the groups. Each group adds in its colour the new topics. The sheets go this way until they reach the first group. Then the pedagogue gathers the sheets and opens up a discussion on the suggestions given. A speaker of each group gives additional explanations, if necessary, of the topics formulated.

Qualities and skills that are formed:

- Working in team;
- Ingenious thinking;
- Creativity when using the information given and so on.

Comment: The positive sides of that way of organizing the lecture are that all students take part actively, several various ideas connected with one general topic are discussed, the students provoke each other's creative thinking, etc.

In the next lecture the musical picture is worked out.

Task 2.

Problem: Composing the plots of "The musical pictures"

Method: Brainstorming, twirling (circle), compositions

Pedagogue's preliminary preparation: The pedagogue chooses the most appropriate topics, suggested by the students in connection with task 1. He/she prepares the sheets of paper as he/she writes on each one a different topic.

Organizing and way of fulfilling the task: The students are divided into groups of four. Each group has a sheet of paper with a different topic. For 10 min each group should suggest an idea for a plot of "a musical picture", pointing to the acting persons (there could exist inanimate objects), actions that are performed, place and time of the event, emotions and feelings that are

experienced, etc. After that it follows an exchange of the sheets of paper among the groups. At last when the sheets are in their initial place each group generalizes a new plot using the ideas of the other groups too. A speaker of each group presents the plot.

Qualities and skills that are formed:

- Listening to the opinion of the others
- Working in team
- Coming to a general decision in the group through accepting the others' opinion and / or sticking to the own decision;
- Tolerance when making decisions;
- Ingenious thinking
- Creativity when using the information given and so on.

Comment: When working out the plot more images and moments should be included that could be imitated and reproduced using different musical objects and instruments. While discussing in the end, ask the students how they have come to a general decision and what has preserved the respect among the group members. The benefit of this task is that the students have also got familiar with several plots of different topics that could be additionally developed with the schoolchildren in the future.

For independent homework each student chooses one of the topics and develops additionally the plot, specifying the narrator's words and/or adding new actions in the story.

Working out a plot could be carried out using another version of the task too, or using two types of methods.

A version of task 2.

Problem: Composing the plots of "The musical pictures"

Method: Brainstorming

Pedagogue's preliminary preparation: The pedagogue chooses a topic out of the ones, suggested by the students, in connection with task 1. He/she prepares the sheets of paper as *he/she writes the chosen topic on each one,* i.e. all students should create a plot to one and the same topic.

Organizing and way of fulfilling the task: The students are divided into groups of four. Each group has a sheet of paper with the same topic. For 15 min the groups should develop plots for "musical pictures". A speaker of each group presents the plot. A discussion is hold where, if necessary, two or more plots are combined in one.

Qualities and skills that are formed: As in the preceding task.

Comment: The benefit of this way of fulfilling the task is that several ideas connected with one and the same topic are discussed. The students are convinced that the creative work is unlimited.

For accomplishing the next stage of working out "a musical picture" the following task is carried out:

Task 3.

Problem: Sounding the plot for "Musical picture"

Method: Brainstorming, twirling (circle**)**

Pedagogue's preliminary preparation: The pedagogue chooses one of the topics, suggested by the students, connected with task 2. He/she prepares the sheets of paper as he/she writes on each one the chosen plot.

Organizing and way of fulfilling the task: The students are divided into groups of four. Each group has a sheet of paper with the plot. For 15 min each group should give suggestions for

sounding the plot, i.e. to complete the musical picture. Then it follows a discussion of the suggestions and later a general musical picture is created.
Qualities and skills that are formed: As in the preceding tasks.
Comment: For independent homework the students get organized in groups and study the musical picture which they perform in class.

A version of task 3.
Problem: Sounding the plot for "Musical picture"
Method: Brainstorming, twirling (circle**)**
Pedagogue's preliminary preparation: The pedagogue chooses one of the topics, suggested by the students, connected with task 2. He/she prepares the sheets of paper as he/she writes on each one a different plot.
Organizing and way of fulfilling the task: The students are divided into groups of four. Each group has a sheet of paper with a plot. For 10 min each group should give suggestions for sounding the plot, i.e. to complete the musical picture. After that an exchange of the paper sheets follows. Each group adds in its colour the new ideas. The sheets are exchanged until they reach their initial position. A speaker of each group presents the suggestions for sounding the musical picture.
Qualities and skills that are formed: As in the preceding tasks.
Comment: Each group could add either new musical objects, or new moments for sounding. The final suggestion in each group is a result of generalizing all the suggestions made also by the other groups.

For independent homework the students get organized in groups and study one of the worked out musical pictures according to their interests.

It is not possible to be presented all the possibilities for using the interactive methods in the article content. That is why it should be mentioned that the given above methods are a part of the interactive methods with greatest effect on training the future teachers in music. Besides, each of the methods presented could be applied with many other tasks, related to the training of students, which are not described herein.

Conclusion

The analysis of the school subject "*Teaching methods in music"* and the experimental training of students make me draw a conclusion that the interactive methods are applied to the acquiring of the following skills, knowledge and competence:

- For generalizing and acquiring the teaching methods for forming the musical abilities;
- For generalizing the knowledge connected with performing the musical activities;
- For acquiring specific peculiarities in order to be carried out the performers' musical activities (singing, playing the musical instruments for children and musically rhythmic movements) and especially creating an emotional adaptation before singing a song;
- Within the musical activity to be perceived the music and especially when formulating the analytical tasks and creating the emotional adaptation before the first performing of a musical composition;
- Within all kinds of creative work and especially creating "musical pictures"

- For a quick test of the knowledge of the school material (titles of songs, musical compositions and their composers; connection between the folklore regions, songs, performers and specific peculiarities; rhythm and dances in music, etc)
- When working with a textbook in music
- When developing a plan synopsis of lessons, etc.

The interactive methods that could be used most frequently for acquiring school material are: twirling (circle), pyramid, brainstorming, lightning, the technique "*The three (four, five…)"* important things and others.

Applying the interactive method when teaching the subject "*Teaching methods in music"* has shown that with some tasks a combination of several methods is used, while with others only one method is sufficient. For example, the method of brainstorming serves for an initial base of many of the tasks (the initial idea for emotional adaptation when studying a song or getting familiar with a musical composition, determining the topics for "musical picture", a suggestion for sounding "a musical picture", etc). Later other interactive methods are applied in order to be additionally developed the original ideas *(Twirling, Pyramid, etc).*

The practice has shown to me that in order to be achieved good results when applying the interactive methods, the pedagogue should be well-prepared in advance at home. That includes adapting the method according to the school content and what he/she aims at, the precise formulating of the task toward the learners, well-prepared materials, clear explanation of the rules for fulfilling the task in class, etc.

According to the students' answers in the made after the training inquiry the benefits of using the interactive methods for them are the following: they create an environment for an active participation of all students in the teaching process, stimulate interest in the learning subject. The students also state that another benefit, a little bit remote one, is their motivation to use the interactive methods when teaching their schoolchildren in the future and receiving knowledge and ideas how to carry it out.

The experience and observation over the students' work and behaviour in the classes of *Teaching methods in music* and during their practice at school confirm the stated by other researchers of the interactive methods that the learners acquire the following knowledge and skills for:

- *Finding what is common and different;*
- *Finding out the essential signs and things;*
- *Separating the important one from the important one;*
- *Graphically presenting of logic connections according to given information and skills for finding logic connections;*
- *Classifying the information;*
- *Self-analysis, self-assessment and assessment;*
- *Creative usage of information;*
- *Making decisions;*
- *Formulating questions;*
- *Generalizing the acquired knowledge;*
- *Well-founded standing the own opinion; ;*
- *Acquiring different ways of reaching a general decision in the group;*
- *Accepting the opinion of the group;*
- *Entering an imaginary situation with strain and conflict;*
- *Making a quick decision in an extreme situation and others.*

Through applying the interactive methods the learners gain competence and qualities that they are going to use not only in their job, but also in the everyday communication with their students, parents, colleagues, i.e. all the people that they are going to get into contact.

The article is a part of the project "Modern Pedagogic Methods and music activities in the classroom", financially supported by the SWU "Neophyte Rilski" - Blagoevgrad.

Bibliography

Gyurova, V. et al. (2006). *The interactivity in the teaching process*. Sofia: Evropress.

Ninova, V. (2006). Contemporary pedagogic techniques in the teaching process. Retrived from www.socialninauki.com/muzika/

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Musıc therapy and maqams' healıng effects ın the Turkısh natıon

Hatice Onuray Egilmez, Ozgur Egilmez, M. Aydin Atalay

Abstract

Musical ability of human beings has been investigated by anthropologists throughout the history, and been agreed that music is an acquisition that a person gains by birth (Hodges, 2000). It is known that music is an essential phenomenon in the lives of individuals and communities as a style of expression of feelings and thoughts. It has an important place in the mental and physical development of individuals, and is also a great value for training and treatment. There have been vast researches on this, proving that starting from Middle Asian Turks, music have been used in the treatment of mental disorders, and they have valued these treatment methods greatly. Turks paid extra attention and put efforts into building schools for education and hospitals for the treatment of the needy. In their treatment houses they have used melodies having a structure of unique intervals and melodic development called maqams for therapy. (The examples of the scales of some different maqams and some melodies composed in different maqams will be given in presentation.)

In the researches, Turkish and Islamic philosophers and doctors such as Ebu Bekir er-Razi, Farabi, Ibn-i Sina, Hasan Shuuri, Hekimbashi Gevrekzade Hafiz Hasan Efendi, and Hashim Bey have specified which maqam influences human body and how, for which illnesses they are good, and during what specific time of the day they are efficient. Nowadays, following them, both in Turkey and in various European countries, these methods of treatment with maqam music are still considered worth trying and researching by medical and musical specialists.

Key words
Healing effects of music, maqams of Turkish music, music therapy

Anthropologists have investigated the musical abilities of human beings throughout the history, and have agreed that music is an acquisition that a person gains by birth (Hodges, 2000). It is known that music is an indispensable phenomenon in the lives of individuals and communities, as a style of expression of human feelings and thoughts.

Music is a significant factor in individual's state of being healthy and balanced, and in developing an identity and character unique to the person. It arranges the interaction, the relationship among the individuals that comprise the society, and enables social and inter-social coalescence. Besides this, music enriches both individual and social culture, and cultural features that it composes. What's more, it also plays a significant role in the sharing and preservation of cultural constituents, and transferring this from one generation to the next, and so, developing and diversifying various inter-social relations (Ucan, 1994). It is obvious that throughout the history, related to the beneficial points mentioned above, music has contributed a lot to human-beings and societies, and still keeps on doing the same. Various human communities have discovered these effects of music to the point that cultural values have reached parallel to the social constitution, and have benefited from music in many ways. From the ancient ages up to date, philosophers, doctors, psychiatrists, psychologists, and educators have supported that music has an important place in the mental and physical development of individuals, and is also a great value regarding training and treatment (Yavuzer, 1999). Using

music in treatment has become one of the oldest treatment methods; so that when the literature of ancient Greece, China, and Rome, as well as the Egyptian paper reeds examined, researchers have come across many documents related to this (Grebene, 1978). Moreover, Asklepeion, the ancient ruins in Bergama - Turkey, was one of the most important treatment centres of ancient Greece, where patients were cured by the help of medicine, inculcation, sports, mud baths, and music. Asklepeion is one of the important places carrying the given information above to our day. Music therapy, which even today is used as a treating method is painless, safe, cheap, and has no side effects. It is used in the treatment of individuals that have physical, psychological, cognitive or social functions disorders. Additionally, music is regarded as the key element for efficient learning since it prepares the brain for the conditions necessary for learning by enabling inter-emotional relations (Alaner, 2007).

Starting from the Middle Asia Turks, also Turks have used music in the treatment of mental illnesses. Seljuks', and Ottomans' military music that is called Mehter Music, also was used like an effective psychological support keeping the morale and courage of the fighting soldiers (Karahan, 2006).

Besides music, dance and shamans treatment tradition also "therapy by the help of maqam music" that was established and developed especially during the period of Ottomans, has received serious investigations (Karahan, 2006).

Turkish maqam music which was developed and spread in the Khorasan and Uighur regions of Middle Asia is believed by musicologists and historians to have a historical background of thousands of years (Musicotherapy Within Historical Process, n.d). (Maqam is a system of melody types in Turkish classical music, providing a complex set of rules for composing. Each maqam specifies a unique intervalic structure and melodic development (*seyir*). Turkish classical music is quite rich with more than four hundred maqams) (Makam).

Famous western scientists such as Delasiauve, Monceri Pere, Moreaude Tours, Laignel, Lavstine, Kraft Ebing, Pandy, Laher, Luicien Tibert, H. Bersot, and Desruelles have also clearly stated in their works, and consolidated the thought that Turks have used music in treatment. Grebene (1978) reported that Monceri Pere, who has done work related to the social understanding of Turks has stated: "… If a nation could evaluate the civilization by the interest of the state for the problems of the public, and the abundance of charity establishments, it might be stated that Istanbul was leading the civilization being three hundred years ahead of Western." These words of the author indicate his opinion related to the Turkish mental medical science. Likewise, in the same book of Grebene (1978) it is stated that Kraft Ebing (1897), in his book of psychiatry, mentioned that "the first mental hospital was founded by Turks, and the methods used in the treatment of mentally handicapped patients were adopted from Turks and spread in Europe".

Turkish Muslim philosophers and doctors such as Ebu Bekir er-Razi, Farabi, Ibn-i Sina, Hasan Shuuri, Hekimbashi Gevrekzade Hafiz Hasan Efendi, and Hashim Bey have composed maqam music, and specified the relation between the emotions and organs in their books (Music therapy, n.d). Grebene (1978) stated that Ebu Bekir er-Razi (834-932) who wrote about the 'treatment of melancholic by occupancy', had suggested that melancholic should spend time doing enjoyable activities such as fishing, being with people they like, learning and teaching music, and listening to songs sung by beautiful voices. He believes that by only that way patients could have the chance to overcome their boredom and agitation, and recover. So, even in the 10th century, it was observed that Turks' opinion related to treatment by the help of occupancy was not very different from the treatment applications of today.

Worldwide known great Turkish scholar Farabi (870-950), who introduced the Greek philosophy to the Islamic world and wrote out the Ancient Greek music in Arabic, tried to

explain the relation between physics and astronomy (Özcevik, 2007). Farabi classifies the effects of maqams on the soul as stated below:

1. Rast maqam gives pleasure (enjoyment-peace).
2. Rehavi maqam gives perpetuity (the idea of continuation).
3. Kucek maqam gives blues and grief.
4. Buzurk maqam gives affright (fear).
5. Isfahan maqam gives the sense of ability of mobility, and confidence.
6. Neva maqam gives taste and relief.
7. Ussak maqam gives the sense of laughter.
8. Zirgule maqam makes a person sleepy.
9. Saba maqam makes a person courageous, and mighty.
10. Buselik maqam gives power.
11. Huseyni maqam makes a person calm and relaxed.
12. Hicaz maqam gives the sense of humility (delicacy) (Somakçı, 2003).

Another Islamic scholar and philosopher called Ibn-i Sina (980-1037), who benefited from the works of Farabi, and even learned the music from him and applied it in medicine, has become an authority in the Islamic and Western world. He has underlined that one of the most efficient ways of treatment for improving the mental and spiritual powers of a patient, is encouraging them for making effort against fighting the illness, providing them with a nice and enjoyable environment, having them listen to the best music, and letting them be with the people they like (Grebene, 1978).

Özcevik (2007) stated that, Mevlana Celaleddin Rumi (1207-1273) who is another great Islamic philosopher doubtlessly is the person who best expressed the effects of music on human soul, and interpreted this in the most powerful way. According to the belief of Mevlevi, which was based on philosophical poem and music principal established by Mevlana, poem and music has an influence on human soul, strengthens divine love, and adducts the person to God (Grebene, 1978).

Turks in Anatolia not only have attached importance to education by building schools called 'Medrese', also attached importance to health by building treatment houses and asylums near Medreses and mosques in many of the cities in Anatolia. At that time in treatment houses also medical education and training was provided (Kahya, 2003).

The existence of examples in the chapter related to spiritual health of the travel book of the famous Turkish traveller Evliya Celebi (1611-1682) show that Turks put every effort in order to provide the best hospital environment and perfect treatment crew, that strengthens this view.

One of the first establishments where Turks applied treatment with music is Nureddin Hospital; which was ordered to be built in 1154 by Nureddin Zengi, the Sultan of Seljukhs, and the hospital still exists today. Some other treatment centres of that kind are:

- The medical Medrese, which comprised the health house, was built with the order of Gıyaseddin Keyhüsref I in Kayseri on 1205 and Cifte Medrese, was built by his sister Gevher Nesibe Hatun.
- Sivas Keykavus Hospital built on 1217.
- Erzincan Divrigi Hospital built on 1228.
- Tokat Pervane Bey Hospital built on 1277.
- Kalavun Hospital built by Kalavun, the Sultan of Mamelukes on 1284 in Kahire.

- Amasya Hospital, built on behalf of Ildus (Yıldız) Hatun, the wife of Olcayto Hudahende, the ruler of Ilkhanids, with the support of Anber bin Abdullah on 1308.
- And the health centre that was established in Aleppo on 1351 for mentally handicapped patients, and now is left out of the borders of Turkey, is the last hospital of the Seljuks period where treatment was done by the help of maqam music (Ozcevik, 2007).

The first hospital of Ottoman period is Yildirim Hospital, was built by Yildirim Bayezit in 1399. It is emphasized that in this health institute treatment was carried out by the help of maqams. According to Ozcevik (2007), in the Travel Book of Evliya Celebi it was stated that ten singers, which 5 were comprised of a neyzen (reed flute player), a violinist, a musikâr-i (player of an instrument like pan flute), a psaltery player, and a lute player were gathered three times a week to give a concert in the establishment for patients and mentally handicapped people in order to provide cure for the patients, relief for the distressed, joy for the souls of the insane ones, and to decrease the sorrow of those lovesick, which confirms that assumption.

During the period of Ottomans the second hospital built for the insane is Istanbul Fatih Hospital which was put into service in 1470. Today, not any ruin remains from that hospital, but Ozcevik (2007) reported that Evliya Çelebi, again in his Travel Book, mentioned about the hospital as follows: "The asylium of Sultan Mehmet, the father of conquerors, has 70 cells, 80 cupolas, and 200 guides. It has a teacher and a chief physician. If anyone, any passenger got ill, they used to take them there and serve them. In the asylum, patients slept on silk and golden embroidered sheets. Day by day patients were given things that they would enjoy. The charity establishment had such a strong income that, in the document coming from the foundation was written that patients had to be always served meat of delicious birds like partridge and sparrow. In order to take away the madness, patients and the insane were appointed sazendes (persons who play instruments), and hanendes (persons who sing songs)."

The only hospital built for the insane in the period of Ottomans, that has reached today is Edirne Hospital, which was established by the river Tunca in Edirne by Sultan Bayezid II in 1486. In this hospital, which was decorated with beautiful flowers, fountain gardens and atriums, methods suggested by Greek philosophers were applied. Besides this hospital a medical school was also established. Here, relaxing treatment methods were applied by the help of various fragrances, flowers, and especially by playing delightful and nice melodies with musical instruments (Ozcevik, 2007). Gencel (2006) stated that Evliya Celebi, who looked around this hospital, reported that ten young men, hanendes and sazendes, three of whom were hanende, the others were the ney (reed flute) player, violin player, musikar player (similar to pan flute), psaltery player, cheng player (a kind of harp), cheng psaltery, and lute player were assigned. They were appointed three times a week in the Departed Bayezid his-majesty's Islamic-Ottoman social complex to bring cure for the patients, relief for the distressed. According to Celebi, "In all instruments and maqams there is joy for the soul."

In his Travel Book, Evliya Celebi mentioned that Isfahan maqam is good for intelligence improvement and memory strengthening, Rehavi for calming down extremely active and nervous patients, and Kuchi for healing distressed, pessimistic, motionless and depressed people (Gencel, 2006).

In another book called Tadil-i Emzice which is the work of one of the old Turkish doctors named Shuuri, it was claimed that a doctor who lacks the methodology of music could not be successful in their diagnoses and treatments. That shows how much Turkish doctors valued treatment with music. In his book, Shuuri additionally explained which certain maqams at what certain time of the day become successful. The classification of maqams is as follows:

- Rast and Rehavi maqam: Efficient at twilight.
- Huseyni maqam: Efficient in the morning.
- Irak maqam: Efficient at mid-morning.
- Nihavent maqam: Efficient in the noon.
- Hicaz maqam: Efficient between two azans (call to prayer).
- Buselik maqam: Efficient in the mid-afternoon.
- Ussak maqam: Efficient during sunset.
- Zirgule maqam: Efficient after sunset.
- Muhalif maqams: Efficient after night prayer time.
- Rast maqam: Efficient in the midnight.
- Zirefkend maqam: Efficient after midnight (Gerebene, 1978).

In the master thesis of Özcevik (2007) it is written that also in the work of Hekimbashi (head of doctors) Gevrekzade Hafiz Hasan Efendi (1724-1801) named 'Neticetu'l-fikriyye fi-tedbiri veladetu'l-bikriyye', there is a comprehensive information about child psychiatry, and the maqams, which might be good in the treatment of some illnesses that might occur in the body of a person. As Özçevik (2007) wrote Hekimbashi Gevrekzade Hafiz Hasan Efendi stated:

- Melodies composed in rast maqam are good for paralysis.
- Melodies composed in ırak maqam are quite good for illnesses such as meningitis and palpitation (boredom).
- Melodies composed in isfahan maqam are good for intelligence improvement, and protection of the body against cold and inflammatory diseases.
- Melodies composed in zirefkend maqam are good for paralysis, backache, and juncture aches.
- Melodies composed in rehavi maqam are good for all kinds of headaches, nose-bleeding, mouth deformity, paralysis, and diseases that are caused by phlegm.
- Melodies composed in buzurk maqam are good for the brain, bowel pain, inflammatory diseases, as well as, for mind cleansing, leading to correct thinking, and removing 'blind love'.
- Melodies composed in Zirgule maqam are good for heart diseases, and meningitis.
- Melodies composed in Hicaz maqam are good for hearing impairment, and wakening lust.
- Melodies composed in Buselik maqam are good for human body, bowel disease, hip ache, head ache, and eye disease.
- Melodies composed in Ussak maqam are good for feet aches.
- Melodies composed in Huseyni maqam are good for refreshing people, and affect greatly heart and liver diseases, and are good for stomach fever.
- Melodies composed in Neva maqam are good for creating complacency, and are effective in removing bad thoughts inside people.

The treatment with maqam music that is insistently emphasized by Turkish scholars as explained above is still applied today by various doctors and institutions in Turkey, and even in some parts of Europe. As a consequence of the experimental applications, obtained results are of quality that approves old Turkish scholars.

Due to the results of the clinical psychology PhD research (Cerrahpasa University Faculty of Medicine, Psychiatry Department at Istanbul University, 1976-1980) investigating the relation between Psychogalvanic reflex and music, and also the Neurology, Cardiology,

Oncology, Geriatrics, and Immunology projects (Vienna, 2001-2003) obviously reveal the significance of Turkish Music treatment tradition of today (Karahan, 2006).

In one of the researches in which Asst. Prof. Rahmi Oruc Guvenc investigated treatment with maqam music, was observed that even patients who were in a coma, have come out of coma. The research was carried out by installing electrodes on the head of the patient in coma and observing the movement of the waves through the electrodes when music started. As a consequence of this research, it was observed that patients, in whose brains alpha and beta waves were monitored, have come out of coma. Researches are also done in the Medling Rehabilitation Centre in Vienna (Music Treatment, n.d).

Again, another research named as "The Effects of Treatment with Music on Patients in Pain" investigated the effects of maqam music on pain (directed by Prof. Dr. Avni Balaban in the Medical Faculty, Algology Department at Gazi University, 2007). In this research, hormone levels of patients, who had waist, neck, and head aches, was examined before and after the sessions of treatment with music. As a result it was determined that there was up to 40 percent decrease in the chronic pain of the patients who were asked to listen to maqam music. Additionally, in the same hospital, in the research carried out associated with Psychiatry department, treatment with maqam music is applied on autistic children, and results are measured at hormonal level (Music Therapy, n.d).

The effect of maqam music on patients who had chronic pain has been also investigated in the Medical Faculty, Algology Department at Ankara University. According to the results of blood analyses, it was observed that aches were decreased at a rate of 40 percent after treatment with music. It has become possible to ascertain the effects of music by the help of various kinds of hormone tests such as stress hormones, immune metabolism analyses, immune globules and analyse of the salivary juice (Be healthy with the help of Music Therapy, n.d).

In Berlin Urban Hospital, the matrices of hunger, aggressiveness, happiness, sadness, and depression were discovered by means of EEG analysis of slow alpha rhythms. And the EEG effects of the ancient Turkish music maqams were observed as a result of a research conducted with 25 German subjects (Music Therapy, n.d).

In order to determine the effects of maqam music on human beings, doctors like Dr. L. Gutjahr and Prof. V. Mechleid have recorded EEG measurements. By this way, the tradition of treatment with maqam music of at least 1000 years has been approved in today's laboratories. During an execution like the positive alteration, progress has been observed and is continuing to be observed in various psychological and physical illnesses from autism and psychological child diseases to Geriatrics.

Between 1997 and 1999, at Bakirkoy Hospital of Neurological Disorders, Asst. Prof. Rahmi Oruç Guvenc and Dr. Arif Verimli applied music and motion treatment program on some patients. And, Istanbul Medical Park hospitals continue to investigate the effect of maqam music on various areas. Specialists of music treatment who were trained by Asst. Prof. Rahmi Oruc Guvenc continue to operate their methods of maqam music in clinics in Austria and Germany (Music Therapy, n.d).

In another research conducted by Asst. Prof. Dr. Basaran Gencdogan in Kazim Karabekir Faculty of Education, Psychological Counselling and Guidance Department at Ataturk University, it was revealed that the stress and anxiety of students who listened to the ney (reed flute) decreased. Anxiety and daily stress of 90 students who participated in the study were examined. Students were divided in three different groups, 30 persons in each. They were asked to listen to the ney, Classical Turkish Music, and Classical Western Music for an hour a week, for 2 months in a special room designed in the faculty building. As a result of which music students listened, and to what extent it helped to take them away of their anxieties was

determined considering each subject. In the end of the study, it was determined that there was 70 percent decrease of anxiety in subjects who listened to the Reed Flute, 60 percent decrease in subjects who listened to Classical Turkish Music, and 45 percent decrease in subjects who listened to Classical Western Music. This test was also applied on children who worked on the streets, and it was observed that there was decrease in the aggressiveness of children who listened to the ney (Listening to Ney Decreases Anxiety, n.d).

Results and Suggestions

In source surveys it was observed that beginning from Middle-East Asian Turks, who, by musicologists and historians are believed to own maqam music for thousands of years, have used treatment with music in the treatment of mental disorders, and have valued those treatment methods greatly. Ancient Turkish philosophers have specified which maqam influences human body and how, for which illnesses they are good, and during what specific time of the day they are efficient.

Also, nowadays, both in Turkey and in various parts of Europe, methods of treatment with modal music are considered worth trying and researching by medical and musical specialists. And, application results provided data that suggest that ancient Turkish scholars were right.

Keeping this fact in mind, it is necessary to promote cooperation with specialist musicians in every area of medicine, and to conduct more research, related to the healing effect of maqams, and to benefit more from maqam music.

In our country there are handicapped children and adolescents widespread. So, it is accepted that it would be beneficial to use music education in the institutions where they are trained, and to place more importance to maqam music within music education in accordance with the need.

In brief, whether pedagogues, musicians or doctors, believed that it is necessary to direct more people's attention to treatment with maqams and that the amount of use of maqam music within the scope of adjuvant therapy, in either the education of handicapped children and adolescents, or in healing people who have any kind of health problem, will increase.

Bibliography

Alaner, A. B. (2007). *Muzikte besinci boyut'a doğru*. [Towards the fifth dimension in music]. Eskisehir, Turkey: Anadolu University.

Gençel, O. (2006). Muzikle tedavi. [Cure with music]. *Kastamonu Education Journal,* 14(2), 697-706.

Hodges, D. A. (2000). Implication of music and brain research, *Music Educators Journal*, 87(2) , 17-22.

Kahya, E. "Anadolu Selcuklularının bilimsel faaliyetlerinin genel bir degerlendirmesi." [A general review of scientific activities by Anatolian Seljuks]. Retrieved (10.04.2009) from http://www.mevlana.selcuk.edu.tr/belge/sumam-bildiri-III/bildiri-IIIpdf/B27%20Esin%20Kahya.pdf.

Karahan, S. (2006). *" Tarihsel surec icinde Turklerde muzikle terapi."* [Music therapy by Turks in history]. Unpublished master's thesis, Istanbul University Institute of Social Sciences.

"Muzik terapisiyle saglikli olun." [Be healthy with music therapy]. Retrieved on 03.04.2009 from http://www.ailem.com/templates/news/detail/detail4.asp?id=16451&archive=1.

Ozcevik, A. (2007). *Muzikle tedavi ve ogrenciler uzerindeki terapik etkileri.* [Music therapy and its effects on students]. Unpublished master's thesis, Istanbul Technical University Institute of Social Sciences.

Realage.Com. "Ney dinlemek kaygiyi azaltiyor" [Listening ney-reed flute decreases anxiety]. Retrieved on 01.05.2009 from http://www.realage.com.tr/v2/Ney-Dinlemek-Kaygiyi-Azaltiyor_1_26909.htm

Somakci, P. (2003). "Turklerde muzikle tedavi." [Music therapy by Turks]. *Erciyes University Journal of Social Scienses Institute*, 15(2), 131-140.

Tumata. "Muzik Tedavi." [Music therapy].Retrieved (01.05.2009) from http://www.tumata.com/icerik.aspx?pageName=tr_muzikterapi.html.

Ucan, A. (1994). *Insan ve muzik insan ve sanat egitimi*. [Human and music human and art education] Ankara, Turkey: Müzik Ansiklopedisi.

WebNaturel. "Tarihsel surec icinde muzikoterapi." [Musicotherapy Within Historical Process]. Retrieved on 30.03.2009 from http://www.webnaturel.com/index.asp?a=2&cat_id=4&alt_cat_id=102&ayrintiid=1397.

Wikipedia. "Makam." [Maqam]. Retrieved on 9-05-2009 from http://en.wikipedia.org/wiki/Makam.

Yavuzer, H. (1999). *Cocuk psikolojisi*. Child psychology. Istanbul, Turkey: Remzi Kitabevi.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Use of Music in Special Education in Turkey

Ezgi Özeke Kocabaş & Sezen Özeke

Abstract

Music, as an expressive art, plays a significant role in the lives of all children and it can be used in education to improve non-musical educational objectives as well as the musical ones. Music has also positive contributions to the development of children with special needs in terms of feeling the sense of achievement, giving self confidence, and teaching academic concepts. Enriching educational programs with music would contribute to academic, social, emotional and cognitive development of these children.

This paper begins with the overview of the related literature on the effects of music and musical activities in educating children with special needs. It focuses mainly on the practices and studies in Turkey, partly mentioning about the study that aims to create an example of educational enrichment program for children with mild mental disabilities which has a purpose of exploring the effects of music enrichment program in academic and social skills of children with mild mental disabilities. The authors are attempted to identify the developments of using music and musical activities in education of children with special needs in Turkey.

Keywords
children with special needs, children with mild mental disabilities, music, musical activities, music therapy

Introduction

Music places an important part in the lives of all children. As an expressive art, music contributes to the total development of all children and can be used in education to meet non-musical educational objectives, such as improving academic, social, and/or language skills as well as the musical ones.

Music is one of the most effective and significant techniques used in education supporting all children's motor, mental, and language development. The aims of music education are related to communication, awareness, creativity and emotions (Artan & Bal, 1998). By the use of music, children's responses grow and skills like hand-eye coordination and eye-contact develop. Through music, children may enhance their self esteem, feel the sense of security and success, rely on themselves more, enhance communication, and derive a sense of pleasure (Flowers, 1984).

"Music offers every child an opportunity for fun, enjoyment and enrichment" (Zinar, 1987). It may also be used for different purposes, such as education, healing, and treatment (Artan, 1993). As in average children's development, music has also positive contributions to the development of children with special needs in terms of feeling the sense of achievement, giving self confidence, learning developmental skills, enhancing self esteem, having relaxation, and teaching academic concepts. Music is also a way to reach these children and help them to learn. Enriching educational programs with music would contribute to academic, social, emotional and cognitive development of these children.

Zinar (1978) said that

> All children have the need for expression through music, but for the handicapped child, the physical, emotional, and intellectual benefits that can be derived from music make it an essential part of classroom activities (p.56).

Artan (2001) has listed the important topics to pay attention when music activities are integrated into educational programs of children with special needs: The problems of disabled children, aim of the activities, planning of the activities, characteristics of educator, conditions of the workplace and choosing materials.

For all children, music makes a difference if you use it in other subjects, because it makes learning easirer (Zinar, 1987). In that sense, integrating music into curriculum appears to be important and this is also not different for the children with special needs. Only, the activities and the materials may be adapted in some way to enable children with special needs to participate and succeed. Some special materials and activities may also need to be developed to achieve desired goals. Artan (2001) reported that

> Music programs for disabled children should comprise of voice listening and recognizing, singing, rhythm, creative movement and dance and musical stories. …musical programs designed to appropriate criteria will provide countless benefits for disabled children (p.43-44).

In 1998, there had been a study done by one of the authors of this paper aimed to create an example of enriching educational program of children with mild mental disabilities. This study had the purpose of exploring the effects of music enrichment program in academic and social skills of children with mild mental disabilities (Özeke, 1998). Up to 1998, there found limited number of studies about using musical activities in educating children with special needs reported in Turkey. However, after 1998, rapid increase was observed in the interest of people studying the impact of music and musical activities for children with special needs. It has been observed that there is increased number of studies conducted contributing to the related literature mostly in the form of theses and dissertations and there are several articles and non-academic contributions to this field.

This paper begins with the overview of the related literature on the effects of music and musical activities in educating children with special needs before 1998. It focuses mainly on the practices and studies in Turkey, partly mentioning about the study that aims to create an example of educational enrichment program for children with mild mental disabilities. The authors, later, are attempted to identify the developments of using music and musical activities in education of children with special needs in Turkey after 1998.

Developments before 1998

In 1990's, there are limited number of studies reported about using music and musical activities and their effects on both average children and children with disabilities in Turkey. Few studies on using musical activities in educating children with special needs in Turkey focused on using music with autistic children (Basar, 1995), the effects of instrumental and movement activities in helping adolescents with mental disability in developing the ability to follow directions (Değirmenci, 1993), the degree of involvement of children with hearing impairment in musical practices (İzgü, 1993), and the effects of music training in the development of auditory perception of children with hearing impairment (Bilir, Bal & Artan, 1992).

İzgü (1993) concluded that music education positively affected the language, emotional, social, physical and psychomotor development of children with hearing impairment. Similarly, Bilir, Bal, and Artan (1992) revealed that music training positively affected the development of auditory perception of children with hearing impairment. In Değirmenci's study (1993) on the effects of movement and instrumental activities in developing the ability to follow directions for adolescents with mental disability, children who participated in the movement actvities were found superior to the childen who participated in instrumental activities. As a general point, it was revealed that music therapy was an effective technique with children with mild mental disability in gaining the ability to follow directions. Furthermore, in Başar's (1995) study on using music with autistic children, music was found affective with respect to interactions (cited in Özeke, 1998).

In 1998, Özeke conducted a study aimed to create an example of enriching educational program of children with mild mental disabilities and had the purpose of exploring the effects of music enrichment program in academic and social skills of children with mild mental disabilities. The subjects of the study were from a private school for children with special needs in Ankara. Ten students with mild mental disability (five of them were with down syndrome and other five with mild mental disability) participated in the study. The experimental design was used in which experimental and control groups were compared on pretest and posttest measures by using Portage Control Checklist.

In posttest, observations from teachers and parents were collected through some essay questions that were added to the checklist. The experimental group was given a 10-week enrichment program, carried out one day in a week for about 45 minutes. The program aimed to develop academic and social skills of children using activities such as singing, instrument playing, rhythmic and musical games. These activities generally aimed to improve the color concept, geometric shapes, numbers and rhythm, discrimination of sound, concepts like little, many, none and opposite, participation in singing and group activities. The related activities were arranged from the least difficult to most difficult. The results of this study revealed no significant improvement in experimental group after the music enrichment program. Although there were no statistically significant positive results of this study, the qualitative observations from teachers and parents made a valuable contribution. According to observations, the study had positive effects on children especially in social skill development. It has been observed that using music helped the researcher to establish communication with the children, the children felt comfortable with musical activities, they learned concepts and skills easier, they enjoyed the activities and materials that have been presented and this stimulated their academic and social growth. Moreover, while they have shared an activity, gaining social skills such as participating into a group activity, following instructions, leading a group was observed.

In short, regarding the related literature, up until 1998, the studies and applications related to music in special education in Turkey appears to contribute to the field but limited in number.

Developments after 1998

After 1998, it could be said that there is significant increase in the interest of people studying special education, as a result, researchers began to look for the impact of music in the special education.

Çadır (2008) conducted a research about social skills education for mentally disabled students. Social skills education program which is designed by the use of musical therapy

method for mentally disabled students was tested with nine mentally disabled students. The program was implemented in every weekdays, during 30-35 minutes classes. The social skills analyzed in the research were inviting others to play games, bringing back the objects that was barrowed, and fullfilling the duties. The research tested whether music therapy was effective in improving these skills or not. Results showed that the social skills education program prepared through musical therapy method was found effective.

Kurt (2006), in his research aimed to investigate the effect of music for achievement on a given task. He worked with 32 children between 4-6 years old and with moderate mental retardation in an experimental-control group design. Subjects were asked to complete a task in a laboratory which was controlled by a computer. In 4 weeks period, in each 30-35 minute session, experimental group had to listen music for 5 minutes and then during 30 minutes they had to complete the given task. In a pre-posttest design, "Denver II Prescreening Developmental Questionnaire" was used. Results revealed no difference between the experimental and control groups in success of a given task and no improvement in motor skills.

Bolat and Sığırtmaç (2006) investigated the effects of the musical game activities to comprehend numbers and transaction for six years old children attending the preparation class. Experimental-control group design was used to test the effectivess with 10 students in each group. There were one experimental and two control groups. In the experimental group, by using musical game activities, number and transaction concepts were given. In the control groups, activities other than musical game activities was used to teach the concepts. The process lasted 12 weeks, meeting twice a week for half an hour. As a result of the study, there found a significant difference between experimental and control groups, where experimental group was more successfull than the contol groups. According to the results of the study, authors concluded that musical game activities had an important impact on learning.

There are some more resources reported on the historical process of musical therapy in Turkey (Somakçı, 2003; Karahan, 2006) and music therapy and its therapeutic effects on students (Özcevik, 2007). These resources are mostly focused on the treatment effects of music.

Above mentioned studies are only couple of examples coming out from the thesis and articles identify the developments of using music and musical activities in education of children with special needs in Turkey. Besides these literature, there are several private contributions to the field of music therapy. There are several private special education and rehabilitation centers that using music therapy methods for developing several skills and changing problematic behaviors of different groups of special children (http://www.mcaturk.com/MUZIKLE-ENGELLERI-ASIYORLAR_2131.html).

There are also some personal initiatives for practicing music therapy. Their work consists of wide variety of people changing from psychiatric patients to special children. For example, Çoban (2006) wrote about several subjects on music therapy practices on a website of a neuropsychiatry center, such as forming musical development objectives for children with speech problems (http://www.mcaturk.com/Muzikle-Tedavide-Hedeflerin-Gelisimsel-Sirasi_588.htm), medical music practices (http://www.mcaturk.com/Mululugun-da-muzigi-var_221.htm), theraupetic effect of sound (http://www.mcaturk.com/Sesin-Tedavi-Edici-Yonu_278.htm), and musical development processes (http://www.mcaturk.com/Muzikal-Gelisim-Surecleri_331.htm). Moreover, Sezgin's significant contribution in this area is published in the platform called "music therapy" (http://www.muzikterapi.net/t/03/index.jsp), includes information about using musical activities with different groups and examples of practices.

There are some more people work especially with the group of autistics, such as Eracar, an academician and one of the founders of psychotherapy center, shares her articles on music thearpy and autism at this center (http://www.aurapsikoterapi.com).

In summary, information above shows that in the beginning of the 21st century there are significant developments in Turkey reported in the area of special education using music and musical activities with children with special needs.

Conclusion

All children need education. Children with mental disabilities need educational interventions differing from their normal peers. Music plays an important part in the lives of all children, especially for children with special needs. Using some music activities in education of children with special needs opens these children new windows to life, providing new stimulation for them. With music, they may have fun, gain pleasure, and develop their various skills. Therefore, this study aimed to identify and report the developments of using musical activities in education of children with special needs in Turkey.

Looking at the studies in 90's and beginning of the 21st century, although there is a slight increase in number of studies in using musical activities in special education and in music therapy, there seems an improvement in awareness and recognition of music therapy services in special education. Limited studies done in the field of special education on using music and musical acitivities were mostly focused on the outcomes of skill development, social skills, achievement, and teaching concepts.

Looking at the studies, it can be concluded that most of resources have been written by the researchers mainly working in the area of special education, music educators contribute to this area with a limited sources. However, special education teachers or preschool teachers may not feel competent in using music activities with children with disability. Early childhood education specialists interested in the area contribute to the literature as well but it seems these efforts are also limited. Music teachers after graduating from the music departments can either work at the regular schools or special schools. Therefore, music specialists contributions are needed in this area, and this can be provided by specialists in the area of special education through sharing their knowledge and guidance.

Bibliography

Artan, İ. (1993). *Okulöncesi dönemde müziğin gelişimi ve etkinlik örnekleri (Development of music in preschool period and examples of activities)*. In 9. Ya-Pa Okulöncesi Eğitimi ve Yaygınlaştırılması Semineri, Ankara: 17-19 Haziran, Ya-Pa Yayınevi.

Artan, İ. (2001). Engelli çocukların eğitiminde etkili bir teknik: Müzik (An effective technique in educating disabled children: Music). *Gazi University Journal of GaziEducational Faculty*, 21(2), 43-55.

Artan, İ., & Bal, S. (1998). Examples of musical techniques and activities used at the practice school of Hacettepe University. *Education and Science,* 22(110), 56-63.

Başar, N.E. (1995). *Bir Otistikle Yaşamak (Living with an autistic)*. Ankara: Başbakanlık Aile araştırma Kurumu Yayınları.

Bilir, Ş., Bal, S., & Artan, İ. (1992). *Anaokuluna devam eden 5-7 yaş grubundaki ileriderecede işitme özürlü çocukların işitsel algı gelişimlerinin incelenmesi (An examination of auditory perception development of 5-7 years old preschoolars with severe hearing*

impariement) 1. Ulusal Özel Eğitim Kongresi Kitabı, 255-266. İstanbul: Ya-Pa Yayınları.

Bolat, E. Y. & Sığırtmaç, A. D. (2006). The effect of the musical game activities to gain the number and transaction concept. *Ege Journal of Education*, *7* (2), 43-56.

Çadır, D. (2008). *Analysis for the affectiveness of social skills education program that is designed through musical therapy method for mentally disabled students.* Unpublished masters thesis, Abant Izzet Baysal University, Bolu, Turkey.

Çoban, A. (2006). *"Müzikle tedavide hedeflerin gelişimsel sırası"*. Retrieved on May 7, 2009 from http://www.mcaturk.com/Muzikle -Tedavide-Hedeflerin-Gelisimsel-Sirasi_588.htm .

_____. *"Mutluluğun da müziği var"*. Retrieved on May 7, 2009 from http://www.mcaturk. com/Mululugun-da-muzigi-var_221.htm

_____. *"Sesin tedavi edici yönü"*. Retrieved on May 7, 2009 from http://www.mcaturk.com /Sesin-Tedavi-Edici-Yonu_278.htm

_____. *"Müzikal gelişim süreçleri"*. Retrieved on May 7, 2009 http://www.mcaturk.com/ Muzikal-Gelisim-Surecleri_331.htm

Değirmenci, Z. (1993). *Zihinsel özürlü çocukların komutları izleme becerisinin gelişiminde müziğin etkisi (The effect of music on development of ability to follow directions for children with mental disability).* Unpublished masters thesis, Ankara University, Ankara, Turkey.

Eracar, N. http://www.aurapsikoterapi.com Retrieved on May 7, 2009.

Flowers, S.E. (1984). Musical sound perception in normal children and children with down syndrome. *Journal of Music Therapy,* 21(3), 146-154.

İzgü, Ş. (1993). *İşitme engelli çocukların ilköğretim programlarında müzik eğitimi (Music education in primary school curriculum for children with hearing impairment).* Unpublished masters thesis, İnönü Üniversity, Music Education Department, Malatya, Turkey.

Karahan, S. (2006). *Tarihsel süreç içerisinde Türklerle müzik terapi (The musical therapy with Turks in historcal process).* Unpublished masters thesis, İstanbul University, İstanbul, Turkey.

Kurt, G. (2006). *The effect of listening to music on learning for children with mental retardation.* Unpublished Masters Thesis, Maltepe University, Istanbul, Turkey.

Memory Center Neropsikiyatri Merkezi (2009). *"Müzikle engelleri aşıyorlar"*. Retrieved on May 7, 2009 from http://www.mcaturk.com/MUZIKLE-ENGELLERI-ASIYORLAR_2131.html.

Özçevik, A. (2007). *Müzikle tedavi ve öğrenciler üzerindeki terapik etkileri (Music therapy and therapeutic effects on students).* Unpublished masters thesis, İstanbul University, İstanbul, Turkey.

Özeke, E. (1998). *The effects of music enrichment program on the academic and social development of children with mild mental disabilities.* Unpublished masters theses, Middle East Technical University, Ankara, Turkey.

Sezgin, H. http://www.muzikterapi.net/t/03/index.jsp Retrieved on May 7, 2009

Somakçı, P. (2003). Türklerde müzik terapi (Music therapy in Turkey). *Haliç University Journal of Social Science Institution,* 15*,* 2, 131-140.

Zinar, R. (1978). Music in the mainstream. *Teacher*, 96(7), 54-56.

Zinar, R. (1987). *Music activities for special children*. New York: Parker Publishing Company.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music skills of individuals with visual impairment

Olympia Papa & Lefkothea Kartasidou

Abstract

Music skills are essential to all areas of the curriculum for all children but they assume a special level of importance to individuals with a visual impairment. Music is an essential element of the education of individuals with visual impairment, especially due to the fact that auditory training is one of the most important goals of their education. Individuals with visual impairment rely on tactile and auditory stimuli in order to replace the visual loss and to solve tasks like spatial perception. Thus, individuals with visual impairment must be trained from the early years on tactile and auditory skills since it is expected to rely more on their tactile and auditory skills in order to cope with tasks that demand their attention and communication. The benefits of music skills in other areas of the curriculum have been clearly addressed in several researches and for anyone actively involved in music and music making these findings are not unexpected. Since 1940 many researchers have focused their studies on the field of music aptitude and music achievement of individuals with visual impairment in order to compare them with those of typically developed individuals. This paper is a bibliography review of the studies regarding the music skills of individuals with visual impairment. This review seeks to outline the important implications of music education to individuals with visual impairment in Greece.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Enhancement of academic skills of children with special needs and disabilities through music

Maria Eleni Papadopoulou & Lefkothea Kartasidou

Many researchers from very different scientific areas such as neuropsychology, music psychology, etc have indicated the effect of music on the moods, emotions and behavior as an education and as a therapy process. During the last thirty years there have been many claims regarding the beneficial effects of music on behavior and development. Research has shown the existence of a relationship between music and cognitive (memory, attention), academic (mathematics, literacy) and motor skills (gross motor skills, spatial awareness) etc. This paper is a bibliography review of the studies regarding the effect of music on the one side on the development of typically developed children and on the other side on the development of children with special needs and disabilities. Researchers have focused on the study of those skills which are prerequisites for the enhancement of academic skills that begin in the early years of childhood. This review seeks to outline the relationship of music with the basic elements of human behavior and learning process, a relationship which can be used as an implication of the education for children with special needs and disabilities.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Psychological aspects of musical performance and their implications for the education and training of musicians

Ioulia Papageorgi

Abstract

Musical performance is a highly effortful activity. In order to develop and sustain expertise, musicians need to be physically, emotionally and mentally fit. This talk will focus on psychological aspects of musical performance and will discuss the development of musical potential and expertise, the role of self-perceptions in the acquirement of musical performance skills, as well as positive and negative influences to musicians' development. One of the most debilitating and frequently-reported problems musicians face is performance anxiety. The second part of this talk will focus on the presence, contributory factors and effects of anxiety, as well as strategies musicians employ to cope with the demands of performance.

The discussion will draw on data from two recently completed research projects:

1. *Understanding Performance Anxiety in the Adolescent Musician*

This study aimed at exploring the experience of performance anxiety by young musicians through self-report measures in order to improve our understanding of how anxiety affects adolescent performers. Participants included 410 musicians aged 12-19, who responded to a newly-developed self-report questionnaire.

2. *Investigating Musical Performance (IMP): Comparative Studies in Advanced Musical Learning*

This two-year study was devised to investigate how classical, popular, jazz and Scottish traditional musicians deepen and develop their learning about performance in undergraduate, postgraduate and wider music community contexts. Data were collected through a specially devised, web-based questionnaire survey completed by 244 musicians, semi-structured interviews with individual case studies and focus groups.

Implications of findings from these two projects for the education and training of musicians will be discussed.

Keywords
musical performance, expertise development, psychology of performance, performance anxiety, musical genre, coping strategies, education

Introduction

The development of musical potential is the result of both biological and environmental factors. Biological factors include:

(a) *Maturational staged development* (the developmental stage at which a person is)
(b) *Physical advantages* (for example, pianists may have an advantage if they have long fingers, wind players if they have large lung capacity etc.)
(c) *Mental advantages* (the ability to absorb information quickly, metacognition – in fact some researchers (e.g., Plomin et al., 1977) believe that an accomplishment gene will eventually be identified)
(d) *Intelligence(s)*. Gardner (1983) identified musical intelligence as one of the intelligences humans possess in his theory of multiple intelligences).

Environmental factors are also important in the development of musical skills. Biographies of great musicians (e.g., Louis Armstrong) suggest that the development of performance skills relate to (Sloboda et al., 1996):

- Frequent exposure to musical stimuli
- Presence of opportunities to develop performance presentation skills
- Presence of early opportunities to experience intense positive emotional response to music
- Ability to devote large numbers of hours to practice
- External motivational factors (e.g., key adult – parent/teacher)

The study of expert performance does not only relate to the achievement of high levels of performance quality, but also suggests that there are phases of development through which future performers pass in order to achieve recognised expertise in their domain (Feltovich, Prietula & Ericsson, 2006). Theories focusing on the development of expertise, such as the ones by Bloom (1985), Sosniak (1985, 1990), Manturzewska (1990), and Ericsson and Smith (1991) have main been based on classical musicians and suggest that (i) expertise encompasses a process of development that normally spans many years; (ii) that formal instruction, practice and parental support are very important for expertise development and (iii) the longer a person engages in musical activities, the more expert they are likely to become as performers, assuming that they pass through each of the delineated stages successfully (Papageorgi et al., 2009).

The figure below (Papageorgi, et al., 2009) offers a theorised developmental pathway for professional musicians across the lifespan:

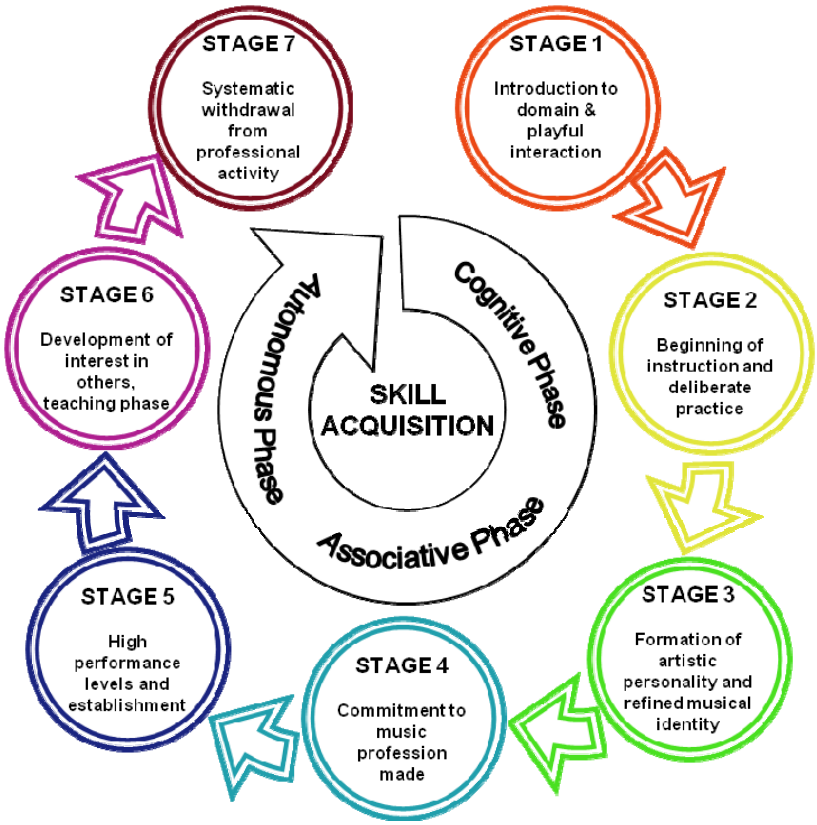


Figure 1: *The developmental pathway of musicians*

Writings on musical expertise have tended to suggest either that exceptional performance is a result of innate musical abilities or that advanced musical performance depends upon effortful practice and other environment factors (Lehman & Gruber, 2006). Some researchers have posed doubt as to whether it is possible to identify innate characteristics that facilitate the development of expertise (e.g., Ericsson, 2003). It is not yet clear whether practice on its own is sufficient for achieving high standards in performance (Lehman & Gruber, 2006), and whilst cumulative practice can be a good predictor of expertise level, the quality of performance at any given point in time may not be related to this (Barry & Hallam, 2002; Hallam, 1998; Williamon & Valentine, 2000). Nevertheless, most researchers would probably agree that practice is certainly necessary for invoking the cognitive, physiological and psychological motor adaptations that we often see in experts (Lehman & Gruber, 2006).

Research suggests that performers may possess specific psychological and personality profiles. In terms of their psychological profile, musicians have been described (Kemp, 1996) as:

- Usually very devoted to music (Salmon & Meyer, 1998)
- Sometimes so committed to their craft that they fail to separate personal identity from performance abilities (Kemp, 1996)
- Relating self-esteem with how well they perform and personal value with performance competence - especially students (Kemp, 1996; Dews & Williams, 1989; Tobacyk & Downs, 1986)

Kemp (1996) argues that identification of musical achievement with personal value results in two possible scenarios of behavioural response often evidenced in music schools, conservatoires and universities. The first is what he calls 'prima donna' behaviour, observed in high self-esteem performers who perceive themselves to be successful. The second involves evidence of maladaptive behaviour, often observed in performers with lower self-esteem and negative self-perceptions, due to the presence of heightened apprehension, self-criticism and perceptions of incompetence. The former type of behaviour may be typical of the person that demonstrates an adaptive form of anxiety that facilitates and improves their performing standards. The latter might characterise persons that view performances as threatening and experience anxiety that has maladaptive effects on performance.

Musicians, in terms of personality have been described as:

- *Introverted*: direct energy inwards, reserved character
- *Independent*: autonomous, sovereign, independence of thought
- *Sensitive*: imaginative, intuitive, empathetic
- *Anxious*: suspicious, low self-sentiment, apprehensive, emotional instability

Davidson (2001), in studying the case of the Australian pianist David Helfgott, suggests that the personality traits of the musician, although useful for the maintenance of long hours of isolated practice and for the communication of inner feelings through music, may result in some musicians becoming extremely vulnerable. For example, the personality traits of introversion and neuroticism, correlate with performance anxiety (Kemp, 1981, 1996).

Research suggests that characteristics that promote musical development and well-being include:

- **Positive self-concept & self-esteem** - linked to confidence, perceptions of competence
- **High self-efficacy** - linked to higher levels of performance
- **Positive outcome expectancies** - increase motivation and effort investment
- **Development of metacognitive skills** - increase practice effectiveness

- **Positive musical experiences** - boost confidence and motivation
- **Self-reliance** - autonomy, less need for others' approval, less fear of negative evaluation, personal interpretation of music
- **Realistic outlook of performance** - opportunity to show hard work, everybody makes mistakes, important is to do your best
- **Development of coping strategies** - deal effectively with performance nerves and unexpected events prior and during performance

On the other hand, there are also negative influences which affect musicians' development, such as:

- **Occupational stress**
- **Performance anxiety**
- **Practice avoidance**
- **Absence of intrinsic motivation**
- **Unsupportive agents** (parents, teachers, peers)
- **Negative musical experiences**
- **Lack of musical identity development**
- **Negative view of self** (negative self-concept, low self-esteem, poor self-efficacy, perfectionism) - can increase performance anxiety and stress.

One of the most debilitating and frequently-reported negative influences on musicians' development and on the quality of performance is performance anxiety. This has been confirmed by many studies suggesting that performance anxiety can negatively affect the quality of performance (Fishbein et al., 1988; Marchant-Haycox & Wilson, 1992; Wesner et al., 1990; Dews & Williams, 1989). Steptoe has argued that musical performance anxiety is a critical problem for 15% to 25% of musicians (Steptoe, 2001).

To date, most research has focused on adult professional musicians, disregarding how anxiety might affect younger performers and how early experiences might affect anxiety in subsequent years. No clear understanding has yet been established of how performance anxiety develops in adolescent musicians, under what conditions and in which performers (Kenny & Osborne, 2006). Furthermore, most research has been conducted with classical musicians with the exception of a few studies. The limited research with other-than-classical musicians suggests that popular musicians consider performance anxiety to be one of the major sources of stress and evidence high levels of neuroticism and psychoticism (Wills & Cooper, 1988; Cooper & Wills, 1989). Nevertheless, the performance anxiety experiences of musicians outside the western classical genre remain under-researched and we are not yet in a position to say whether they share similar or different experiences to their classical counterparts.

This paper addresses these two relatively under-researched areas and focuses on the presence, contributory factors and effects of anxiety, as well as strategies musicians employ to cope with the demands of performance, drawing on data from two recently completed research projects. The first one focused on anxiety and the young musician, entitled "Understanding Performance Anxiety in the Adolescent Musician". The second project was an ESRC TLRP[1] funded study exploring how adult professional musicians specialising in different musical genres (classical, popular, jazz, Scottish traditional) develop their skills about performance. The project was entitled "Investigating Musical Performance: Comparative Studies in Advanced Musical Learning (Welch et al., 2006), and performance anxiety was one of the issues explored.

[1] Economic and Social Research Council Teaching and Learning Research Programme

Understanding Performance Anxiety in the Adolescent Musician

Methodology, Research Instrument and Sample

This study aimed at exploring the experience of performance anxiety by young musicians through self-report measures in order to improve our understanding of how anxiety affects a rather neglected age group in the literature. Participants included 410 musicians aged 12-19, who responded to a newly-developed self-report questionnaire and the "Adolescent Musicians' Performance Anxiety Scale" (AMPAS) (Papageorgi, 2007a). The study took place in two geographical locations, allowing a cross-cultural comparison of Cypriot and British young musicians that provided insights into the effect of the wider context of learning on the development of performance anxiety (Papageorgi, 2007c). The questionnaire included both quantitative (statements were students were asked to state their degree of agreement on a 5-point Likert type scale) and qualitative elements (open-ended questions). The statements included in the questionnaire were decided upon after extensive reading of the musical performance anxiety literature and other related fields such as educational psychology, test anxiety and social anxiety. The AMPAS (Papageorgi, 2007a) included twenty items that dealt with a variety of maladaptive[2] performance anxiety related issues, such as negative outcome expectancies, negative experiences in performance, evidence of pre-evaluation anxiety, experience of physiological symptoms of anxiety, concern about others' judgement and negative perception of anxiety (see Papageorgi, 2007a, 2007c). The design of the scale followed recognised criteria for the development of psychometric tests (for details see Papageorgi, 2007a). Measures of internal consistency after the main data collection showed a Cronbach alpha of .86, which demonstrated that the items of the scale measured the same construct. Quantitative data were analysed with SPSS and qualitative data with NVivo.

Findings

The incidence of musical performance anxiety in adolescent musicians

Overall, a significant proportion of young musicians in the study experienced high levels of performance anxiety, as shown in Table 1:

	Whole sample Percent (N = 410)	Cypriot students (N = 211)	British students (N = 199)	Male students (N = 172)	Female students (N = 236)	Younger students (12-15 years old, N = 210)	Older students (16-19 years old, N = 196)
Highly anxious students	10.8	15.0	6.3	3.9	16.0	12.0	9.8
Moderately anxious students	69.3	70.0	68.4	73.9	66.0	64.5	74.1
Low anxious students	19.9	15.0	25.3	22.2	18.0	23.5	16.1
Total	100.0	100	100	100	100	100	100

Table 1: *The incidence of performance anxiety in the sample*

Overall, 10.8% of students were identified as highly anxious. The Cypriot students were substantially more anxious than the British students, as the highly anxious students reached 15%

[2] Anxiety that has a negative impact on the quality of playing

in the Cypriot sample but the percentage was much lower at 6.3% in the British sample. Additionally, differences between male and female students were also observed, with highly anxious female students reaching 16%, and highly anxious male students limited to 3.9%. No major differences between younger and older students were observed. These differences were confirmed with a 3-way ANOVA, which indicated statistically significant main effects ($p < 0.0001$) for nationality and gender, but not age group (Papageorgi, 2007a, 2007b). There was also a significant interaction between nationality and age group ($p = .004$), indicating that whilst Cypriot students became older they tended to get less anxious, British students appeared to get more anxious as their age increased (Papageorgi, 2007a, 2007b).

The effects of musical performance anxiety in adolescent musicians

Findings suggest that performance anxiety is one of the key factors that affect the quality of performance in a negative way, corroborating research with adult musicians (e.g. Fishbein et al., 1988; Schulz, 1981; Marchant-Haycox & Wilson, 1992; Wesner et al., 1990; Dews & Williams, 1989; Gustafson & Rawson, 1983). Students were asked to remember a performance that did not go as well as they had hoped and indicate what they think led to that negative result. Students mentioned a variety of reasons, and attributed failure to either internal or external factors. The majority of the responses focused on internal attributions of failure, such as high levels of anxiety that had a negative impact on the quality of performance (maladaptive anxiety) and inadequate preparation (e.g. not enough practice). Other responses attributed failure to lack of confidence, the presence of audience, having a negative attitude towards the performance, situations beyond their control, feeling under pressure to succeed, lack of performance experience and the presence and attitude of the examiner. Figure 2 illustrates the results for the attribution of performance failure:

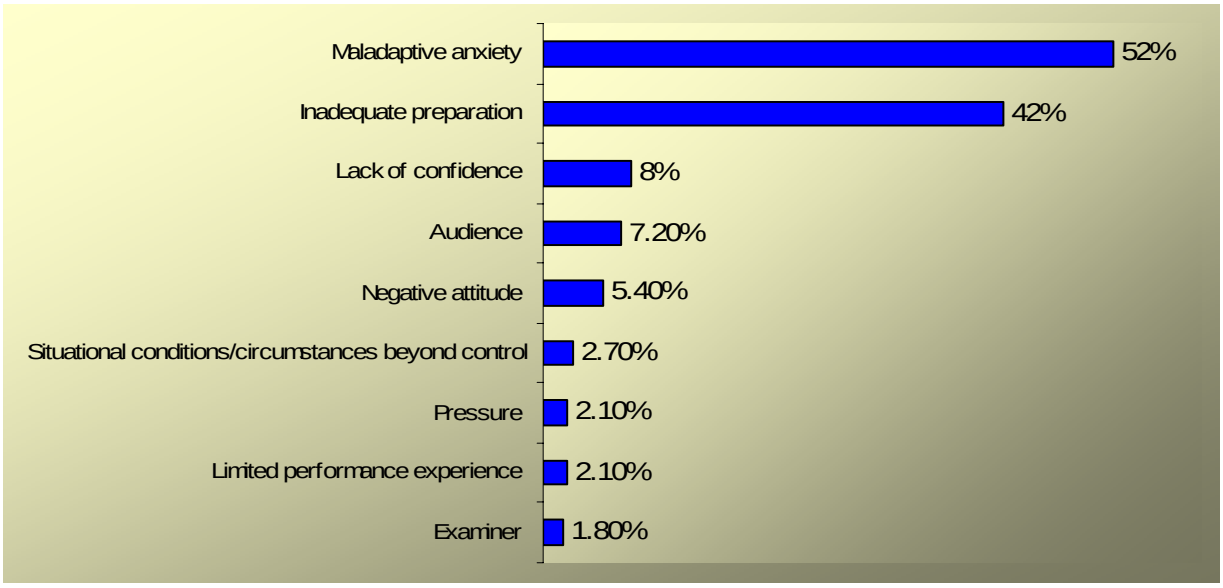


Figure 2: *Attributions of performance failure*

The prediction of musical performance anxiety in adolescent musicians

The factors that predicted students' scores on the AMPAS scale were investigated with a stepwise multiple regression (Papageorgi, 2007a, 2007b). Results indicated a statistically

significant regression model [F = 59.93, df = 9, p < .0001), which explained 60% of the variance in total performance anxiety score (the effect size, as calculated by the multiple R was .784, R^2 = .62 and the adjusted R^2 = .60). Students' anxiety level was found to be predicted by:

- *Students' self-perceptions*, as evidenced by their perceived level of anxiety, self-concept, self-efficacy and perfectionism
- *Situational parameters* such as the influence of audience presence, the degree of self-exposure and the influence of the venue
- *The wider cultural context of learning*, evidenced by nationality
- *Family environment*, evidenced by parental attitudes toward student

Higher levels of performance anxiety were related to the experience of higher perceived levels of anxiety, the experience of heightened anxiety in the presence of an audience, a negative self-concept in music, sensitivity to higher levels of anxiety during high self-exposure, low self-efficacy in music, influence of the performing environment quality on anxiety levels, perfectionism and the perception of having critical parents with high expectations. The multiple regression also suggested that nationality was a significant predictor and showed that higher scores on the AMPAS were related being of Cypriot nationality.

When asked whether they employ any strategies to cope with the demands of performance and minimise performance anxiety, students referred to a variety of strategies, which are summarised in Figure 3:

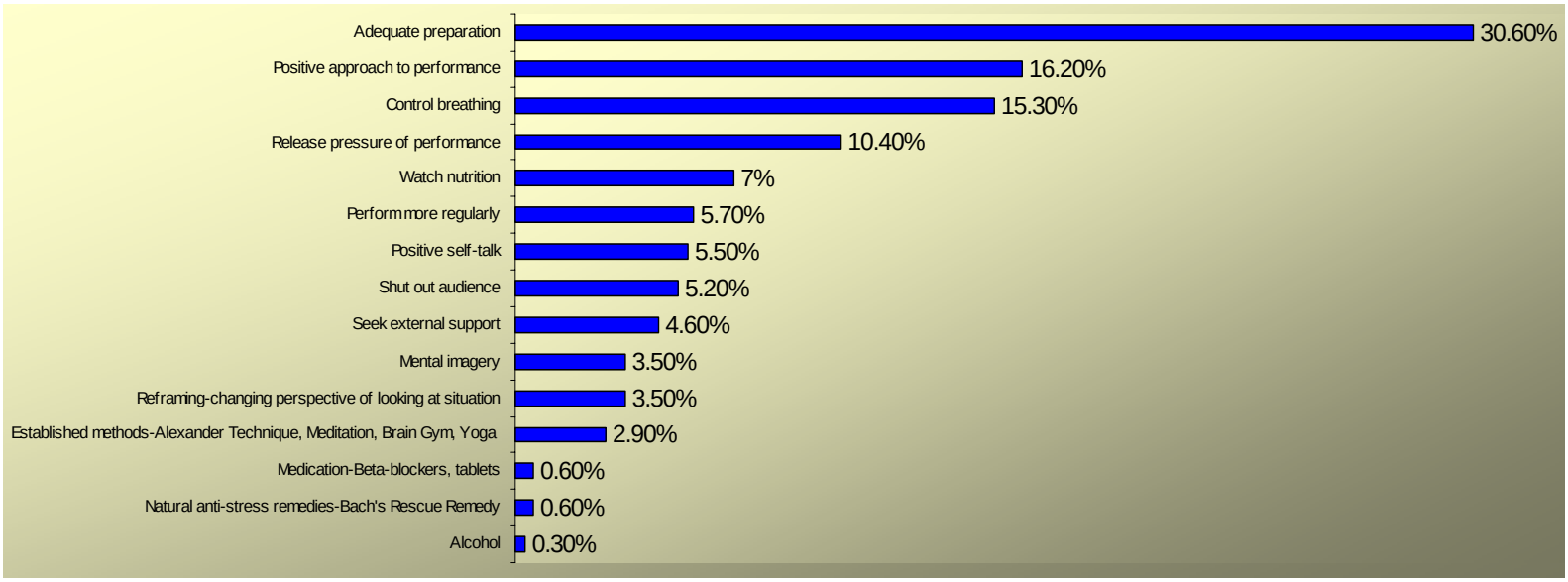


Figure 3: *Adolescent musicians' strategies for coping with the demands of performance*

Performance Anxiety and the Adult Professional Musician

Methodology, Research Instrument and Sample

Performance anxiety in adult professional musicians specialising in different musical genres (Papageorgi, 2008; Papageorgi *et al*., under review) was explored as part of a large two-year ESRC TLRP funded study. The project, entitled "Investigating Musical Performance (IMP): Comparative Studies in Advanced Musical Learning" (Welch *et al*., 2006), was devised to

investigate how classical, popular, jazz and Scottish traditional musicians deepen and develop their learning about performance in undergraduate, postgraduate and wider music community contexts. Data were collected through a specially devised, web-based questionnaire survey completed by 244 musicians, semi-structured interviews with 27 individual case studies, as well as focus groups. Quantitative data were analysed with SPSS and qualitative data with NVivo.

The contents of the questionnaire survey included 57 questions that embraced a wide range of perspectives on musical performance that built on diverse literature sources, and included:

(a) *musical biographies* (e.g., variables related to the effects of age, sex, musical genre, instrumental type, experience),
(b) *psychological and social-psychological issues related to performance* (e.g., performance anxiety, self-esteem, self-efficacy, musical identity, and the development of expertise), including an application of aspects of expertise theory and self-theories and
(c) *attitudes to learning* (e.g., practice behaviours, views on teaching – ideal versus personal experience) and the social and environmental contexts for learning.

Musicians' perceived levels of performance anxiety was investigated with two short scales focusing on the experience of distress due to performance anxiety at three different points in time (1 hour, immediately before and during performance). One scale focused on solo and the other on group performance. Measures of reliability for both scales revealed highly satisfactory Cronbach α values that confirmed high internal consistency (α = .728 for "experience of anxiety in solo performance" and α = .815 for "experience of anxiety in group performance").
The face-to-face, semi-structured interviews focused on a range of issues related to each musician's personal development and experiences, including performance anxiety.

Findings

The incidence of performance anxiety in solo and group performances

Participants were asked in the survey to rate the extent to which they felt distress due to performance anxiety one hour, immediately before and during solo and group performances on a seven-point Likert-type scale (from *no distress at all* to *extreme distress*). Descriptive statistics of their responses on each of the three time conditions for each type of performance (solo / group) were conducted. Percentages under each condition were added and categorised under low, moderate and high. Overall, 39.8% of participants reported experiencing low levels of distress, 14% moderate and 46.2% high levels of distress one hour before, immediately before and during solo performances due to performance anxiety. With respect to group performances, 75.1% reported experiencing low distress levels, 10.1% moderate and only 9.8% high distress levels. Findings clearly suggest that solo performances tended to evoke high levels of distress, in contrast to group performances that induced low levels of stress for the majority of participants.

The timeline of performance anxiety in adult professional musicians

Participants were asked to rate how distressed they felt due to performance anxiety when performing solo and as part of a group on a seven-point Likert type-scale (from *no distress at all* to *extreme distress*) at three different points in time: one hour before, immediately before and during solo and group performances.

Figure 4 indicates that distress due to performance anxiety increased as the performance approached, reaching a peak immediately before performance and decreasing significantly during the actual performance. A similar pattern was observed for solo (left bar chart) and group (right bar chart) performances:

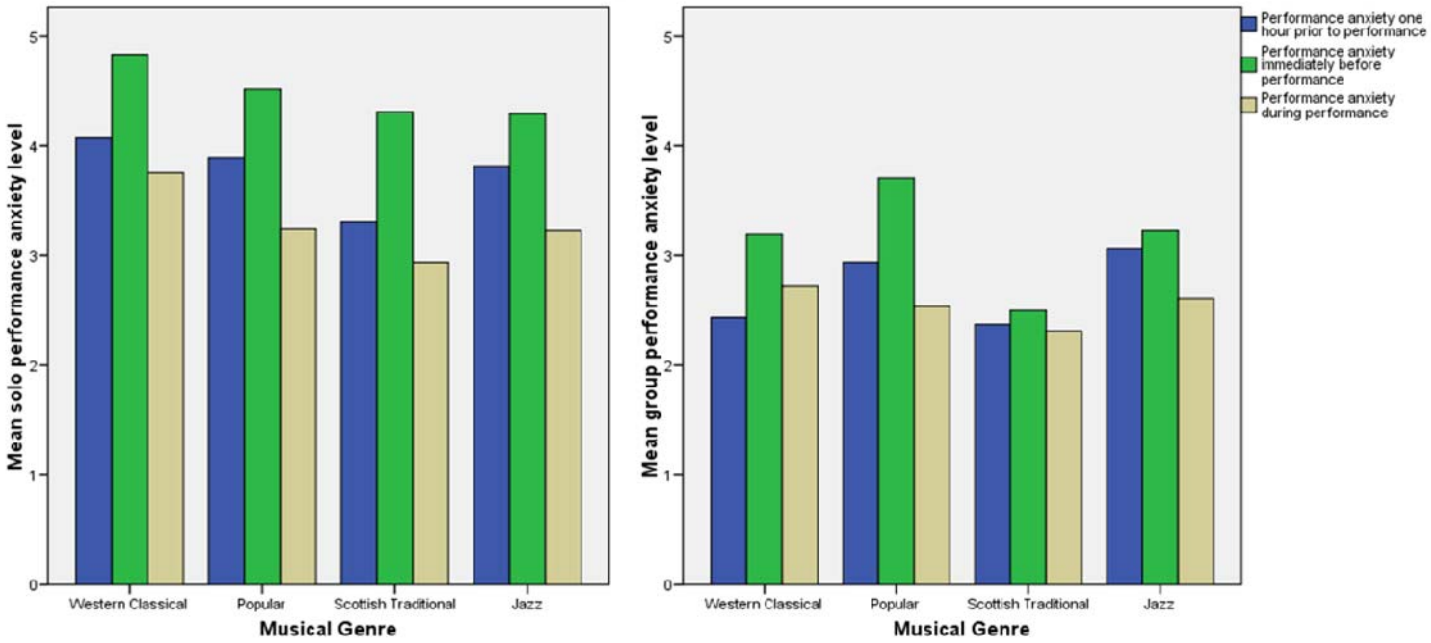


Figure 4: *The timeline of performance anxiety*

This was also mentioned in the interviews, where a musician said:

> 'Generally [I felt anxious] beforehand. I could really, honestly, absolutely be physically sick, and then as soon as my bow had then touched the string, I was into the music, it was fine' (Classical)

The impact of anxiety on the performance of adult professional musicians

The effect of anxiety on the quality of performance was explored in the survey and was also a recurring theme in the interviews and qualitative comments made in the surveys. In the survey, participants were asked to rate the extent to which they felt that (a) their solo and (b) group performance suffered or improved due to performance anxiety as compared to performance without an audience on a seven-point Likert-type scale (from *significantly impaired* to *significantly improved*). 39.3% of respondents said that their solo performance was impaired due to performance anxiety, whilst 35.2% reported that it was improved and 25.5% that it was neither improved nor impaired. The percentage of respondents that reported their group performance to be impaired because of anxiety was significantly less at 22.7%. Anxiety prior to group performance appeared to have more positive results compared to solo performance, as 41.4% of participants reported improvement. 35.9% said that it was neither improved nor impaired.

Participants were asked during the interviews to say what effect anxiety most frequently had on their performance, and also frequently mentioned this in the space provided in the questionnaire. Thematic analysis of the relevant qualitative data identified perceived effects of anxiety to be positive (adaptive anxiety), negative (maladaptive anxiety) and having no effect.

Musicians from all musical genres represented in the study made reference to adaptive and maladaptive forms of anxiety in the interviews and the surveys. Their comments were used to explore themes that determined their perception of anxiety as being positive or negative. Representative quotations under each theme are given below.

A number of themes were identified when musicians mentioned the positive (adaptive) effects of anxiety in performance:

- Improving concentration and stamina

  'Good nerves can help elevate a performance. An amount of adrenaline increases focus and awareness, and increases stamina' (Classical)

- Making performance special

  'It all gets channelled into making a good sound. It gives me that extra sparkle' (Classical)

- Confirming motivation to do well

  'It isn't a bad thing to get nervous before a performance. It can show that you care about what you are about to do and can often help you concentrate on what you are doing' (Popular)

- Improving performance quality

  'If anxiety is used positively it can easily be turned into adrenaline to fuel a good performance' (Jazz)

- Signifying a passion for music

  'If there are no nerves before a performance then you've lost your passion for performing' (Popular)

- Being beneficial if approached in the right way

  'Personally I find that if you channel your nerves and anxiety before a performance, you can make them work for you - like a rush of adrenaline to kickstart the performance!' (Scottish traditional)

In relation to negative (maladaptive) performance anxiety, participants mentioned a number of issues contributing to negative experiences:

- Decreasing the quality of playing

  'Oh, it definitely decreases the quality. And I never perform to the standard I know I can perform to, because I'm so nervous' (Scottish traditional)

- Reducing the enjoyment of playing

  'The anxiety that I associate with performing (especially solos) is the single, most powerful factor that has significantly impaired my enjoyment of music and performing' (Classical)

- Increasing tension

'Since the age of 30 I have experienced muscle pains and weakness caused by tension affecting my blood circulation' (Classical)

- Decreasing control over body

'Nerves don't help my performance as they affect my circulation and breathing leaving lack of control in fingers as they are cold and breath support' (Classical)

- Damaging musicality/expression

'Nerves always destroy 50% of the work input. It also damages musicality' (Classical)

- Contributing to experiencing physical problems

'At times I find that anxiety may not only affect my mental state of being, but also may hinder my physical ability to deliver an accurate and sensitive interpretation of the piece. Expression is sometimes lost in this' (Jazz)

Musicians' perceived effects of anxiety on the quality of performance were further explored in each musical genre separately. Results are illustrated in Figure 5 and indicate that classical, jazz and popular musicians referred to positive effects more frequently, in contrast to Scottish traditional musicians who more frequently referred to negative effects.

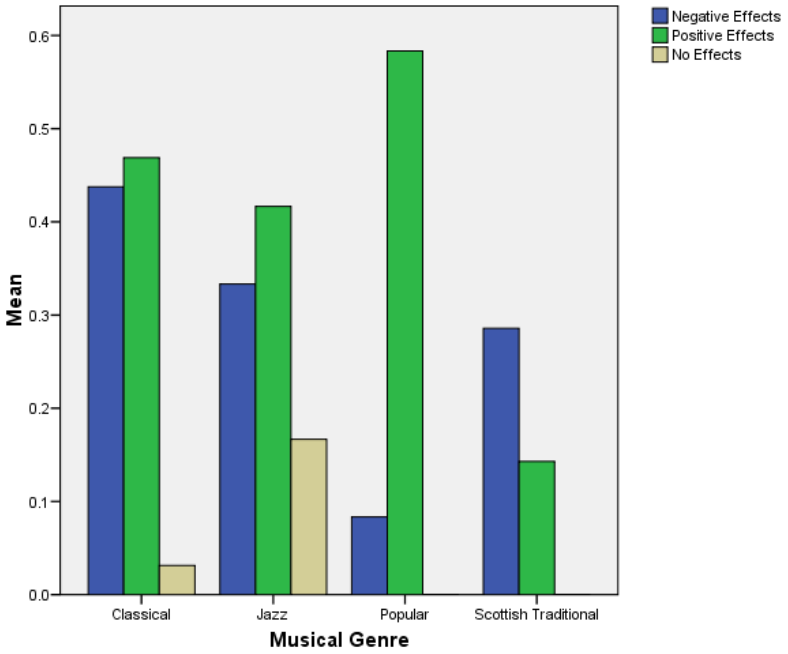


Figure 5: *Perceived effects of anxiety in musical performance*

Coping strategies for dealing with the demands of performance

Without a doubt, musical performance is a highly effortful activity. In order to develop and sustain expertise, musicians need to be physically, emotionally and mentally fit. The "Investigating Musical Performance" study established that performance anxiety can have positive connotations for some musicians. However, it can also create significant problems for

others by impairing the quality of performance by impeding these musicians' ability to cope successfully with the demands of performance. As one musician mentioned:

> 'Many musicians develop their love of music and passion for an instrument before considering how equipped they are for dealing with public performance. Other musicians grow up in an environment where they have many opportunities to display their skills in public at an early age. Regardless of environment, those who suffer detrimental effects usually carry on suffering until they take a step' (Classical)

It is important for musicians to develop ways to deal effectively with pre-performance nerves so that they are able to benefit and enjoy their engagement with music. We felt that it was important to investigate the strategies that musicians utilise to cope with performance anxiety, and so participants were asked during the interviews to say whether they used any strategies to cope with performance nerves, and if so, what these were. Some musicians also mentioned strategies in the space provided in the questionnaire for comments. Thematic analyses identified that musicians' strategies could be categorised into 'emotion focused' and 'problem focused' strategies. Emotion focused strategies concentrated on alleviating / moderating distressing emotions, and included:

- Accepting oneself
- Drinking alcohol / using beta-blockers
- Avoiding performance
- Being realistic about performance
- Using herbal aids
- Investing in techniques such as hypnotherapy or Neuro-Linguistic Programming
- Maintaining a positive mental attitude / positive image
- Reading self-help books
- Doing activities to reduce pressure / take mind off performance
- Seeking support from others
- Being under prepared in an effort to reduce the pressure of performance

Problem focused strategies concentrated on finding ways to cope with the demands of performance and deal with the negative effects of anxiety. These included:

- Practising and being well-prepared
- Being proactive about performance
- Deep breathing
- Exercising
- Employing mental rehearsal
- Investing in healthy nutrition
- Warming-up before performance

Musicians' coping strategies were further explored in each musical genre separately. Results are illustrated in figure 6 and indicate that classical and Scottish traditional musicians referred to using emotion focused strategies more frequently, whilst popular musicians mostly referred to problem focused strategies. There was no difference in the frequency of reference to either coping strategies by jazz musicians.

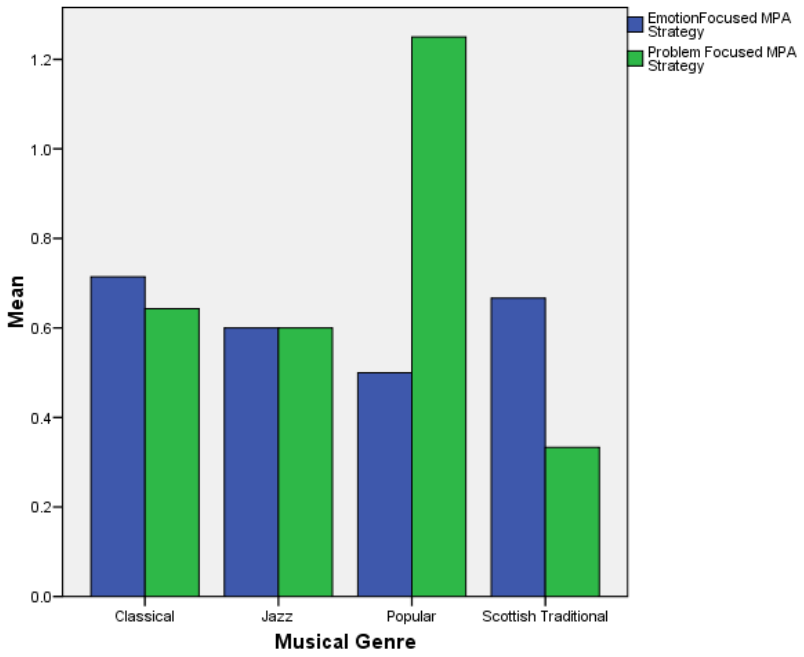


Figure 6: *Adult professional musicians' strategies for coping with performance anxiety*

Discussion and Implications for the Education and Training of Musicians

The two studies described suggest that performance anxiety is of concern for a significant proportion of both adolescent and adult professional musicians and add to the existing body of knowledge by exploring its presence (a) within a neglected age group (adolescence) and (b) across four different musical genres.

For most musicians, solo performance appears to be more stressful than performing in a group. Anxiety appeared to have negative connotations and be a problem for a number of adolescent and professional musicians. Interestingly, some adult musicians also reported that it can be beneficial. Professional musicians viewing anxiety as beneficial interpreted it as improving concentration and stamina, signalling their motivation and passion to do well and as something that helped their performance be 'special'. Those that viewed it negatively focused on the fact that it reduced their enjoyment of playing, contributed to a series of practical problems that hindered performance and decreased the control they had over their body. They therefore interpreted physiological arousal as a threat to the quality of their performance. Self-reported anxiety levels increased as solo and group performances approached, and followed a pattern of physiological response described in previous literature as important in facilitating optimal performance (e.g., Salmon et al, 1989; Wilson, 2002), as anxiety peaked right before performance and decreased significantly during the event. Previous research has nevertheless reported discrepancies between subjective (self-report) and objective (physiological arousal) measurements of anxiety in musicians (Abel & Larkin, 1990; Tartalone, 1992; LeBlanc et al., 1997), which points to the need for further research to clarify the relationship between self-perceived and physiologically manifested performance anxiety in musicians.

For the young musicians, a number of psychological characteristics, as well as environmental factors related to how anxiety influenced them and how well they were able to

control and cope with it. These included self-perceptions, but also situational parameters, the wider context of learning and parental attitudes and expectations

Musicians reported a variety of coping strategies to deal with maladaptive performance anxiety, most of which were self-devised. Few musicians reported seeking advice or support from psychologists, other professionals or peers, which implies that – for a number of musicians – admitting that performance anxiety is a problem may still be a taboo and considered best to be dealt in private. A number of adolescent and adult professional musicians mentioned that maintaining a positive and optimistic attitude towards the performance helped them overcome performance nerves and perform to their full potential. Based on this finding, techniques such as Cognitive Behavioural Therapy and Neuro-Linguistic Programming may be particularly promising for musicians that suffer from maladaptive performance anxiety, as these focus on modifying people's perceptions of the situation and facilitate a more positive mindset.

University departments, conservatoires and colleges have a responsibility to educate and prepare performers for the demands of their chosen profession. This should include challenging and demystifying the conception that musicians who are skilled and successful do not experience pre-performance nerves. As one IMP project participant mentioned:

> '[Performance anxiety] should be properly acknowledged as a common problem that most people will encounter at some point in their career. Music Colleges should address this from the first year and offer advice and training on preventative techniques and ways to cope, e.g. relaxation, Alexander Technique, yoga, mental preparation' (Jazz)

Musical performance anxiety should be conceptualised as a normal experience that is often a given part of performance. Musical performance anxiety should not always have negative connotations. It can also help musicians perform better, as many have mentioned. What matters in cases where performance anxiety affects performers in a negative way is how individuals learn to deal with it, how well-supported they feel in this process by teachers, parents and peers, and how equipped they feel to cope with the demands of performance at any given point in time. Finally, it is important to acknowledge that performance expertise develops in a community of practice alongside peer support and therefore encourage and foster the development of supportive learning communities.

Bibliography

Abel, J.L. & Larkin, K.T. (1990). Anticipation of performance among musicians: Physiological arousal, confidence, and state-anxiety. *Psychology of Music*, 18, 171-182.

Barry, N.H. & Hallam, S. (2002). Practising. In R. Parncutt and G.E. McPherson (eds.) *The science and psychology of music performance: Creative strategies for teaching and learning,* 151-166. Oxford: Oxford University Press.

Bloom, B. S. (1985). *Developing talent in young people*. New York: Ballantine.

Cooper, C.L. & Wills, G.I.D. (1989). Popular musicians under pressure. *Psychology of Music*, 17, 22-36.

Davidson, J.W. (2001). David Helfgott: A psychologist's perspective. *Research Studies in Music Education*, 16, 66-69.

Dews, C.L.B. & Williams, M.S. (1989). Student musicians' personality styles, stresses, and coping patterns. *Psychology of Music*, 17, 37-47.

Ericsson, K.A. (2003). The search for general abilities and basic capacities. In R.J. Sternberg and E.L. Grigorenko (eds.) *The psychology of abilities, competencies, and expertise,* 93-125. Cambridge: Cambridge University Press.

Ericsson, K.A. & Smith, J. (1991). *Toward a general theory of expertise*. New York: Cambridge University Press.

Feltovich, P.J., Prietula, M. J. & Ericsson, K.A. (2006). Studies of expertise from psychological perspectives'. In K.A. Ericsson, N. Charness, P.J. Feltovitch and Hoffman R.R. (eds.) *The Cambridge Handbook of Expertise and Expert Performance,* 41-67. New York: Cambridge University Press.

Fishbein, M., Middlestadt, S.E., Ottati, V., Strauss, S. & Ellis, A. (1988). Medical problems among ISCOM musicians: Overview of a national survey. *Medical Problems of Performing Artists*, 3, 1-8.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Gustafson, E. & Rawson, D. (1983) *Rambfeber hos strakmusiker* (Stage fright in string players). Unpublished Masters Thesis, Uppsala University, Uppsala, Sweden.

Hallam, S. (1998). *Instrumental teaching: A practical guide to better teaching and learning*. Oxford: Heinemann.

Kemp, A.E. (1981a). The personality structure of the musician. I. Identifying a profile of traits for the performer. *Psychology of Music*, 9(1), 3-14.

Kemp, A. E. (1996). *The musical temperament: Psychology and personality of musicians*. Oxford: Oxford University Press.

Kenny, D. & Osborne, M.S. (2006). Music performance anxiety: New insights from young musicians. *Advances in Cognitive Psychology*, 2(2-3), 103-112.

LeBlanc, A., Jin, Y.C., Obert, M. & Siivola, C. (1997). Effect of audience on music performance anxiety. *Journal of Research in Music Education*, 45(3), 480-496.

Lehman, A.C. & Gruber, H. (2006). Music. In K.A. Ericsson, N. Charness, P.J. Feltovitch and Hoffman R.R. (eds.) *The Cambridge handbook of expertise and expert performance,* 457-470. New York: Cambridge University Press.

Manturzewska, M. (1990). A biographical study of the life-span development of professional musicians. *Psychology of Music*, 18(2), 112-139.

Marchant-Haycox, S.E. & Wilson, G. D. (1992). Personality and stress in performing artists. *Personality and Individual Differences*, 13, 1061-1068.

Papageorgi, I. (2008). *Investigating Musical Performance: Performance anxiety across musical genres*. TLRP Research Briefing No. 57. London: TLRP.

Papageorgi, I. (2007a). *Understanding performance anxiety in the adolescent musician*. Unpublished PhD thesis. Institute of Education, University of London.

Papageorgi, I. (2007b). The influence of the wider context of learning, gender, age and individual differences on adolescent musicians' performance anxiety. In A. Williamon and D. Coimbra (eds.) *Proceedings of the International Symposium on Performance Science 2007,* 219-224. European Association of Conservatoires. Utrecht, The Netherlands. [ISBN: 978-9-09-022484-8].

Papageorgi, I. (2007c). Does culture influence the reported experience of performance anxiety in musicians? A comparative investigation of British and Cypriot adolescent musicians. In P. Symeonides (eds.), *Proceedings of the 5th International Conference of the Greek Society for Music Education,* 299 – 310. Thessaloniki, Greece. [ISBN: 978-9-60-898470-7].

Papageorgi, I., Creech, A., Haddon, E., Morton, F., De Bezenac, C., Himonides, E., Potter, J., Duffy, C., Whyton, T. & Welch, G. (2009) Investigating Musical Performance: Perceptions and prediction of expertise in advanced musical learners. *Psychology of Music,* in press.

Papageorgi, I., Creech, A., Haddon, E., Morton, F., De Bezenac, C., Himonides, E., Potter, J., Duffy, C., Whyton, T. & Welch, G. (under review). An investigation into performance anxiety experiences of advanced musicians specialising in different musical genres. *MS,* under review.

Plomin, R., DeFries, J.C., & Loehlin, J.C. (1977). Genotype-environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin*, 84, 309-22.

Salmon, G. & Meyer, R. G. (1998). *Notes from the green room: Coping with stress and anxiety in musical performance*. San Francisco: Jossey-Bass Publishers.

Salmon, P., Schrodt, R. & Wright, J. (1989). A temporal gradient of anxiety in a stressful performance context. *Medical Problems of Performing Artists*, 4(2), 77-80.

Schulz, W. (1981). Analysis of a symphony orchestra. In M. Piperek (eds.) *Stress and music: Medical, psychological, sociological, and legal strain factors in a symphony orchestra musicians profession,* 35-56. Vienna: Wilhelm Braumuller.

Sloboda, J.A., Davidson, J.W., Howe, M.J.A. & Moore, D. G. (1996). The role of practice in the development of performing musicians. *British Journal of Psychology*, 87, 287-309.

Sosniak, L. A. (1985). Learning to be a concert pianist. In B. S. Bloom (eds.), *Developing talent in young People,* 19-67). New York: Ballantine.

Sosniak, L.A. (1990). The tortoise and the hare and the development of talent. In M.J.A. Howe (eds.) *Encouraging the development of exceptional skills and talents,* 149-164. Leicester: British Psychological Society.

Steptoe, A. (2001). Negative emotions in music making: The problem of performance anxiety. In P.N. Juslin and J.A. Sloboda (eds.) *Music and emotion: Theory and research,* 291-307. Oxford: Oxford University Press.

Tartalone, P.M. (1992). *Patterns of performance anxiety among university musicians preparing for brass area jury recitals: Physiological arousal and perceived state anxiety*. Dissertation Abstracts International.

Tobacyk, J.J. & Downs, A. (1986). Personal construct threat and irrational beliefs as cognitive predictors of increases in musical performance anxiety. *Journal of Personality and Social Psychology*, 51, 779-782.

Welch, G., Duffy, C., Potter, J. & Whyton, T. (2006). *Investigating musical performance (IMP): Comparative studies in advanced musical learning.* Institute of Education, University of London, Funded by the ESRC/TLRP, grant reference RES-139-25-0258.

Wesner, R.B., Noyes, R. & Davis, T.L. (1990). The occurrence of performance anxiety among musicians. *Journal of Affective Disorders*, 18, 177-185.

Williamon, A. & Valentine, E. (2000). Quantity and quality of musical practice as predictors of performance quality. *British Journal of Psychology*, 91, 353-376.

Wills, G. & Cooper, C.L. (1988). *Pressure sensitive: Popular musicians under stress*. London: Sage.

Wilson, G.D. (2002). *Psychology for performing artists* (2nd edition). London: Whurr Publishers.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Teaching music to visually impaired children

Stefania Papatziki

Abstract

Teaching general music in a primary school to visually impaired children with no other disabilities raises questions for the music teacher undertaking this task. The notation, the use of movement in musical activities as well as the possible advanced level of aural skills involved, are three aspects of musical learning which could be affected by the visual disability. Because of these assumptions, a literature review has been undertaken in order to explore the teaching and learning framework, in which a music teacher should work in relation to these three aspects. During the research, key elements of the musical development of sighted and visual impaired children has been examined and compared, as well as the general and musical frameworks defining effective teaching and learning for children six to twelve years old with visual disabilities. In the end, the findings of this literature-based research led to practical suggestions, which can be applied in the general music lesson of children with visual disabilities.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Psychological benefits associated with group singing

Metaxia Pavlakou

Abstract

Music is one of the defining features of our human nature, and singing is a form of musical participation and expression open to everyone. Research on the psychological benefits associated with group singing demonstrates that participation in this activity can elicit positive emotional changes, promote adaptive behaviour and enhance the quality of participant's lives. The research presented here examines the possible psychological benefits of participation in amateur group singing for people suffering from eating disorders, in a non-clinical setting. Two qualitative studies were conducted involving the creation of two community-based group singing workshops for people that exhibited disordered eating. The first study documented the experiences of eight female participants, who took part in a three-week workshop. The follow-up study involved five participants (four female and one male) who joined an extended nine-week workshop that aimed at the production of a final recording. Both studies, using a semi-structure interview as the main research instrument, intend to offer insights into the subjective experiences and perceptions of the people involved, examine the ways that group singing is valued and understood by its participants and theorize more widely about the possible therapeutic value this activity may have for the particular needs and difficulties of the population under study.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

I learn the way to learning: from knowledge to metacognition

Elissavet Perakaki

Abstract

Metacognition is one's ability to control his cognitive functions. In music education it helps pupils organize their thought and learn how to find the knowledge. This is really important in Greek schools, because pupils participate in music activities once a week, in most cases. The question that is aroused is: how metacognitive skills can be cultivated in practice? A qualitative research, which took place in two secondary schools in rural areas, tries to answer this question. The methods used were questionnaires, diary and participatory observation. The whole notion of metacognition is a very interesting and effective way to learn throughout one's life, in all aspects, from school's courses to succeeding an exam, to reading the most important news on the Internet or newspaper, even to see the difference between fake and real information.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Planning music instruction: a contribution from philosophy

Theocharis Raptis

Abstract

The process of designing a music lesson is an important factor for its success. But often we are not able to understand the specificities of such a design, the way in other words we argue its structure and make specific suggestions, and as a result of that we often offer schemas in an uncritical way. It is exactly at this point that philosophy's contribution is particularly helpful. In this paper I will try to reveal the logical structure behind such a design by focusing on its aims, in order to understand better the nature of prescriptive clauses, as well as their connection to other prescriptive or descriptive clauses. Such an analysis could help us as teachers to discard unproductive certainties and entrenched practices and can guide us to a more critical planning and application of the music instruction lesson. Systematic philosophy can, nevertheless, substantially influence the way music teachers work out their personal theories and philosophy, which often remain latent and unsystematic. And as a result of that teachers can be led to a process of persistent reflection, enlightenment and dialog in all the fields pertaining to the design and application of music lessons.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Group Piano Instruction for Elementary and Intermediate Students: Educational Benefits and Pedagogical Strategies

Dina Savvidou

Abstract

In this lecture I will demonstrate the numerous benefits that group piano instruction offers to students and outline the organizational and pedagogical skills needed for successful group piano teaching. When offered as a supplement to traditional private instruction, group lessons enhance the students' knowledge of the fundamentals of music education while reinforcing their pianistic skills. The objective of this type of instruction is to lay an early foundation for advanced musical experience through ensemble playing, ear training, rhythm, sight-reading, harmonization, and improvisation – skills that are less easily acquired, and often overlooked, in the context of a private lesson. In a stimulating classroom environment, interaction among students helps them develop as musicians by supporting each other, learning collectively, and sharing the same problems and goals. Successful group instruction depends largely the teacher's effectiveness in creating an enthusiastic environment as well as mutual interest and responsiveness among the group members. Additionally, group piano instructors must practice good habits of general classroom teaching, which usually play little role in private piano lessons. These habits include goal-oriented curriculum design, effective lesson planning, systematic assessment, and classroom management.

The presentation will include video clips from my own teaching of two different groups of students of ages ten and fourteen, respectively. I will need a DVD player and a projector for my examples. I will also require the equipment necessary for a Power-point presentation.

Keywords
group piano, piano pedagogy, elementary piano students, intermediate piano students

Introduction

Group piano instruction is a longstanding practice that has been successfully adopted in a variety of teaching contexts throughout the world, most notably in North America and Japan. Conversely, for a variety of reasons, many European teaching communities, Greece included, have been unreceptive to the group piano concept. In this paper, I advocate the adoption of group piano in our schools and odeia, first by addressing some of the commonly held objections to it, and then by enumerating its many benefits. Finally, I will provide some practical examples from my own teaching that demonstrate how these benefits may be realized exclusively within the context of a group setting.

Objections to Group Piano Lessons

Many influential piano pedagogues have offered numerous potential criticisms against teaching piano in a group setting. The most common of these, as enumerated by Martha Baker-Jordan (2004) and Jeanine Jacobson (2006), include the following:

1. The group can impede the advancement of the brighter students.

2. Because the teacher cannot give any individual student his full attention, the group setting hampers his ability to refine the students' technique and artistry.
3. The repertoire is not specifically suited to the individual student.
4. Group piano instruction leads to various problems relating to scheduling, financing, and coordination of the students' practice habits.
5. Assembling groups requires having enough students of appropriately matched ages and skill levels.
6. Teachers must have sufficient numbers of students to permit moving students in and out of classes, depending on their talent and progress.

While these are all understandable concerns, upon close consideration they prove to rather weak as arguments against group piano instruction and they are not based on any qualitative and quantitative research. First, they all seem to assume that a teacher is somehow forced to make a choice between the group setting and traditional individual instruction. However, as I will argue, group piano instruction is most effective when it is adopted as a supplement to the students' individual lessons. Any inference that group piano lessons can be conducted *only* at the cost of individual lessons is based on a false presumption. Second, even if group piano *is* adopted as a replacement for individual instruction, these criticisms could apply to virtually all formal education that occurs in the modern world. Seen from this perspective, the force of these objections is greatly diminished in the face of the overwhelming reality that we do successfully manage to teach and learn a whole range of theoretical and practical pursuits in a group environment. And finally, these objections fail to recognize group piano's two-hundred year track record of success, which originated in Ireland in 1815 (Anderson, 2006). Soon afterwards, piano classes were initiated by such important figures as Franz Liszt, Frederic Chopin, and Clara Schumann, who recognized the importance of peer interaction and collective learning (Fisher, 2006).

As highlighted by Hazel Ghazarian Skaggs (1981), the most common complaint against class piano is that it unduly limits the potential of highly talented students, whose teachers spend their lesson time occupied with less talented students. Again, this point is based on several questionable presumptions. First, it implies that our general methodology of teaching piano should be designed for the needs of exceptional students, which is obviously not fair for the vast majority of students we regularly teach. Secondly, and more to the point, this argument fails to recognize that most people who play piano do so not as solo virtuosos, but ensemble musicians. With no other instrument of the Western classical idiom are children expected to learn, study, and perform alone. Why should piano be the only one whose pedagogical methods limit its students' access to the educational and artistic rewards of making music with others? And finally, the claim that class piano cannot accommodate the individual needs of the talented student reveals a lack of familiarity with how classroom teachers in other fields negotiate this very common challenge: namely, through proactive classroom management and effective lesson planning.

The Importance of Effective Planning

The unfortunate truth is that most piano teachers have little or no experience teaching in a classroom setting of any kind, and it is normal to feel uncomfortable adapting classroom methodologies to ones' already familiar teaching practices. As Thomas Burkett states, group piano teachers require more general organizational and social skills than the traditional private piano teacher, as well as professional training in conceptual learning, in order to plan a well-

sequenced curriculum (1982). However, the transition from individual piano teacher to group piano teacher need not be as difficult as it may seem, provided the teacher maintains a positive attitude and accepts that the two environments require different pedagogical approaches. The most important difference that piano teachers must understand is the vital role of planning, which is rarely an issue in individual lessons (Shender, 1998). Regardless of the number of students in a group and the frequency of their meetings, a yearly class syllabus is absolutely essential. (Hardy, 1980). The material should follow a logical sequence, progressing smoothly according to the needs and abilities of the group. Having a well-crafted syllabus in place is the teacher's most important guide for assigning students to groups, and minimizes the chances of assembling group students with poorly matched abilities.

In addition to formulating a goal-oriented syllabus with a logical sequence of material, group piano teachers must also dedicate a considerable amount of imagination to effective lesson planning. This involves selecting or creating activities appropriate to their students' age and skill level, as these factors determine the class's overall attention span and intensity of interest. The teacher must also have a clear idea of how much time should be given to reviewing old material and introducing new. And, most importantly, if group piano is offered as a complement to individual instruction, as I believe it should be, then the teacher must continuously create opportunities to present each student's individual accomplishments within the classroom environment.

As a supplement to traditional individual lessons, group piano may be successfully employed once per month, or bi-monthly, depending on the teacher's resources, number of students, and so on. The optimum length of a group lesson varies depending on the level of the students. Studies suggest that the ideal length of a group lesson for elementary students is forty-five minutes and one hour, while groups of intermediate students can meet for up to ninety minutes (Bianchi, 1978; Loris, 1994). Several commercially available group piano methods can assist the teacher in devising syllabi and lesson plans that address the needs of a particular group profiles, such as young students, university students, adult beginners, and so on. The following are some of the American methods that have all been prepared by the country's leading authorities, and thus reflect the latest research in group piano pedagogy: *Alfred's Basic Group Piano Course; Hal Leonard Ensemble Book; Keyboard Strategies; Contemporary Class Piano; Piano for the Developing Musician;* and *Keyboard Musicianship.*

Benefits of Group Piano Lessons

While the objections to group piano listed above are mostly based on unfounded presumptions, actual research on the outcomes of group piano instruction uniformly points to its many benefits. For example, a 1974 study by W. F. Rogers Jr. found that elementary piano students who were taught in group lessons scored better on performance examinations than those who had been taught individually (1974). Furthermore, research suggests that students of group piano lessons also perform better than individually-taught students in terms of musical expression (use of pedal, dynamics, tempo, etc.), score better on aural skills and music theory examinations, and are far more creative when expressing critical views of musical performances (Johnson, 1981; Burkett, 1982; Friedmann, 1989; Bastien 1995; Shender, 1998; Shockley, 1999; Coats, 2000; Fisher, 2000; Fisher, 2006). Additionally, group piano teachers regularly report that young children learn better and work more enthusiastically in groups (Shender, 1998). The growing consensus among pedagogical researchers is that the most significant benefits of group piano

instruction are peer interaction among the students and the possibility of cooperative learning, neither of which is possible in the context of a private lesson.

In contrast to individual piano lessons, which young students may easily experience as disconnected from their other learning environments, group piano offers students a chance to study piano in a situation that is familiar from their study of other subjects (Burkett, 1982). The classroom setting also encourages the students to learn from each other, whether by critically observing their peers' performance habits (posture, hand position, fingerings, and pedaling), or through active discussions about the various issues that arise in the course of preparing a piece for performance. Thus, the group environment encourages the development of intersubjective critical thinking, which is immediately applied in a practical situation. Furthermore, by providing a venue for public performance and peer discussion, the classroom setting can have a motivating and encouraging effect on the work the student is doing in his individual lessons (Shender, 1998). And finally, the group lesson incorporates the all-important element of fun, or constructive play, whose importance John Dewey pointed out long ago (Dewey, 1991).

Teachers should always bear the following principles of group learning dynamics in mind in order to maximize the potential benefits of cooperative learning in the class piano environment (adapted from Shender, 1998 & Coats, 2006):

1. Group decisions are arrived at intersubjectively. Thus, the group's relative success correlates directly with each member's ability to think independently and willingness to try out a variety of different approaches;
2. Participation in group lessons reduces students' inhibitions in regards to playing with and in front of others; and
3. Because the successful outcome of any group activity depends on each individual doing his or her part, continued membership in the peer group-and thus, the right to share in its success-requires regular lesson attendance and preparedness.

On the other hand, it should be pointed out that the *least* effective approach in a group piano situation is to teach one student individually while other students are involved in some other activity (Burkett, 1982). A group lesson that deteriorates to being nothing more than several more-or-less simultaneous private lessons fails to take advantage of the benefits of cooperative learning, and thus serves no purpose. This in no way disparages the enormous benefits of individual lessons. However, these are distinct from the advantages of group learning, and instructors stand to gain a great deal by recognizing and embracing the complementary benefits that these two different teaching approaches offer. It is for this reason that I advocate group piano as a highly effective supplement to the traditional methods of individual piano instruction, rather than as a substitute for them.

Learning Outcomes

Thus conceived, group piano instruction encourages the students to employ the skills mastered in their individual lessons as tools for acquiring more generalized musical competencies. Researchers have identified six musical competencies that are especially well suited for the group piano setting: (1) technique, (2) ear training, (3) harmonization and transposition, (4) improvisation, (5) sight-reading, and (6) solo and ensemble performance (Lowder, 1973; Hardy, 1980; Loris, 1994; Hisey, 1997; Shender, 1998; Fisher, 2006). At first glance these might seem like too much, but with careful organization throughout the year and detailed lesson planning, they can all be addressed successfully. Two examples will demonstrate how these learning

outcomes may be addressed in simple exercises that take full advantage of the group setting while simultaneously accommodating different degrees of talent within the specific peer group.

In Example 1, I have prepared a simple arrangement of the familiar folk melody, *Twinkle Twinkle Little Star*. It is intended for a group of four intermediate students, around fourteen years old. The students must learn each of the four written parts, none of which provides complete notated instructions for how it should be played. In other words, the students must use their critical judgment and work together to arrive at a successful performance. Player 1 plays the main melody as written in the right hand, but must accompany it in the left hand with any type of previously learned accompaniment pattern (for example, block chords, broken chords, jump bass, march bass, etc), according to the chord symbols indicated. His technique is exercised by the varied restatement of the A phrase, which also reinforces his understanding of Classical style variation technique. The various indications for articulations and dynamics requires him to remain attentive to the musical expressiveness of his performance. Players 2 through 4 play chordal accompanying parts, although only the first A phrase is notated; they must continue their respective patterns according to the chord diagram provided. Once the students have figured out the chords and have understood how each part is played, they can simply follow the chord symbols, focus on their hands, and listen to each other. This is important, since each accompaniment pattern presents a unique technical exercise. Player 2 must play the chords as staccato arpeggios with hands together. Player 3 plays a two-hand accompaniment in which the left hand plays the root of the chord and the right hand the chords in various inversions. Finally, player 4 practices octaves in both hands, over a rhythmically accented melody that outlines the roots and thirds of the chords. In addition to the collaborative decisions about how the piece should be played, the actual performance of this piece requires more than simply mastering one's individual part. Properly executing the various indications for dynamics and articulation, preventing the accompaniment from overbearing the main melody, maintaining a steady tempo, and not stopping because of mistakes all require the students to concentrate, listen, and adjust to each other as they play.

Example 2, offers another ensemble exercise, again for four players but this time for elementary students (approximately nine years old). As in the previous example, each student should be prepared to perform all four of the parts. Player 1, who beats his part on any percussion instrument, also serves as the ensemble conductor. For the first four-measure phrase, players 2 through 4 play similar music. For the second phrase, however, player 2 plays a contrasting melody, while player 4 improvises on the five-finger pattern of G major, according to the rhythms indicated. While each individual part is not difficult, their contrasting rhythmic accents require the students to count carefully and concentrate on maintaining a steady tempo. Furthermore, the improvising player must use his ear and knowledge of chords to select notes from the G-major five-finger pattern that will sound correct within the harmony of each measure. As in the previous example, accompanying players must remain attentive to ensemble issues such as group dynamics, articulation, and rhythm. The group must decide how to balance the counter melody of player 2 in mm. 5-7 with player 4's improvisation.

Both of these examples may be further developed by creative teachers to achieve additional learning outcomes. For example, once the students have managed to successfully perform either of these pieces, they could be asked to transpose them to closely related keys. In Example 1, the technical challenges can easily be increased by something as simple as changing the rhythms of the accompanying parts. Similarly, player 1 could be asked to improvise his own variations for the recapitulation of the A phrase. In Example 2, the conductor could be asked to improvise his part while maintaining a strong downbeat while player 4 could be required to

improvise his entire part. The possibilities for adapting such exercises to the level and needs of particular students are limited only by the imagination of the teacher.

Conclusion

In this paper, I have attempted to make a case for the adoption of group piano by addressing some of the methodological arguments against it, by pointing to the concrete evidence of its widespread success elsewhere, and by providing some simple examples of how group piano instruction can be molded to take advantage of the group environment while simultaneously taking full advantage of skills that students acquire in individualized instruction. As a complement to traditional private teaching, group piano offers students considerable educational advantages over students who receive private instruction exclusively. Skills such as improvising, harmonizing, transposing, and ensemble playing are essential for any good musician. This is no less true for professional pianists, whose careers normally require them to work collaboratively far more often than as concertizing soloists. These skills are better acquired cooperatively than individually, and this is why I am a strong advocate for the adoption of group piano as a complement to individual instruction.

Bibliography

Anderson, R. (2006). From Paper Keyboards to MIDI: A Brief Look at Group Piano through the 20th Century. *Piano Pedagogy Forum,* 9(2). Retrieved from www.music.sc.edu

Bastien, J.W. (1995). *How to Teach Piano Successfully* (3rd ed.). San Diego, CA: Neil A. Kjos Music, Co.

Bianchi, L. (Spring, 1978). For Success: Make Your Program Match Your Group. *Piano Quarterly,* 101, 19-22.

Burkett, T.A. (Nov. 1982). The Challenge of Group Piano Teaching and the Rewards. *Music Educators Journal,* 69, 31-33.

Coats, S. (2006). *Thinking as you play*. IN: Indiana University Press.

Dewey, J. (1991). *How We Think.* New York: Prometheus Books.

Fisher, C.C. (2006). *Applications of Selected Cooperative Learning Techniques to Group Piano Instruction*. Doctoral Dissertation, University of Oklahoma. *Dissertation Abstracts International.*

Friedmann, M. (1989). Stimulating Classroom Learning with Small Groups. *Music Educators Journal*, 76, 53-56.

Hardy, D. (1980). Group Teaching-A Complete Preparation. *The American Music Teacher,* 18-19.

Hisey, A. (1997). Improvisation and Composition in Class Piano: Curricular Approaches. *Proceedings from National Association of Schools of Music*, 85, 47-49.

Jacobson, J.M. (2006). *Professional Piano Teaching.* Los Angeles: Alfred Publishing Co., Inc.

Johnson, R. (1981). Group Lessons: They're Not Just for Beginners. *Clavier*, 27.

Jordan, M.B. (2004). *Practical Piano Pedagogy.* New York: Warner Bros., Publications.

Loris, S. (1994). Creative Ideas for Group Lessons. *Clavier,* 33(4), 37-40.

Lowder, J.E. (1973). How Comprehensive Musicianship Is Promoted in Group Piano Instruction. *Music Educators Journal*, 60, 56-58.

Rogers, W.F., Jr. (1974). *The Effect of Group and Individual Piano Instruction on Selected Aspects of Musical Achievement*. Doctoral Dissertation, Teachers College, Columbia University, New York. *Dissertation Abstracts International.*

Shender, M. (1998). *An Evaluation of the Effectiveness of a Group Piano Program Using Electronic Keyboard and Computer Technology*. Doctoral Dissertation, Columbia Teachers College. *Dissertation Abstracts International.*

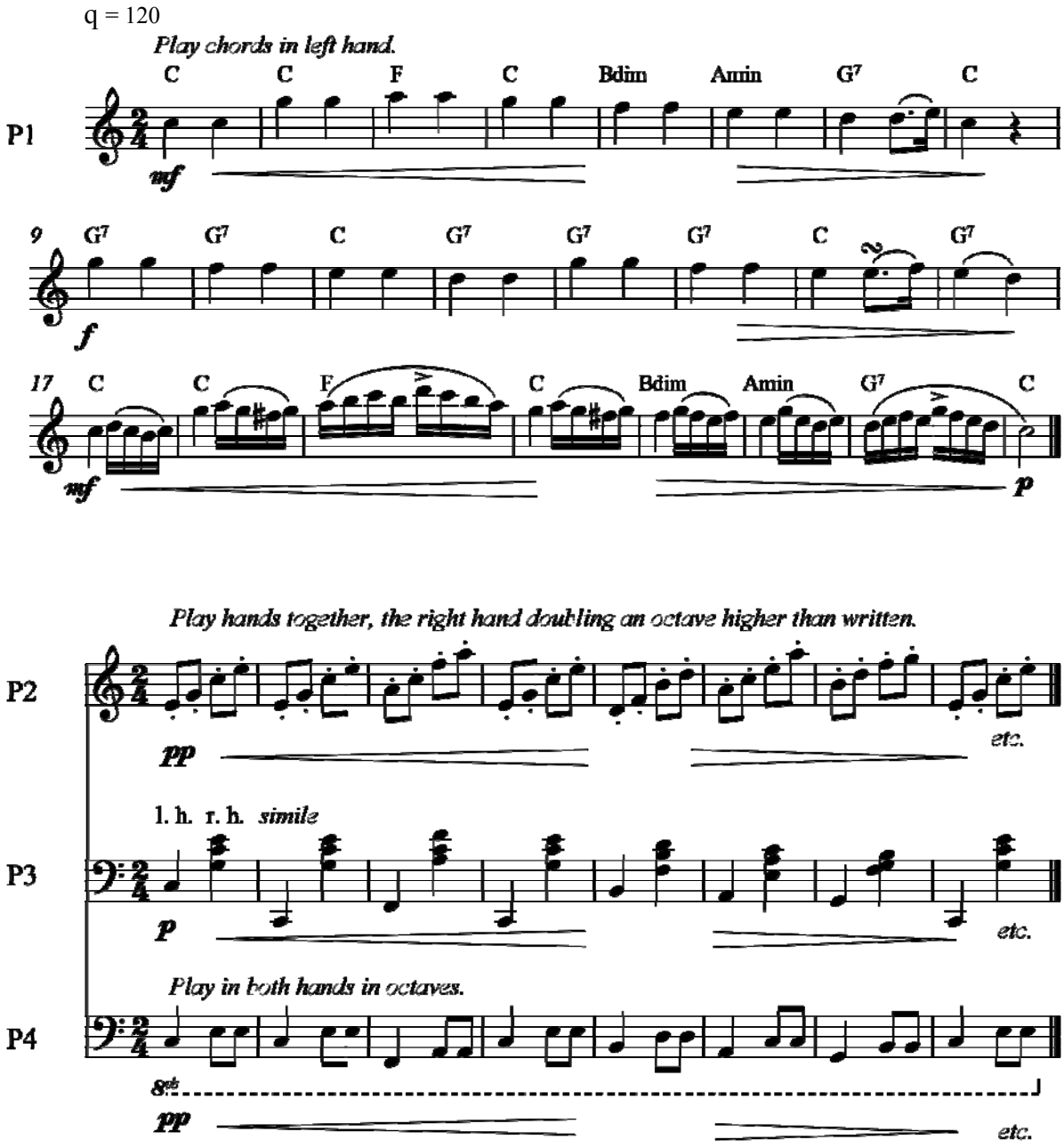
Shockley, R. (1999). Group Lessons for Advanced Students with No Private Lessons. In M. Lorince (eds.) *Proceedings from Pedagogy Saturday III,* 61-62. Cincinnati, Ohio: Music Teachers National Association, Inc.

Skaggs, H.G. (1982). Group Piano Teaching. In D. Agay (eds.) *Teaching Piano: A Comprehensive Guide and Reference Book for the Instructor,* Vol. 1, 265-276. New York: Yorktown Music Press Inc.

Example 1. *Four-Part Arrangement of Twinkle Twinkle Little Star, for Intermediate Group Piano Students*

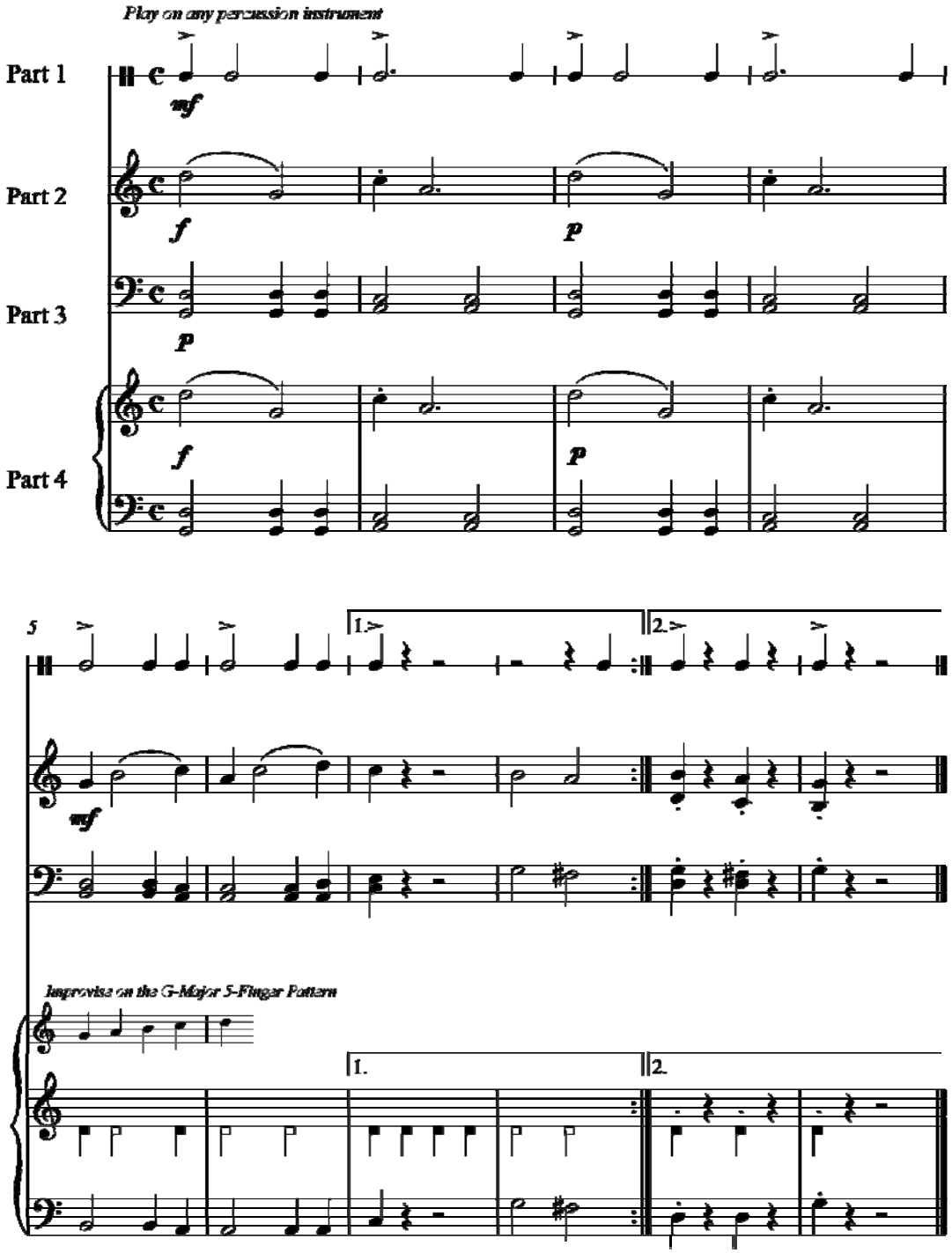
Chord Progression

C	C	F	C	B dim	A min	G7	C
G7	G7	C	G7	G7	G7	C	G7
C	C	F	C	B dim	A min	G7	C



Example 2. *Four–Part Exercise for Elementary Group Piano Students*

q = 112



Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, educates, heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Performance and Psychological Research: An introduction to Sight Reading, Practice and Expert Performance

Christina Sidiropoulou

Abstract

Recent decades have acknowledged an increasingly significant growth of research on *art* music performance embodying the particular behaviour in the psychological field and defining it in its terms. The present paper introduces to and focuses, mainly, on the standard referential empirical research studies of the 1980's and 1990's concerning the nature and representational mental basis, the characteristics and skills required at the three stages of performers' planning and involvement with musical scores of the Western tonal music: sight reading, practice and expert performance. It traces the ways that psychological studies, dealing with performance systematically, provide insights and tackle questions of performance importance, with the belief that scientific research aims to assist performers to achieve a substantial understanding of the basis of their complex behaviour and its results could have applications to music education instrumental teaching. Practising musicians, teachers and students could surpass the *one master's authenticity-apprentice approach,* by evaluating research for their own development and performance enhancement. The study aims to provoke a fertile interdisciplinary dialogue between researchers and professional musicians in Greece, by enriching intuitive teaching-learning and performing, rather than dispute with it.

Keywords
music performance, psychology, research, education

Music performance as a conscious artistic experience and behaviour, derived from a pre-existent composition of western art music, is, according to psychologists, one of the many other kinds of musical activities, such as composing, listening, reading and memorizing, which can be learned, are governed by cognitive processes' operations and where cognitive skills are evident (McAdams, 1989, 1987:17). Psychological research has turned to the study and investigation of the conscious internal mental processes, aiming to effectively interpret the complexity of human behaviour, since 1967, year of Neisser's publication of *Cognitive Psychology*[1]. The science of contemporary Cognitive Psychology mainly concerns the characterization of the mental capacities of human beings, scrutinizes the processes, through which people capture, process, store and use information from the environment, the ways they acquire knowledge. One of its major contentions is that all mental activity is accomplished through *internal or mental representations*[2], called *mental models*, *plans*. In this context, music performance, was described as a translation of "*a mental representation or plan of the music into action*", or as "*an abstract*

[1] Modern Cognitive Psychology researches the structures and operations of the human cognitive system. Structures concern the way in which the cognitive system is organized and consist of memory storage, through which incoming information as external stimuli is elaborated, to be transformed into knowledge to the sensory, short-term and long-term memory. Cognitive operations include all the internal conscious processes, such as perception, attention, thought, coding, retention, storage, recall of information etc., through which information stimuli are transformed into symbolic representations, and define human behaviour (Koliadis, 2002:25, 33; Porpodas, 1993:6).

[2] Psychologists, philosophers and scientists alike appreciate the significant role of the notion of representation as an explanatory device for the symbolic function in the human thought (Mc Adams, 1987:18, 19; Sidiropoulou, 1996).

representation of intention, which is a mental plan improvised or derived from a score" (Sloboda, 1982:480; Shaffer, 1989:381).

Internal representations, as the physical causes of behaviour, together with the processes by which their are created, are in the form of physical codes or symbols of brain activity and thus are abstract and not observable (McAdams 1987:19).[3] Therefore, the nature of performers' mental representations and the processes through which external information is organized into comprehensible entities are to be inferred by the type of the text, the instrument used, the obtained experience and knowledge, their personality, as well as the demands of each particular situation (Sidiropoulou, 1996). The formulation of interpretative intentions for the rendering, expression and contagion of meaning in the form of structural units, emotions, characters, moods[4], is denoted through the formation and realization of *performance plans*. The acquisition of the adequate mental representations for each musical work, and the formation of plans for their sound transformation, constitute the first stage of performance planning (Gabrielsson, 1999:502).

The present paper, by reviewing, focusing and drawing, mainly, on the core of the standard referential empirical research studies of the 1980's and 1990's, introduces to and describes aspects of the nature, the characteristics and skills required at the three stages of performers' planning and involvement with musical scores of the Western tonal music: sight reading, practice and expert performance (Sloboda, 1985:67, 1-101; 1982:479-495). Music performance as an activity, subject to learning processes, is placed among skill acquisition behaviours, accomplished, according to Fitts (1964), in three stages: the *cognitive,* the *associative,*and the *autonomous* stage (Fitts, 1964; Fitts & Posner, 1967)*,* which can be related with the stages of performance planning and involvement with scores. Sight reading, as a *cognitive* stage, consists of an initial coding of the skill, allowing the reader to produce an approximately desired behaviour. Practice, as *associative* stage, involves the attempts of confinement and gradual minimization of errors occurring in the first stage, while the final expert performance, as an *autonomous* stage is characterized by the automatization of skills and *infinitely* continuous improvement (Anderson, 1982; Sloboda, 1985:216-217).

Stages of Performance Planning during the Involvement with Music Scores

A. Sight reading

Sight reading is concurrently the first stage at which a performer becomes acquainted with a musical score and its sound transformation. Transcription from a score in a sight reading situation demands continuity in time, since a performer has to read new material while he/she is executing the one read before (Sloboda, 1982:485). Therefore, sight reading of pre-composed music is paralleled to improvised music as they are both existing in a specific period in time and performers in both situations create and translate plans requiring continuity in time for the first time, relying on previous musical knowledge or internal schemata for either the construction of a new structure and enriching a primary musical idea or for the identification of the given structure of a score in order to provide an expressive commentary on it (Shaffer, 1989:386).

Fluent sight reading requires the co-existence of two sub-skills: the ability to construct the appropriate each time performance plan according to the visual information that the score

[3] Therefore their existence as well as their nature has to be inferred by observing the way that people listen to, compose, memorize, react to, or perform music (McAdams, 1987:19; Sloboda, 1985:3).
[4] ideas, images, memories, events, movements, aspects/opinions or sound impressions.

provides, presupposing the possession of a highly developed skill for representing musical structure, and to obtain the technical skills or a high degree of motor programming in order to achieve to organize fluent motor sequences at the indicative speeds (Sloboda, 1985:90).

The capability and ability for a first preview of the whole, or part of a work, is essential and decisive for sight performance success, since it allows the time needed for visual and/or *auditory* recognition, acquaintance and realization of the score's demands, or even prediction of the following material. Therefore, the visual sensory memory is provided with new information, which the reader relates to the already acquired knowledge, in order to construct an, as much as possible, detailed mental structural representation and prepare in advance the motor output (Koliadis, 2002; Shaffer, 1989:384). The extent of preview in sight reading performance was examined by Sloboda by modifying for instrumental music reading, the technique used for measuring the *eye-voice span* in language reading[5]. The *eye-hand span EHS* of various instrumentalists, was estimated by counting the number of executed notes, during the sight reading of single-line melodies at predetermined speeds, after the score had been removed at an unexpected moment during performance. It was found that proficient readers for all instruments tested, could execute six or seven notes, whereas poor readers, only three or four. It was deducted that the units necessary for the construction of a fluent sight reading performance are not larger than seven successive notes of a melody, conclusion in accordance with the STM's limits, whose capacity lies between five to nine items (Sloboda, 1974, 1977; Sloboda, 1982:485; 1985:71-73). Taking into account that preview means to store notes in Short Term Memory, it can be inferred that musicians' ability to construct a fluent sight reading performance depends on memory constraints, finding which could be used in sight reading training sessions. If poor readers can preview three or four notes, then a method for improving musicians' sight reading should start from attempts to preview such a number of notes or less and gradually move to more.

Sloboda's findings suggested that the EHS decreased for melodies with no tonal harmonic progressions, for atonal music or for melodies in which the addition of passing notes obscured the rhythmic divisions between phrases (Sloboda 1982:486; 1985:72). Therefore, training in rapid identification of smaller or larger harmonic and rhythmic structural units, phrases or motives, can account as a prerequisite for a fluent sight reading performance. Acquaintance with the nature of the musical material in question, would facilitate the detection of the appropriate patterns and enhance performers' ability for preview, allowing more secure and meaningful storage in STM.

Van Nuys & Weaver (1943) have also showed that the sequence of eye fixations in piano sight reading performance is determined, to some extent, by the nature of the musical material, since sight readers' general strategy entailed the identification of significant structural units in consecutive fixations. They found vertical eye fixations in homophonic music, where the structural units are chordal, while more horizontal fixation sequences in contrapuntal music, due to the horizontal nature of the melodic fragments (Van Nuys & Weaver, 1943; Weaver, 1943; Sloboda, 1985). Pianists would assume that the EHS and preview would be better and easier for all instrumentalists using single stave notation than for keyboard players, because the double-staved score demands view through a set of fixations, rather than a single one. However, observation suggests that there exist good as well as poor sight readers among all instruments and therefore studies, which would compare differences in sight reading ability between

[5] Levin and Addis (1979) referred to the *eye-voice span* as the distance that the eyes are ahead of the voice in reading aloud a text and measured it in time units, letters, syllables, words etc. The first study concerning the EVS is attributed to Quantz (1897).

performers of various instruments, would justify or not such remarks, by controlling factors like the nature of the musical material, the age and level of the participants.

Sight reading is facilitated when musicians can fix their eyes on the scores and read music independently of what their hands are playing, because vision is, then, free to prepare in advance the continuation of the music, the shaping, articulation and dynamic development of phrases, as well as its expressive interpretation, while the motor system functions autonomously (Shaffer, 1981; 1989). Nevertheless, if one takes into account that these abilities form characteristics of advanced or expert performers, it is difficult to explain how not all of them are fluent sight readers.

Lerdahl and Jackendoff's (1983), methodological motivation in their inquires to the links between language and music, was that particular conceptual and procedural tools, developed through language research, could be used in music. Sloboda (1985) examined such a relationship in order to find evidence for a common cognitive origin and capacity that underlies both (Clarke, 1989:9-10). Pillsbury (1897) showed that experienced language readers tend to transform wrongly printed words into their correct form. These transformations are most of the times unconscious, because readers can identify words, even if they do not receive complete information, due to their knowledge of the words' spellings. According to Healy (1980), readers usually disregard spelling errors when they visually resemble the correct form, whereas they are more prone to make error transformations in continuous prose reading, because of the significant information that the context provides. The phenomenon of applying unconscious inferential restoring to spelling or typing errors occurring within words, into their correct form, has been described as *proof-reader's error* (Vernon, 1931; Sloboda, 1985:74). An indication that proof reader's error exists in music, was provided by Wolf's (1976) report, according to which a misprint in Brahms Capriccio Op. 76 No. 2 for piano, has been noticed only, when a poor reader played accurately what was printed, and was criticized for 'her' mistake. Most efficient readers unconsciously substituted the printed mistake with the correct note for years and thus, the error had not been detected (Sloboda, 1982:486).

Sloboda aiming to verify the *proof-reader's error* under laboratory conditions, asked from pianists to attempt sight performances of conventional piano pieces after previewing each for five seconds, by the instruction to play exactly what was written, without stopping in the case of errors. The pieces included deliberate notational errors such as shifts in the notated pitch, dissonant harmonies or violations of continuity in melodic progressions, distributed equally between the staves and within the musical phrases. The results demonstrated that even though all the subjects were unfamiliar with the pieces, they re-corrected the errors during their performance. In addition, the fact that in a second performance the proportions of the proof-reader's error increased, suggests that structural conception entails improvement of the ability of correct inference and material storage in terms of structural units (Sloboda, 1987:76-78).

Another method borrowed from language investigators led Sloboda to conclusions about the period of time and the nature of information that musicians can grasp from very brief exposures to music stimulus material. The experiment included copying various pitch symbols, which were briefly displayed on staves (from 20 ms up to 2 sec) to both musicians and non-musicians participants. Musicians' ability for accurate recording of the notes increased with respect to increasing exposure duration. They could record six notes in a single exposure, whereas non-musicians could record only three. Musicians superiority in recording at all exposure durations, together with their ability to retain or guess and use contour as well as pitch information, was considered as a result depending strongly on their training and experience, offering the 'advantage' of Long Term Memory's knowledge storage in the form of stimuli materials like pitch contours, arpeggios, ascending or descending lines and scales or melodic

motives. Moreover, such patterns, especially in tonal music, are usually associated with finger and hand-movement patterns and therefore, such stimuli can be considered as meaningful and easily recognized material. On the contrary, non-musicians had no choice than attempt to hold in their STM meaningless visual stimuli. The question is whether a musician's general knowledge would provide him/her with the same advantage for stimulus material that he/she is not acquainted with. Halpern and Bower (1982) used a technique similar to Sloboda's, but varied the harmonic structure of the stimuli pieces, following traditional rules for harmonic and melodic progressions in half of the pieces, and including as many violations to musical conventions, as possible, to the other half. Musicians performed better the first type of melodies, but also retained superiority in the performance of the second type over non-musicians. The conclusion drawn was that the specific type and nature of musicians' knowledge, the traditional tonal idiom, together with their general knowledge was responsible for their advantage.

B. Practice

Practice is the second stage and the most extended period of time during musicians' involvement with musical scores, where they need to invest most of their effort, as it is widely known that its nature and quantity determines the development of their performing skills as well as the refinement of the works studied. The first empirical study in individual practice was published in 1916, from the Hungarian pianist Sandor Kovacs, who suggested the engagement of mental practice, especially, for learning a new work. Research developed from 1980 and afterwards, inquired the effectiveness of a wide range of practice strategies, as well as the psychological and pedagogical principals underlying music learning and teaching.

Two types of individual practice are referred to in Sloboda's study concerning students practising behavior: *formal practice*, including scales and technical exercises or pieces set by teachers, and an *informal* type, which comprises playing favourite tunes from scores, improvising or non-specific, playing for fun. Sloboda's study demonstrated that the greater quantities of formal as well as all forms of informal practice were undertaken by those students, who were considered as high_achievers, due to their successful entering in a specialist music school, whilst the those, who failed the exam, employed more the informal type. Therefore, it could be assumed that informal practice, contributes, also, positively to musical success, with the reservation that it should be further investigated, which quantity of informal practice contributes to development without distracting from the acquisition of technical skills and repertoire (Sloboda 1996:183). Observation suggests that musicians in general, include in their formal practice works set up for particular purposes such as recitals, concerts, auditions or competitions, along with technical studies forming part of the 'warming-up' section of their daily sessions.

As to the total amount of practice time, Ericsson et al. (1993), after collecting retrospective data from professional violinists, found that they had accumulated ten thousand hours of practising by the age of twenty, distributed equally daily. In concern with the daily quantity of formal practice Ericsson et al. (1993) found that the most successful performers practiced the same every day. On the contrary, according to Sloboda's findings, formal practice increased before concerts, but diminished over holiday periods, whereas its content varied in expended large amounts of time working on scales, technical exercises or pieces. The most important factors that was shown to affect the type of informal practice employed, was teachers' instructions.

Therefore, the accomplishment of high degrees of musical skill presupposes two kinds of musical activities: the devotion of large periods of time at instrumental study, and the exposure

of the motor system to a wide range of 'problems' in order to enable the construction of effective computation routines, which would provide rapid and accurate programming solutions in future situations, encountered in each instrument's repertoire. The use of scales and technical exercises in musical training is an example of formal practice, which ensures that learners are exposed to a wide range of programming problems in a systematic way.

A great deal of practice time is required for the beginners in order to achieve mastery in motor control, which would free their attention from the basic difficult tasks. Furthermore, it is known among performers that stopping practice even for a short period of time, can affect their precision. The brain solves motor problems and results progressively in refined solutions after myriads of movement repetitions, which are stored in memory, as motor knowledge. The main feature of this type of knowledge is that, although it is not accessible to introspection, it is available when its usage is needed, whereas unless it is 'refreshed' with practice, it deteriorates over time. (Shaffer, 1989:383).

Informal observation suggests that it is difficult for novices to practice in a way, which would improve their performance. Instead of applying effective strategies, most of them simply repeat a piece or a passage. Experienced teachers and performers develop individual practicing ways and guide their students, according to their own training and experience, suggesting that rehearsal is transferable and thus, each piece learned diminishes future practice requirements. However, it can occur that although intensively practising a work, improvement is not achieved. At this point teachers usually suggest proceeding to alternative repertoire and return to the previous in the future (Sloboda, 1985:90-91). In addition, listening to, analyzing and discussing, as many works as possible, is considered essential and necessary, as such activities enable a deeper understanding of the music, facilitate its representation and provide performers with richer plans.

Gruson's (1981) study and comparison of the rehearsal behaviour of forty students and three professional concert pianists showed an increase in the frequency of techniques such as repeating sections and larger units, voice division and playing hands separately, verbalizing and practice time, as the level and skill of the musicians increased and concurrently decrease of errors, repeating notes and pauses. Furthermore, interview data indicated that as they became more experienced, students could conceptualize their behavior in a more abstract manner, they were more capable of describing their practising strategies, which were found more cognitively complex, abstract as well as flexible. According to Gruson's explanation the slow and effortfull attempt under attentional control and subject to STM limitations, shifts during practice from a controlled information processing to automatic, through the extended and consistent repetition. There occurs a storage of routine patterns in LTM, which then allows an automatic processing, not requiring conscious control. Taking into consideration such a procedure, repeating notes, which do not form meaningful structural units, is not a helpful practising technique, because it does not aid the construction of integrated units, whereas making errors should be avoided as reinforcing wrong motor patterns. Slow speed is considered prerequisite of an effective practice behaviour, allowing the formation of correct and meaningful units and the preparation of the appropriate motor patterns. Novices seem to perceive the works as almost meaningless texts consisting of series of independent notes, whereas the increase in the use of repeated sections by experts indicates realization of meaningful structural units and sections (Shiffrin & Schneider, 1977; Gruson, 1988:106-110).

The largest part of individual practice is a lonely activity and performers strive to enhance their personal skills, during its sessions. Hallam (1998) describes as effective practice the one which accomplishes the final desired result, in the shortest possible time period, without the involvement of long-term goals. The acquisition of the necessary means for this

accomplishment is achieved by the selection and implementation of the appropriate thought strategies and behaviours, which affect motivation, emotional state and the ways of choosing, organizing, integrating and practicing new knowledge and skills (Weinstein & Meyer, 1986). According to Jorgensen, forming plans for a practice period, constitutes, for example, a *thought strategy,* whereas the gradual acceleration of a performance, is a *behaviour strategy*. Strategies are adopted initially consciously, but are automatized with time and repetition, while their function depends on many factors. Repeating a whole piece without stopping from the beginning to the end, could prove beneficial for some, but ineffective for others. Advanced students and professional musicians usually have idiosyncratic views for what constitutes effective practice. Differences in approaches are expected, since practice aims to project the individual's powerful points and confine one's weaknesses. However, as commonly adopted strategies for the accomplishment of quick practice improvement, are reported:

Self-teaching strategy, suggested by teachers, involves students' assigning to themselves specific duties and supervising their own progress (Galamian, 1964). It should consist of three phases, per practice session:

1. *planning and preparation*
2. *execution-realisation*
3. *observation and evaluation* (Jorgensen, 2004:85-104)

Self-regulated learning, as educational psychologists' alternative view*,* defines three stages as the steps needed for the acquisition of the means for controlling the effectiveness of learning:

1. *forethought,* consists of the thought processes and personal conceptions, which are prior to the attempts of engaging to a task,
2. *performance/volitional control,* as the learning processes affecting concentration and performance, and
3. *self-reflection,* as the learners' reactions and responds to experience (McPherson & Zimmerman, 2002; Zimmerman, 1998).

These phases could be thought as correlating with or corresponding to *self-teaching strategies*, constituting general directive guidelines to the process of every practice session. However, every musician owes to have detailed knowledge of his/her repertory of strategies and be in a position to control and develop, depending on the demands of the particular situation, each work and each practice session (Jorgensen, 2004).

The research development in practice domain by including larger groups of different ages, skills and instruments, can validate conclusions' reliability for attributing behavioural similarities or differences among musicians, and enable some degrees of generality and applicability of findings, contributing to music education.

C. Expert Performance

It is when the intermediate levels included between a 'dead' score and its sound cease to engage conscious control and attention as skills become automatic and, thus, performers are free to concentrate on interpretation matters, improving and refining expressive aspects of the music, that musicians reach concert standard or expert performance (Shaffer, 1989:381; Sidiropoulou, 1996).

Expert performance requires the development and perfection of technical skills, which ensure accuracy and fluency, speed and control over intonation, evenness of sound and timbre, depending each time on the instrument, used (Sloboda, 1996:172-173). Such skills are, for instance, the vibrato in string playing or singing (Clarkson & Deutch, 1978; Seashore, 1938),

hand independence in piano playing (Shaffer, 1981), dynamic control of wind players (Patterson, 1974; Sloboda 1985:93), synchronization in ensemble performance (Rasch, 1979), or the choice of appropriate fingering techniques (Sloboda, 1985:93; Sidiropoulou, 1996). Different motor geometries are demanded for the authentic performance of music of different periods or composers, because of the changes in fingering techniques as a result of the historical development of the various instruments. Skilled keyboard performers, for example, usually have the ability to negotiate with adjustments in differences in touch and spacing between keys, when they switch from historical to modern keyboard instruments, because their motor knowledge is hierarchically organized, so as to respond to motor parameter changes. However, technical perfection is not considered as panacea, as performances synthesized by computers, result in lifeless experiences (Shaffer, 1989:381-383).

Expert performance entails expressive characteristics, which, while depending on performers' creative individual authenticity and idiosyncrasy, follow, according to Sloboda, common principles: Firstly, expressive expert performance is systematic, since the intentional variation of certain chosen expressive devices such as slowing down the speed, accenting etc, are used to reveal certain structural features, for example, metrical or phrase boundaries (Todd, 1985). Secondly, expressive performance by highlighting important structural features of the music, like cadence points and sections' or phrase peaks reveals them to the listeners, evoking communicability and interaction (Sloboda, 1983; Palmer, 1988). Thirdly, an expert performance can be reproduced in more or less the same way many times, depending each time on the performers' decisions, displaying stability (Shaffer, 1984). Fourthly, a performance can be presented as exaggerated, attenuated or with changes in expressive contour, aiming to emphasize different each time aspects of the music and thus shows flexibility (Davidson, 1993; Palmer, 1989). Finally, experienced performers' expressive intentions are not always translated consciously into actions, because of the development of automaticity. The systematic way of applying consistent intentions, results in the development of an automatic behavior, which does not require additional conscious control (Gabrielsson, 1988; Sloboda 1996:173).

A kind of *divided attention* seems to account for expert performers' ability to attend to several dimensions concurrently. An example of paying simultaneously attention to several melodic lines, providing at the same time evidence for expert performance's internal consistency, is a performer's ability to choose a particular articulation for the first entry of a fugue, and pattern all the subsequent entries, according to the initial. On the contrary, non-experts' inability of applying divided attention, causes difficulty in paying the same degree of attention to all voices and, thus, apply the same articulation (Sloboda, 1985:98). Expert performers' particular ability can be explained as a result of the combination of two factors: Firstly, the accomplished automatization of some skills which economize attention for 'new' dimensions. Secondly, the extensive information bank that experts' LTM possesses, which contains internal representations of general knowledge acquired through previous experience and the associated with them motor skills (Chase & Simon, 1973; Shaffer, 1988:92). Therefore, a work's expert performance results from the interaction of the general with specific knowledge of each new piece, and explains the experts' facility and superiority in bringing new works to concert standard in a short period of time, as well as their ability to maintaining an active repertoire of many works concurrently (Sloboda, 1985:94).

A feature of expert performance related to both technical and expressive skills, as well as to the grasp of the large-scale structure of a work is the control over speed and dynamics. The ability to keep a steady speed throughout a piece or to return to the initial tempo after the employment of variations, along with the control of dynamics in a way that climaxes are

reached at the 'appropriate' moments, are significant achievements accomplished by experts (Sloboda, 1985:98).

A certain degree of variability is expected to occur between performances of the same piece by the same performer. Both musicians themselves, as well as concert-goers, criticize particular performances as being inspired or 'deadpan'. Nevertheless, if all the aspects of a performance could be predetermined in a memorized plan, such variability could not be justified. The capability of anew decision making at each time, during performance planning and the shaping of different personal opinions, depending on the complexity of the musical material, its structural ambiguity, and the individual's creative intuition, are considered experts' characteristics. A given element can be thought as serving various functions, according to its surrounding structural environment and be subject to different interpretations. Experts have the facility to choose and apply variations to performance parameters at ease, according to the aspects they will decide to emphasize.

Psychologists' after studying expert performers' behaviour in order to trace the factors contributing to expert performance enhancement, discerned its dependence on the evolution of three constituent cognitive skills, acquired during their long lasting involvement with deliberate practice and very explicit planning (Gabrielsson, 1999; Sloboda, 1982):

1.a. *Goal imaging,* as the ability of forming an explicitly mental representation with detailed expectations for the sound of the desired performance, and 1.b. *sound representation*, as the creation of the intended sound image which provides the exact aim for the performance, defining the extend of success of the real in relation to the desired. The ability for sound representation of a goal is developed through listening or imitating experts or teachers' performances (Lehmann, 1997; Sloboda, 1985; Ericsson, 1997).

2. *Motor production,* as the ability of generating the necessary movements and physical reactions and the *psychomotor ability,* as knowledge of behaviours and the consequent activities of the motor programme, needed for the physical production of a performance on an instrument (Lehmann, 1997:156; Woody, 2001).

3. *Self-monitoring*, as the ability of exact hearing and provide feedback to one's personal performance. Musicians based to what they hear or think they hear, create and remember an auditory image of their performance, which they then compare with the sound representation of their goal. *Self-monitoring* is difficult for beginners, because all their attention is dedicated to the motor production of the music and not in attending the sound produced, whereas the ability to change or distribute attention is experts' essential virtue (Davidson & Scripp, 1992).

Conclusively, expert performers are able to control performance parameters, hold the means to monitor their performance, they can take corrective actions in case of undeliberate deviations from their initial performance plans, proving their possession of a clear representation of the intended sound, as well as developed meta-cognitive abilities, on the basis of which readjustments are made, suggesting specific general directions for effective education and substantial training of young performers.

Epilogue

The introductive presentation of theoretical views and research findings of the interdisciplinary branch of Music Psychology concerning the nature, characteristics and skills of sight reading, practice and expert performance, as well as the acquaintance with its terms, inquiries and data, are considered essential prerequisites for their evaluation and applicability in instrumental education and teaching. Music performance as an expression of processes of perception,

knowledge, creative thinking and emotions, and as an act and realization in the time flow, is molded from social, cultural, educational, philosophical, historical or temporal, and psychological, conscious or unconscious factors. Therefore, the interdisciplinary approach of the particularly complex mental, psychic and bodily action and behaviour, requiring the coexistence of many skills and abilities, is believed that suggests to music performance conveyors an alternative ground to their search for answering questions and solving problems, by providing scientifically documented and valid choices for criticism and assessment. Moreover, it can broaden their scientific and artistic horizons, enable them to creatively surpass the *one master's authenticity-apprentice approach* and accomplish personal growth. The development of a fertile interdisciplinary dialogue between psychologists and practicing musicians could and aims to contribute to enriching the process of intuitive learning and performing, rather than dispute with it. The present study aims at provoking such a dialogue, research endeavours and formulations in Greece as well.

Bibliography

Anderson, J.R. (1982). Acquisition of cognitive skill. *Psychological Review,* 89, 369-406.

Chase, W.G. & Simon, H.A. (1973). The mind's eye in chess. In W. G. Chase (eds.) *Visual information processing,* 215-81. New York: Academic Press.

Clarke, E. (1989). Issues in language and music. *Contemporary Music,* 4, 9-22.

Clarkson, J.K. & Deutch, J.A. (1978). Pitch control in the human voice: a reply to Rostron. *Quarterly Journal of Experimental Psychology,* 30, 167-9.

Davidson, J.W. (1993). Visual perception of performance manner in the movements of solo musicians. *Psychology of Music*, 21, 103-13.

Davidson, L. & Scripp, L. (1992). Surveying the coordinates of cognitive skills in music. In R. Colwell (eds.) *Handbook of research on music teaching and learning*, 392-413. New York: Schirmer.

Ericsson, K.A (1997). Deliberate practice and acquisition of expert performance : An overview. In H. Jørgensen & A.C. Lehmann (eds.) *Does practice make perfect?: Current theory and research on instrumental music practice,* 5-51. Oslo, Norway: Norges musikkhøgskole.

Ericsson, K.A., Krampe, R. T. & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance . *Psychological Review,* 100 (3), 363-406.

Fitts, P.M., & Posner, M.I. (1967). Human performance. Belmont, CA: Brooks Cole.

Fitts, P.M. (1964). Perceptual-motor skill learning. In A.W. Melton (eds.) *Categories of human learning.* New York: Academic Press.

Galamian, I. (1964). *Principles of Violin Playing and Teaching*. London: Faber & Faber.

Gabrielsson, A. (1999). The performance of music. In D. Deutsch (eds.) *The psychology of music* (2nd ed.). San Diego, CA: Academic Press.

Gabrielsson, A. (1988). Timing in music performance and its relation to music experience. In J. A. Sloboda (eds.) *Generative processes in music: the psychology of performance, improvisation and composition,* 27-51. London: Oxford, University Press.

Gruson, L.M. (1988). Rehearsal skill and musical competence: Does practice make perfect? In J.A. Sloboda (eds.) *Generative processes in music: the psychology of performance, improvisation and composition,* 91-112. London: Oxford, University Press.

Gruson, L.M. (1981). Investigating competence: a study of piano practising. Paper presented at the 89th Annual convention of the American Psychological Association, Los Angeles.

Hallam, S. (1998). *Instrumental Teaching: A Practical Guide to Better Teaching and Learning.* Oxford, U.K.: Heinemann.

Hallam, S. (1997). Approaches to instrumental music practice of experts and novices. In H. Jørgensen & A.C. Lehmann (eds.) *Does practice make perfect?: Current theory and research on instrumental music practice,* 89-107. Oslo, Norway: Norges musikkhøgskole.

Halpern, A.R. & Bower, G.H. (1982). Musical expertise and melodic structure in memory for musical notation. *American Journal of Psychology,* 95, 31-50.

Healy, A.F. (1980). Proofreading errors on the word *the* new evidence on reading units. *Journal of Experimental Psychology: Human Perception and Performance,* 6, 45-57.

Jorgensen, H. (2004). Strategies for individual practice. In A. Williamon (eds.) *Musical Excellence: Strategies and techniques to enhance performance,* 85-104. OUP.

Lehmann, A.C. (1997). Acquired mental representations in music performance: Anecdotal and preliminary empirical evidence. In H. Jørgensen & A.C. Lehmann (eds.) *Does practice make perfect?: Current theory and research on instrumental music practice,* 141-63. Oslo, Norway: Norges musikkhøgskole.

Lerdahl, F. & Jackendoff, R. (1983). *A Generative Theory of Tonal Music*. Cambridge, Mass: MIT Press.

Levin, H. & Addis, A.B. (1979). *The Eye-Voice Span*. The MIT Press Classic.

McAdams, S. (1987). Music: A science of the mind? *Contemporary Music Review*, 2, 1-61.

McAdams, S. (1989). Introduction: The many faces of human cognition. *Musical Research and Practice,* 4, 1-7.

McPherson, G.E. & Zimmerman, B. G. (2002). Self-regulation of musical learning: A social cognitive perspective. In R. Colwell & C. Richardson (eds.) *The New Handbook of Research on Music Teaching and Learning,* 327-347. Oxford, U.K.: Oxford University Press.

Palmer, C. (1989). Mapping musical thought to musical performance. *Journal of Experimental Psychology: Human Perception and Performance*, 15, 331-46.

Palmer, C. (1988). *Timing in skilled music performance*. Unpublished D. Phil. Thesis. Cornell University, Ithaca, New York.

Patterson, B. (1974). Musical dynamics. *Scientific American*, 233, 78-95.

Pillsbury, W. B. (1897). A study in apperception. *American Journal of Psychology,* 8, 315-93.

Rasch, R. A. (1979). Synchronization in performed ensemble music. *Acoustica,* 43, 121-31.

Seashore, C. E. (1938). *The Psychology of Music.* New York: McGraw Hill.

Shaffer, H. (1989). Cognition and affect in musical performance. *Contemporary Music Review, 4*, 381-389.

Shaffer, L. H. (1984). Timing in solo and duo piano performances. *Quarterly Journal of Experimental Psychology,* 36A, 577-95.

Shaffer, L. H. (1981). Performance of Chopin, Bach, and Bartok: studies in motor programming. *Cognitive Psychology,* 13*,* 326-376.

Shiffrin, R.M. & Schneider, W. (1977). Controlled and automatic human information processing ii: Perceptual learning, automatic attending and a general theory. *Psychological Review,* 84(2), 127-90.

Sidiropoulou, C. (1996). *Musical Performance: The Psychological Research*, Mmus Dissertation, London College of Music at Thames Valley University.

Sloboda, J. & Davidson, J. (1996). The young performing musician. In I. Deliége & J. Sloboda (eds.) *Origins and Development of Musical Competence*. Oxford University Press.

Sloboda, J.A., Davidson, J.W., Howe M. J. A. & Moore D. G. (1996). The role of practice in the development of performing musicians. *British Journal of Psychology,* 87(2), 287-309.

Sloboda, J. (1985). *The Musical Mind: The Cognitive Psychology of Music.* Oxford Clarendon Press.

Sloboda, J. (1983). The communication of musical metre in piano performance. *Quarterly Journal of Experimental Psychology,* 35A, 577-95.

Sloboda, J. A. (1982). Music performance. In D. Deutsch (eds.) *The psychology of music,* 479-496. London: Academic Press.

Sloboda, J.A. (1977). Phrase units as determinants of visual processing in music reading. *British Journal of Psychology,* 68*,* 117-24.

Sloboda, J.A. (1974). The eye-hand span: an approach to the study of sight-reading. *Psychology of Music,* 2, 4-10.

Todd, N. (1985). A model of expressive timing in tonal music. *Music Perception*, 3(1):33-58.

Van Nuys, K. & Weaver, H.E. (1943). Memory span and visual pauses in reading rhythms and melodies. *Psychological monography*, 55, 33-50.

Vernon, M.D. (1931). Characteristics of proof-reading. *British Journal of Psychology*, 21, 368.

Weaver, H. E. (1943). A study of visual processes in reading differently constructed musical selections. *Psychological monography*, 55, 1-30.

Weinstein, C.E. & Meyer, R.E. (1986). The teaching of learning strategies. In M. C. Wittrock (eds.) *Handbook of Research on Teaching*, 315-327. New York: Macmillan.

Wolf, T. (1976). A cognitive model of musical sight-reading. *Journal of Psychological Research*, 5, 143-71.

Woody, R. H. (2001). Learning from the Experts: Applying Research in Expert Performance in Music Education. *Update-Applications of Research in Music Education*, 19(2), 9-14.

Zimmerman, B. J. (1998). Developing self-fulfilling cycles of academic regulation: An analysis of exemplary instructional models. In D. H. Schunk & B. J. Zimmerman (eds.) *Self-Regulated Learning: From Teaching to Self-Reflective Practice*. London:Guildford Press.

Koliadis, E. (2002). *Gnostiki Psychologia, Gnostiki Neuroepistimi kai Ekpaideutiki Praxi, Modelo Epeksergasias Pliroforion* (*Cognitive Psychology, Cognitive Neuroscience and Educational Praxis, Information Processing Model, vol.1*, in Greek). Athens: Sychrones Psychologikes Theories.

Porpodas, K. (1993). *Gnostiki Psychologia, tom.1, H Diadikasia tis Mathisis, Epeksergasia Pliroforion, Antilipsi, Mnimi, Anaparastasi Gnosis* (*Cognitive Psychology, vol.1, Learning Process, Information Processing, Perception, Memory, Knowledge Representation*, in Greek). Athens.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Repertoire selection for the choir lesson in Greek Secondary Music Schools

Evangelia Simou & Xanthoula Papapanagiotou

Abstract

The repertoire selection has been acknowledged as the most important and onerous task that a teacher or a choral conductor performs before entering a singing classroom or a rehearsal. Repertoire has a pervasive influence on motivation, students' desire to engage and excel in the singing area and ultimately, on the success of the class. It is the vehicle through which students develop musical skills and sensitivity, and learn to appreciate music and choral art. Furthermore, it reflects teachers' philosophies, their aims and objectives for their students' musical growth. Given the significance that repertoire has in creating a meaningful musical experience, the way that music is selected is of crucial importance. The main aim of this study is to investigate the practices implemented by Greek music high school teachers through the presentation of the conclusions of a related survey carried out among teachers of the choir lesson in secondary music schools in relation to the musical style of the repertoire chosen and the pertinent criteria for its selection.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music study from the cradle: Studying the musical behaviour of infants and toddlers

Lelouda Stamou

Recently, there has been particular interest in the study of music behavior of young children, the meaning and influences of music on babies and toddlers, the ways young children act and respond musically, the way they experience music in the broader context of their play and life, and the way they create and express themselves through music. Findings of such research studies are able to advise, enrich or set in a new context the music education practice with infants and toddlers at home and particularly in the less or more structured environment of daycare or early childhood music programs. The challenges and questions that arise at the basis of research investigations of infants' and toddlers' musical behaviors often have to do with the way we define musical behavior, the context in which this behavior is investigated, and the research tools employed for coding and categorizing findings. The present paper aims at discussing these issues and providing examples drawn from the recent research literature on the study of young children's musical behavior in familiar contexts of less or greater structure. The paper ultimately aims at providing an initial theoretical basis for analyzing findings of an on-going research study, and finally at instigating such investigations in this - literally non-existent- research field in Greece.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The effect of sociopolitical developments in the course of music in the Greek education

Yannis Stavrou

Abstract

In the present proposal is attempted the investigation of sociopolitical factors that contributed in the configuration of content of music in the education. With base the data that were examined it becomes obvious that the place of music in the Modern Greek education was influenced by the social conditions, the educational changes and consequently, from the opinions, the objectives and the orientations of education. In this frames the changes that were recorded historical in the education, consequently and in the teaching of music, it was result of corresponding changes in sociopolitical level. Decisive factor also, as for the course of Greek education and musical as sector of this, were the foreigner effects. Moreover the music in the school was connected - at periods very intensely with the promotion ideal moral religious and national character that imposed the Administration. This situation began to change afterwards the change of political changeover. In the past few years the priorities of the Greek state in the frames of E.U. have been altered considerably influencing the direction of school, per year that is forecasted for the course of music as well as her content.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music school textbooks for Primary Education: Investigation of the emphasis in creative activities

Katia Stefanakou

Abstract

The scientific community nowadays is convinced that the development of creativity should be a basic component of education as it promotes the unconventional way of thinking and contributes in the completion of the students' personality. Moreover, creativity as an ability or as a process or a component of one's personality can be grown in all individuals and even more in children. The Music course in Primary School can give the students many chances to develop their creative thinking in contrary to other subjects that are usually taught in a more conventional way. The Official Curriculum of Music Education also stresses out the importance of creativity's development. The present research has been designed in this context. Its goal is to investigate whether and at which point there are creative activities and Music school textbooks for Primary School. The investigated material is the Music school textbooks (student's book and activity book) of the 3rd - 4th, 5th and 6th grade of Primary School that were published in 2008. It has been observed that the textbooks include less creative activities than expected. It has also been observed that students' books include less creative activities than activity books, apart from the 6th grade's student book. Moreover, the 5th grade's student's book can be described as non creative.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Initial education and continuing professional development for the teacher-musician: issues of professional knowledge and practice

Angeliki Triantafyllaki

Abstract

This presentation focuses on teacher-musicians' professional knowledge within the framework of their initial education and continuing professional development. It will consider the role of reflection on both their teaching/educational and artistic practice, in exploring the types of professional knowledge developed and utilised by this professional group. Data were collected from teachers working within Greek higher and conservatoire education, using an ethnographic case study approach and multiple data collection tools - interviews, participant observation and documents. Data revealed the complexities of developing and using professional knowledge, highlighting specifically the relationship between the work context and the wider cultural environment, as well as the need for reconciliation between musical/artistic practice and pedagogy/teaching. The research concluded that activities prioritising reflection on practice could open up the horizons of musical teaching and practice, challenging traditional norms and ideas and offering opportunities for change within the framework of teacher-musicians' initial education and continuing professional development.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

"… from the Orphic lyre and the depiction of Davide's psalms in Kupka's fugue in red and blue…" To mention only…OR to start with…

Thomais Troulou - Kapoulitsa

Abstract

Our main ambition in this presentation shall be, to explore the extremely interesting role performed by the Visual Arts in the History of Music seen in an interdisciplinary context. The relation connecting these two Arts are manifold and diverse: synergies, mutual sparks of inspiration, common harmonious postures, allegories and symbolisms. An enormous production of Visual Artworks, I may say masterpieces, offer possibilities of multiple decipherments.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Research and Dialogue in Music Therapy: A Role for Peer-Reviewed Journals

Giorgos Tsiris & Simon Procter

Abstract

The development of music therapy, as profession, discipline and practice, is directly connected with the development of opportunities for research and dialogue in the field. In this framework, the role of peer-reviewed journals will be explored. This exploration will be based on each author's experience from two different peer-reviewed journals: *Approaches: Music Therapy & Special Music Education* (Greece) and *The British Journal of Music Therapy* (UK). Within this context the development of music therapy in each country (Greece and UK) and its connection to the career trajectories of the two peer-reviewed journals correspondingly will be charted in parallel. On this basis the role of peer-reviewed journals as a forum for publishing research, disseminating clinical practice, developing new theories and communicating them to the wider community, as well as for constructive dialogue, will be discussed. In addition, some of the current cultural and political challenges that form the contemporary profile of each journal will be outlined.

Keywords
music therapy, peer-reviewed journals, research, dialogue

Research and dialogue in music therapy

Research and dialogue both form part of a quest for meaning within our work: they enable us to expand our understanding, enrich our practice, reflect on our actions and practices, communicate our approaches, challenge our assumptions and develop policies relating to music therapy.

On one level, research as "re-search" helps us to re-visit and reflect critically on our practice, re-constructing and expanding our concepts. From this perspective, processes of re-search are essential for our growth as reflexive practitioners. On another level however, research can be more prescriptively defined as

> "[...] a systematic, self-monitored inquiry which leads to a discovery or new insight, which, when documented and disseminated, contributes to or modifies existing knowledge or practice (Bruscia 1995: 21).

This can clearly take many forms, as a burgeoning literature on music therapy research testifies (e.g. Wheeler 2005). However, in the context of contemporary healthcare systems there has been an increased demand on research to function as a means of delivering evidence. Such a perspective ranks research in terms of the supposed "objectivity" of the evidence it produces: quantitative research designs are therefore inevitably privileged with systematic reviews considered to be the "gold-standard".

Evidence Hierarchy	
1	Systematic review
2	Review
3	Randomised controlled trials (RCTs)
4	Case control studies
5	Case series
6	Case reports / case studies
7	Qualitative studies
8	Expert opinion

Table 1: *An example of an evidence hierarchy (Wigram 2002: 261)*

Music therapists are therefore challenged to produce evidence which is seen to fit into such a hierarchy and, where possible, to aim towards the top of it.

However, music therapy work combines art and science and is hermeneutic. It attributes value to human understandings and relationships, as well as to their interpretation, while people are not considered as experimental units (Aldridge, 2001). For this reason qualitative research paradigms are often highly appropriate for music therapy research (despite their lowly position in the hierarchy of evidence) as they enable researchers to communicate their experiences, identify shared meaning and describe lived experience (Aldridge & Aldridge, 1996).

Evidence-based practice and quantitative research often imply the existence of "objective truths" whose validity is conferred from outside by "science". This is a political process where the scientific community may ignore other truths. But Aldridge (2001) reminds us that as therapists we have many ways of knowing: by intuition, through experience, and by observation. This clinical experience of multiple truths gives us the advantage as reflexive practitioners and researchers of being able to be open to many dimensions of experience. Diverse research designs and approaches have their unique places in the development of our profession, discipline and practices. In this way, different worldviews can be celebrated and enrich each other.

In this context both qualitative and quantitative research approaches are of value: validity is not related to the methodological stance *per se*, but to the strength of the arguments used to communicate and establish the premises upon which the research is based. In the framework of qualitative methodologies this can happen by making explicit the researcher's perspectives and biases, thus increasing the credibility of the research findings (Aldridge & Aldridge 1996; Gold 2007; Pavlicevic, Ansdell, Procter & Hickey 2009; Rogers 2000).

A principal opportunity for meeting Bruscia's (1995) demand that research be published and disseminated is presented by peer-reviewed music therapy journals, of which there are many around the world. In this paper we initially discuss the potential role for peer-reviewed journals in general and the value of the peer-review process. We then consider two peer-reviewed journals, one from Greece (*Approaches: Music Therapy & Special Music Education)* and one from the UK (*The British Journal of Music Therapy)*, focusing in particular on the interaction between each journal and the music therapy community with which it is identified.

A role for peer-reviewed journals

Peer-reviewed journals are a force for the development of research and dialogue. They function as venues for publishing research, disseminating clinical practice, developing new theories and

communicating them to the wider community. They give voice to music therapy as a whole, but also to music therapists as individuals. Therefore they function as a container within which the diversity of approaches in understanding, thinking and practising can be respected and celebrated. From this perspective, peer-reviewed journals stimulate the development of constructive dialogue and can stimulate developments within music therapy practice, discipline and profession.

In recent years there has been an increase of music therapy peer-reviewed journals which vary in their approach and style. This increase has been accompanied by the development of technology that has facilitated the development of e-journals which are cost-effective and which permit the creation of online forums for dialogue and discourse. However, in order to consider the usefulness of peer-reviewed journals it is first necessary to focus on the function of the peer-review process itself.

Peer-review process and its value in research

The peer-review process is widely used by academic journals internationally. It is a means of ensuring that journal content is of an appropriate quality, but also of helping prospective authors to refine their submissions so that they not only meet the requirements of the journal (and hence get published), but also best convey the authors' intentions.

Whilst most academics are familiar with the notion of peer-review, music therapists may be less so. Therefore, it is important for music therapy journals wishing to encourage high quality contributions to explain this process to prospective authors in order that they understand it as an aid in their writing process rather than as an obstacle to publication.

The peer-review process is briefly summarised in figure 1 below. When an article is submitted to the journal, it will be sent initially to the editor of the journal. Then, the editor sends it to at least two "peer reviewers". These are usually drawn from an established panel of professionals in the field who have considerable experience of writing for publication. Journals may also draw upon other professionals who are particularly experienced in the area addressed in the submitted article. These "peer reviewers" do not know who is the author of the article they are sent for review, nor will the identity of the reviewers be revealed to the author: hence this is known as a "blind peer-review process". This anonymity on both sides offers reviewers freedom to critique freely without comeback and likewise offers authors access to expert advice within the field without fear of any potential humiliation or premature self-exposure. So, the peer-review process could be likened to a rehearsal which prepares the best possible performance, which in this case is the publication of the article to the journal. This "rehearsal" process aims at supporting the author to achieve the best quality that he can, and not judging or evaluating him.

In some journals this process happens with the use of questionnaires or guides which help peer reviewers address issues of interest to the journal (and to avoid focus on matters of purely personal prejudice) whilst other journals invite purely freeform responses. The responses are returned to the journal's editor and collated, protecting the identities of the reviewers. The editor ultimately sends this collation to the author along with his decision as to how to proceed: to decline publication, to publish as the article currently stands, or to invite revisions as suggested by the peer reviewers. In this last case (which is probably the most usual), the editor outlines how the process will proceed. Where only minor alterations are required, the editor will generally consider the revised submission alone. Where more substantial amendments have been recommended, the editor may choose to resubmit the new version to peer review.

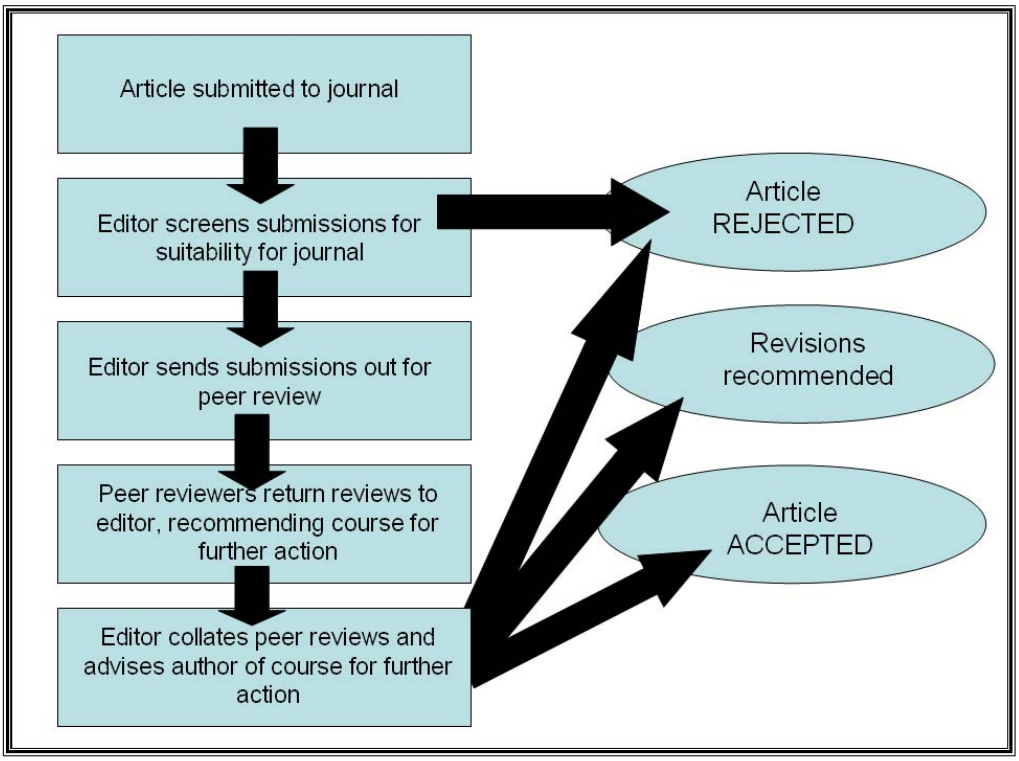


Figure 1: *A summary of the peer review process*

The case of two peer-reviewed journals

Below we take the case of two peer-reviewed journals, *Approaches* (Greece) and *The British Journal of Music Therapy* (UK). We describe briefly some historical, political and cultural aspects of the development of music therapy in each country, while we connect this with the career trajectories of the journals. All these are based mainly on each author's experience from being the Editor of the afore-mentioned peer-reviewed journals. This fact functioned also as our criterion in choosing to analyse these two particular journals among many others around the world.

Approaches and the Greek music therapy scene

Approaches: Music Therapy & Special Music Education was created in September 2008 with the active support of the Greek Association of Primary Music Education Teachers (GAPMET). *Approaches* is the first peer-reviewed journal for Music Therapy and Special Music Education in Greece. It is a biannual electronic publication (http://approaches.primarymusic.gr) and it is accessible to everyone free of charge.

Approaches was created in response to the need for development of dialogue and research not only within music therapy but also within the special music education community in Greece. Music therapy in Greece, as both profession and discipline, is considered to be a growing field which is still in the initial stages of its development. The Hellenic Association of Qualified Professional Music Therapists (ESKEM) was established in 2004 and acts as the professional body for music therapists in Greece. Today it numbers approximately 30 members -

a figure which grows each year as newly qualified music therapists join in. Among the main goals of ESKEM (2009) is to establish and maintain a register for its members and to ensure that they have appropriate qualifications for professional practice, as well as to provide up-to-date information to the public regarding music therapy practice and research. However, music therapy as a developing field in Greece faces various deficiencies and challenges on three main levels: legislation, research activity and training (Tsiris 2009).

On a legislative level, music therapy was recognised officially by the state only recently with the ratification of the latest Special Education law in October 2008 (Official Journal of the Hellenic Republic, 2008). However, there are still various ambiguities in the legislation concerning the role, required training and qualifications of music therapists that need to be clarified.

On a research level, there has been limited activity: this results partly from shortage of funding for research in the field and of music therapy research teams, but also from the absence of forums where the development of dialogue and discourse is promoted and cultivated. A positive role in this situation, however, is played by the willingness of music education associations (such as the Greek Association of Primary Music Education Teachers (GAPMET) and the Greek Society for Music Education (GSME)) to contribute in conjunction with ESKEM to the development of music therapy through the organisation of relevant conferences, seminars and study groups.

Today there is no official music therapy training program at state university level in Greece that meets the standards and criteria of the European Confederation of Music Therapy (EMTC). Consequently the majority of music therapists working nowadays in Greece have qualified in the UK. This fact indicates the tacit but very real influence of the UK music therapy community on the development of music therapy in Greece. This situation has led to the development of a strong bond between the music therapy communities in these two countries which could potentially be utilized for the development of future international collaboration and joint projects.

Through a determination to address the current situation in Greece and to contribute to its development, *Approaches* was born. Before *Approaches*, there was only one newsletter for music therapy which was called "The Press of ESKEM" and published by ESKEM. This newsletter published mainly informal news about music therapy (such as upcoming events and book presentations). However, it has not been published since September 2007 as there was a lack of contributors and submissions - a fact that indicates the limited writing and research activity of the music therapy community in Greece. Therefore, the vision of *Approaches* is to overcome these challenges and to encourage music therapists to engage in research and dialogue.

As previously mentioned, *Approaches* is dedicated both to Music Therapy and Special Music Education as two different, but related fields. It aims to contribute to their mutual development through appropriate differentiation, but also through the development of fertile dialogue between them. This task accords with contemporary demands for close cooperation between music therapists and other professionals within the broader musical, socio-cultural and political framework. In this way, *Approaches* seeks to become a place for creative meeting, dialogue, co-operation and reflection which is addressed to music therapists, music teachers and any other professionals or others interested in the fields of music, therapy, education, health, culture and social services. Similarly, it embraces diversity in practice, theory and research methodology, while it has both Greek and English as official languages – a fact that enhances its connectedness and potential impact at an international level.

The first issue, published in May 2009, is a promising beginning of celebrating this diversity as it includes a wide range of articles originating from a variety of fields relevant to music therapy.

Beyond the e-journal itself, the website of *Approaches* (http://approaches. primarymusic.gr) includes a series of other subsections where the public can be informed of upcoming events both nationally and internationally, as well as having access to a series of links. These sections are to be developed further with the creation of a music therapy forum and archive.

BJMT and the UK music therapy scene

The British Journal of Music Therapy (BJMT) started in 1987 as a joint publication of the Association of Professional Music Therapists (APMT) and the British Society for Music Therapy (BSMT), and continues to be jointly owned and published by these two organisations. Two issues appear each year.

The BSMT, established in 1958, exists to promote the use and development of music therapy: membership is open to all who are interested in this aim. The APMT was born out of the BSMT in 1976 and acts as the professional body for music therapists in the UK. It played a leading role, along with other arts therapies organisations, in the state registration of the arts therapies in the UK in 1999. The two organisations have always collaborated closely in presenting the public face of music therapy in the UK and members of the APMT automatically become members of the BSMT also. They currently share office space and administrative staff and are working towards re-combining as one organisation in the near future.

Prior to 1987, the BSMT had published a newsletter containing news, reports, notices of new publications and meetings. In contrast, the new journal was intended as a place where music therapists (and others whose work related to music therapy) could publish academic articles on clinical work, theoretical issues and research. Confusingly, the old newsletter had been called the "British Journal of Music Therapy" and so the new Journal was called the "Journal of British Music Therapy" (in order to distinguish it from the old newsletter).

However, this new title of the journal was felt to give the misleading impression that its focus was purely on music therapy as practised in the UK, which was never the intention. Therefore in 1995 the title reverted to the title of the earlier newsletter – the British Journal of Music Therapy. However, the volume numbering system continued unbroken.

The journal is sent to all members of the BSMT and APMT (in the UK and abroad), as well as to a number of institutional members of the BSMT for whom the journal is the primary benefit of membership (e.g. university libraries).

The BJMT has always aimed to include a wide range of articles, reflecting the broad spectrum of understandings of and approaches to music therapy both in the UK and internationally. This diversity applies not only to the range of practice represented but also to the spread of theoretical thinking on offer and the spectrum of research methodology. The journal has no preferred practice, theory or research methodology. It features a blend of case studies, research and theorising. Its pages are also open to non-music therapist contributors from allied disciplines who have contributions to make to the developing discourse of music therapy.

A clear connection can be made between the BJMT and the music therapy scene in the UK. Articles are often born out of presentations at national music therapy conferences, or from dissertations submitted within Masters training programmes. A number of UK music therapists have pursued doctoral study, mostly within university departments which are not primarily devoted to music therapy and this has resulted in considerable diversity in the Journal.

The BJMT features many articles which do not originate in the UK. Many music therapists working elsewhere in the world have trained in the UK and so for them the journal is a natural forum for sharing academic material. In addition, the fact that the journal is published in English means that it is also accessible to many music therapists across the globe.

The journal is not primarily intended to be a public face of UK music therapy, but some of the trends and vicissitudes of the UK profession do emerge in the pages of the journal. For example, in 1999 an article calling for a balance between "psychological thinking and musical awareness" in music therapy theory (Streeter 1999) provoked vigorous responses from other leading figures in UK and beyond (Aigen 1999; Ansdell 1999; Brown 1999; Pavlicevic 1999), and became a pivotal point in professional for some years. Similarly in 2008, an issue focusing on the evolving professional relationship between music therapy and the "arts in health" movement elicited some lively debate not only in the pages of the journal, but also at professional meetings thereafter.

In general, the BJMT waits to receive articles submitted by authors and thus most issues are characterised by a general mix of subjects, approaches and methodologies. Of late, considerable effort has been put into encouraging UK-based music therapists to consider submitting material to the journal: principally this has taken the form of "writers' workshops" held periodically around the UK. This strategy seems to be working with at least some UK-originated material in most recent issues.

In addition, the journal occasionally devotes an issue to a particular subject: this is publicised in advance so as to encourage submissions on this theme. Recent examples include an issue devoted to the evidence debate (2006, vol. 20, issue 2) and the "arts in health" issue (2008, vol. 22, issue 2).

Contemporary challenges and opportunities

Clearly therefore, there are differences between the two journals which are relevant to the different stages of development of music therapy in each country. Some of these differences are outlined by Dickerson's letter to ESKEM:

> "The group we founded in Birmingham in 1976 became the APMT and over the next decades grew as we met and discussed who we were, how we could support ourselves through regular meeting, and beginning to write and publish our work. As other training courses were established, their members saw that collectively we had more chance of improving out lot, and joined. Our similarities outweighed any theoretical differences. These differences became points for research. Difference was exciting, not seen as a threat, as we had a much greater common purpose. […] The difference for ESKEM than that of the APMT is that now there are norms of working, having both conditions and casework expectations, recognised by many countries, and in Europe there are bodies who eventually will increase the standing of Music Therapy and Music Therapists. It is still a pioneering sphere, but now we are as the former Voortrekkers on their journey into new territories, with cumbersome oxen drawn caravans, surviving by helping each other, operating as a collective and not as the single minded gold prospectors of the Yukon, who were out for their own profits alone" (Dickerson 2006: 2).

However, music therapy in each country is part of the broader music therapy landscape and therefore the two journals find themselves faced by similar opportunities and challenges.

- Both journals have an important role to play in enabling diverse voices to be heard. Such diversity is sometimes inhibited by the peer-review process, and so it is necessary for the journals to be pro-active in encouraging and nurturing submissions from as wide a field as possible, and especially from practitioners whose work might otherwise go undocumented in the literature, whilst at the same time striving to maintain a high academic standard.
- Through the experience of the peer-review process, the journals offer authors experience of collaborative work and an opportunity to refine their ideas and experiences for publication. This needs careful explaining and at times a considerable measure of tact on the part of all concerned.
- The journals bring together practice, theory and research and thus offer the possibility of fertile connections between them. Again, this requires active effort in terms of balancing the proportions of content and can also be promoted via the use of specially themed issues.
- Each journal is a forum where music therapy (profession, discipline and practice) is both challenged and enriched by contact with neighboring professions, disciplines and practice. This means that the journals need to cultivate an awareness of themselves beyond the immediate music therapy profession.
- Journals are looked to by the profession to provide literature which will help to satisfy the so-called "demand for evidence". In particular, music therapists look to the journals for material which will possibly help to justify new posts, maintain existing services, or influence policy development. This can take many forms, as outlined above, and both journals endeavour to provide a range of useful material. However, it is also necessary to maintain a critical stance so that the journals do not simply become self-serving advertisements for music therapy. There must always be room for critique of established theorizing, research or practice.
- Lastly, we have to keep in mind that a well-produced journal has no impact if nobody reads it, and therefore both journals have to work to ensuring active engagement by its potential readership. Whereas *Approaches* is published online, the BJMT is printed and posted to all members of the APMT and BSMT – nevertheless, there needs to be a reason for people to actually read it!

As Tony Wigram (2000) calls on the music therapy profession to concentrate on confidently collating evidence that what it does, is effective:

> "[...] we need to try and move away from being the 'pioneer profession' and exploring our values, to saying "We know what we are doing" [...]. Now they're asking "Does it work?" - they won't put money into something that hasn't demonstrated some record of being effective. So we've got to put together our evidence. I think everybody can contribute to that, from the person who's writing a single case study to those who've done quantitative randomised control trials. In my opinion, the critical factor for the next 10 to 15 years is to really consolidate our position by being able to be confident about what we do" (Wigram 2000: 12).

Obviously, journals have a key role to play in this regard. Yet others point out that music therapy is always shifting its borders hazy (Ansdell & Pavlicevic 2008), suggesting a need for journals to promote dialogue amongst music therapists, health workers, community musicians and others:

> "This requires a sort of polyphonic dialogue with a shared willingness to construe knowledge and values from multiple perspectives, and it does *not* imply deprofessionalization, rather what could be called *re-professionalization"* (Stige, et al. in press, as cited in Ansdell & Pavlicevic 2008: 76).

Journals are well-placed to act as forums both for the public collation of evidence that Wigram (2000) seeks and for the sort of negotiation-in-action of re-professionalisation for which Stige (in press) calls. Reconciling these demands is a never-ending process - but ultimately a necessary, creative and productive one.

Bibliography

Aigen, K. (1999). The true nature of music-centred music therapy theory: A response to Elaine's Streeter's 'Finding a balance between psychological thinking and musical awareness in music therapy theory - a psychoanalytic perspective'. *British Journal of Music Therapy,* 13(2): 77-82.

Aldridge, D. & Aldridge, G. (1996). A personal construct methodology for validating subjectivity in qualitative research. *The Arts in Psychotherapy,* 23(3): 225-236.

Aldridge, D. (2001). Music therapy research: A narrative perspective. I: Therapy Info CD-Rom III, ed. D. Algdidge. Universität Witten / Herdecke.

Ansdell, G. (1999). Challenging premises: A response to Elaine's Streeter's 'Finding a balance between psychological thinking and musical awareness in music therapy theory - a psychoanalytic perspective'. *British Journal of Music Therapy,* 13(2): 72-76.

Ansdell, G. & Pavlicevic, M. (2008). Responding to the challenge: Between boundaries and borders. *British Journal of Music Therapy*, 22(2): 73-76.

Brown, S. (1999). Some thoughts on music, therapy and music therapy: A response to Elaine's Streeter's 'Finding a balance between psychological thinking and musical awareness in music therapy theory - a psychoanalytic perspective'. *British Journal of Music Therapy,* 13(2): 63-71.

Bruscia, K. (1995). The Boundaries of Music Therapy Research. In B.L.Wheeler (eds.) *Music Therapy Research: Quantitative and Qualitative Perspectives*. Gilsum, NH: Barcelona Publishers.

Dickerson, G. (2006) Letter to ESKEM July 2006. The Press of ESKEM, 2. Retrieved on April 11, 2009, from http://www.musictherapy.gr/page2.htm

ESKEM (2009). The Greek Association of Qualified Professional Music Therapists [in Greek]. Retrieved April 11, 2009, from http://www.musictherapy.gr

Gold, C. (2007). Beyond the "qual versus quant" debate. *Nordic Journal of Music Therapy,* 16 (1): 2.

Official Journal of the Hellenic Republic (2008). Law 3699 "*Special Pedagogy and Education of individuals with disabilities or with special educational needs*". 199/ vol. A'/02.10.2008.

Pavlicevic, M. (1999). Thoughts, words and deeds: Harmonies and counterpoints in music therapy theory - A response to Elaine's Streeter's 'Finding a balance between psychological thinking and musical awareness in music therapy theory - a psychoanalytic perspective'. *British Journal of Music Therapy,* 13(2): 59-62.

Pavlicevic, M., Ansdell, G., Procter, S. & Hickey, S. (2009). *Presenting the Evidence: The Up to Date Guide for Music Therapists Responding to Demands for Clinical Effectiveness*

and Evidence-Based Practice (2nd Edition). Retrieved March 2009, from www.nordoff-robbins.org.uk/musicTherapy/research/index. htm

Rogers, P. (2000). Truth or Illusion: Evidence-Based Practice in the Real World. In J. Robarts (eds.) *Music Therapy Research: Growing Perspectives in Theory and Practice (Volume 1)* (pp. 11-18). Hertfordshire, UK: BSMT Publications.

Stige, B., Ansdell, G., Elefant, C. & Pavlicevic, M. (in press). *Where Music Helps: Community Music Therapy in Action and Reflection*. Aldershot: Ashgate.

Streeter, E. (1999). Finding a balance between psychological thinking and musical awareness in music therapy theory - a psychoanalytic perspective. *British Journal of Music Therapy,* 13(1): 5-20.

Tsiris, G. (2009). *Approaches: The First Journal for Music Therapy and Special Music Education in Greece*. In the Proceedings of the 3rd International Conference of GAPMET "Teaching material and its contribution to educational practice: From theory to application in Music Education", 8-10 May 2009, Athens.

Wheeler, B. (ed.) (2005). *Music Therapy Research* (2nd edition). Gilsum, NH: Barcelona Publishers.

Wigram, T. (2000) Tony Wigram interviewed by Helen Loth, Historical Perspectives Interview Series. *British Journal of Music Therapy,* 14(1): 5-12.

Wigram, T. (2002). Indications in music therapy: Evidence from assessment that can identify the expectations of music therapy as a treatment for ASD; Meeting the challenge of Evidence Based Practice. *British Journal of Music Therapy,* 16(1): 11-24.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Modelling effective choral conducting education

Maria Varvarigou

Abstract

A strong corpus of research now indicates the musical and non-musical benefits from choral participation, yet the preparation of individuals for their role as choral leaders and conductors within educational settings has not been given similar attention. Whilst choral leaders within school, community or church contexts emphasize the inadequate support mechanisms for choral education, there seem to be very few courses in the UK that deal with the preparation of choral conductors.

For the purpose of researching into effective choral conducting education in several educational environments in the UK, a framework that concentrates on five interconnected parameters has been developed. These are i) the learner, ii) the tutor, iii) the sequence and amount of training, iv) the learning outcome and v) the socio-cultural context, including the teaching context, where choral practice take place. A qualitative approach has been used for the analysis of the data, concentrating on the participants' written self-reflective narratives, interviews and questionnaire responses. Five courses have been observed; three offered by higher education and two by independent bodies.

This paper focuses on describing the suggested framework, influenced by the theoretical constructs of Cognitive Apprenticeship, Situated Learning and theories of expertise, as well as educational research on effective learning and teaching within higher education and the workplace. Although, none of the cases studies observed encompassed all the ingredients suggested by the framework, the framework itself offers insights and methods of trying to make sense of what is going on in choral education today.

Keywords
choral, conducting, education, framework

Introduction

Research on choral singing and choral participation provides evidence on the various musical and non-musical (physical, social and psychological) benefits for children and adults (Chorus America, 2003; Clift & Hancox, 2001). However, there has been little research on the preparation of choral conductors (Durrant & Varvarigou, 2008; Ruocco, 2008; Wong & Davidson, 2006). Some studies have identified the necessary attributed of an effective choral conducting educator (Durrant, 1994; 1998; 2003), however, the extant literature on choral education mainly focuses on technical issues, i.e. conductors' gestural vocabulary (Cofer, 1998; Leman, 2000; Scott, 1996), suggested warm-ups and repertoire (Boardman, 1996; Persellin, 2000; Stufft, 1998) and rehearsal pacing and planning techniques (Brunner, 1996; Munson, 1998). The aim of this paper is to present a theoretical framework that has been developed, in order to facilitate the examination and description of the process of choral conducting preparation as it was observed and experienced by its participant tutors and learners in five different choral conducting programmes in the UK.

Aims of the research

Given the relative scarcity of empirical studies dealing with choral pedagogy, particularly in a UK context, the focal interest of a study undertaken between 2005 and 2008 was to explore the nature and process of choral conducting education in different contexts in the UK and the outcomes of this training as experienced and reported by the learners who participated in such programmes. This paper, however, focuses on describing the socially-located, heuristic framework has been developed by the researcher for the examination of the processes of preparation in the various contexts that have been observed. For this purpose, several theoretical constructs have been combined to provide a supportive theoretical grounding. These are (i) Cognitive Apprenticeship (Collins, Brown & Newman, 1989), (ii) theories of expertise (Ericsson, Prietula & Cokery, 2007; Lehmann & Gruber, 2006; Zimmerman, 2006) and (iii) research on effective teaching and learning in higher education (Entwistle, 2007) and the workplace (Eraut, 2007). This framework encompasses five interconnected parameters which are relate to biographies, expectations, values and behaviours of the learners and the tutors; the sequence and amount of training, the perceived learning outcomes and the socio-cultural context, including the teaching context, where choral practice takes place. Ultimate goal of the suggested framework is to be inclusive of all the parameters that could potentially affect the process of preparation of choral conductors within educational environments and to suggest methods and practices that can maximise learners' learning.

A proposed framework for examining choral conducting education processes

The theoretical construct of Cognitive Apprenticeship that explores the characteristics of ideal learning environments offered a lens through which to examine the content, methods, sequence and socio-cultural contexts of preparation processes that were observed in the five case studies. Furthermore, theories of Expertise that underlined the significance of education in the making of experts were also used to support evidence that effective choral conductors can be nurtured through education. The framework that is proposed in the following paragraphs (see Figure 1) considers time (duration of preparation) and location (training contexts) as determinant parameters of effective education. However, it acknowledges that more than the time and location, it is the experience of interacting with musical artifacts, in particular social surroundings (socio-cultural contexts where practice takes place) and under the guidance of experts that seem to produce desired changed in the learner.

The tutors

In all teaching contexts the tutors are expected to possess all these necessary skills and knowledge that allow them to support learners' learning and development. In choral conducting education, tutors are expected to have a certain level of expertise in

i. *Philosophical and pedagogical awareness*, i.e. knowledge and understanding of how the voice works, knowledge of choral repertoire, awareness of the stages of children's and adolescents' vocal development and awareness of the social, psychological and physical effects of choral participation on the individual;
ii. *Musical-technical skills,* i.e. good gestural vocabulary, good posture, good aural skills and;

iii. *Interpersonal skills and leadership*, i.e. non-verbal communication (through vocal modelling and eye contact), encouragement/ motivation, clear communication goals, effective rehearsal pacing and planning;

that underpin their role as practitioners and educators. However, a knowledgeable and proficient choral conductor is not necessarily an effective educator. An effective choral conductor educator should ideally adopt a pedagogical approach that enables learners to grow within their learning context. Some suggested attributes for effective teaching are related to (i) management of material, (ii) the tutor's expectations/aspirations, (iii) the tutor's perceptions of the subject matter, (iv) planning and preparation, (v) monitoring the learners' development and (vi) evaluation through feedback.

The learners

The learners do not enter an education process as empty vessels. Due to their diverse backgrounds (knowledge, abilities, biographies and previous experiences) learners, even in the same course, often begin their training from different starting points from one another. What is more, they often have different learning needs and it is not uncommon that at times they might have to 'unlearn' skills or attitudes in order to re-learn new ones. The personal biographies and experiences suggest that a learning activity takes shape and is transformed over long periods of time. Furthermore, the learners often have their own expectations and aspirations of their learning context, as well as their own perception of the subject matter (i.e. what the role of a choral conductor is in diverse conducting environments). These perceptions are believed to influence both the process and learning outcome of their training.

The process of learning to be a choral conductor

With regard to the education process, the theoretical construct of Cognitive Apprenticeship highlights that learners improve their skills, knowledge and awareness in a given domain through structured practice, observation and modelling of systematic expert performance and interaction with peers and experts. Cognitive Apprenticeship has drawn attention to the significance of opportunities for reflection, exploration of alternatives and problem solving, as well as repetition with informative feedback from a teacher and other participants. Therefore, the learning environment that could possibly facilitate the development of the suggested attributes in choral conducting is an environment situated in a community of choral practice. That is to say, it should incorporate conducting a choir and receiving feedback from all people involved (tutors, singers, accompanists). Receiving feedback from peers or co-participants is a beneficial element of the education process that should not be overlooked. Similarly, choral conducting education could possibly benefit from an educational context where both the tutors and co-participants could feedback on the individual and provide some kind of social validation of their performance. In choral conducting practice such validation could encourage articulation, exploration and reflection on the part of the learners, which can lead to an 'in-depth' interaction among the tutor(s) and the learners, through discussion, modelling and scaffolding practice.

Further research on effective teaching and learning environments within higher education and the workplace illustrates that learning environments should have clear targets on what it is to be achieved and should structure learning in a way that the targets can be successfully fulfilled over time. Effective learning in the workplace also identifies (i) confidence and commitment (personal agency), (ii) feedback and support and (iii) challenge and value of the work as favourable conditions for learning from experience, other people and 'on the job'

(Eraut, 2007). Learning 'on the job' is a situation that appears to be having full application to the practice of choral conductors over the years.

The learning outcomes

During their preparation as choral conductors, the learners should have acquired attributes that allow them to lead their choral groups with confidence, commitment and success. That is to say, they should have worked towards fostering their skills and knowledge on effective choral conducting practice (philosophical/pedagogical principles, musical-technical skills and interpersonal skills and general leadership) for their role as conductors. Furthermore, they should have developed a pedagogical approach that allows them to be more effective choral educators. Research also suggests that learners are highly likely to adopt, in their role as tutors, a pedagogical approach similar to the one they have experienced during their own education. With reference to the learning outcomes in relation to the parameter of time, theories of expertise have repeatedly underscored that deliberate practice is a fundamental element towards the development of expertise in every domain. In order to improve performance, individuals should seek out practice activities that last over a long period of time. That is to say, learners in choral conducting should realize that in order for them to achieve autonomous and refined cognitive, physiological and motor skills they must practice and personally adapt their skills to dynamic contexts (their own contexts) over time.

The socio-cultural contexts, including teaching contexts

The socio-cultural communities of practice in which individuals are part of are believed to colour the ways the individuals understand their learning/ practicing contexts and act within them. To illustrate, at an individual level, choral conductors' musical preferences and repertoire choices often influenced by the environment where they conduct (i.e. church, school) might have a bearing upon the education process. At a collective level, the choral conductors' cultures, traditions, religions, professional environments and resources might also influence the education process. Cultural 'obligations' such as participation in choral festivals/ competitions, choral practice embedded in a culture where movement is an integral element of the singing activity (i.e. gospel tradition), encouragement and support or discouragement from one's professional environment might interfere with the process of preparation and, by extension, the outcomes of an individual's choral conducting education.

Taking everything into account, the framework for effective choral conducting education that has been proposed by this paper offers a lens through which to examine choral conducting education in diverse contexts. It is common knowledge that real life environments might often be at great distance from ideal theoretical constructs and the data analyses suggested likewise as not all characteristics of the framework were identified in all the different contexts. However, the theoretical framework that is suggested wishes to be a dynamic one; responsive to individuals' needs whilst taking into account the wider socio-cultural expectations and personal biographies, which could potentially challenge the criteria of effective choral conducting practice and the criteria of ideal teaching and learning environments.

Methodology and methods

A case study approach was considered to be the most suitable approach for the exploration of choral conducting education, as it currently occurs in various environments, because it enables the researcher to zoom in and out of the processes, whilst focusing on the individuals, the sequence of the preparation and the socio-cultural contexts, including teaching contexts. Before selecting the cases to be studied, a panoramic view of the available courses on choral conducting education in the UK was considered necessary. Therefore, a web-based survey was undertaken in 2007 and was updated in 2008 and 2009, which revealed that out of the one-hundred-and-five Music Departments in UK universities and academies, only eight offer programmes or modules on choral conducting. What is more, three independent bodies appear to cater for choral conducting education outside higher education. The cases that constitute the units of analysis in this research study are five programmes on choral conducting education in England; three offered by higher education and two offered by independent bodies.

The methodology of the study was based on phenomenographic, qualitative research, where the participants' perceptions and self-reflections of the processes and the outcomes of their learning were taken as reference points. A phenomenographic methodology (Marton, 1981) was selected because it allowed the researcher to capture the relationship between the actors (tutors, learners) and the phenomenon (process of choral conducting preparation) and not the phenomenon per se. From a pedagogical standpoint, phenomenography can contribute to educational research as it helps the researcher to understand the structure of the experience at a collective level rather than an individual level. In this study, in particular, where many individuals (tutors, learners, singers and accompanists) appear to interact with each other at the same time during rehearsing and performing, a phenomenographic approach that placed emphasis on their perceptions, views and experiences of the teaching and learning processes was believed to offer a better insight into the processes of education than external observations.

A synthesis of methods for the collection of data was adopted, which allowed for multiple perspectives to be acquired. The methods that were used include examination of documentary sources, field notes from the researcher's personal observations, analysis of audio-visual material, questionnaires, interviews with the participant tutors and learners and personal reports on the learners' perceived progress. The learners who participated in the study were school, community or church amateur choral conductors; postgraduate students on an MA in Music Education programme and students on a one-year postgraduate initial teacher education programme (PGCE). The tutors who participated in the study were five experienced choral conductors who had developed their self-perceived expertise in choral conducting education either through formal education in choral conducting (T2), singing performance and music education (T3) and choral education (T5); or through personal practice and attendance of masterclasses (T1 and T4). All data were analysed with Atlas.ti programme, which was used both as a 'code-and-retrieve', as well as a code-based theory-building programme.

Findings

The main findings of the research are summarised here in the five areas that emerged from the proposed theoretical framework. With regard to the *tutors,* a strong link was found between tutors' enculturation and background in music and the way they taught and perceived their expertise in choral conducting. Furthermore, a predominant perception was articulated by the

tutors who had no formal training in choral conducting that some degree of charisma has to be in place for the achievement of expertise in choral conducting.

As regards the *learners*, the study highlighted a link between their perception of choral practice and their conception of an 'ideal' learning environment, which subsequently affected their expectations from their preparation process. The study also emphasised the necessity of experienced choral conductor educators (and not just choral conductors) who can motivate, observe, guide and evaluate learning at different levels and contexts. What is more, more than any other area of performance practice; choral conducting needs the application of already mastered musical skills and knowledge from the conductor.

During the *preparation process*, all tutors appeared to develop a positive and non-threatening learning environment, but the ones who had themselves received formal and structured education in choral conducting (a) used modelling, coaching and scaffolding during their teaching, (b) encouraged the learners to explore rather than instructed them on what to do, (c) offered regular feedback and (d) promoted learners' self-reflection of their own performance and articulation of experiences. Also, the level (i.e. music competence) of the learners determined the structures, level and pacing of the teaching process. In addition, the content of preparation included the same elements across all five programmes, which suggests that there are particular musical and non-musical qualities related to choral conducting preparation that regardless of the level of the learners constitute the core of choral conducting education. As regards the methods employed by the tutors, the learners highlighted that reflective practice, regular feedback from the tutors and fellow participants and collaborative learning activities contributed to their understanding of self, practice and broader education issues in relation to choral conducting. Finally, video recordings were identified by the learners as an effective tool during choral conducting preparation.

With regard to the *learning outcomes*, it was found that because of the diversity of professional lives, interests and stages of development among the learners, no single structure of preparation was likely to suit all. Therefore, the application of a phenomenographic methodology, which focused on learners' reflections and monitoring of themselves, also in relation to the responses from their singers, was considered a reliable and valid approach for the examination of perceived learning outcomes. Additionally, the study pointed out that musical expertise in choral conducting can only be achieved when technical proficiency (advanced aural and reading skills, musicianship and a clear gestural vocabulary) is already mastered. Also, a close relationship between skills and confidence development in amateur choral conductors with limited musical background and choral conducting expertise was identified. Lastly, it was suggested that the craft knowledge in choral conducting can only be developed through constant engagement in conducting practice and through performance opportunities.

Concerning the *socio-cultural contexts*, including teaching contexts, the renewed interest in singing and in choral activities in the UK has uncovered the limited and often inadequate preparation of individuals for their role as choral leaders and conductors. The study highlighted the need for more programmes on choral conducting preparation but also the current necessity for a structured and systematic choral conducting education for the tutors who will lead these programmes. Last but not least, the theoretical framework proposed is believed to have captured and successfully described the parameters that influence effective teaching and learning in choral conducting education. Exploratory studies that examine interactive music making activities within education could possibly benefit from the application of the proposed theoretical framework.

Summary

This paper has proposed a heuristic theoretical framework for the examination of the process of choral conducting education. This framework drew on a wide range of related literature on choral practice and education in secondary and higher education contexts, as well as training in the workplace. Whilst various attributes for effective choral conducting practice have been identified by research studies, mainly in USA, there has been no systematic research on the process of preparation and the contexts in which it occurs in the UK. The five parameters of the suggested framework guided the analysis of the data which were gathered through observations, questionnaires, interviews and personal reports of the participants in five choral conducting preparation programmes. Although data analyses suggest that none of the observed courses encompassed all the ingredients suggested by the framework, the framework itself offers insights and related methods for examining choral conducting education contexts.

Acknowledgements

I wish to thank all the tutors and learners who took part in this research study. Thanks also to Professor G.F. Welch and Dr. C. Durrant for their invaluable input and guidance, and the A.S. Onassis Public Benefit Foundation for their financial aid.

Bibliography

Boardman, S.D. (1996). Breathing your way to a better chorus. *Music Educators Journal,* 82(6), 26-30.

Brunner, D. (1996). Carefully Crafting the Choral Rehearsal. *Music Educators Journal,* 83(3), 37-39.

Chorus America. (2003). *America's Performing Art: A study of choruses, choral singers and their impact*: Chorus America.

Clift, S.M. & Hancox, G. (2001). The perceived benefits of singing: findings from preliminary surveys of a college choral society. *Journal of the Royal Society of Health,* 121(4), 248-256.

Cofer, S.R. (1998). Effects of Conducting-Gesture Instruction on Seventh-Grade Band Students' Performance Response to Conducting Emblems. *Journal of Research in Music Education,* 46(4), 360-373.

Collins, A., Brown, J.S. & Newman, S.E. (1989). Cognitive Apprenticeship: Teaching the Crafts of Reading, Writing and Mathematics. In L.B. Resnick (eds.) *Knowing, Learning and Instruction - Essays in Honour of Robert Glaser,* 453-494. Hillsdale: Lawrence Erlbaum Associates, Publishers.

Durrant, C. (1994). Towards a model of effective communication: a case for structured teaching of conducting. *British Journal of Music education,* 11, 57-76.

Durrant, C. (1998). Developing a choral conducting curriculum. *British Journal of Music Education,* 15(3), 303-316.

Durrant, C. (2003). *Choral Conducting: philosophy and practice*. New York: Routledge.

Durrant, C. & Varvarigou, M. (2008). Real time and Virtual: Tracking the professional development and reflections of choral conductors. *Reflecting Education Journal,* 4(1), 72-80.

Entwistle, N. (2007). Research into student learning and university teaching. In N. Entwistle and P. Tomlinson (eds.) *Student learning and University teaching - Monograph Series II: Psychological Aspects of Education - Current trends,* Vol. 4, 1-18. Leicester: The British Psychological Society.

Eraut, M. (2007). Early career learning at work and its implications for universities. In N. Entwistle and P. Tomlinson (eds.) *Student learning and University teaching - Monograph Series II: Psychological Aspects of Education - Current trends,* Vol. 4, 113-133). Leicester: The British Psychological Society.

Ericsson, A.K., Prietula, M.J. & Cokery, E.T. (2007). The Making of an Expert. *Harvard Business Review,* 115-121.

Lehmann, A.C. & Gruber, H. (2006). Music. In A.K. Ericsson, N. Charness, P.J. Feltovitch and R.R. Hoffman (eds.) *The Cambridge Handbook of Expertise and Expert Performance,* 457-470. USA.

Leman, J. (2000). Redesigning traditional conducting patterns to enhance vocal efficiency and expressive choral singing. In L. Thurman and G. F. Welch (eds.) *Bodymind and Voice: Foundation of Voice education,* Vol. 5, 842-847 (Revised Edition ed.). Iowa City, Iowa: National Centre for Voice and Speech.

Marton, F. (1981). Phenomenography - Describing conceptions of the world around us. *Instructional Science,* 10*,* 177-200.

Munson, M. (1998). Ready for rehearsal? *Teaching Music,* 6(1)*,* 32-33.

Persellin, D. (2000). The importance of high-quality literature. *Music Educators Journal,* 87(1)*,* 17-18.

Ruocco, J. (2008). *Leading from the front - The evaluation of a 'Sing Up' Project.* Unpublished MA thesis University of Roehampton, London.

Scott, D. (1996). Visual diagnostic skills' development and college students' acquisition of basic conducting skills. *Journal of Research in Music Education,* 44(3)*,* 229-239.

Stufft, W.D. (1998). Hands-off approaches to teaching breath support. *Teaching Music,* 5(6)*,* 30-31, 48.

Wong, P.W.Y. & Davidson, J.W. (2006). School mentoring scheme for the professional development of student choral teacher. In M. Moore and B. W. Leung (eds.) *School Music and Teacher Education: A global perspective in the new century,* 164-174. Hong Kong: The Hong Kong Institute of Education - ISME.

Zimmerman, B.J. (2006). Development and adaptation of expertise: the role of self-regulatory processes and beliefs. In A.K. Ericsson, N. Charness, P.J. Feltovitch & R.R. Hoffman (eds.) *The Cambridge Handbook of Expertise and Expert Performance* (pp. 705-722). USA: Cambridge University Press.

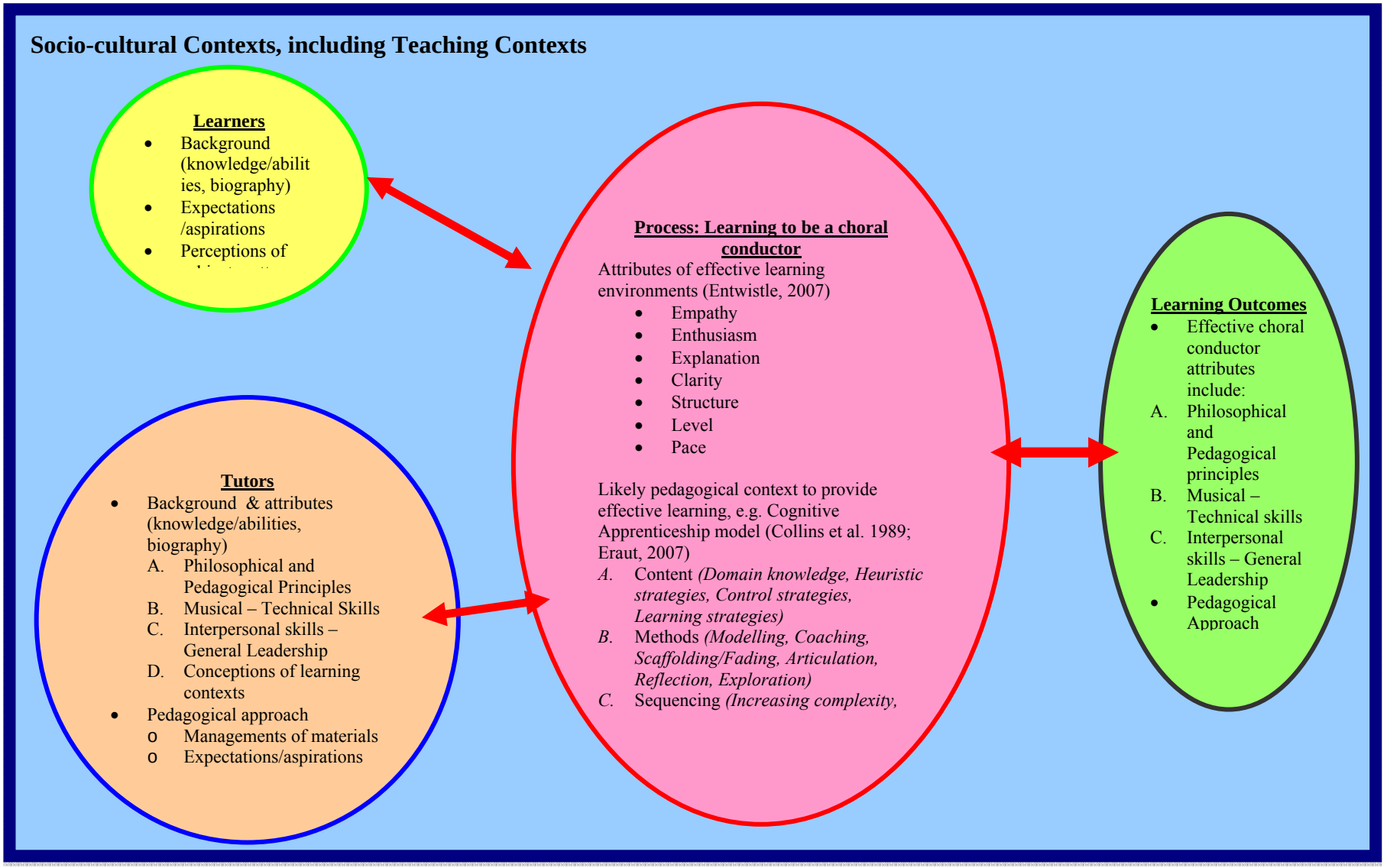


Figure 1: *Effective Choral Conducting Education – a Conceptual Framework*

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Bach to Reality

Anastasis Vasiliadis

Abstract

The content of this article was based on the observation of the changes, which were applied on a development-concert performed by the percussion students of the Department of Musical Science and Art of the University of Macedonia. Those changes were the result of the reconsideration of the conditions which have been dominating the music-education system and which have resulted in a substantial loss of the freedom of the spirit, but also – more generally – of the enjoyment given by art, replacing it with strong doses of stress.

The consideration of contemporary reality with its dominating element of general insecurity, led us into analysing the way in which we should act, by shedding light on the contradictions of the western music education. So, by counter-presenting, in two chapters, the two different realities that seem to coexist in this system, we also aim to shed light on the changes that we need to attempt.

The first chapter is "The Reality of the Clock" and the second "The Reality of the Cloud". In these chapters there is a presentation of the development of the science of the brain, acknowledging (i) its deterministic period (where the brain is considered a settled organ) as an element of the Reality of the Clock, and (ii) the period of neuro-genesis (where the brain is considered an organ of constant turbulence) as an element of the Reality of the Cloud.

Incorporating, finally, in a third chapter, the phenomenon of synaesthesia which links directly to the science of the brain and which was primarily demonstrated by artists since three centuries ago, and has just recently started to be explored by science, we have the most important tool on which the aforementioned changes of the presentation of a concert were based on, featuring the element of the mixing of the arts.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Methods of teaching singing to boys through vocal mutation: A literature review

Antonis Ververis

Abstract

An important area of study in the field of Choral Education is the developmental nature of voice, especially of children's voice. More specifically, the subject of mutation of boys' voice during puberty has proved to be a field of conflict between educators. The traditional view is that boys should stop singing during this period because this can cause future disorders to their vocal cords. Today, this is a common practice, mainly in countries of Central Europe. From the 50s in USA, a different approach has being developed which allows the teaching of singing through vocal mutation. In 1977, John Cooksey presented a theory based in the previous work of McKenzie, Swanson and Cooper combined with personal systematic research. According to Cooksey, vocal mutation is a developmental process of five stages and usually lasts for 1-2 years (Cooksey, 1977). Boys for a long time after vocal mutation has started, keep part of their "old voice", which is separated from the low notes of their "new voice" by an area in which they cannot control their voices or cannot produce sound at all. For the integration of the "old high voice" and the "new low voice" some educators suggest the use of descending exercises from the "high voice" to the "low voice" than can help in the balanced development of the new emerging voice (Roe, 1983; Phillips, 1996; Leck, 2007).

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The contribution of music education and music listening in development and formation of the Central Neural System of students

Eleftheria Voulgari

Abstract

A great number of researches have dealt with the brain and its various functions. The majority of those researches report the contribution of music in brain and cerebellum growth, in thickening the nerve-fiber tract between the hemispheres, in strengthening and helping the conduction between neurons, in faster working of the brain, in connecting and in developing the motor systems of the brain. As a result of all the above, significant functions of the brain are activated and improved. More specific, language, eyesight, hearing, coordination as well as temporary spatial intelligence (spatial-temporal reasoning), spatial visual intelligence (spatial-recognition reasoning), are activated and reinforced in a way that they develop instant correspondence to all of the eight types of Gardner's intelligence. The contribution of music seems to be also important in children's behavior. Students who had music lessons achieve high SAT scores. The aim of this study is to present the importance of music education and music listening not only for music skills' improvement but also for the many more skills that are possible for a person to develop through it.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

An exploration on the influence of culture on the development of Absolute Pitch: a comparative study of Greece and Japan.

Maria Vraka

Abstract

The recent research on music education has been fortunate to be conducted at a very opportune time. Technological advances and an increased interest from different scientific areas have made possible the in depth study of the nature and development of human musicality. On the other hand, the last ten years more than ever, the theory about the biological foundations and the innate potential of our musicality has found many supportive studies from disciplines such as neurology, psychology and genetics. This juncture has encouraged many studies to focus on the cultural study of music and the notion that music and culture are interrelated and, through 'enculturation', responsible for the development of our musical abilities. Our enculturation and formation of musical identity starts at a very early age and spontaneously takes place without any self-conscious effort. Experience is built day by day through exposure to musical events that take place in our cultural and familial environments. Taking Absolute Pitch as an example and by studying its development through the cultural framework of Greece and Japan, the present paper will try to present how the development of certain musical abilities is subject to the choices made by the surrounding cultural environment. The importance of music education at an early age as well as the development of an educational system that favours abilities that have cultural significance will also be discussed.

Keywords
Absolute Pitch, musical pitch, cultural models, music education

Introduction

General observations on Absolute Pitch (AP)

Absolute Pitch (AP) is the ability to identify tones expressed in isolation, together with their musical note names, or accurately produce named pitches without any reference to the tones given (Miyazaki, 1990). The ability has been treated by the literature with a certain amount of tentativeness, as is evident from terms such as 'rare' (Ward, 1999) and 'mysterious' (Costal, 1985) that are frequently used. There is a great uncertainty about the nature of AP, which is observed in the plethora of names that the ability has been accorded with in academic writing. Terms like 'Absolute' or 'Perfect' pitch are used in an indiscriminately way by some researchers (Ward, 1963· Carroll, 1975· Vernon, 1977) though 'Positive pitch' (Cope, 1916), 'absolute ear' (Watt, 1917) and 'absolute determination of pitch' (Meyer 1911) are only some of the other terms that are commonly employed in the literature. So far, no conclusive explanation has been found about its nature and development, and the ability is still regarded by some researchers as a 'puzzle' (Deutch, 2002) or an 'enigma' (Deutch, 2006). The nature-nurture debate is long standing in the general study of AP, however, most explanatory theories on the development of AP have not yet provided a generally accepted explanation as to how the ability is developed. Nevertheless there seem to be certain variables that are particularly significant in the development of AP: i) early learning of music in an environment of stabilized

pitch, ii) an opportunity to learn tones together with their musical names, iii) the perceived desirability of the AP ability and iv) supportive cultural environment[1].

i) *AP and early learning.* The association of AP and early learning is a widely reported phenomenon, found in all the different theoretical conceptualizations about the nature of the ability (Copp, 1916· Sergeant, 1969· Sergeant & Roche, 1973· Gregersen & Kumar, 1996· Gregersen et al., 1999· Miyazaki, 2004· Chang, 2003). AP ability is more likely to be developed in people that have started music lessons at a 'critical period' (around the age of 4-6 years old). (Russo, et al., 2003).

ii) *AP and verbal encoding strategy.* One common feature of AP is the ability to identify musical tones by their musical names. Literature suggests that in AP possessors, musical memory is mediated by language, where pitch is perceived categorically in a similar way that speech is perceived (Siegel and Siegel, 1977a· Takeuchi & Hulse, 1993· Marin and Perry, 1999). As a result, there appears to be a correlation between the ability and the musical system that was learnt. Bermudez, P. and Zatorre, R.J. (2005), suggest that the AP ability is the result of the conditional associative pairing of a stimulus dimension to a label and the retrieval of this information. This kind of ability is universal and it is merely applied specifically in the case of AP. This is an extra indication that AP can be developed. It was found that people that were exposed to a system of fixed-do, for example, are more likely to acquire the ability (Gregersen et al., 1999, 2007).

iii) *The value of AP.* There is variability in the perceived value of the ability amongst musicians. The ability has appeared even as a 'inability' in the literature (Miyazaki, 1993). In a number of studies AP ability is reported to be a disadvantage in certain musical tasks such as identification of musical intervals or singing transposed music (Burns & Cambell, 1994· Miyazaki, 1995· Parncutt & Levitin, 1999). Nevertheless, there are studies where the ability is quite highly valued (Eaton & Siegel, 1976). These different attitudes towards AP are indicative of the variable significance that the ability has in certain environments. The perceived high value of the ability could lead to extensive practice and therefore the likelihood of developing AP (O'Connor, 2006)

iv) *Incidence of AP in different cultures.* Several studies have shown that the ability is unequally distributed in different cultures (Gregersen et al., 1999). For example, in Japan, up to 50% of trained musicians are reported to possess AP (Dowling, 1999· Miyazaki, 2004). The incidence of AP is also high in musicians that speak a tonal language, for example Mandarin, Vietnamese, Cantonese and Thai (Deutch and Henthorn, 2004).

A culturally sensitive study of AP

AP ability is an ability of pitch perception, a subject of considerable controversy (Krumhansl, 2000). In the field of Psychoacoustics, there has been substantial research on pitch perception (Shepard, 1964· Krumhansl, 1979, 1990). Moreover, several multidimensional models have been formed (Dowling, 1986) to illustrate the complexity of the mental representations and procedures that might underlie music memory and perception. Krumhansl, (1979), suggests that the perception of pitch is enhanced through pre-existing mental models or schemas. This mental structure shapes our interpretations of what we encounter and

[1] Studies on Asian musicians have been increasingly suggesting the involvement of culturally specific practices rather than genetic predisposition alone, as the explanation of the high incidence of AP in that certain population (Gregersen et al., 2001, 2007). The present research has identified as supportive cultural environment the environment where AP ability is known and where certain practices, such as early learning and exposure to fixed-do methods, are used towards its development.

determines the nature of our experience (Cross, 1997:358). Although studies demonstrated that perception of musical pitch is a culturally mediated process (Lerdahl & Jackendoff, 1989) the aspect of culture has been merely neglected in the study of AP.

Research into musical enculturation has shown that there are different stages of musical development and understanding, related to age and experience (Trehub et al., 1997· Hallam and Lamont, 2001). Musical enculturation can be observed in the way internal representations of musical pitch are developed (Hallam & Lamont, 2001). Culture is important in the process of our auditory activity by both providing the stimulation and the internal representation system through which sound can be categorized. The essence of a musical idiom derives from particular choices as far as scales, musical instruments and harmonic structures are concerned and it is of vital importance in the way that our innate potential will be developed in that particular cultural framework (Walker, 1990). Therefore AP ability is not acquired in a vacuum and a culturally sensitive study of its development could give some new answers on its aetiology.

The term 'culture', although widely used and understood, is often difficult to define. In the present research, culture is regarded as 'a system of attitudes, actions and artefacts that endures over time and that operates to produce among its members a relatively unique common psychology' (Vail, 1989:147)

The present paper reports on the results of an extensive study that was set out to explore the possible correlation between culture and AP by determining the likely nature of the cultural factors that influence it. Since no appropriate theoretical model has been found in the literature, the study combined elements of cultural theory and learning theory in the explanation of AP.

The cultural onion model was adopted from a study by Spencer-Oatey (2000), who set out a model for the general study of culture that established a connection between the basic assumptions and beliefs of a culture with what is perceived as constituting it. The model separates culture into different layers starting from an outside layer, the observed outcome of culture, and going deeper into the factors that contribute to what is observed as culture in a particular context.

The context of research

The study sets out from a basic assumption: namely, that there is a lack of knowledge about AP ability in Greek musical literature[2] At the time of the initial exploratory stages of this research, no published work on AP in the Greek music literature could be found. However, the recent publications by the Greek researchers (Vraka, 2004, 2006a, 2006b· Koniari, 2005) suggest there is now an emergent interest in the subject. One of the first stages of the research focused on a preliminary survey with both Greek musicians and non-musicians to examine how familiar they were with the term AP.

The survey demonstrated that the majority of the participants had a low level of knowledge of the term AP and what it entails. An initial analysis of the collected data from

[2] The personal experience of the researcher was that, although she subsequently discovered in early adulthood that she had possessed an AP skill during her musical education, she was completely unaware that it was anything more than a general aural skill. The researcher had never come across the term 'Absolute Pitch' and none of her teachers at the conservatory and university had detected she had this ability until the age of 22. Even though her experience might have been an isolated example, the researcher found that there was a general absence in the Greek literature on music, concerning AP.

over 50 conservatory students suggested that (a) AP was an ability unknown to most of the people questioned (this was the case of both musicians and non-musicians), (b) those aware of the concept were using a different nomenclature, 'Absolute Ear' ('Απόλυτο Αυτί' [Apolito Afti]) or 'Absolute Hearing', ('Απόλυτη Ακοή' [Apoliti Akoi]) c) there was a general lack of reference to any of the above terms in the Greek literature and d) only three of the participants defined themselves as AP possessors.

The term 'Absolute Ear' was the expression most commonly used. It was generally defined as an ability to recognize tones by their musical names when heard in isolation. People with 'Absolute Ear' where perceived to have the ability to not only recognise musical tones, but also sounds in the environment, such as car horns. Some participants defined the term in a more ambiguous way as the ability to play any tune by ear. The term 'Absolute Hearing' was a less common term, although it was used in the same kind of context. However, both those terms were absent from most dictionaries that specialise in Greek music (Hrysovergi, 1997· Kalogeropoulos, 1998· Tolica,1994).

Some authors suggest that the ability is rare, 'demonstrated by less than 1 in 10.000 people of the general population´ (Profita and Bidder, 1988). Nevertheless, this ratio seems to be a somewhat unsupported generalization, since AP can only be detected in people with some previous musical experience (Miyazaki, 2004). Recent studies suggest that the incidence of the ability is variable in different cultures. For example, Gregersen et al. (2000) stated that in their sample, the ability was more prevalent among conservatory students and that the rate of AP amongst Asian students (47.5%) was significantly higher than that of Caucasian students (9.0%). The higher rate amongst Asian students was found in all the major ethnic subgroups, i.e. Japanese (26% AP), Korean (37% AP), and Chinese (65% AP) (Gregersen et al., 2000: 280). Although a genetic explanation could be applied, recent studies (Gregersen et al., 2000 & 2007) suggest that this high incidence of AP in Asian musicians, is due to certain cultural practices, such as early musical training and exposure to a system of fixed-do, which are related to the development of AP. The present study tried to investigate the development of AP and the effect of culture by studying Greece and Japan, as two cultures with very different attitudes towards the ability. In the case of Greece there was no indication of an interest in the ability, as suggested by the lack of literature references. On the contrary, along with the reported high incidence of AP in Japanese musicians, Japan has built a musical education system which supports early musical learning and fixed-do methods (such as the Yamaha method), which are the main factors involved in the development of AP. The study felt that the two cultures provide a unique opportunity to study the development of the ability within a culture where the development of AP seems to be incidental (Greece) and another (Japan) that provides the conditions where the ability is more likely to be developed.

Methodology

A total of 199 undergraduate musicians (117 Greek and 82 Japanese) participated in a study that set out to investigate the influence of culture on the development of AP. Two were the criteria considered in the selection of the participants: a) their musical training was long standing (> 10 years) and b) they would potentially be working as music teachers in mainstream schools in each country. There was no pre-test, prior to the main study and participants were not selected according to their AP ability. A test for the detection of the ability, using 72 piano tones (Octaves 3, 4 and 5), was devised especially for the study. Participants were also asked to complete a self-report questionnaire designed in order to get information on their background in

order to better interpret the results of the AP test. Participants were classified into three subgroups, based on their accuracy of response in the AP test.

- First group: Absolute Pitch possessors
- Second group: Regional Pitch possessors[3]
- Third group: Other.

In the present analysis, participants that identified over 90% of the tones correctly (e.g Lockhead and Byrd, 1981· Miyazaki, 1988a· Miyazaki, 1989) and, therefore, have scored beyond chance scores of ≥65 out of 72, were classified as AP possessors. Participants that scored beyond chance scores of ≥14 ≤64 were classified as belonging to the second group that is termed Regional Pitch possessors. The last category (other) consists of the participants that had given scores between 0 and ≤13. In this paper results of the scores attained in the AP test as well as some variables that appear to be influential are presented.

Results

Descriptive statistics for gender and self-report AP ability - Greek participants

117 Greek University music undergraduates participated in the main study of which, 50 were male (42.7%) and 67 female (57.3%). Data gathered from the questionnaire indicated that a total of 20 (17.1%) Greek participants identified themselves as AP possessors, 91 (77.8%) stated that they did not have AP and 6 (5.1%) were unsure. Only 5.1% of the total group of Greek participants were unsure about whether they had AP or not, which suggests that the Greek musicians that participated in the main study were generally aware of the ability and felt that they could identify its presence in themselves.

Descriptive statistics for gender and self-report AP ability - Japanese participants

82 Japanese University music undergraduates participated by completing the self-report questionnaire prior to taking the AP test. There were an equal proportion of male (N=41) and female (N=41) students. In the questionnaire, a total of 37 (45.1%) participants self-reported as AP possessors, 42 (51.2%) as non AP-possessors and 3 (3.7%) were unsure.

Almost half of the Japanese group (45.1%) reported themselves to be AP possessors, which is perhaps surprising given that participants were not preselected according to AP ability. There were a small percentage of participants that were not sure (3.7%) and 51.2% of the sample stated that they did not have AP.

Results from the application of the AP test

Distribution of scores for the Greek participants

The distribution of the scores for the Greek participants can be observed in Figure 1.

[3] Absolute Pitch is abbreviated as 'AP' and Regional Pitch as 'RLP'.

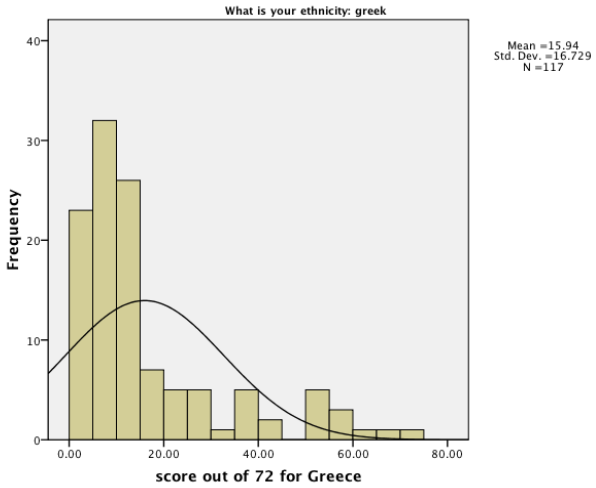


Figure 1: *Distribution of raw AP test scores for the Greek participants*

From the score distribution, it is apparent that the majority of the Greek participants scored low in the AP test, with the bulk of scores being between 0 and 15.

The Greek participants have a low percentage of AP possessors, with only 1.7% of the group having identified more than 90% of the tones correctly (the actual number of participants is only two). A percentage of 31.6 % scored between 14 and 64, scores that place them on the Regional Pitch (RLP) group. Two thirds of Greek participants (66.7%) scored very low on the AP test (score range 0-13), which places them on the group 'Others'.

Distribution of scores for the Japanese participants

The distribution of the scores for the Japanese participants can be observed in Figure 2

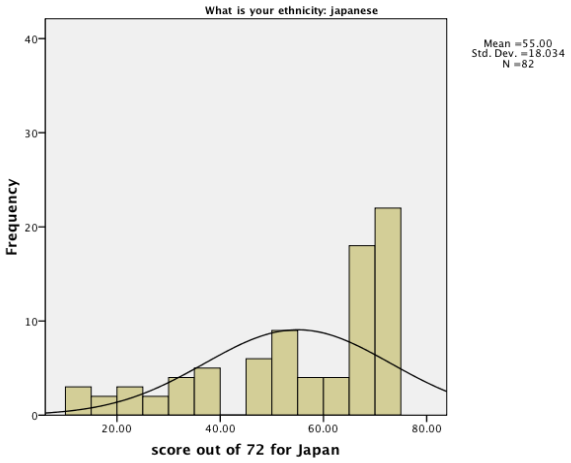


Figure 2: *Distribution of raw scores for the Japanese participants*

From the score distribution for the Japanese participants it is apparent that the majority of that group has scored high in the AP test, with the bulk of the answers being between 65 and 72.

The Japanese group has a very high percentage of AP possessors. Almost half of the group (48.8%) identified more than 90% of the tones correctly. The group of Japanese participants that were identified as Regional Pitch possessors also occupied 48.8% of the total number. These results demonstrate that 97.6% of the Japanese musicians that took the AP test gave beyond chance scores leaving just a small percentage (2.4%) in the third group of participants that scored very low.

An independent samples t-test was conducted to compare the scores in the AP test for Greek and Japanese participants. There was a significant difference in scores for Greek (M=.21, SD=.21) and the Japanese students (M=.74, SD=.24), t(195)= -15.67, p<0.02, Eta sq= -0.183). The significant difference (p<0.02) in success in the scores attained from the AP test for the Greek and the Japanese participants shows a polarity in the way that AP is developed and manifested between these two cultures.

Of 199 participants, 42 (21.1%) were identified as AP possessors, 77 (38.8%) RP possessors and 80 (40.2%) were identified as Other, having scored very low on the AP test. Using the Chi-square test the study found that the number of AP and RLP possessors between the Greek and the Japanese groups of participants was significantly different (X^2=1.03, df=2, p<.000).

To summarise, only two of the Greek participants (accounting for the 1% of the total number) were satisfying the criteria imposed by this research in order to be classified as AP possessors. In contrast, 40 Japanese participants (20.1% of the total number of participants) were identified as AP possessors. From the Greek participants the biggest cluster (N=78) was consisted of participants that had scored very low (39.2% of the total number of Greek participants), though only two Japanese participants had attained similar scores in the AP test. The data analysis shows that Greece and Japan are diametrically opposed in terms of the proportions of musicians manifesting the AP ability.

Variables affecting the success in the AP test

First learnt musical instrument

The study went further into investigating possible explanations for the difference in the success in the AP test between the two groups. One-way between groups analysis of variance was undertaken to explore the impact of musical instrument on the AP scores, as measured by the AP identification test. Subjects were divided into three groups according to their choice of musical instrument that they learnt first (Group 1: piano as first instrument, Group 2: other classical instrument, Group 3: traditional instrument)[4]. There was a statistically significant difference at p<0.05 level in AP test scores for the three instrument groups [F (2, 196), p<0.00]. The difference in the mean scores for the three groups was also significant p< 0.05. The effect size calculated using eta squared was 0.02 (which according to Cohen, 1988, can be considered as a small effect size). Post-hoc comparisons using the Tukey HSD indicated that the mean

[4] Although string players have been reported to develop AP (Bachem,1937) in the present research only a few musicians (four Greek and seven Japanese) were strings players and therefore the results from the comparison of that group did not reach statistical significance.

score for Group1 (Piano=17.19, Std=17.91) was significantly different from Group 2 (Other Classical= 36.57, Std=26.02) and from Group 3 (Traditional=50, 31 Std=24.16). The results suggested that musicians that had learnt the piano as their first instrument had scored better in the AP identification test. Since piano tones were used in the AP test, familiarity with the timbre of the instrument could explain this outcome.

From a total of 117 Greek musicians, the larger group was formed by participants that have started their musical training at a conservatory (N=63) accounting for 53.8% of the total number. The second biggest group were people that had started music lessons at home (N=25) accounting for 21.4% of the total. The other categories were including singular cases that accounted for the 24.7 % of the population in total.

Effect of early musical learning on the scores attained in the AP identification test

An independent-samples t-test was conducted to compare the scores in the AP test for participants that had started their musical training before the age of six (group one) and those that had started after the age of seven (group two). There was significant difference in scores between group one (M=38.6125, Std=26,56375) and group two (M=27.6134, Std=24.49943), [t(197)=3.001, p<.003]. The results suggest that early learning is a factor that can affect AP development.

The number of participants that had started their musical training at age≤ six years, was significantly smaller (p<.002) for the Greek group (N=32, 27% within the ethnic group) than the Japanese group (N=60, 73% within the ethnic group).
Figure 3 demonstrates the number of participants that have started their musical training at age ≤ 6 years and participants that have started their musical training at age ≥ 7 years.

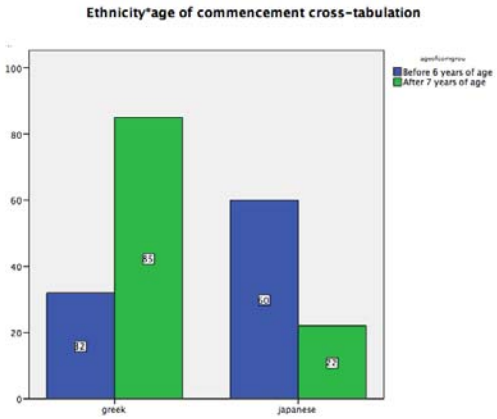


Figure 3: *Age of musical commencement for Greek and Japanese participants*

The results of the chi-square analysis suggest that that early musical training is a practice that is followed by the Japanese culture and therefore AP ability is more likely to be developed in the particular culture.

Discussion

From the Greek group, only two participants (accounting for the 1.7% of the total group) were satisfying the criteria imposed by this research, in order to be classified as AP possessors. This

percentage is not in line with what has been observed about the incidence of AP in relevant studies with musicians (e.g. Baharloo et al., 1998 suggested 15% of musicians have AP· Gregersen et al., 1999), gave a percentage of 24.6%· Dowling, 1999 gave the estimation that 4-8% of the musicians have AP). On the other hand, the results attained by the Japanese group were completely opposite to the ones from the Greek group. Almost half of the musicians that participated in the study (48.8% of the total number) had achieved the scores that were necessary to identify them as AP possessors. These results were in line with what have been reported in the literature (see Miyazaki, 1988· Kendal, 1996· Dowling, 1999). The scores acquired from the Greek and the Japanese participants, suggest a polarity in the way that AP is developed and manifested within these two cultures. AP ability seems to be rare within the context of Greek culture and less rare when it is investigated within the context of the Japanese culture.

On the basis of this study alone, it is difficult to be certain about the cultural factors accounting for the polarity of the manifestation of the AP ability within the two studied cultural environments. Previous studies have reported the higher incidence of AP in musicians of Asian origin (Gregersen, 1999· Deutch, 1999). Therefore Heredity theory would have predicted that AP is genetically predetermined and the lack of the ability within the Greek group of musicians has a biological basis. Nevertheless, analysis of the questionnaire data identified at least two variables, first learnt musical instrument and early musical training, that had a significant effect in the success on the AP test. The nature of the AP test that was used in the research (piano tones) combined with the fact that 48.8% of the participants had learnt the piano confirms the results from previous studies that suggest that musicians can better identify the tones of the instrument they have learnt first (Sergeant, 1969·Takeuschi & Hulse, 1993) The results are in line with a number of studies (Sergeant & Roche, 1973· Gregersen & Kumar, 1996· Gregersen et al., 1999· Miyazaki, 1989, 1990, 1992, 2004· Chang, 2003) that have argued about the importance of early training in the development of AP. The present paper demonstrated the rationale of a study about the possible effect of culture on the development of AP. The results demonstrated that significantly more Japanese musicians ($p<.02$) were AP possessors, compared to the Greek musicians that participated in the study. Early learning and first musical instrument were variables that had a significant effect on the scores, suggesting that certain practices followed in the framework of a particular culture could be of vital importance for the development of AP. The results indicate that Japanese culture has built an educational system that supports and promotes the development of AP in contradiction to the Greek culture were AP ability appears to have a lower significance.

References

Bermudez, P. & Zatorre, R.J. (2005). Conditional associative memory for musical stimuli in non musicians: Implications for absolute pitch. *Journal of Neuroscience*, 25(34), 7718-23.

Bond, M.H., Zegarac, V. & Spencer-Oatey, H. (2000). Culture as an explanatory variable: problems and possibilities. In H. Spencer-Oatey (eds.). *Culturally Speaking: Managing Rapport through Talk across Cultures,* 47-71. London: Continuum.

Burns, E. & Campbell, S. (1994). Frequency and frequency-ratio resolution by possessors of absolute and relative pitch: examples of categorical perception. *Journal of the Acoustical Society of America,* 95(5), 2704-19.

Carroll, J.B. (1975). Speed and accuracy of absolute pitch judgements: Some latter-day results. *Educational Testing Service Research Bulletin,* RB-75-35. Princetion, NJ: Educational Testing Service.

Copp, E.F. (1916). Musical ability. *Journal of Heredity*, 7, 297-305.

Costall, A. (1985). The relativity of absolute pitch. In P. Howell, I. Goss, and R. West (eds.). *Musical Structure and Cognition,* 189-209. London: Academic Press.

Cross, I. (1997). Pitch schemata. [preprint (html)]. In J. Sloboda & I. Deliège (eds.). *Perception and cognition of music,* 353-386. The Psychology Press: Hove.

Deutsch, D. (2002). The puzzle of absolute pitch. *Current Directions in Psychological Science,* 11, 200-4.

Deutsch, D. (2006). The enigma of absolute pitch. *Acoustics Today*, 2, 11-19.

Dowling, W.J. (1999). Development of music perception and cognition. In Diana Deutsch (eds.). *The Psychology of Music,* 603-625 (2nd ed.). San Diego: Academic Press.

Dowling,W.J. (1986). Context effects on melody recognition: Scale-step versus interval representations. *Music Perception*, 3, 281-296.

Eaton, K.E., & Siegel, M.H. (1976). Strategies of absolute pitch possessors in the learning of an unfamiliar scale. *Bulletin of the Psychonomic Society*, 8, 289-291.

Gregersen, P.K & Kumar, S. (1996). The genetics of perfect pitch. *American Journal of Human Genetics,* 59, Pt.2, No.1015, A179.

Gregersen, P.K., Kowalsky, E., & Li W. (2007). Reply to Henthorn and Deutsch: Ethnicity versus early environment: Comment on "Early childhood music education and predisposition to absolute pitch: Teasing apart genes and environment" by Peter K Gregersen, Elena Kowalsky, Nina Kohn, and Elizabeth West Marvin (2000*). American Journal of Medical Genetics*, 143A, 104-5.

Gregersen, P.K., Kowalsky, E., Kohn, E., & Marvin, E.W. (1999). Absolute pitch: prevalence, ethnic variation, and estimation of the genetic component. *American Journal of Human Genetics,* 65(3), 911-13.

Gregersen, P.K., Kowalsky, E., Kohn, N. & Marvin, E.W. (2000). *American Journal of Medical Genetics,* 143A, 104-5.

Hrysovergi, M. (1997). *Dictionary of the Music Language*. Athens: Nakas.

Kalogeropoulos, T. (1998). *Lexico tis Ellinikis Mousikis [Dictionary of Greek Music]*. Athens: Giallelis (in Greek).

Kendall, S. (1996). 'Well-Tuned Brains'. *Harvard Magazine*, 98(3), 19-20.

Kennedy, M. (1933). The Oxford Dictionary of Music (Greek edition). Athens: Gialellis.

Koniari, D. (2005). Apolyti Akoi: sintomi anaskopisi sto mytho kai tin pragmatikotita [Absolute Pitch: a brief review of the literature]. *Mousikopaidagogika*, 2, 42-49 (in Greek).

Krumhansl, C.L. (2000). Rhythm and pitch in music cognition. *Psychological Bulletin*, 126, 159-179.

Krumhansl, C.L. (1979). The psychological representation of musical pitch in a tonal context. *Cognitive Psychology*, 11, 346-374.

Krumhansl, C.L. (1990). *Cognitive Foundations of Musical Pitch.* Cambridge UK, Cambridge: University Press

Krumhansl, C.L., & Shepard, R.N. Quantification of the hierarchy of tonal functions within a diatonic context. *Journal of Experimental Psychology: Human Perception and Performance*, 1979, 5, 579-594.

Lerdahl, F. & Jackendoff, R. (1983). *A Generative Theory of Tonal Music*. Cambridge MA, MIT Press.

Marin, O.S. & Perry, D.W. (1999). Neurological aspects of musical perception and performance. In D. Deutsch (eds.). *The Psychology of Music* (2nd edit.), 653-724. San Diego: Academic Press.

Meyers, C. S. (1911). A Testbook of Experimental Psychology. Cambridge: University Press.

Miyazaki, K. (2004). Recognition of transposed melodies by absolute-pitch possessors. *Japanese Psychological Research*, 46, 270-82.

Miyazaki, K. (1989). Absolute pitch identification: effects of timbre and pitch region. *Music Perception,* 7(1), 1-14.

Miyazaki, K. (1990). The speed of musical pitch identification by absolute pitch possessors. *Music Perception*, 8(2), 177-88.

Miyazaki, K. (1992). Perception of musical intervals by absolute pitch possessors. *Music Perception*, 9, 413-426.

Miyazaki, K. (1993). Absolute pitch as an inability. *Music Perception*, 11(1), 55-72.

O'Connor, J. (2006). *Exploring the self-concept and identity of Sydney Conservatorium students with and without absolute pitch* (unpublished master's thesis). Sydney: University of Sydney.

Parncutt, R. & Levitin, D.J. (1999). Absolute pitch. Grove Dictionary. http://ww2.mcgill.ca/ psychology/levitin/ grove.html.

Profita, J. and Bidder, T.G. (1988). Perfect pitch. *American Journal of Medical Genetics*, 29(4), 763-71.

Sergeant, D.C. & Roche, S. (1973). Perceptual shifts in the auditory information processing of young children. *Psychology of Music*, 1(2), 39-48.

Sergeant, D.C. (1969). Experimental investigation of absolute pitch. *Journal of Research of Music Education,* 17, 135-143.

Shepard, R.N. (1964). Circularity in judgments of relative pitch. *Journal of the Acoustical Society of America*, 36(12): 2346-2353.

Siegel, J.A. & Siegel, W. (1977a). Absolute identification of notes and intervals by musicians. *Perception & Psychophysics*, 21, 143-152.

Takeuchi, A.H. & Hulse, S.H. (1993). Absolute pitch. *Psychological Bulletin*, 113(2), 345-61.

Tolika, O. (1999). International Music Dictionary, Stohastis publications.

Trehub, S., Schellemberg, G. & Hill, D. (1997). The origins of music perception and cognition: A developmental perceptive. In I. Deliege and J. Sloboda (eds.). *Perception and Cognition of Music*. East Sussex: Psychology Press.

Vernon, P.E. (1977). Absolute pitch: a case study. *British Journal of Psychology*, 68, 485-9.

Vraka, M & Welch, G. (2005). Absolute Pitch and Greek Culture. *The Neuroscience and Music II, from perception to performance.* Leipzig.

Vraka, M., (2006a). The Cultural Significance of Absolute Pitch, Paper presented in the 9th *International Conference on Music Perception and Cognition*, Bologna.

Vraka, M. (2006b). Apoliti Akoi: ta pleonektimata kai ta meionektimata mias spanias idiotitas [Absolute Pitch: the advantages and drawbacks of a rare ability]. *Mousikopedagogika,* 3, 85-96 (in Greek).

Walker, R., (1990). *Musical Beliefs.* New York : Teachers College Press.

Ward, W.D. (1999). Absolute pitch. In D. Deutsch (eds.). *The Psychology of Music* (2nd ed.), 431-451. San Diego: Academic Press.

Ward, W.D. (1963). Absolute pitch. *Sound: Its Uses and Control*, 2(3), 14-21 & *Sound: Its Uses and Control*, 2(4), 33-41.

Watt, H. J. (1917). *The Psychology of sound*. Cambridge: Cambridge University Press.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music Creativity - the road through the Agora

Styliani Yeorgouli-Bourzoukou

Abstract

This article is based on my research thesis[1] which examines the views and perceptions of Greek music teachers about composing and improvising and the association between the context and the pedagogical strategies used by the teachers, in relation to the fundamental aims of music education. Over two hundred teachers employed at the Musika Gymnasia, state specialist music schools, responded to a questionnaire, followed by in-depth interviews of representative respondents. Quantitative results from the survey confirm the absence of composing or improvising from the music curriculum in force; the qualitative research, however, revealed a number of concepts in the thought of music teachers, which illuminated the subject under examination. The conceptual analysis according to the grounded theory approach (Strauss and Corbin, 1990) led to a deepening understanding of the issues involved in Hellenic musical pedagogy such as the relevance of the teacher's own personal experience, including non-formal learning experiences. These led to recurring issues in composing/improvising like the early and steady elimination of the authority of the teacher, which paves the way to empowerment/awareness in music and ultimately to the 'musical agora'. From the data I build up the concept of the musical agora, which is a space-time context that guarantees the coexistence of its 'citizens' and the interaction of their musical 'luggage'. The musical experiences, knowledge of tradition and character traits of each of the members of the agora are exchanged in a frame of human-centred music education, including composing and improvising as the expression of freedom and discipline at the same time. The musical agora provides people, ideas and music with a democratic structure thus successfully combining anarchy / creation of new music with communal safety/ tradition in music.

[1] Yeorgouli - Bourzoukou, Styliani (2004) Examining the role of Composing and Improvising in Greek Music Education with particular reference to the Musika Gymnasia. Ph.D.Thesis, University of Southampton, University College Winchester.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Musical development and instrumental music education at preschool age: International research findings and the Greek reality

Maria Zachariadou

Abstract

The criticality of preschool age and the importance of a rich musical environment from the beginning of a person's life, for his subsequent musical development and progress, have been the subject of many research projects internationally. An important part of these research studies deals with singing, rhythmic activity, creativity and composing of children, their reactions to musical stimuli and the correlation of the above to findings of developmental psychology and pedagogy. Although fewer, studies related to instrumental music learning at preschool age and the correlations of it to musical development and further musical progress, show extremely interesting findings. Is a child capable of beginning learning a musical instrument at preschool age? If yes, how important is to begin this early? What is the relation between the study of a musical instrument at preschool age and the musical development and progress of this child? How much do we really know and what questions still need to be answered? The present paper tries to answer these questions through studies that have been done internationally and the very few that exist in Greece, while at the same time raises a point about the Greek status quo and needs of research and practices as far as the instrumental music teaching -especially violin teaching- at preschool age is concerned. There is already a research study in hand by the writer that deals with the knowledge, the views, practice and needs of violin teachers about the teaching of instrumental music to children aged 3-5 years old. Some early findings of this study will be discussed.

Round tables

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

1st Round Table
Preparation of future music teachers through connections between university and Schools

Chair: Smaragda Chrysostomou
Presenters: Elissavet Perakaki and Tzeni Yiamaloglou

Abstract

The preparation of future music teachers and the appropriate pedagogical training are issues central to all discussions relating to the future of music education in Greece. The music teacher is the catalyst in any change and improvement in music education. Teachers' personal values, abilities, opinions, often determine the kind of music teaching and learning students get. To become an able and effective music teacher change is often necessary, particularly during the period of initial preparation. This symposium will describe and discuss the particular case of on-going collaboration between the Faculty for Musical Studies at the University of Athens and primary and secondary schools and music teachers in the prefecture of Attica. Parallely with university classes, students attend, observe and teach classes in selected schools under the supervision of specific music teachers. Structured observations as well as first-hand experience, assist them in developing their critical thinking and their ideas and opinions regarding music teaching in schools and also test their personal abilities and skills. Music teachers who participate in this effort add another dimension to the process, shedding light to the students' "journey" through their own eyes, the eyes of the experienced music teacher, sharing their own personal experience and perceived gain from this cooperation.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

2nd Round Table
Teachers' professional development in music teaching: Problems, challenges, prospects

Chair: Stamou Lelouda
Presenters: Avgitidou Sofia, Theodoridis Nikos, Kokkidou May, Stamou Lelouda

Abstract

Improving the quality of education provided in Greece has been closely associated in the last two decades with the issue of teachers' professional development and particularly with in-service teacher training. The content, forms, processes and organization of in-service teacher training differ as the case may be. However, it seems to be generally accepted that a teacher training program should aim at authoritatively informing teachers, stimulating them on current social and educational problems, and supporting them in order that they are able to work for the development of a human, joyful, democratic and collaborative school. In this roundtable discussion we will deal with issues concerning teachers' professional development in music teaching. In particular:

- we will discuss basic models of teachers' professional development,
- we will analyze the processes and strategies of in-service training for general educators and we will particularly concentrate in the area of in-service training in music teaching,
- we will present findings from action research projects and other types of in-service training that have been carried out in the context of music education professional development programs,
- we will emphasize the role of the environment of people (relations, interactions, desires, needs) in teacher training,
- we will highlight the factors that contribute to effective support for novice in-service general teachers and particularly music teachers.

Of central consideration in this presentation will be teachers' opinions concerning their professional development, ways to guarantee teachers' active participation in the processes of in-service training, and the components that contribute to growth of teachers' will for self-education, personal and professional development.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Processes of enhancing teachers' professional development: A critical analysis of three case studies

Sofia Avgitidou

Abstract

The need το support teachers' professional development is closely connected with the fact that teachers have to respond to both social changes (i.e. multi-cultural classroom) and educational innovations (i.e. new curricula) many times during their career. Different models of teachers' professional development have been introduced that are linked to a specific philosophy about what kind of teacher do we want to have and what are the essential characteristics (i.e. knowledge, competencies, critical thought and reflection) that we need to develop through professional development programmes. The last twenty years, strong criticisms of typical in-service programmes as being technocratic and inefficient have been reported. On the other hand, the promotion of school networks, action research and school-focused in-service training have been proven as successful processes for teachers' professional development. In the current study, three case studies are presented, in which the author had the role of an external advisor in teacher's professional development. The process of supporting both teachers and schools was not the same in all three case studies. However, in all cases the aim was to empower teachers in the design, implementation and evaluation of their educational actions, to promote staff collaboration and school's autonomy in the organization of educational work. An analysis of the organization and processes of professional development and of the roles employed by both teachers and external advisor is presented in this paper, based on the criteria of equal participation, co-operation, trust relationships and autonomy in the design and critical evaluation of educational work. After this analysis, specific strategies and processes are proposed to enhance successful support of teachers' professional development.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Issues of process and content based on a model of in-service training of kindergarten teachers in teaching music

Nikos Theodoridis

Abstract

The issue of teachers' in-service training in music pedagogy is getting imperative when the teachers have important deficiencies in the content as well as the methodology of teaching music. This holds true for general education teachers, kindergarten, first- and second-grade teachers, who undertake the teaching of music to children of this very important age for music learning. In this case a special training process is required, which, based on the general principles of teacher training theories, should take into consideration the specific principles that relate to the music pedagogy in-service training of classroom teachers (Banks, 1995· Damm, 2000; Hookey, 2002). Previous studies suggest that the effectiveness of in-service music pedagogy training for classroom teachers is mainly a result of the content and, in certain cases, of the processes followed, while there are only a few studies that relate the effectiveness of training with both factors (De l' Etoile, 2001; Theodoridis, 2008). We present the results of a study that utilized questionnaire and a music lesson daily plan writing project, investigating the effectiveness of content and process of a specialized in-service teacher training program in music pedagogy for kindergarten teachers. We also examine the acceptance of the process by the kindergarten teachers, their opinions-preferences for the form and characteristics of the music pedagogy training program, and particularly for the duration, frequency, institution, teaching methods and processes, openness and structure of content of training, as well as the perspectives for receiving support in the future. Finally, we examine the effect of consensus processes, as well as of the variety of types of knowledge that constituted the content of the proposed music pedagogy training program, on reinforcing self-confidence and self-activity of kindergarten teachers with regard to teaching music in their classroom.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Issues and research findings concerning professional development of novice in-service music educators

May Kokkidou

Abstract

Novice in-service music educators begin their career having high expectations about the practice of their vocation. At the same time, they feel anxious about whether they will manage to communicate with their students and their colleagues, whether they will be placed at a well-structured school community, whether they will cooperate with the other school teachers and the ways in which this will take place (Kardos et al, 2001). The great majority of novice in-service music educators do not feel fully prepared for their first day at school (Kokkidou, 2002). Therefore, the issue of professional development for novice music educators has attracted significant interest in the last few years. However, literature internationally suggests that participation in just one introductory professional development program is not enough to support novice classroom teachers as well as music teachers. What is also needed is intense and continuing collaboration with expert teachers from the same field, support by school directors, contact and interaction with other teachers in the same field, and opportunities to receive feedback resulting from observation and assessment of their teaching by expert teachers in the field (Feiman-Nemser, 2001· Youngs, 2002). The present article attempts to review recent research findings from the field of systematic and institutionalized support for novice in-service classroom teachers and especially music teachers, and to discuss the parameters that need to be taken into consideration in the design and implementation of introductory professional development programs for novice music teachers, if these are to be as effective as possible.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

A humanistic and systemic approach to the context, processes and content of music educators' professional development

Lelouda Stamou

Abstract

The experience and research findings resulting from a study on music teachers' professional development through action research projects, which was conducted in Greece aiming, among others, at developing music teachers' motivation and ability for 'self-education', led to a realization of the multiple nests and systemic relations that act upon music teachers, their actions in and out of classroom, and their willingness for improvement and change in the context of an in-service training program. Such nets include the relationships of teachers with their own selves, the relationships and interactions between and within groups of teachers, researchers/organizers of the in-service program, and students. This realization led to a visible and explicit visualization of the educational reality and professional development as an eco-system of multiple interactions and processes. These interactions, relationships and dependences that develop at a conscious or unconscious level, as well as music teachers' explicit or implicit desires and needs in the context of professional development, are demonstrated in multiple ways through teachers' and their students' verbal and pictorial expressions. Findings suggest the need for a humanistic approach in the design, implementation and assessment of professional development programs, that deal with the person as the key, and utilize the deliberate guidance of all participating parties –organizers/professors, teachers, and their students- to self knowledge and awareness.

3rd Round Table
Musicians and Health

Chair/Presenter: Dimitrios Dionyssiou
Presenters: Athanasia Printza, Paschalis Steiropoulos, Evangelia Nena, Efterpi Demiri, Nikolas Tsakoniatis

Abstract

At the present round table we will discuss the most common medical disorders that occur in musicians. The aetiology, the clinical investigation, the treatment and mainly the prophylaxis of the medical conditions will be analysed. Finally, we will discuss the importance of music at the medical environment.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Prevention and treatment of vocal disorders in professional singers. Individualized diagnostic and therapeutic approaches.

Athanasia Printza

Abstract

Voice is part of our personality and is the main means of communicating with other people. Professional voice users have special abilities but also special needs. Singers' education includes the principles of vocal hygiene, training for the safe and effective use of the voice, adaptation of good body posture, diaphragmatic breathing, voice projection techniques, keeping good physical condition and relaxation techniques. The principles of vocal hygiene include guidelines for water intake, atmospheric humidity, and speech in a noisy environment, avoidance of sleeping after lunch, vocal warm-up, coffee and alcohol consumption, smoking and medication intake. The singer is an athlete of the voice. Treatment of vocal disorders is individualized. A thorough history includes: vocal difficulties, vocal needs and habits, information about the work place and conditions, past medical history, singing studies, the use of voice when not singing and what is the professional and treatment goal. Often the difficulties in treating singers' vocal disorders are due to the absence of specialized training of the treating physicians. As a result, the complains are falsely considered only stress related. It is very important to inform the singers when they undergo intubation, tonsilectomy or other surgery at the neck, thorax or abdomen about possible voice changes.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Frequent respiratory and cardiovascular problems in musicians

Paschalis Steiropoulos

Abstract

Respiratory problems: In the early 18th century, Bernadino Ramazzini, the 'father' of the occupational medicine, describes at his book "Maladies of the workers" the medical problems of the flautists. They suffered from cold, salivation and suddenly haemoptysis. Indeed, the use of wind music instruments is correlated with decreased pulmonary volumes, as proven by literature, and is attributed to barotraumas at the use of the instruments. On the other hand, other studies show the role of the wind instruments for the improvement of asthma among young asthmatic musicians. An additional occupation risk factor is seen in musicians working at night clubs where the smoking is allowed. As passive smokers they can suffer from respiratory diseases connected with tobacco use. *Cardiovascular problems:* Sinus tachycardia, and other arrhythmias, are common and connected with the anxiety of performance. Most adverse effects are observed among wind musicians. For example, the increased interthoracic pressure can (rarely) cause the separation of the walls of carotid arteries. Additionally, the Valsava manipulation during practicing of a wind instrument can lead to alterations in arterial blood pressure, heart rhythm and is correlated with transient ischemic disorders. Finally, the circular breathing (breath in from the nose and breath out from the mouth but keeping the wind into the mouth) can result disorders of the autonomous nerve system, effecting the heart function.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Skin disorders in Musicians

Evangelia Nena

Abstract

Long and repetitive contact with music instruments can cause dermatitis. Nickel of the trumpet, chromium and brass at the cords of the stringed instruments or the brass mouthpieces of the wind instruments like saxophone and oboe are the most important factors implicated. Also some wooden materials and varnishes can create dermatitis. Among violists, a brown sign at the left side of the neck is commonly seen,. known as the "violist's sign" and it is due to the combination of pressure and moisture. Hyperpigmentation and rough appearance is the result of the above condition. Among flautists, 'the chin of the flautist' is observed, due to friction and drooling. A preventative solution for males could be a beard, which self understandingly cannot be applied to females. Sensitivity, blush and edema can be seen in natural areas of the body as a result of pressure and irritation. 'Guitar player's nipple', 'cellist's chest', 'cellist's knee' and 'cellist's genitalia' have been well described as a result of the posture when the players practicing the instrument. Guitar players and harpists may develop callus, subungual haematomas and perinail infection. Garrod's pads are knuckles at the palmar surface of the hand, similar to Heberden's or Bouchard's nodes, can be also seen in musicians of string instruments.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The Musician's Hand

Dimitrios Dionyssiou & Efterpi Demiri

Abstract

Certain medical disorders occur within professions and maladies can affect musicians of all ages and abilities. The medical conditions range from asymptomatic incidental findings to severe injuries that seriously disable professional musicians. The most common problems include overuse of muscles, peripheral neuropathies, dermatologic irritation, focal dystonias, ENT and respiratory disorders. All these situations can disable a professional musician from performing or even practicing. Overuse of muscles is a result of repetitive movement when musicians play instruments. It is not rare when overuse combined with prolonged weight bearing in an awkward position to lead in peripheral neuropathies. Avoidance of practicing will resolve the problem. Unfortunately, when the patient feels the initial improvement returns to practicing before the complete healing of the situation and, thus, the problem reccurs. Peripheral neuropathies can be caused by nerve entrapment. Most common is the carpal tunnel syndrome followed by the cubital tunnel syndrome. Relief of the symptoms can be given by decompression of the nerve into the tunnel. Those need to be followed be physiotherapy and absence of using the instrument for a certain period of time. Hand trauma is another medical condition that can disable the musician. Time off for the rehabilitation program can cause difficulties later when the musician performing. More severe injuries of the hand such as finger loss can cause serious problems on the performance. There are a lot of musicians who have amputated fingers and still use their hands for playing an instrument. Other medical conditions concerning the hand include rheumatoid maladies, swellings, tumours and skin disorders. Rheumatoid hand can suffer at all joints and cause technical faults, loss of endurance, lack of speed and omission of notes. Swellings and tumours of the hand may entrap a nerve or render the hand useless. Finally skin disorders can be caused by repetitive contact with wooden or brass instruments. In the present study we analyse all these medical conditions of the hands and we propose tips and tricks to decrease the frequency of the maladies.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The music in the surgical environment

Nikolas Tsakoniatis

Abstract

Visiting a medical environment by definition creates anxiety. Every patient and its family will be stressed either by visiting a hospital or by programming a surgical operation. A plastic surgery group from Athens is organizing and performing its medical activities in a musical environment. Music is essential for the patient and medical staff. Music as a therapeutic method is well studied and has been used for many years. In our case music can be adapted to patient's preferences, the time of the day or the general mood. The results are impressive regarding the experience of the patient while it provides more effective performance for the medical staff. Music, without doubt, cultivates, elevates and mould characters. In plastic surgery, music soothes and functions as a psycho-prophylactic method for the patient reducing the need for specialized medication. In conclusion, music can reverse the negative environment and create to the patient a pleasant feeling. Also, the surgical team working with music has a peace of mind, good temper and finally better results.

Posters

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Classroom observation ability of pre-service music teachers

Polyvios Androutsos & Jere T. Humphreys

Abstract

The purpose of this study was to examine the classroom observation ability of pre-service music teachers (N = 62). Two groups of undergraduates, one near the beginning and one near the end of a two-year course sequence in teaching methods that included in-class and in-school training in observation ("juniors" and "seniors," respectively), observed videotapes of one elementary (4th grade) and one secondary (8th grade) general music class, each being taught by its own expert music teacher. Subjects wrote comments that judges classified into subcategories within overall categories of lesson, teacher, and students. Results largely confirmed those of previous research from the USA, with the more experienced subjects making significantly more comments and both groups focusing more on teachers than on lessons or students. There were also differences between subcategories and significant interactions involving experience level and sex of the subjects.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The Effectiveness of brain in musical activity

Eleni Christodoulou

Abstract

The investigations of this study is dealing with the development of human brain during the effect of musical education when the revealed studies as to how the structure and function of the brain is affected under different circumstances of learning and naturally by the learning procedure and musical practicing. The beneficial effect of music in the brain of young children and even in children who are occupied with music from the early stage of their age. In accordance with the bibliographic research, reference is made to the active areas of the brain during the investigation of musical information and this cultivation in the brain. Under these circumstances, a revelation is presented of the relation of musical education and mental energy. Also this text is describing the developed hemisphere of the creative persons where this aspect is supported, though the musicians have their right hemisphere of their brain, they are required to cultivate there left (hemisphere).So, under these conditions, the quality differences are a proof to the creative way of thinking of musicians who use both hemispheres of their brain. In conclusion reference is made to the operating relation of learning musical knowledge in children's brain as well as to the benefits developed in the educational pedagogical sector for a new way of attracting the teaching and learning of music in the space of the first stage of education. Finally a short reference is made to the music of Mozart which has a positive effect in brain development.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Singing the history: The example of Souli's songs

Eirini Kolioussi & Dimitra Koniari

Abstract

We present a teaching plan using three Greek traditional songs of the region of Souli in order to teach moments from the history of Souli, as it is presented at the History book of the 6th's elementary grade. The aim of the presentation is to challenge how the music teacher can extend the meaning and prospect of music in school and contribute to widening the students' historical knowledge and aesthetic culture through interdisciplinary approaches using songs from the repertoire of Greek traditional music.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

How music education contributes to the development of "music behavior"?

Aikaterini-Spiridoula Korakianiti

Abstract

This paper is a bibliographical review that examines the effect of social and psychological aspects on music behavior as well as on the ways of cultivation of music behavior inside a school class during maturity levels. The contribution of music education in the cultivation of music behavior in children is considered a basic factor in their stages of development. Guided by the above and after examining the social and education factors, music education aspires to approach and effectively cultivate the behavior of children towards music. The sociology of music, in association with psychology of music and music education research, studies have focused on a variety of issues as the use and functions of music in relation to the satisfaction of various needs within human life. They have further addressed matters like the social psychological functions of music, the social class and age levels, factors which affect and reestablished the teaching of music as well as the technological use of music. Changing the issues above means at the same time a change in the music behavior. The appropriate use of pedagogical methods will contribute in the development of music behavior inside the school class. Music educator –as he controls the same issues above- provokes learning and creativity and he offers motivations and chances for strong activation. He also offers the capabilities to his students, so they will be able to realize and manage music in a certain way during life time, through conditions of understanding, collaboration and creative interaction.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Multicultural Class: A Symphony Orchestra

Evangelia Mitrogianni & Chrisssie Bomparidou

Abstract

In this paper an attempt is made to draw a parallel between a multicultural class and a Symphony Orchestra. Cultural diversity in schools - which is nowadays a reality in Greece – is similar to diversity found in the instruments of a Symphony Orchestra. Music harmony, which derives from different timbres of an orchestra, is directly linked to the functioning and effectiveness of teaching process in a multicultural class for the subject of Music at School. The relation between Intercultural Education and Music Education is investigated as well as to what extent principles of Intercultural Education, such as empathy and respect for cultural diversity, may have a place in music education. In other words, an attempt is made to highlight the way music education can be a part of the continuum of Intercultural Education, and namely, what should be the role of music teachers who teach in a multicultural classes, what should be taken into account, in relation to the existing institutional framework and the students' cultural characteristics, under the context of interdisciplinary approach, so that a more effective teaching planning is accomplished for the subject of music.

Workshops

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The Child of Sounds: Precious Sounds

Marco Bricco

My precious sound is the smack of a kiss, because reminds me my mother's wedding
(Marwan, 8 years old)

It's the sound of a candy's paper, because my grandfather asked me always to unwrap the paper of its candy when he was ill before dying
(Alessandra, 9 years old).

Can we talk of *imaginary sound*? Can we link together memories of the past, thoughts of the present and fancies of the future, following the line of sound perceptions? Can we start from here, to give a significant support to the music pedagogy and teaching? *The Child of Sounds* tries to search that imaginary.

The project promoted by **ITER - Città di Torino, Centro di Cultura per l'Arte e l'Espressività di Torino,** by **Osservatorio dell'Immaginario** and **Compagnia Stilema/Unoteatro**, acting between research and experimentation, involved 400 children between 7 and 10 years old from different Italian cities.

Taking inspiration from theories and suggestions of R. Murray Schafer and Marius Schneider works, children have been invited to find their own precious sounds and explain them, to suggest which were the most important for the human kind and tell about them through music and theatre.

The whole work has been developed inside a theatrical metaphor, which has acted as background and stimulation for all activities.

There were the children and a people to save: the People of Sounds. They were as ancient as the People of Humans. These peoples have shared their life since the very beginning. People of Sounds protected Humans' ability to listen, but now they are at risk of extinction. Their four primordial sounds are missing and only the children can find them. To do so, children must bring into play all their own precious sounds…

Acting inside this metaphor - which had deeply involved the children - everyone has been able to live an fascinating theatrical adventure, where they compared their own sound experience with that of other children.

Step by step, children have become composers and performers of their own sound tracks, following their sensitiveness, their ability to think and play sounds, their particular way of listening to the world. They have been encouraged to tell about their relationship with sounds reality, discover their own precious sounds, bring them to life and give them to everybody, as a real evidence of the importance of never losing the ability of listening.

This is a rich and complex work which has revealed, during this three years, a small universe full of emotions, intense stories, evidence of a child ear open to and conscious of the world. This has led us to reflect and work together to keep on cherishing and carefully listening to the childhood.

The workshop gives to participants the possibility to live the same children's path. Step by step, they will be able to experience the methodology which has been used, different

activities and the same emotional involvement. Just like children, participants will have to look for the own precious sounds and to find the four primordial sounds missing.

In the end, a careful reflection and discussion about children's thoughts, helps us to reconsider the child's experience of sound and music considering his everyday life and experiment, starting from sounds related to the most significant moments of his life, of his fancies and of his most intensive feelings.[1]

[1] The paper of project The Child of Sounds: Precious Sounds was in 28th ISME World Conference (Bologna, 2008).

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

An Integrated Approach to Music and Reading
Building Expressive Readers and Singers

Susanne Burgess

Prominent American educators like Howard Gardner (1983) and James Catterall (2002) have brought the issue of transfer in learning from the arts to other subjects into focus. This area of inquiry has gained prominent international interest as well, and a variety of interdisciplinary approaches have arisen to address this topic. Burton, Horowitz, & Abeles (2000) suggest that the arts contribute distinctly as well as collaboratively to a rich educational environment that is critical to a well-balanced curriculum. It is this assertion that underlies the controversy regarding the integrity and validity of the arts instruction within an integrated curriculum among arts educators. The often vague or superficial arts 'activities' apparent in many arts-integrated lessons are frequently topic- or theme-driven, and offer little or no real arts instruction - but serve, instead, to support a number of peripheral educational issues like improving student attendance and drawing community support for the arts (Catterall, 2002).

Smaragda Chrysostomou (2004) has described the historical pathways that have led to the interdisciplinary work currently being practiced in Greece and the reported positive outcomes regarding efforts to implement a quality integrated curriculum since 2001. She describes various international approaches and contributes to the literature in her discussion of the integrated curriculum piloted through the Melina project (1995-2001). The primary aim of this project is "the enhancement of the cultural dimension of education and the empowerment of everyday school life through the arts" (Chrysostomou, 2007).

She addresses the need to maintain integrity of instruction as well, citing an imperative need for teacher preparation and inservice training addressing the new interdisciplinary aims of the curriculum. She suggests two critical components necessary to the success of an integrated curriculum: (1) clearly defined concepts in each area of instructional content, and (2) the horizontal alignment of separate subjects across the curriculum.

These two traits are essential to the arts integration work of the Southeast Center for Education in the Arts at the University of Tennessee, at Chattanooga. Our organization has pursued the development of arts-integrated curriculum since 2001. Our particular stance differs from others in its conceptually designed curriculum, and the essential criteria that places the work in the hands of the classroom teacher rather than those of a visiting artist.

> Arts Integration is instruction combining two or more content areas, wherein the arts constitute one or more of the integrated areas. The integration is based on shared or related concepts, and instruction in each content area has depth and integrity – reflected by embedded assessments, standards, and objectives. It is often designed, implemented, and evaluated in collaboration with other teachers, arts specialists, community artists, and institutions; and delivered, experienced and assessed through a variety of artistic processes, inquiry methods, and intelligences (Southeast Center for Education in the Arts, 2001).

In the U.S., curriculum standards in each content area are established by state educational agencies. These guidelines provide teachers with grade-by-grade outcome expectations and offer a framework through which school sites build their own curriculum. The

integrated nature of this work is not yet commonly practiced, although there are schools beginning to embrace a more integrated approach to all areas of study. The vertical and horizontal alignment of curriculum through the grades is becoming more common, yet – because they are not tested - the arts remain a *'secondary subject'* and are largely missing from this paradigm.

At all levels of instruction, music specialists create curriculum appropriate to the students they teach, just as teachers of other content do. At the primary level, classroom teachers are generally responsible for all 'core' content at a given grade level. The need for content expertise on the part of the teacher has removed music from the venue of the general classroom and often results in students' minimal exposure to music (30 minutes per week is common). A well-designed integrated curriculum offers greater musical opportunities for students as well as more frequent opportunities to transfer their learning across and among other content areas.

It is the horizontal alignment of music and reading content that led me to explore pattern recognition with kindergarten students. As readers, these young children benefit from the exploration of visual patterns evident in text. As musicians, they likewise benefit from an exploration of the auditory patterns heard in music.

The growing body of research in reading instruction suggests that the acquisition of listening skills is a prerequisite to learning to read. Auditory discrimination skills and reading achievement have focused largely on phonemic awareness: the ability to recognize that a spoken word consists of individual sounds or phonemes (Bradley & Bryant, 1985). Auditory discrimination and sound-to-symbol understandings are also key factors in music education and must be explicitly and purposefully taught if musical growth is expected to occur. Both speech and singing utilize the same physical apparatus, and there is some evidence that they share some cortical areas and mechanisms of the brain (Patel, Pereta, Tramo, & Labrecque, 1998).

This lesson demonstration introduces a conceptual framework for integrating music and reading instruction. Specifically, we will explore the shared elements and processes that conceptually connect aural and visual pattern recognition in order to better understand the unique benefits of integrated instruction.

The workshop will guide participants to understand how students build reading fluency, expression and comprehension while demonstrating an understanding of musical contrast and repetition through composition. Participants will experience teaching strategies such as guided reading, text analysis, vocal exploration, and focused listening. Appropriate assessments will be modeled through a performance task requiring both analysis and interpretation of folk songs and nursery rhymes.

Participants will view and discuss images of children engaging in the lesson, and analyze its application within a music and reading curriculum. The instructional plan will be provided.

Bibliography

Bradley, L. & Bryant, P.E. (1985). *Rhyme and reason in reading and spelling*. Ann Arbor: University of Michigan Press.

Burton, J., Horowitz, R. & Abeles, H. (2000). Learning in and through the arts: The question of transfer. *Studies in Art Education: A Journal of Issues and Research*, 41, 228-257.

Catterall, J.S. (2002). The arts and the transfer of learning. In J. Catterall (eds.) *Critical Links*, 151-157. Washington, D.C.: Arts Education Partnership.

Chrysostomou, S. (2004). Interdisciplinary approaches in the new curriculum in Greece: as focus on music education. *Arts Education Policy Review*, 105(5) (May-June 2004), 23-27.

Chrysostomou, S. (2007). Arts integration in Greece. In L. Bresler (eds.) *International handbook of research in arts education (307)*. Dordrecht: The Netherlands. Springer.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

Patel, A.D., Pereta, I., Tramo, J.J. & Labrecque, R. (1998). Processing prosodic and musical patterns: A neuropsychological investigation. *Brain and Language,* 61, 123-144.

Southeast Center for Education in the Arts (2001). *A definition for arts integration*. Chattanooga, TN: The University of Tennessee at Chattanooga.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Music and light as an excuse ...
A proposal for the development of a drama using shadow theatre

Gana Georgia, Eleni Zisopoulou Chatzikamari Panagiota

Abstract

In the programs of aesthetic education, body, senses, thoughts, emotions and the pupils' intuition are involved in the smoothest way through experiences of learning. Every art serves the general goals of aesthetic education and teaching doesn't limit to techniques and skills of it as a different subject. The form as a fundamental code-rule exists in all forms of art. As a form, we mean the particular structure of the part of a piece of art, its morphological development and the order in and around its context is built. In the particular experiential workshop, we deal with the form along with motion, the techniques of the shadow-theatre and music. Apart from inspiration, the form and the context of the very actions, activities, physical contact, cooperation, trust, communication and balance between imagination and improvisation are also necessary. These activities can be introductory; but they may also trigger new drama games. Then, through games and improvisations in drama, music, motion, ddancing and art we will know various forms, we will experience them and finally we will work with pieces of music which we will interpret improvising in light and in shadow.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Rhythmic analysis - adaptations and modifications for students with special needs and disabilities

Lefkothea Kartasidou & Christiana Kalatzoglou

Abstract

Music lesson needs to be adapted and modified in order to be adequate for each student with special needs and disabilities taking into consideration its ability and not its "disability". Rhythmic analysis is a basic element of music education for all students. It combines auditory tasks, rhythmic perception and performance and its aim is the enhancement of music and non-music skills (memory, attention, etc.). Aim of this workshop is to emphasize on the basic principles of music education of students with special needs and disabilities and to present methods of observation, assessment and intervention. The long-term objectives of the introduced tasks are the perception, recognition, discrimination and performance (rhythmic, motor) of diverse tempo: polka - march, waltz - mazurka. The short-term objectives will be set according to the functional areas of music education in special education: music and movement, music and language, music and sound, music and aesthetic. The content of the tasks is music from classic composers and parts of music tales/ stories. The participants will have the chance to be trained on educational planning and teaching techniques that are appropriate for students with special needs and disabilities. Those tasks have an integrated character and can be used in order to enhance school and social integration of students with and without disabilities.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

The recorder and the recorder teaching for music pedagogue

Dimitris Kountouras

Abstract

The workshop is addressed to music pedagogues who are teaching or wish to teach the recorder. There will be a practical as well as a theoretical part. The practical part will be the teaching of recorder and its technical aspects to the music pedagogues. The theoretical part will be connected to the methods of recorder teaching as well as the treatment of the recorder in pedagogy in children of different ages in other countries in Europe. Furthermore, there will be analyzed the aim of the pedagogue on his recorder teaching and what he wants to achieve with children of 6-8 years old without any (or with very little) music education. There will be also references to the recorder as an instrument before a "normal" orchestral wind instrument as well as the recorder on a professional perspective. One of the aims of the workshop will be to arise suggestions and propositions about the teaching of recorder in the Greek education.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Musical topics (or topoi) from rhythmic elements (time, space, force, form) that can be rendered kinetically and expressively by the young and the old

Maria Kinighou-Flabura

Abstract

The selection of exercises and the diversity of way-pathway each subject or unity is being given, is proportionate to age, movement potential, mental, pursuits and knowledge, and is so designed that the subject matter be assimilated as best as possible by children and adults.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Pleasure and creativity in music lessons. Ideas, repertoire, exercises

Chrisa Kitsiou

Abstract

It is true that imagination and creativeness is rarely found in our educational system, and consequently students dislike and feel negatively towards the entire learning process. A strong motivation in changing this matter can be the student's personal pleasure at the music lesson and personal musical achievement.
The workshop will present:
a) pleasant ways which will help students to learn the musical concepts and to feel success – pleasure
b) types of exercises, e.g. imitation exercises, grouping exercises, rhythmic pattern games, exercises in co-ordination of the two hands , exercises for developing the ability to feel the pulse, identify the meter etc.
c) an organizational method that will aid the teacher:
- in clarifying his pedagogical aims (in developing musical ability, pleasure, discovering students' personal potential, developing of group dynamics, etc.) and
- organizing of the teaching materials in order to achieve the previously mentioned goals.
d) types of accompanying patterns of varying musical styles such as ragtime, tango, tarantella etc. that can be used for singing or repertoire, so that theoretical knowledge will connect with Music as an Art.
e) a discussion on accompanying and repertoire matters and why the accompaniment is important in the singing and instrument learning process.
f) a discussion on aspects of character - interpretation – style.
The purpose of the workshop is to offer the participants ideas, types of exercises and repertoire, so they will be able to use them starting from their following lesson.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Exploring music, motion and speech in the art of M.C. Escher

Helen Loura

In our workshop Escher's engravings* will be studied with music and motions, according to the techniques of the Orff approach. Engravings are transformed into graphic scores. Through body movements as well as vocally experimentation we will explore the mathematical and musical motifs of Escher's prints.

The art of M.C. Escher presents specific characteristics which are arising from his admiration for the laws of nature and for the mathematical thinking. We discover forms in his prints which are used for background and we are watching them either to rotate with the main forms according to the point or focus or to be developed into more complex forms.

He, also, uses the regular division of the surface, the reflections of his patterns and he is exploring their symmetrical combinations. In his interest is, also, included the notion of arithmetic limit and argued that the best way to display an infinite number is to choose the gradual reduction in the size of the forms until you reach – theoretically-the limit.

A large group of prints are narrated stories. Another element that he enjoys to work with is the transition from two dimensions to three, and vice versa, as a game between the rigid, two-dimensional images of a form and the freedom of three-dimensional images which are able to move freely in space. Finally, he approaches the concept of unlimited space, the creation of rings and spirals and the relevance of orientation to a surface.

We are decoding these elements with movements accompanied by sounds and we are following the dynamic of the print. We are going to compose rhythmic and melodic patterns concerning, either the issue of the engraving or the transformation of the form which is displayed. The controversial patterns raised in the prints are offering us the chance to work with the changes in speed and in power on improvisations with music and movement. At the end, we are going to enrich gradually a simple pattern following the «score» of Escher's engravings.

Moving gradually from perception to the interpretation allows us

- to become familiar with what was initially unknown
- to decode the unspoken messages
- to combine the individual to the collective creativity
- and finally, to express ourselves with music, movement and speech.

Inside the classroom of the workshop will be exposed copies of Escher's' selected prints. Our aim is, actually, to make an unusual "tour" inside Escher s' world. The prints provoke us to produce rhythm, movement and speech.

More specifically, the engravings which will be transformed into graphic scores are the following:

Whirlpools, *1957 Woodcut, 45 x 23.5 cm*

Here we can see a flat surface with two visible nuclei. They are connected by two spiral-shaped S, which are stemming again from the longitudinal axis of fish. Their swim is happening with the ones' head in the others' queue. But here the fish are moving forward in opposite directions. The core is a starting point for the dark series of fish which reach the largest size in the middle of the composition. Then they are integrated into the "sphere of influence" of the lower core and

they continue to spin until they disappear inside him. The other, lighter series are following a similar pattern in the opposite direction.

We will try - separated into two groups - to follow the movement of the engraving in the shape of S. Our purpose is to feel the dynamic of sound which is related with the size of the fish. We observe the difference in intensity and speed and we will provoke new readings of how we could hear the depth of the vortex.

Reptiles, *1943 lithograph 33.5 x 38.5*

The circle of life of a small alligator. Among various objects there is a drawing of a patchwork of reptiles in three shades. Eventually, one of them doesn't want to keep living still and rigid among his companions, and he decides to take off one foot from the edge of notebook, he release himself and start a fight in the unknown real life. He is climbing in a zoology book and then painstakingly manages to walk on the side of a triangle. Now, he is located at the top point of his existence. Then after a short chug, tired but full of satisfaction, descends through a tank at the paper, to be rejoined with his comrades.

Prompted by the story of the small alligator we will build a music atmosphere in order to narrate the plot. Inside the plot we will evolve into a rhythmic and mobile pattern which will be generally enhanced by variations in intensity and short verbal improvisations during the pauses.

Symmetrical engravings

The symmetrical engravings' technique is experimentation about the regular division of a surface with similar forms, which are next to each other, without leaving empty spaces. In the past masters at same technique were the Moors, without of course, the depiction of living figures. They used to decorate walls and floors with tiles using abstract geometric patterns without gaps between them.

What we try to observe in these prints is the symmetrical basic binary pattern and the symmetric character. Using the mirror technique in motion we will choose one of the patterns proposed in order to move our body in space accordingly. Then we will add sound patterns with body percussion in the form of paradiddle.

Draft of Metamorphosis

We note the issue of transforming instances of an object to another. During the period 1937-1945, Escher worked with the problem of potentially liquid excess. Such minimal changes of patterns occur not only visual artists, but also contemporary music composers. Steive Reich, Terry Riley, Phillip Glas, Arvo Part and many others use this technique. This kind of composition became known as «Minimal Music».

We will try to listen and to observe a minimal Steive Reich's piece in order to points out the moments when the basic pattern is changing to another form. It is important to emphasize that in the flow of transformation each new element is automatically the basic subject of the next change. We notice to Escher's draft the sequence of patterns with the minimal technique and we try to create a dance pattern. Each member of the group propose a new movement. The basic rule is that the first issue and variations should be as simple as possible.

Sky and sea, *woodcut 1938, 44ch44cm.*

In the central horizontal band birds and fish are equivalent to each other. Our brain connects the flying of birds with the sky. For each of the black bird which flies in the sky, the environment formed by four white fish surrounding it. Similarly, we have the sense of swimming in the lower part of the picture, because now are four black birds that surround a fish and the same time are the water in which it swims.

In this engraving we are playing musical instruments. We learn the basic patterns with body percussion and after we are playing the xylophone and other instruments of the orchestra Orff. Each group explores the variations of the melody and new ideas presented by the group.

Metamorphosis, *1939-1940 and 1967-68 Woodcut*

We can see a long series of shapes that are continuously changed. Through word METAMORPHOSE which is positioned vertically and horizontally we start a continuous rotation pattern. Initially, the patterns are presented simplified but gradually enriched with details and developments. Finally, all come back to the simple form until they disappear in the next pattern.

With this engraving we will try to unite all three elements of the system Orff, music - movement - speech, based in th plot of a surreal story that burst through the transformations. We follow the changes of patterns with improvisations from each group.

Proposals for communication and exchange of ideas at the workshop on the occasion of the Escher's art.

Maurits Cornelis Escher
(1898 - 1972)

Maurits Cornelis Escher was born on June 17th 1898, in Leeuwarden, The Netherlands. He was raised in Arnhem and at an early age he showed his special talent for drawing. In 1919, Escher attended the Haarlem School of Architecture and Decorative Arts. He briefly studied architecture, but failed a number of subjects and switched to decorative arts. Here he studied under Samuel Jessurum de Mesquita, with whom he would remain friends for years.

In 1922, Escher traveled through Italy and Spain. He was impressed by the Italian countryside and by the Alhambra, a fourteenth-century Moorish castle in Granada, Spain. He came back to Italy regularly in the following years. It was in Italy that he met Jetta Umiker, whom he married in 1924. The young couple settled down in Rome and stayed there until 1935, when the political climate under Mussolini became unbearable. The family next moved to Chateau-d'Ex, Switzerland where they remained for two years. Escher was decidedly unhappy in Switzerland, so in 1937, the family moved again, to Ukkel, a small town near Brussels, Belgium. World War II forced them to move again in January 1941, this time to Baarn, the Netherlands, where Escher lived until 1970. Escher moved to the Rosa Spier House for the elderly in Laren in 1970, where he died on March 27, 1972, at 73 years of age.

Bibliography

Antwnakakis, D. (1996). *Carl Orff 1895-1982.* Athens: Orfefs (in Greek).
Escher, M.K. (2005). *Ta xaraktika [Engravings]*. Athens: TASCHEN.
Flitner, K. Simeiwseis Paidagwgikwn Dietoys Epaggelmatikoy Kyklou Systimatos Orff. [Notes of the two-year professional Orff training]. Athens: Moraiti School (in Greek).
Frazee J. (2006). *Orff Schulwerk Today.* New York: Schott

Mouseio Irakleidwn, *Dimiourgia kai peirama - Xwros kai eikona [Creativity and experiment]*, Fylladia ekpaideftikon programmaton [Educational programme leaflets].

Mouseio Irakleidwn, *Ekfrasi kai Viwma sto mouseio mesa apo to dialogo Texnis kai Epistimis [Expression and action in the museum through a dialogue between art and science]*. Fylladia ekpaideftikon programmaton [Educational programme leaflets] (in Greek).

Mouseio Irakleidwn, *Texni kai Mathimatika [Art and mathematics]*. Fylladia ekpaideftikon programmaton [Educational programme leaflets] (in Greek).

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

"SOUNDSTRUCTURES": Contribution to music composition through the use of the musical sound characteristics

Thomas Maropoulos

Abstract

Teaching of Musical Composition is one of the goals a music instructor aims at. Hereby we approach one of Esthetics Education's extents through one of its important parameters, *artistic creation* and through an especially creative course. On the other hand, musical sound always remains a natural phenomenon with all its respective parameters - *pitch, volume, duration, timbre, harmony, tempo* - in effect as subjects of scientific research, but also artistic approach and procession. Moreover, this matter is approachable from the cross-curricular thematic standpoint, as an interconnection between the two scientific subjects. Form plays an important role in this approach. Musical sound as a form is analyzed in the particular elements that constitute it and each one of them is a special entity. As an example, a thematic element may be constructed exclusively from periods – this may constitute an entity in the form of period (A-A'-B-B') or clause (A-A'-B-Γ). Afterwards, that primitive shape can be developed as a procession of some of its motive elements or to form a wholly new structure opposite to the previous one. Finally, the whole synthesis can be completed with a partial or modified *repetition* of the initial part. The result shall be a uniform thematic entirety that may attain further substance by adding more sound characteristics. Surveying the above mentioned, this laboratory intends to approximate, by means of enquiry and creation, the characteristics of musical sound initially as distinctive "SOUNDSTRUCTURES", and finally leading to an organical uniform entirety, a integrated COMPOSITION.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Theory and Action

Despina Mattheopoulou

Abstract

In ancient Greece music was very important and an integral part of education. Plato (427-347 BC) stated that music in education helped young people to cultivate the concept of an ideal society and thus become active members of society as responsible citizens. Aristotle (348-322 BC) claimed that young people should study music in order to develop their critical skills. Protagoras (380 BC) reported that for boys to become more rhythmical, harmonious and more gentle for their whole life should to be taught music (Rainbow, 1989). Today, many music educators agree that the value of a musical education at a young age is indisputable (Harts, 1974; Higgins, 1964; Mills, 1995). Music has the purpose of developing and cultivating the ability for sensual pleasure. It looks to cultivate children's creativity and personalities. It is the driving force that stimulates and also guides the human imagination. The musical game has a beneficial effect on the whole of the child's mental world. It reinforces self-discipline, develops comprehension and problem-solving skills, develops the memory, raises children's awareness, contributes to cultivating the spirit, collaboration and teamwork and the development of personal relations, and, finally, to the child's socialisation. At the workshop we shall utilise methods of teaching music theory through play. We shall use traditional Greek games and songs, colours, cards, crosswords, puzzles, movement, etc., to help us in this modern and enjoyable approach to teaching the theory of music.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

A pupil can be a great… composer

Elissavet Perakaki

Abstract

Composition is one of the basic components in new Curriculum in music lessons, although music teachers do not often include compositional activities. On the other hand, composition can motivate the whole class to create and perform its musical ideas, without worrying about "mistakes". Pupils have the opportunity to cultivate their imagination, express themselves, communicate with each other and make decisions. The aim of the workshop is to encourage participants to include compositional activities in their lessons. This aim will be achieved by the rhythmical, melodic and harmonic activities - compositions.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Improvisations with children at a Special School: when the sounds dance and movements sing

Alexandra Peristeraki & Marianelli Karelou

Abstract

How can we design an artistic project in Special Schools, with a simultaneously educational and therapeutic objective? A project which, through the learning of simple skills and the discovering and experiencing of expressive means, through the joy and creativity, a common group experience and the collective encouragement through arts (music and dance) might support the educational project and the therapeutic approach, might open for possibilities of improvement in the sectors of communication and self esteem. This workshop is based on two years of experience and teamwork with a Public Special School (for children of 10-15 years of age, with a diagnosis of intellectual deprival and/or autism or Downs syndrome). The means that are proposed, are techniques and objectives "borrowed" from different systems such as early childhood music education and dance therapy, and inspired by different theoretical reports regarding the therapeutic prospective of sound, the development of the body image and experience of the self, the discovery of original creativity and non-verbal ways of communication.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Construction and Use of Homemade Musical Instruments in Education: Approaches and Abilities

Dimitris Sarris

Abstract

Improvised (also known as custom-made, simple-made, home-made e.t.c.) Music Instruments rice up in a variety of types into cultures allover the world, in every era. They consist an easy and «user friendly» way for musical expression and creativity. Especially in 20th century, technological evolution, new materials, and culture of experiment and alternation gave new options in everyday, educational, and artistic use of these instruments. Too many options are available in order to utilize and have benefits from Improvised Musical Instruments.

We shall discuss about the construction principles and the uses of this kind of instruments. We have got to know the physical conditions and characteristics which are common for every sound construction. Also we shall refer to some key opportunities that Improvised and homemade musical instruments offer to education and creation.

Introduction

We will discuss about the construction and use of this kind of musical instruments that in Greece we use to call *autoschedia* (αυτοσχέδια) (Tsaftaridis, 1995). Although, there are many terms and descriptions too related to this kind of instruments: *simple* (Hunter & Judson, 1977; Hopkin, 1999), *self-made* (Ivannikova, 2004), *custom-made* (Landels, 1999), *experimental* (Collins, 2006), *handmade* (Collier, 1973), most rare *unorthodox* (Sawyer, 1977) and only once they've be called "psevdoorgana" (pseudo-instruments) (Karakasis, 1970).

Other terms that refer to very close kinds of instruments are *unique, odd, strange, weird, unusual* etc. Some special terms that give ecological and environmental dimensions to these instruments also are *junk* (Jackson, 1991), *recycled* and *low-cost*. Certainly appears the term *improvised* (Wiseman, 1979) witch is the exact translation of «autoschedia». Although, we suggest as an equivalence term for this the word *homemade* even if it doesn't appear right etymologically («αυτοσχέδια» could be «improvised» and «homemade» could be «σπιτικά»).
As it has been observed (Sarris, 2009), internet software corresponds «homemade» with «αυτοσχέδια», in order to define this kind of instruments.

So what is all this about? Homemade instruments in our discussion are musical sounding constructions with materials that anyone easily could find into his close environment and turn them to instruments without changing crucially their shape. Homemade Instruments from all over history and cultures have been categorized with all the other instruments, not separated (Anogeianakis, 1990; Abrashev & Gadjev, 2006). So we use a cultural criterion (not constructional) so that we can define this kind of instruments. Homemade instruments are common objects that acquire a new role as sounding objects; not only utilized objects but musical instruments too. The difference is not their construction but the cultural meaning of their new use and aural perception (Roda, 2007; Johnston, 2008). This cultural criterion in order to understood instruments is too important as the construction (Kartomi, 1990).

Homemade Musical Instruments: About their construction

At Homemade Instruments constructions, we should keep in mind some basic technical principles. These principles are common in any case of construction, such as sound sculptures, installations, musical instruments etc. (Sarris, 2008). These principles refer to physical conditions of the material in order to sound on the better possible way:

- Sound is better, louder and most amplified in solid constructions, without un-continuousness on the material. Gluing, pasting, sticking, adhesion, soldering, should be done carefully and constantly. Construction must be «homogenized». In any other case the result is not friendly to sound; the transmission of the sound wave terminates. Elastic materials also are not good for sound transmission.
- Sound is better under some conditions of material's density. Material should have homogeny, but sometimes the proper dis-homogeny enriches the timbre. That's the reason that some pieces of wood give brilliant sound; they are continuous materials (as we said before) but also with a variety of density into them, that provides variety of sound waves and harmonic tunes.
- Sound is better when we produce it on thin surfaces. Sound boxes and bodies of instruments are usually thin and fine. The thickness depends on the size of the object, the hardness of the material and other parameters. Bigger objects acquire more and harder materials less thickness. This provides elasticity to the inner side, so that it's possible for it to respond to the main sound vibration, the hit from the musician and finally it sound loud and clear. Although on thickness depends material's endurance.
- Sound is better when the material has symmetric shape. Instrument makers try to enforce natural materials to symmetric forms. This provides a lot of acoustic and physical phenomena, such as sound reflection, resonance, refraction. A lot of objects and materials have symmetric construction and geometrical elements on it such as curves, squares, straight lines etc.

Materials that we collect from nature are not symmetric, solid, thin and sonorous. We need to warm, dry, endurance, bent, compress, attach, and enrich them in order to make the proper sounding construction. Some synthetic, plastic and modern materials have these characteristics on their own, without, any further, human intervention.

Instruments and sounding materials, acquire finally these organological characteristics that drive as to the proper using techniques. On the table below we try to categorize and compare these issues:

common and different organological characteristics			
musical instrument		**combinations in between**	**sounding body (material object)**
different	Technically defined point for hitting (krousis) vibrations according to the construction its easier to control the sound result independence of sound holding points performing (mostly) skills		every point potentially an hitting point vibrations according to (holding) technique its more difficult to control the sound result sound depends from holding points constructing and performing skills
in common	Importance of sound wave's «attack» for sonority and musicality of sound impacts at sound from material's quality and construction impacts at sound from stick's characteristics and technique general principles of Physics take effect development of a technique for each instrument is necessary		

Homemade Musical Instruments: About their uses

Cultural dimension of a Homemade Instrument differ if we analyze it in different eras and cultures. Cultures differ, cultural contexts differ too. Also, any instrument could belong to any culture, any music genre. In 20th century, Homemade Instruments ware estimated and highlighted from a lot of art schools, artists and creators. (Partch 1974; Russolo [1913] 2004; Schafer [1977] 1994). Also, we often use them in music education, (Sergi, 2002), therapy (Ivannikova, 2004), entertainment, physical exercise, enjoinment etc. Some special uses of Homemade Musical instruments are:

- Skills development. Musician isn't just a player, but a handcrafter too, that has to construct and maintain his instrument. He has to understand mentally the techniques, the acoustic and mechanic principles, to find solutions, to arrange materials, by symmetrical, analogical and logical ways. This gives a wide range of utilities to the educator - if he decides to - for using Homemade Instrument to improve student's skills.
- Study of aesthetic issues about objects and sounds. The same instruments could be used to study different cultures, such us popular, modern, experimental, and avant-garde. As aesthetic elements, sculpture, or as sound and music generators in several of genres, Homemade Instruments are an efficient pedagogic medium.
- Study of deeper social and cultural phenomena, related to Homemade Instruments. Sounds and Instruments have been related to the political and economical context due to a «political economy of noise», as Attali (1991) introduced it.
- Connection with cultures and ideas by using Homemade Instruments. These cultures often have to do with Recycling, Ecology, Environment, Consumption, and also Acoustic Ecology (Schafer, [1977] 1994).

Further Uses for Homemade Instruments

As we have seen, there is a variety of didactic purposes that the educator can set while using Homemade Musical Instruments. What make the difference every time is the cultural use. As we have noticed Homemade Instruments look like they could have two uses at the same time (common objects and instruments). That's why cultural uses and meaning must be highlighted and defined from the educator. In a way all this is about culture. It's the Culture of Homemade Musical Instruments. Well knowing and understanding of the cultures that created these instruments is the beginning for this procedure. Next step in order to develop a culture about Homemade Musical Instruments is to get used to construct, maintain, practice on them and make music by them.

These are the proper instruments for spontaneous, improvised activities. The success of this improvisation demands a plan in a high level, a plan that defines purposes, techniques, method and ways to control the result when using Homemade Musical Instruments. A framework is necessary in order to define the materials we need, the construction techniques, the duration of the construction, the playing technique, the teaching method, some potential exercises and practising tactics, and the composing and conducting and processes.

We have always to remember that it's not about a simple didactic medium; it mostly is a culture, sometimes a music culture and a way to understand materials, the environment and handcrafting too. That's why we should give the necessary time to this processes, and not to expect for efficient results instantly. Although, these results in a brief time could easily come.

Bibliography

Abrashev, B. & Gadjev, V. (eds.) (2006). *The Illustrated Encyclopedia of Musical Instruments: From All Eras and Regions of the World*. London: Konemann.

Attali, J. (1991). *Thorivoi* [*Noises*] (trans. N. Andritsanou). Athens: Rappas (in Greek).

Anogeianakis, F. (1990). *Ellinika laika mousika organa [Greek Popular Musical Instruments]*. Athens: Melissa (in Greek).

Collins, N. (2006). *Handmade electronic music: the art of hardware hacking*. New York: Routledge.

Collier, J.L. (1973). *Jug bands and handmade music: a creative approach to music theory and the instruments*. New York: Grosset & Dunlap.

Hopkin, B. (1999). *Making Simple Musical Instruments: A Melodious Collection of Strings, Winds, Drums & More*. Asheville, NC: Lark Books.

Hunter, I. Judson, M. (1977). *Simple folk instruments to make and to play*. New York: Simon and Schuster.

Ivannikova, M. (2004). *Ukrainian Music Therapy - Does it have a chance toy exist?* Retrieved on 14/04/2009 from http://www.voices.no/mainissues/mi40004000161.html..

Jackson, A. (1991). *Junk Instruments. How to make and play them*. London: Red Fox.

Johnston, J. A. (2008). *The Cimbal (Cimbalom) in Moravia: Cultural Organology and Interpretive Communities*. Michigan: University of Michigan. Doctoral dissertation. Retrieved on 14/04/2009 from http://deepblue.lib.umich.edu/bitstream/2027.42/60835/1/jajohnst_1.pdf

Karakasis, S. (1970). *Ellinika mousika organa [Greek Musical Instruments]*. Athens: Dirfos (in Greek).

Kartomi, M. (1990). *On concepts and classifications of musical instruments*. Chicago: University of Chicago Press.

Landels, J.G. (1999). *Music in ancient Greece and Rome*. New York: Routledge.

Partch, H. (1974). *Genesis of a Music*. New York: Da Capo Press.

Roda, A. (2007). *Toward a New Organology: Material Culture and the Study of Musical Instruments*. New York: New York University. Retrieved on 14/04/2009 from: http://blogs.nyu.edu/projects/materialworld/2007/11/toward_a_new_organology_materi_1.html

Russolo, L. ([1913] 2004). *Futurists Manifesto*. Ubu Publishing. www.ubu.com /historical/gb/russolo_noise.pdf

Sarris, D. (2006). «Body - sounding body»: rhythm-kinetic education and musicality, centered on percussion. In Govas, N., Holeva, N. *Theater and Education: Creating new Roles for the 21th Century*. Athens: Hellenic Theater / Drama and Education Network.

Sarris, D. (2008). *Stoixeia Organologias gia mia eikastiki dimioyrgia [Elements of Organology for an artistic creation]*. Lecture, Athens School of Fine Arts, Scalpture Laboratory. Athens 28/3.

Sarris, D. (2009). Apo ta "autoschedia mousika organa" stin "politismiki organologia"? Mia meleti periptosis stin tritovathmia ekpaideusi [From homemade instruments to cultural organology; a case study in higher education]. Conference "*Culture of music (as an art) in Greece as a part of Europe.* Department of Music Science and Art, University of Macedonia, 29-31/5. Thessaloniki. Proceedings (in Greek, under publication).

Sawyer, D. (1977). *Vibrations: making unorthodox musical instruments*. Cambridge: Cambridge University Press.

Schafer, R.M. ([1977] 1994). *The Soundscape. Our Sonic Environment and the tuning of the world.* Rochester: Destiny Books.

Sergi, L. (2002). *Dimiourgiki Mousiki Agogi gia ta paidia mas* [Creative Music Education for our children*]*. Athens: Gutenberg (in Greek).

Tsaftaridis, N. (1995). *Autosxedia mousika organa [Improvised musical instruments]*. Athens: Nikolaidis.

Wiseman, A. (1979). *Making Musical Things: Improvised Instruments*. New York: Scribner.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Silent paths of communication

Agelika Slavik, Maria Filianou, Helen Loura

Abstract

During the teaching procedure, speech constitutes 10% of our communication with children, while the non-verbal messages we exchange in our relations with them make up 90% of our communication and are the ones which are indicative of the latter's quality and effectiveness. Music and movement, the two basic axis on which Orff Schulwerk System is based, challenge us to explore the prevailing and determining presence of the non- verbal way of communication. In our workshop, silence proves to be more "resonant" than any other means and allows each and everyone to concentrate, create, and be more receptive to the messages and the presence of the others, thus resulting in the co-ordination and the accord of the team. In interactive activities, team-members are listen and complement each other, at the same time, allowing space to the others to express themselves, obeying to the non- verbal mesh which surrounds them. Nowadays, that noise, the hectic rhythms of life and the quick change of different stimuli attract our attention, make it imperative for the music lesson to offer an escape to an environment, where the priority of communication will not depend once more on speech, but on our substantial and ever-more beneficial presence.

Many teachers of music and movement emphasize the importance of interaction in a group and argued that «it is impossible not to contact», a fact that demonstrated in any teaching procedure. The language is the primary system of communication between people. That complicated system includes two main elements. The first one is the shape - visual - movement part (gestures, grimacing and several other movements) and the second is the verbal- audio-phonetic part (spoken words and sounds). The first part is what we call "non-verbal communication". One basic characteristic of relations in a group, in a classroom, in any collaborative activity is the deep exchange of messages by non-verbal communication. This is what creates the unique atmosphere in each group. What sets the rules of communication is just only the presence of the members, their feelings and the elements of their personality and this is happening, either we like it or not.

In Orff Schulwerk we are searching for the dynamic of individual student and we are identifying the different atmosphere in each group. The teachers in Orff Schulwerk consciously try to create a positive and beneficial atmosphere for the students using all the interactions that are taking place in the group. With that way the foundations for an environment rich in stimuli are set and, above all, we manage to work in an environment receptive to spontaneous ideas and at the same time without to provoke the loss of individuality.

According to Barbara Haselbach (2002), each child experiences and understand with a totally different way a stimulus and, for the same reason, he presents his own ideas with a unique way. The authentic expression of the child is presented firstly with his general behavior and response to the stimuli, in order to be transformed later into an artistic creation.

Our perceptual ability allows us to organize the stimuli from our environment and turn them into experiences, which are categorized in order to be available whenever we need them. Each of us creates its own realizations and its own reactions.

At the same time someone who interacts with others is possible to come closer to himself and simultaneously to work with his interpersonal intelligence. The music and motion embrace this interaction and create the atmosphere for a spontaneous reaction and the expression

of personal feelings. Gradually, the children approach the conscious expression and is offered to them free space for creative experimentations. The expression, consequently, is possible to be present either as the direct expression of individual emotions or as the artistic expression in its elemental form.

In an Orff-Schulwerk course children externalize their emotions, react spontaneously and express themselves with motion, with their voice and speech and of course, with the sounds of musical instruments. This expression is based on primitive elements and that is why is so easy for the children to run, to dance, to sing and to improvise effortlessly. The body tempo is rooted instinctively inside us and connects music, movement and speech.

When the child has the opportunity to contact with himself and others around, then silence, tranquility and stillness are valued. The imitation, the dialogue, the response, the exploration and the improvisation are the basic techniques that will create the first musical ideas. **The necessary prerequisite for the occurrence of all these features is a deeper communication with non-verbal language to be achieved.** Thus the child is conducted more easily to his primary configurations in music and movement.

But what we actually call non-verbal communication channels and how we use them consciously and unconsciously to build a strong and vibrant relationship?

• **Expressions of the face**. The face is the most revealing non-verbal communication channel and the center of social interaction. The "spontaneous expressions" - which are appear in our face because of the emotional interaction - as well as the "hypocritical expressions" - which are formed in our faces in our try to adhere to social rules - deliver messages which will be decoded by the others. Especially during the moments of greetings, phenomena such as «flash eyebrows» or positions of the lower facial area (cheeks, nose and mouth) define the nature and the extent of communication.

• **The movements of the head.** The most obvious, and perhaps, the most commonly used head movement is the nod. The nod can define our personal values, can replace the speech, can emphasize our words or can give the opposite meaning of what we are saying. It is also important to refer that people use the movements of their head more often when they are listening somebody, than when it is their turn to speak. Behaviors such as «head cock» which is connected with the attention of the listener, the coordination of the movements of the heads and, last but not least, the direction of the head during the communication can create a positive atmosphere in a group.

• **The direction of gazing**. The gazing is the key for a successful relationship. The specific direction of gazing creates an initial challenge for interaction and mutual eye contact is the first step towards cooperation. The main features of the gaze is the duration, frequency, reciprocity, the expression, the magnitude of dilation of our eyes, the frequency of open and close movement of the eyelids during the visual contact and, finally, the direction of the gazing the moment when the eye contact is interrupted.

Here, an important issue is the sense of «right level of intimacy» of any relationship, because the times the limits are exceeded it might be created embarrassment and unpleasant interaction.

• **The postures and the movements of the body**. The postures and movements of the body may indicate relationships of subordination or superiority, but also is possible to specify the degree of attraction and the different levels of sympathy. The «image in the mirror» and the «Kinetic Echo» are some interesting body movements when two persons are talking with each other and reach an agreement. But there is also the «brain of truth» when somebody is trying unsuccessfully to hide emotions or facts. The real thoughts and feelings are revealing usually by

the limbs. Another common techniques in body language are the exaggerated postures, and we use them when the message should be transmitted to a large audience.

• **Gestures**. The gestures are movements that can replace the words, they can accompany the speech, they can regulate the flow of conversation, and often they can reveal the emotional state of the individual. Many of them are universally used, but others vary according to the cultural context. In human gesture code we often use the «transfer activities», which help our body to release internal tensions even if are appeared like movements completely unnecessary, repetitive and stereotyped.

• **The definition of the vital personal space**. The definition of the vital personal space is an invisible, but easily decoded «bubble» which every man provides and maintains around his body. When the space is violated, people feel uncomfortable and express strong dissatisfaction and embarrassment. They make corrective movements to help themselves to maintain their personal area. Usually, but not always, the personal space has a circular shape, with more space in front than behind the body. The «bubble» is not constant, but shows «perforation». Its shape fluctuates and that depends on the location of the individual, the people of surrounding place and the type of their relationship.

• **Movement and orientation in space**. The initiation and orientation of the person in the area is possible to deliver many different messages. That can happened with a totally distinctive way, so it is possible many negative feelings and thoughts to be hided and the communication to stay calm and peaceful. The same principles apply to a sitting position.

• **Physical contact**. Physical contact can adopt different forms and serves many purposes. It can be unconscious and in this case any part of the body is possible to participate in the movement, but may be also a touch, so this action is deliberate, conscious and hands are our main tool to express ourselves. The big variety of touch as well as of the intensity and conditions in which can happen, makes its definition an extremely hard task. For this reason the bigger challenge for us is to discover the positive functional traits of this non-verbal channel of communication.

• **The phonetic or "next - to language" communication**. The verbal conversation always includes three "next - to language" basic groups of elements which are connected with speech. The first group includes all the different sounds except for the words, the standard words or expressions that are independent with the meaning in our speech, repetition of words or short phrases and errors in the selection of words. The second category consists of the features of voice such as intensity, frequency, size, emphasis, tone, movements and speed of speech. Finally, the pauses and the silence between verbal communications are the third group of voice features.

The knowledge of the components of these non-verbal channels of communication and their use in Orff Schulwerk teaching procedure, in combination with our music and movement goals, can lead the members of our team in the expression of authentic forms of artistic creativity, which will have as a starting point the personal thinking. Moreover, Orff Schulwerk works with the cognitive, psychokinetic and social-emotional fields of child's personality. Therefore we must ensure an atmosphere of cooperation, mutual acceptance and good communication.

In this workshop we want to identify and highlight these channels. Will focus our attention on our non- verbal interactions by combining them with music and movement. The workshop will end with the composition of a rondo which will contain all the elements above.

More specific, the steps for our workshop will be:

Handshakes

The first non-verbal communication we intend to have with the members of the group will be handshakes. We try to find different ways of greeting and we are going to search for the different intensity and style that is expressed.

Contact in distance

After the first physical contact will continue with activities that are related with eye-contact and communication in distance. We discover the different kind of movement having set a specific point in space or pass through obstacles in our way. It also interesting how we can follow another persons' route and let him to define our own. We will explore ways to attract and avoid a gaze, to find the open and closed positions of our body and to continue or stand opposite to others movements.

Face

We focus our attention on facial expressions and try to combine them with sounds. We are playing with growth of expressions and will learn a song in which the lyrics and the tempo will be thought with non-verbal signals.

Pauses

We try to stop and start as a group during the flow of movement. After we are playing with "two-meaning expressions". The difference is depending on the positions in which we put the pauses in our speech. We enrich the articulation of speech presenting the great variety of characteristics of voice.

Sitting position

In a sitting position our goal is to identify the different messages which are exchanged with the body in the group and we investigate the "truth leaks" that may be revealed in the feet or hands. We use them to find a common group pulse.

Bubble

We discuss the definition of our vital personal space and according to this definition we will try the following activities.

We vary the distances from the edge of the circle to the center. There is standing a person who provides his vital personal space. The same activity happens in smaller groups and this time the opening is accompanied by a drum or a melodic instrument. We add in the same movement wreaths between the groups and finally, the same movement is happening with couples with or without crowns.

"Next - to language" communication

We use elements from the "next - to language" communication. We make short dialogues with

rhythmical patterns. We are trying to search closely to our speech and discover errors in the selection of words that are happening unconsciously.

Rondo

Having in our experience all the elements above, we are going to compose music and movement rondo (ABACA) which will include improvisations based on patterns that we will have work before.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Thought, breath, body while playing the piano

Xenia Theodoridou

Abstract

The workshop will be focusing on the procedures that take place during pianistic interpretation, especially with regard to the human body and breathing, pianistic technique and interpretation being defined as a combination of mental and kinetic activity. Ways for beginners to achieve movement awareness will be suggested, as well as improvement techniques for more advanced players and solutions for dealing with problems resulting from inadequate understanding of purely musical parameters or from bad use of the body in general. The first steps of learning, what could be called the initiation to music and to piano playing, is decisive for a child's attitude towards music and his/her possible development as a musician later on. When confronted even with the simplest musical text, a child is called to combine many activities: aural perception, understanding of the musical writing and kinetic realization of the musical text. All three parameters are of equal importance for a successful interpretation and stand in a dialectic relationship to each other. At the beginning, the child's correct and complete, in purely musical terms, aural perception is a first priority. Also important is the child's understanding of simple yet musically complete phrases, so that from the start an introduction can be made to basic elements of morphological structure, which in turn dictate the musical breathing and its rhythm. Breathing while playing music is analogous to punctuation during vocalization of speech. Reliable methods for controlling both aural perception and understanding of the musical text which will be applied during the workshop include singing, rhythmic recitation, rhythmic walking or other improvisatory movements of the child according to the style and character of the piece. The notion of pitch (distinction between high and low register) and its notation, which especially in regard to the piano is combined with the spacial perception of the distinction between the right and left directions, may create understanding problems to children up to twelve years old (especially if they haven't had any formal training in music, as is occasionally the case with pupils at Music Schools). To counter this difficulty in particular the music game/activity "Mr./ Mrs. C takes a walk" is suggested. For the improvement of the actual contact with the piano with beginners who acquire problems with tension in their hands or body simple exercises will be presented which help one to become conscious of the weight of one's hand and of the natural inhaling/exhaling. For more advanced pupils more specialized movements and their combinations, as dictated by the texture of each work, are required. In this case, the aural/mental/emotional understanding which can be attained through similar means as those used for beginners usually stimulates a better result on the purely kinetic level as well, and this can be furthermore improved by focusing on the function of breathing. The number of participants can be up to 25 persons. These are kindly requested to bring along their pupils, preferably those with performance problems, whether beginners or advanced, to act as active participants for a teaching demonstration. I would also kindly request that suggested pieces to be played during the teaching demonstration are submitted together with the participation application form so that the workshop leader can choose those to be played. It would be preferable to have pieces which contain strong contrasts in texture or tempo. The final number of active participants will be limited to fit the overall time schedule.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

Between chaos and rigidity

Michalis Tobler

Abstract

First of all the function of sound and music in "chaotic" as opposed to "rigid" situations will be examined. Differences and similarities will be looked upon, so will elements that relate to sound and music as well as the musician's endeavour to build an ideal environment. Feelings, expectations and results will be considered. Moreover elements will be sought that can help to diagnose, evaluate and influence the course of a child. The musical rules and techniques vary according to cultural tradition, social and aesthetic parameters and the objects or instruments at hand. This circuit may provide a channel of communication between two or more human beings on several levels (mental, emotional, psychokinetic). Body, voice and instruments are at our disposal. The possibilities are endless. The discussion however will not take music as its starting point. The starting point will be the contrast between chaos and rigidity and what lies in between. An attempt will be made to describe the differences and main features of the two extremes and to find which music, sound or medium can forward the understanding of moods and feelings and thus provide the basis for efficient work. After careful observation between children with different features we notice that there are big distinctions in the inner system of elaboration of music, in the same elements of sound, in the handling of time and space, in the relations that develop and in the feelings that declare.

Keywords
chaos, rigidity, flexibility, proximity, isolation

A first impression of the function of sounds and music in situations dominated by chaos or rigidity.

Differences and similarities, elements that relate to sound and music, as well as the musician's endeavour to build an ideal environment will be examined. Feelings, expectations and results will be discussed. Moreover elements will be sought that can help to diagnose, evaluate and influence the course of a child.

Music is a closed circuit of acoustic stimuli, which is governed by certain rules and techniques and may provide a channel of communication between two or more human beings. The essential condition is that such an event take place in real time.

To this end we can use our body, our voice or a musical instrument. Each one of these covers a large register.

This workshop will start out from chaos and cover the whole range to rigidity. A discussion will follow. We will attempt to define the differences and the dominant elements of the two extremes and to find the kind of music, the sounds and the means that can help us understand the mood of other people, so as to work more efficiently. One might make similar observations in other fields of work, but we will limit ourselves to music.

Finally, many observations and comparisons may lead to false conclusions, as in the case of new music, In this case we do not know which way the music is going to lead.

The following list illustrates the two extremes that we will explore.

Chaos		Rigidity
Open system	-	Closed system
Melody	-	Rhythm
Small fluctuation cycles	-	Large fluctuation cycles
Pluralism (Romanticism)	-	Minimalism
Random motifs	-	Concrete motifs
Unforeseeable end	-	No end
Differences in dynamics	-	Even dynamics
No structure	-	Rigid structure
Non-harmonic sequence	-	Harmonic coherence
Tempo fluctuations	-	Even tempo
High frequencies (that travel)	-	Low frequencies (ambience)
Short time	-	Long time
Superficial connections throughout the	-	Deeper connections, limited scope surface
More expectations	-	Limited expectations
Spread fingers	-	Fingers together
Expression of uncontrolled feelings	-	Fenced feelings (unexpressed)
Fragmented course	-	Continuous course
Irregular movement	-	Movement along the axis
Irregular pauses	-	No pauses
Sharp timbre	-	Coherent timbre
Alien body	-	Own body
Little silence	-	Frequent silence
Irregular patterns	-	Repetitive patterns
New meaning or use of objects	-	Conventional use of objects
Imagination – Creativity – Originality	-	Lack of imagination
Multidimensional space	-	Two-dimensional space
Random order	-	Ordered series
Song (improvisation)	-	Chanting (repetition, routine)
Low density	-	High density
Empty space	-	Full space
Porous sound shell	-	Compact sound shell
Mixed (piano) keys	-	Series of (piano) keys
Dissonance	-	Harmonic intervals
Varied voice	-	Monotonous voice
Formless environment	-	Formed environment
Rhythm of speech	-	Tempo

Description of workshop

The workshop will take place in three stages.

The first stage will include introduction and definition of trends among the participants: Introduction game, musical identity, discussion.

In the second stage, two groups will be formed and each of them will enact the above extremes confronting each other. Division into groups, execution, discussion.

The third stage comprises the efforts to blend the two extremes and the proximity that can arise from this. Blending efforts, musical dialogue, discussion.

Proceedings of the 6th International Conference of the Greek Society for Music Education,
"Music: Trains, Educates, Heals", Athens, 30/10 - 01/11/2009
May Kokkidou & Zoe Dionyssiou (Eds.)

From Rolling Stones to Radiohead - Discovering Rock music through education

Nancy Toumpakari

Abstract

The student's musical preferences constitute an important challenge for the music teacher. Given that students' musical preferences concern most of the time popular music genres, a modern lesson should include therefore such genres as well. In the present article, after an introduction stressing the need for teaching popular music genres, a project method for teaching them is presented, using the Rock as example. The method comprises five phases, during which the following issues tackled in an active way: the origins of the Rock; the musical instruments and their specific role in a Rock band; basic elements of a Rock musical composition; Rock music active listening; different styles of rock music, e.g. Heavy Metal, Punk etc; Rock as a social phenomenon; Rock as culture.

Is the educational treatment of the popular music genres necessary?

The student's musical preferences constitute an important challenge for the music teacher in the classroom. In older times when the students were less informed, the teacher had eventually the opportunity to affect or even to shape these preferences through appropriate educational approaches. However, in nowadays the mass media influences the children in creating specific musical preferences from their very young age. Therefore, the majority of children and young people prefer genres such as local and international Pop, Rock, Hip Hop, etc. (Kokkidou & Tsakiridou, 2006).

Attempting to explain this tendency we could say that (Green, 1988, 2002):

- young people want always to be as much modern as they can, accepting everything new and rejecting everything considered as old or conservative;
- their need to belong in groups;
- the motivation for entertainment which is fulfilled in different ways at any time.

On the other hand, teachers have good reasons to try broadening students' horizons with music genres other than those the students are familiar with, such as Western classical music, traditional music from Greece and the rest of the world, Byzantine music etc, When the teacher insists to treat these genres of the past, s/he often meets resistance from the students.

Consequently, the following question emerges: "Given this situation, what should we teach to the children?" The answer is quite simple: without abandoning music genres to which children are less familiar, we have also to accept with pleasure the music genres of today in our classroom. Someone could object "But children already know very well all this stuff; so, what they would gain?"

The gain is very important indeed. In addition to acquire new knowledge, students should have the opportunity to treat issues that they already know, reflecting on experiences gained by living and acting in the society. In other words, the modern school, in addition to new knowledge, should give the chance to the children to reflect on their experiences. In this way they will also be trained on the crystallization and generalization of experiences to knowledge.

How appropriate is Rock for treatment in the classroom?

Rock music is an excellent example of modern popular music genre for treating it in the classroom, since:

- It is widespread and popular among children and teenagers
- It is a worldwide music genre
- Rock music is part of Rock culture which also contains poetical, painting and dancing expressions; therefore it provides many opportunities to connect it with other arts
- It may become an excellent educational tool since:

  i. it is appropriate for developing educational material and various projects, providing opportunities for close co-operation between teacher and children

  ii. it provides opportunities for the pupils to be creative

  iii. it provides many opportunities for active listening.

Which are the teaching steps that we may follow?

A very good educational way to approach Rock is the project method (Chrisafides, 2000). This method offers many opportunities for collaboration between teacher and students, as well as it gives them the chance to make their own research.

Teaching step I – Theme definition and working groups' formation

Suppose that in a specific class the music teacher and the students decide to work with Rock[2]. The students have to discuss a number of issues in order to start to organize their way of thinking about Rock. These issues lay in two levels:

A. Historical level. To examine holistically an artistic genre, both in its social and constituent dimensions, we have to discuss the following essential issues: Who, Where, How, When, Why. For example, concerning the Rock:

- Who created the Rock?
- Where the Rock was born?
- How was it born?
- When? In which contexts?
- Why? For what reasons?

We have to note that the two last issues may be difficult to be discussed by young students; therefore, the teacher may skip them.

Data for facilitating the discussion may be found in Scaruffi (2003) and Rees & Crampton (1999).

B. Cultural level. The artistic genres in their majority are social phenomena (Katsapis, 2007) and create their own culture[3]. So, it is very important for the children to understand what a culture is, and which are its constituent elements, for example:

- Specific way of clothing

[2] The teaching method is described here for students of 15-17 years old. If a teacher would like to apply it at younger students, s/he should consider their abilities to understand particular elements, and adapt it accordingly.

[3] The term culture is used here to designate "the sum of common attitudes, values, goals and practices adopted by a group of people" (Cole, 1996).

- Characteristic behaviour
- Artistic preferences related to this specific culture (music, dance, literature, poetry, painting, cinema)
- Specific way and philosophy of life.

The discussion on the above issues is organized as follows. At a first stage, the teacher provokes a general discussion. At a second stage, the children are forming small groups with the aim to collect material related to the above issues. This material will become our main teaching material. The teacher has to make clear the kind of teaching material to be collected and indicate eventual sources.

In order for the teacher to support the children making the research in a systematic way, it is appropriate to distinguish two levels:

- research within internet, libraries and personal collections of friends and relatives, and
- field research by groups.

At the first level of research, the students look for material such as video, photos, musical pieces, books and articles. As for the field research, it consists of contacting and interviewing artists (both professional and amateurs)[4], interviewing school neighbours on their thoughts and attitudes for the Rock culture.

A group of children, under the supervision and with the collaboration of the teacher, takes up the material collected by the other groups.

Teaching step II – Presentation and treatment of the teaching material

The collected texts, photos and videos are presented in the classroom, in order to give to the children the opportunity to observe the material and discuss the Rock at both the historical and cultural levels.

Teaching step III – Presentation of music and active listening

The collected music examples are treated through active listening. To better work out this part of the project, the teacher, besides the music examples that the children have collected, may also prepare her/his own musical material. In fact, even if the students do their best, it is difficult for them to collect music pieces covering the whole spectrum of the genre, regarding its different constituent elements, i.e. rhythm, instruments, etc. This task is essential to be carried out by the teacher. The combination of the teacher's and student's music material provides the best result.

Active listening can be performed at least in three levels; through the appropriate music examples we identify:

i. the musical instruments related to Rock band
ii. the specific role of each instrument,
iii. the structure of each music example.

The following questions may facilitate the active listening:

Which kind of instruments play in a Rock band?
The design on the blackboard of a table as the following one, may become very helpful.

[4] In fact, the interviewees are not necessary to be with big stars of Rock; the Rock group of our neighborhood or our city can provide a good material.

The Rock band musical instruments		
Always	**Often**	**Occasionally**
Electric guitar	Synthesizer	Brass winds
Electric bass guitar	Percussions	Saxophone
Drums	Second electric guitar	Wood winds
Voice		Any other instrument that the band would like to add

However, we have to note that any rule has its exceptions. So, especially in the last decade, there are Rock bands without singer or they use acoustic and not electric bass and so on, modifying therefore the classical structure consisting of: Electric guitar, Electric bass guitar, Drums, Voice. It is very important for the children to realize that the rules are not a taboo for the artists, who often violate them following their inspiration.

What plays each instrument?

The instruments have various roles in the band that we may describe as follows:

Instrument	**What plays**
Drums	• the rhythm • breaks • solos (not very often)
Electric bass guitar	• the bass line
Electric guitar	• riff (it is a melodic phrase which is played in loops and usually characterize the piece) • solo (the part of the guitar, usually played in a high virtuosity, dominating the instrumental parts of the piece) • the harmony • melody (not very often) • motives (short characteristic melodies) • noises
Voice	• the melody • the improvisation • cries

The active listening will start with the aim to identify the instruments one by one. Very good examples for this goal are the pieces *Satisfaction* - Rolling Stones (1965) and *Highway to Hell* - AC DC (1979).

To indicate the instruments' entrance, the students may use various activities, even kinetic. Then, we explore the structure of the piece. We may begin with the recognition of the riff, which is an extremely characteristic part of the piece and then we may proceed with the guitar solo, the rhythm etc. To recognize all the elements of a piece, multiple listening are required.

It is suggested to use music examples from all the Rock periods.

Teaching step IV – The different styles of Rock

A clever way to deal with the different styles of Rock is by comparison. Of course this is not so easy, as several Rock styles are close enough. For the purposes of the project, the comparison of two styles with significant differences is sufficient. A good example of two such styles is the Psychedelic Rock of the 1960's *versus* Punk Rock of 1970's. The differences between them are not only at the musical level, but also at clothing, behavior and life philosophy –peace for Psychedelic Rock, aggressiveness for Punk Rock–.

Teaching step IV – The creative part

Approaching to the end of our teaching project, the children are called to cultivate their creativity constructing their own song. It is suggested to start from the lyrics. To facilitate this process, the children may study lyrics of Rock bands who where famous for their lyrics, e.g. Pink Floyd.

One of the problems that the teacher has to overcome the eventual absence of Rock music instruments in the classroom. Some children may use their voice to create the melody based on their Rock experiences. The rhythm will then be constructed guided by the melody. The percussions of the classroom may help the children at this stage. The teacher may then add harmony to the new song with a tonic instrument.

The performance of the song will be an interesting experience, providing a good way for our teaching project to be completed.

Bibliography

Chrisafides, K. (2000). Experience - Communicative Teaching: The introduction of project method in school. Athens: Gutenberg (in Greek).

Cole, M. (1996). *Cultural Psychology*. Cambridge: Belknap Press of Harvard University Press.

Green, L. (1988). *Music on Deaf Ears: Musical meaning, ideology and education*. Manchester: Manchester University Press.

Green, L. (2002). *How Popular Musicians Learn: A way ahead for music education*. London and New York: Ashgate Press.

Katsapis, K. (2007). *Sounds and Overtones - Social History of Rock 'n' Roll Phenomenon in Greece, 1956 - 1967*. Athens: Historical Archive of Greek Youth General Secretariat for Youth (in Greek).

Kokkidou, M. & Tsakiridou, E. (2006). Music and child: Opinions of primary school students about music. *Makednon*, 15, 35-45 (in Greek).

Rees, D. & Crampton, L. (1999). *Rock Stars Encyclopedia*. New York: DK Pub.

Scaruffi, P. (2003). *A History of Rock Music 1951 - 2000*. Bloomington Indiana: iUniverse.

CV of Presenters

Adamopoulou Christiana studied music (BA) at the Ionian University, where she is currently a PhD candidate. She trained as a music therapist (MA) at Anglia Ruskin University of Cambridge (UK) in 2006-2008. She works as a music teacher in special education and as a music therapist at the "Aghia Sophia" Children's Hospital in Athens. She is the co-editor of the book Music therapy and other music approaches for handicapped children and adolescents (Edition Orpheus, 2006) and she translated in Greek the book of A. Oldfield and J. Bean Pied Piper. Musical Activities to Develop Basic Skills (Edition Nissos, 2006).

Aggelidou Sophia is a graduate of the Department of Musical Studies of the Aristotle University of Thessaloniki. In her Bachelor Dissertation she worked on Musical Iconography supervised by Professor Alexandra Goulaki–Voutira. She attended musicology and choir direction in Music Academy Pancho Vladigerov in Sofia, Bulgaria. She is a member of the research team of the archive of Musical Iconography of AUTH. Since 2003 she teaches music in primary education. She has published various articles in pedagogical and musicological journals. She is president of the committee of the union of graduates of the department of music studies of AUTH and a member of the Board of Directors of the Greek Society for Music Education. She speaks English, Italian and Bulgarian. She is PhD candidate in Ionian University under supervision of Pr. Haris Xanthoudakis and studying Greek Culture in the Open University.

Akoyunoglou-Christou Mitsi is a post-graduate student at the School of Music in Ionion University. She is a member of ESKEM. She studied piano at the National Conservatory and Atheneaum Conservatory in Athens. She studied Music Therapy at Michigan State University, USA, and received her Bachelor of Music in Music Therapy with honors. She received a scholarship from the "A.S. ONASSIS" Foundation and got the Master of Music in Music Therapy from MSU. During her graduate studies, she worked as a supervisor and professor's assistant at the Music Therapy Clinic. She is a trained neurologic music therapist and is a member of the Academy of Neurologic Music Therapy. She worked as a music therapist at the Child-Psychiatric Hospital, at the Children's Hospital and at a Special Education School for autistic children in Athens. Now she lives in Chios, and works as a piano teacher and a music therapist privately.

Anastasiou Marianna studied piano and music composition at the National Conservatory of Athens and Musicology at National & Kapodistrian University of Athens. She has also attended seminars on Arts Management and Web design organized by the Hellenic American Union in association with Carnegie Mellon University, Pittsburgh USA. As a musicologist she has collaborated with Athens Concert Hall Publications Department. She has lectured on Electronic Services and Music Collections at Tirana National Library Educational Center and in the context of European educational program Pulman Xt in Veroia. She has taught Music History and Analysis at Iek Akmi. She works as a reference librarian in Music Library of Greece Lilian Voudouri housed in Athens Concert Hall and after attending special computer courses in databases and websites building she is now Web Administrator of the Library's Website.

Androutsos Polyvios (Ph.D.) is a music education specialist and researcher. He has published over 70 articles in Greek and international music education journals, a book and he is also co-author of the music textbooks for 8th and 9th grade general public schools. He has given lectures and held seminars and workshops in Greece and abroad. He has taught music in special schools, primary and secondary schools, as well as music education courses at the Department

of Music Science and Arts at the University of Macedonia, Thessaloniki and at the Faculty of Training Teachers for Nursery Schools at the Technological Education Institute of Thessaloniki. He is a founding member of the Greek Society for Music Education (G.S.M.E.), where he served as president (7 years), as vice-president (3 years), and Honorary President (since June 2007). He is also a member of the Board of Directors (2006-2010) of the International Society for Music Education (ISME) and member of the Scientific Committees of the GSME journal Musical Pedagogics, the International Journal of Music Education: Practice, and the mus-e-journal.

Antonakakis Dimitris studied piano and music and specialized in composition. He has attended many seminars, among them in Orff Institute in Salzburg. Then he studied music therapy at Anglia Ruskin University in Cambridge, U.K: P. Diploma in Music Therapy και Master of Arts in Music Therapy. He is a Ph. D. candidate of Developmental Psychology in University of Crete. He is author of several papers and books and his compositions concerns music for various instruments ensembles and children. He is a special scientist at Pre-Primary Education Department in the University of Crete.

Atalay Aydın is an assistant professor at music education department at Uludag University, Bursa, Turkey. He completed his Masters of Art Degree (1988) in music education at Uludag University and had proficiency of Arts degree (1990) in music education at Marmara University, İstanbul, Turkey. Between the years 1986- 1987, he took part in the research about the "music of Turks immigrating from Balkans to Anatolia". The results of that research have been edited in the local papers. He presented papers at the conferences in Turkey. In 2001 he became asistant professor. Recently he is teaching Turkish Folk Music, Turkish traditional instruments and Turkish Art Music lessons in Music Education Department at Uludag University and conducts the Turkish art music choir of the university. He also conducts the choir of other associations in the province.

Athanasiou Eleftheria is a graduate of the Department of Primary Education University of Western Macedonia. She has attended courses of piano and theory for 10 years in conservatory.

Avgitidou Sofia is an assistant professor of Early Childhood Education at the University of Western Macedonia. She has taught undergraduate and postgraduate courses, except from UoWM, at Aristotle University of Thessaloniki and Hellenic Open University. She has collaborated with primary and secondary schools as an external advisor in the context of their professional development in European and Helenic programmes such as "School-focused in-service training" (director: Prof. P. Xochellis), "Schools implementing Experimental Programmes" (director: Prof. Z. Papanaoum) and Socrates (Director: S. Avgitidou). Among her research interests are initial teacher education and in-service training, action research and educational research.

Bomparidou Chrissie is a graduate of the Department of Philosophy, Paedagogy and Psychology (specialisation in Psychology), University of Ioannina. She holds a Master's Degree in Educational Psychology (M Ed) from the University of Manchester, UK, and she is a PhD student at the University of Patras (Department for Primary Education) in the field of Intercultural Education. Since 2007, she has been working at the Institute for Greek Diaspora Education and Intercultural Studies, Department for School Support and In-Service Training. She has taught at the Department for Primary Education of Patras University in regular classes as well as in various educational programmes with the basic object of her teaching being

intercultural education and teaching of Greek as a second or foreign language. She has participated in more than ten international Greek conferences with announcements and has been a member of the organizing committee in fourteen conferences – seminars in the field of education. Twelve papers of hers have been published in various scientific publications.

Bricco Marco, actor, director, musician and educator, graduate in "Methodology of musical teaching", with a degree thesis entitled The sound experience and child aged 0 to 3. In 1984, he began his professional activity with Stilema/Unoteatro acting company (Turin, Italy); from then on, he works like actor and teacher for children and boys in many schools and different situations, in particular with children and boys from the age of eighteen months to 20 years about, with teachers like theatrical and musical trainer, with parents, with disabled persons and cranial traumatized. Two are the principal goals in his approach: investigate the relationship of children with the sound world and fiction drama and give voice to the thoughts and fantasies of children through sound, music and theatre, so they can tell themselves and their own vision of the world. He published Alphabet drama. Ideas and materials to carry out a drama program with children aged 3 to 10 (Erickson, 2001) and Theatre at the nursery school. Ideas and functional path to use for play with children (Franco Angeli, 2007).

Burgess Susanne Ed.D. Learning and Leadership, Instructional Design; University of Tennessee, Chattanooga, TN. (May 2010). Master of Music – Music Education, Orff-Schulwerk; University of Memphis, Memphis, TN. (June 1988). Tennessee Teaching Certification, Professional License No. 5259895, Issued 08/83; Expires 08/16. Bachelor of Arts - Music Education, Vocal-Choral Music (Theatre minor); California State University, Fullerton, CA., June 1978. Director of Music Education, Southeast Center For Education in the Arts Professional development in music education and arts integration through summer training institutes, on-site consultancies, model instruction and mentorships, research and writing materials for K-16 curriculum (April 2000 – present). University of Tennessee, Chattanooga - UTSU 330 Arts Integration (3 cr/hrs) An integrated approach to arts instruction for pre-service classroom teachers collaboratively designed and taught with colleagues in Drama, Dance and Visual Art (Fall '03 – Spring '07). College School (K-8), Santa Ynez, CA. Orff Music Specialist: Develop and implement new programs, write curriculum and teach (Fall '97 – Spring '00). Secrist Middle School (6-8), Tucson, AZ. Teach general music exploratory; Introduction to drama; Prepare vocal performance groups; Direct school musicals (Fall '81 – Spring '83)

Charissi Vassiliki is a music teacher in a primary school in Athens. She has graduated from the faculty of Music Studies, University of Athens. She is currently attempting a Master course on Theory, Practice and Evaluation of Educational Praxis, focusing on the Educational Design in the faculty of Philosophy - Pedagogy – Psychology, University of Athens. She holds a piano diploma (with honors). She has participated in conferences and seminars in Greece and abroad. Areas of interest include: Curriculum Design and Development, IT and Music Technology in Education and Educational Assessment. She is a member of editorial board of the Journal "Music in the First Grade".

Charkiolakis Alexandros was born in Athens in 1977. He studied music in the Hellenic Conservatoire and he graduated with diplomas in Harmony and Counterpoint. After the completion of his studies in Greece he went to England to study music in the University of Sheffield where he graduated in 2002 with a Bachelor in Music (Hons). Consecutively, he studied for a Master's in Music by research in the same university in the fields of musicology

and conducting. He received conducting lessons in the Royal Northern College of Music (RNCM) in Manchester by Mr Edward Warren, as part of his degree. He graduated in January 2004 gaining the MMus (Research) and his thesis was titled The social and political ideas of Dmitri Kabalevsky and their impact on his work. During his time in Sheffield he was principal conductor of the University of Sheffield Students Symphony Orchestra, principal conductor of the String Orchestra of the Music Players Society and he has conducted all the major ensembles of the University of Sheffield. Also, he served as an assistant conductor in Sheffield Youth Orchestra. During his time in Greece he has conducted the Patras Conservatoire Chamber Orchestra, the Hellenic Group of Contemporary Music and the State Philharmonic Orchestra of Tirgu Mures. As a musicologist, he has published papers and articles in major Greek and foreign musical and musicological periodicals. He has participated in several international conferences presenting his research work.

Chatzikamari Panagiota is teacher in secondary education and theatre pedagogue. She also is working on School Counseling Programs. She taught theatre education in the Faculty of Education in Western Macedonia University, in Centre for Continuing Professional Development of teachers. She is a foundation member of Artistic Pedagogic group *ELATE NA PAIKSOYME*.

Christodoulou Eleni. Was born in Cyprus in 1986. She is studying in the Ionian University on "Music Studies" and is graduating this year. She followed the science of Music with a view to obtaining qualification in Pedagogical Music. She covered senior theoretical lessons and acquired the diploma of harmony, studying also piano and flute in the Greek Conservatory. As well she is self-taught in guitar. She speaks and writes the English language. She took part in many sessions, single-day and other seminars on subjects "Positive thinking", "Human Relations". She also attended piano's seminar with Angeliki Tahiati. She participated in "Chorodrama"organized in the pledge of educational programmes of the Cyprus State Orchestra. She attended the work of the international congress participating in Music Therapy and other musical approach for children and young invalid, organized by the department of Musical Studies of the Ionian University, the 5th conference of G.S.M.E. and the International Congress on Musical Econography in European Art which took place in Corfu. She carried out practical work at the Educational Programme in the "Solomou Museum "Corfian Association studies in Corfu, under the title "SE GNORIZO APO TIN OPSI"-musical travel in the life and the work of DIONISIOS SOLOMOS. She is a member of the G.S.M.E.

Chronopoulou Elena. Born in Patras. University studies: Degree in Electrical Engineering, Technological Institute of Patras. Master in Education Science in Hellenic Open University Other Music studies: Diploma in Piano and Advanced Theory (Harmony, Counterpoint and Fugue).Seminars: CARL ORFF – Dalcroze- Kodály in Philippos Nakas Conservatory for one year, seminars in Moraitis school and international seminar in Poland Polskie Towarzystwo Carla Orffa, "The Meeting". She is a teacher of piano from 2000 up to now. She has been responsible of a Music and Movements education class which also participated in several theater festivals for students, an introducer in a seminar of OMEP "Experiential approach of the basic elements of music" and responsible of a class "Learning to Dance" in summer exhibition "City of children" in Rio. She has also collaborated with nursrery schools and a puppet theater team as a music responsible for their performances.

Chrysostomou Smaragda is currently an Assistant Professor for Music Pedagogy and Didactics in the Faculty for Musical Studies, University of Athens in Greece. She has gained her PhD in 1997 from the University of Reading, UK. She is vice-president in the Ministry of Education Committee responsible for Greek Music Schools. She has taught music in all levels of education (primary, secondary, tertiary) both in Greece and abroad. She has published papers both in Greek and English and has presented her work in numerous international conferences around the world. She has recently (2005) published her first book (in Greek) titled: Music in Education: the dilemma of interdisciplinarity. Areas of interest include: teacher education, music and arts integration, assessment, curriculum.

Dimitriadou Catherine is a Lecturer of Teaching Methodology in the Department of Primary Education, Florina School of Education, University of Western Macedonia, Greece. She has been a teacher of History and Language in High School. Her areas of special teaching and research interests include theories of the school and teaching, the teaching of history and language, models of teaching, educational interventions, intercultural education. She has taken part in national and international seminars and conferences and she has published some books and various articles in these fields.

Dionyssiou Dimitrios studied medicine at the Medical School of Democritus University of Thrace, Alexandroupolis and qualified in 1996. He continued the training in General Surgery and Plastic Surgery in hospitals of Greece and United Kingdom and received the title of Plastic Surgeon. He has received his PhD from the Aristotle University of Thessaloniki. In 2006 he underwent for a fellowship in reconstructive microsurgery at the Queen Victoria Hospital in UK where he worked for almost two years. His interest involves breast reconstruction after mastectomy, limb reconstruction and aesthetic surgery. He has participated in a lot of medical meetings and congresses in which he presented scientific studies. He works privately and is a scientific fellow in the Plastic Surgery Department of the Aristotle University of Thessaloniki.

Dionyssiou Zoe is Lecturer in Music Education at the Music Department, Ionian University. She studied education and music. She holds an MA and PhD in Music Education from the Institute of Education, University of London. Her research interests are related to the teaching of Greek traditional music, the secondary Music Schools, globalisation and its effect on Greek music, historical issues of Greek music education, the teaching and learning of music in school and community, inter-disciplinarity, the music teacher, etc.

Dogani Konstantina is a Lecturer in Music Education at the Department of Preschool Education at the Aristotle University of Thessaloniki. She has worked as a preschool and music teacher with children from primary to secondary school age. She has also taught music education in undergraduate and postgraduate courses as well as in-service courses in Greece and in England. She obtained her PhD from the University of Exeter, School of Education, England and writes in journals in music education. She participated in music educational seminars and has played as a soloist in Greece and abroad. She is composing music for children, theatre plays and puppetry. Her research interests involve exploration of pupil-teacher interaction and reflection in creative music-making in classroom settings.

Dritsas Athanasios studied medicine in the University of Athens, qualified as an MD (1984). Specialized in Cardiology, he worked as registrar in the Dept. of Cardiology at Guy's Hospital London (1987-1990). He worked as Research Fellow in Cardiology (1990-1994) at

Hammersmith Hospital, Royal Postgraduate Medical, London. He has published scientific papers on subjects like cardiac arrhythmia, pacing, and cardiomyopathies. He has studied harmony, counterpoint and composition in Athens with professors K. Kydoniates and G. Ioannides and also took seminars on composition in UK. He has composed works for piano, chamber music, songs on modern Greek poetry, music for movie documentaries and also for full symphony orchestra. In Greece he was the first to introduce music as a clinical therapeutic tool in hospital practice (at the Onassic Cardiac Surgery Center) and he researches on music-medicine studying the hemodynamic and neuroendocrine effects of music in cardiac patients. He has also produced CDs with work related to music therapy applications like THERAPEUTIC SOUNDS OF THE WORLD in which the colaboration with the American anesthesiologist Dr. Fred Schwartz produced womb sounds and music which are utilized in order to introduce relaxation and sleep. He is also the author of a book titled MUSIC AS MEDICINE (Athens, 2003, eds. Info Health, Greek edition) in which all aspects of music therapy and music medicine are presented and discussed with emphasis on clinical applications of music in modern medicine. He is also the editor of the books MUSICAL ACTIVITIES AS THERAPEUTIC TOOL (eds. National Institute of Research, Athens 2003) and ART AS THERAPY (Eds. National Institute of Research, Athens 2004).

Egilmez Özgür is lecturer at music education department at Uludag University, Bursa, Turkey. He completed his Masters of Arts degree in music (1998) at Gazi University Ankara, Turkey. After completing his Bachelor's degree (BA), he taught music in elementary and secondary schools for five years and worked as a violin teacher in Ankara and Bolu Anatolian Fine Arts Highschool. Recently he is teaching violin, Popular Music Studies, Turkish Folk Music and also supervising the teacher trainees in Music Education Department at Uludag University. He performed in various concerts in Turkey and presented papers at the conferences in Turkey and in Hungary. In the frame of Teaching Staff Mobility of LLP/Erasmus Education Project he also taught in Szeged University, Hungary (2007) and played Turkish folk songs with the "Balgama" (Turkish Folk Music instrument) at the concert held in the 12th Cultural Festival.

Elkoshi Rivka (PhD) is a Senior Lecturer in music and music education at the Levinsky College in Tel-Aviv, Israel, where she teaches undergraduate and graduate students. She has been appointed to the executive board of the Israel Musicological Society and to the advisory board of the International Journal of Education and the Art (IJEA). She conducts research in kindergartens on behalf of the Ministry of Education in Israel. Her research deals with musical perception, early literacy, invented notation and Phono-graphic behavior. She has lectured on her research in international conferences in Europe, U.S.A. and Hong Kong and has published dozens of booklets about music education in Israel and articles which have appeared in Israeli, American and British journals.

Etmektsoglou Ioanna studied at the University of Illinois (Urbana, U.S.A.) from where she received bachelor's and master's degrees in Music Education and a Ph.D. in Psychology of Music: Curriculum and Instruction (1992). Later on, she studied music therapy (Master of Arts, 2007) at Anglia Ruskin University in Cambridge, England. Since 1995 she has been a staff member at the Department of Music of the Ionian University, in Greece, teaching courses in music psychology, music education and music therapy. Her current interests in educational psychology -in relation to music- lie in creating and testing developmentally and culturally meaningful curriculum resources. She experiments with educational approaches which are based on discovery and which extend learning outside the school context. The aims of these

approaches are to foster children's creativity, to refine their acoustic perception and to encourage them to appreciate the environment through sound.

Filianou Maria works as a music teacher at a Special Primary Education School for hearing impaired children. She holds Classical Guitar Degree having been taught by Mr. Evaggelos Asimakopoulos. She attended a two – year Postgraduate Course of Music and Movement Education Carl Orff at Moraitis School. She has a Certıficate of attendance from the one – year Education Seminar Orff – Dalcroze – Athens and a Certıficate of attendance from International Summer Courses in Music and Movement Education Carl Orff – Salzburg (1999 – 2003). She has a degree in Faculty of Philosophy, Pedagogy and Psychology of the National and Kapodistrian University of Athens. She attended the two – year specialization course for hearing impaired pupils of the Pedagogical Department of the University of Patras. She had been chairing the Hellenic Association of Music and Movement Education – Carl Orff (1998 – 2002), and she was also a member in the Editing Committee of the magazine "Rythmoi". Moreover, she chaired the Organizing Committee in the 1st International Festival of Music and Movement Education Carl Orff which has held in Athens – 2002. She currently teaches both young learners and adults Music and Movement Education C. Orff .She has been a member of HOSA, GSME and SMTPE.

Freer Patrick K. is associate professor of choral music education at Georgia State University in Atlanta (USA), which has a newly established reciprocal partnership with Aristotle University of Thessaloniki. Dr. Freer holds degrees from Westminster Choir College and Teachers College, Columbia University. Dr. Freer is a frequent guest conductor for honor choirs and has presented at numerous national and international conferences. He is the author of the book "Getting Started with Middle School Chorus" and the DVD series "Success for Adolescent Singers: Unlocking the Potential in Middle School Choirs." Recent articles are published in *Music Education Research, Research Studies in Music Education, Philosophy of Music Education Review, Choral Journal, Music Educators Journal*, and *Journal of Music Teacher Education*. He currently serves on the editorial boards of *International Journal for Music Education* and *Middle Grades Research Journal*.

Froudaki Maria studied piano and music theory. She worked as a music teacher and since 1997 she has been involved in the field of special education. In 2002 she completed her music therapy masters' degree at Nordoff-Robbins Music Therapy Centre of London. She has worked in various public and private settings - in mental health, special education etc – and currently she works privately as a music therapist treating children and adults. She also lectures about music therapy. She is an active member of the non profitable society 'Musicing' which aims to the support of Nordoff-Robbins Music Therapy in Greece. She has participated in many scientific conferences and has organized music therapy seminars in collaboration with music therapists from other European countries. She has a degree in Mathematics from University of Athens.

Fytika Athina was born and raised in Athens, Greece. She received a Piano Diploma from Contemporary Conservatory of Thessaloniki, and a Bachelors degree in Geological Sciences from Aristotle University. She started graduate studies at Florida State University, where she received a Masters and a Doctoral degree in Piano Performance. Her doctoral dissertation is entitled: "Historical Overview of the Philosophy behind Keyboard Fingering Instruction from the 16th Century to the Present." She has extensively performed in Greece, Cyprus, and Germany, as well in various U.S. cities presenting solo, chamber, and lecture recitals. Her recent

research focuses on piano pedagogy and contemporary Greek piano repertoire. Her teaching experience includes music instruction in elementary schools and piano instruction in college settings such as Florina University, Greece, Florida State University, and Gulf Coast Community College. Since 2005 she is a piano and piano pedagogy instructor at Ionian University's Music Department in Corfu, Greece.

Gana Georgia is Musician, music-pedagogue and theatre game animator, member of Artistic Pedagogic Team *ELATE NA PAIKSOUME* and GSME. She has organized and taught many workshops on aesthetic education. She directs "ANEMOSKALA'' art and creation centre, for children, and young people. She taught music-pedagogy and theatrical game in educational programs for students and teachers.

Girdzijauskas Arvydas was born in 1957 in Vilnius, Lithuania. Studied at Lithuanian Conservatory as choir conductor. From 1979 till 1992 worked as Main Conductor in Children's choir of Lithuanian TV and Radio. 1989 - 1991 - President of Lithuanian Choir's Union. Since 1992 - Principal of Klaipeda Vyduno secondary school, which combines secondary education with stressed music and art programs. Herewith Arvydas Gidzijauskas is a conductor of Vyduno school children's choir, music teacher of the mentioned school and lecturer in Klaipeda University. In 2008 defended doctoral dissertation "Development of Moral Culture of Higher Grade Students Through Musical Activity". Arvydas Girdzijauskas is active participant of methodical and scientific conferences in Lithuania and aboard. Have published numerous scientific and methodical articles. Often is invited as conductor in State Song Festivals. Scientific interests: development of personality of students through musical activity.

Girdzijauskiene Ruta Dr of social sciences, associate professor, head of the Department of Music education of Art faculty, Klaipėda University. The music teacher of Klaipeda Vyduno secondary school. Scientific interest: development of children creativity in musical activity, teacher's education, problems of vocal development of children. Publications: scientific monograph "The Development of Creativity of Junior School Pupils in the Musical Activity" (2004); 5 Methodical books; 15 scientific articles, more than 20 methodical articles. Documents of education in Lithuania: "Program and standards of music education", "The methodology of preparing strategy of education". Projects: " Distance learning of music teachers", "Innovations in primary education". Seminars and open music lessons for music teachers from Lithuania and foreign countries. Concerts with primary school children's choir and vocal assemblies.

Humphreys Jere, T. is Professor of Music (Education) at Arizona State University, USA. The author of more than 100 publications, he is a Senior Fulbright Scholar and recipient of the prestigious MENC Senior Researcher Award from MENC: The National Association for Music Education. A versatile researcher and teacher who applies historical, sociological, philosophical, and quantitative-empirical research methods to music education and arts business, he has consulted, lectured, and given keynote and other presentations at numerous conferences, universities, and government institutes in 25 countries on 6 continents. Humphreys is the contributing editor for music education for the upcoming second edition of the New Grove Dictionary of American Music. He has served on a dozen journal editorial committees and as editor of the Journal of Historical Research in Music Education. He has held boards of director memberships and other leadership positions in numerous state, national, and international professional and humanitarian organizations, including service as a Scientific Advisor for the

Greek Society for Music Education. He is also a member of the Scientific Committee of the GSME journal Musical Pedagogics.

Kalatzoglou Christiana was born in 1981 in Thessaloniki. She made studies in harmony, counterpoint and the piano in the Municipal and the Alexandrio Conservatory of Thessaloniki. During the year of 2004 she graduated from the School of Fine Arts, Department of Music of the Aristotle University of Thessaloniki. She continued her studies in the university of Macedonia and she attended the master of the Department of Special Education. She has also attended some special seminars over the topic of music therapy and the contribution of music in special education. She has worked in primary schools since 2005 and has also taken part in musical and worked at special schools and the Hellenic Association of people with Autism.

Kartasidou Lefkothea has a B.A. in Preschool Education, Nursery Educational Department, Aristotle University of Thessaloniki and Ph.D. in Special Education, University of Cologne, Germany. She has degrees in Harmony and Counterpoint, from Conservatorium in Thessaloniki. She has worked as a music teacher in conservatoire and in Music High School in Greece and as a kindergartner in public schools and special schools. She is a Lecturer in Special Education at the Department of Educational and Social Policy at the University of Macedonia (Thessaloniki, Greece)

Kessler-Kakoulidi Lucia Maria Hella is a graduate of the Fachakademie für Musik, Richard-Strauss-Konservatorium and of the Institute of Rhythmic Dalcroze (A. Hoellering) - Munich with specialization in Therapeutic Rhythmic. Vocational activities: Germany (Munich): Teaching of Therapeutic Rhythmic in the Special Primary School, in Montessorian Primary School-High School and in the adult education of the Ministry of Health and Provision. Greece (Athens): Application of Therapeutic Rhythmic to the Institute for Child «Pammakaristos» and to the Unit for Autistic Children of the Greek Centre for Mental Health and Research. She presents often her work as a presenter to conferences and she has published her work, as well as she teaches in seminars in Greece and abroad. She is a member of the Deutsche Musiktherapeutische Gesellschaft (German Music Therapy Society) , an honorary member of the Hellenic Association of Professional Qualified Music Therapists (ΕΣΚΕΜ), a member of the Greek Society for Music Education (GSME / ΕΕΜΕ), of the Association of Special Education in Greece (ΕΕΠΕ) and a founding member of the Greek Association for Asperger Syndrome (ΕλσσΑ).

Katsochi Chara studied musicology in the Department of Music Studies of Aristotle University of Thessaloniki. She, also, completed her violin studies (Diploma, 1999). She is a holder of an MSc in Music Psychology (Keele University, 2001). Her Master thesis deals with children's participation in various musical activities in elementary schools of Greece, under the supervision of Dr. S. O'Neill. Currently she is working on her PhD thesis concerning children's self-beliefs during the process of musical learning and instruction, under the supervision of Dr. Eleni Lapidaki. Since 1999 she teaches violin and music theory in public and music schools in Greece.

Kinighou-Flabura Maria has studied Gymnastics, Rhythmic, Music and Dance. Her main field of study and research is on different kinds of problems in rhythmic education, movement and music of children. Mrs Maria Kinighou-Flabura has played a great advising role as she has participated in the process of preparation of the Act of Organization and Administration in Creative Educational Institutions, as well as in the decree related to the regulation on

Organization and Operation of Dance Academies. She has taught in private as well as public schools, colleges and universities of Greece and other countries. She has been teaching choreography for 26 years; has taught pre-school of music to children at the Philoppos Nakas music school. Her colorful career is marked by a great number of publications. Maria Kinighou-Flabura is an awarded and widely-recognized writer, pedagogue and choreograph, who has published many books and produced a lot of audio material for children and pedagogues.

Kitsiou Chrisa holds a BA degree from the Aristotle University of Thessaloniki, Department of Musicology and Music Education. She also holds diplomas in piano and music theory. Chrisa has published the book "Music Theory, Solfege, Ear Training". She is intensively involved with the subject of ear training and she has published articles on music ability tests and teaching techniques in private piano lessons. She participated as a lecturer in seminars and conferences about Music Theory and Ear Training teaching. She was the pianist and accompanist in many opera productions of "Thessaloniki's Choir". As a pianist she has participated in orchestras, small groups as well as solo recitals of classical music. She has also accompanied choirs, instrumentalists and singers in many concerts, festivals and opera galas in Greece and abroad. She teaches piano and ear training in the Music School of Corfu. She has taught piano, choir and music theory at Conservatories, music schools and in the Private Institute of Occupation of Training (department of sound engineering). In collaboration with the British Council, she plays the piano in major ballet examinations of the London Royal Academy of Dance.

Klimi Amalia was born in 1976 in Athens, Greece. She studied Midwifery in Technological Educational Institute (T.E.I.) of Athens, Greece and practiced as a student midwife in "Savonlinnan Keskusairaala" University Hospital in Savonlinna, Finland. She has got a Master's Degree in "Coping with pain" (School of Medicine, University of Ioannina, Greece). She worked as a free lance midwife (2000-2002). She works as a scientific consultant for a Greek firm producing babies' products since 2000, giving lectures about mothers-to-be and babies' care and well-being, and as a midwife in "Helena Venizelou" General Hospital-Maternity Clinic (Athens, Greece) since 2002. She participated in «Changes during puberty: hygiene και physiology of the female genital system» educational health promotion project, which was especially designed for high-school students living in several parts of Greece [Ministry of Education & Religion collaborating with Midwives' Federation of Athens, Greece (school year 2004-2005)]. She also teaches Clinical Applications in the Department of Midwifery (T.E.I. of Athens, Greece) since 2004.

Kokkidou May (MEd, PhD) is a music education specialist and researcher. She teaches within the field of Music Pedagogy at the Department of Elementary Education, and within the field of Aesthetics at the Department of Visual and Applied Arts, University of Western Macedonia, Greece. She has been posted as music educator and kindergarten teacher in Primary Education. She obtains a M.Ed. Degree on the field of Language- History and Culture from the Department of Elementary Education (Aristotle University of Thessaloniki) and PhD in Comparative Music Education (University of Western Macedonia). She is a member of ISME, OMEP, ASCD and president of GSME (Greek Society for Music Education-EEME), artistic director in the Drama Group "Theatriki Anazitisi" and member of the Artistic-Pedagogical group "Elate na Paiksoume". She carries out applied research on Pedagogy and on Aesthetic Education with emphasis on Music Education. She is author of several articles and books on Aesthetics, on Curriculum Design and Evaluation and on Comparative Music Education.

Koliadi-Tiliakou Anthoula is a graduate of the Department of Philosophy, Paedagogy and Psychology (Faculty of Psychology), as well as of the Department of Primary Education, University of Athens. She also holds a Degree in Piano (National Conservatory) and a Diploma in Fugue (Greek Conservatory). After gaining a full scholarship from the Greek Institute of Scholarships (I.K.Y.), she completed her post-graduate studies in England and holds a Master of Arts in Music Education (University of Reading). She appointed Ph.D. in the Department of Musical Studies at the University of Athens and her Thesis focuses on Music Education and Psychology. Since 2000 she has been working as a piano teacher in the Music School of Rhodes and as a teacher of "Music and Movement" Education in the Greek Conservatory of Rhodes. Additionally, she has worked as a music educator in nursery schools, as a teacher's animator participating in the MELINA program, as a music teacher in Primary Education, as a piano teacher, as well as a Greek Literature Teacher in Secondary Schools. She has presented papers at National Conferences and has published articles in scientific journals. Finally, she has participated in numerous research projects and is a member of the Greek Society for Music Education (GSME), as well as a member of the Society of Teachers of Primary Music Education.

Kolioussi Eirini was born in Igoumenitsa (Epirus, Greece). She took her BA in Musicology/Music Education from the Department of Music Studies at the Aristotle University of Thessaloniki (1998). She also studied higher theoretical studies at the Macedonian Conservatory of Thessaloniki (Harmony 1996, Counterpoint 1998, Fugue 2000).
Koniari Dimitra is a primary school music educator and a PhD candidate at the University of Macedonia at the Department of Educational and Social Policy. She completed a BA degree in Musicology/Music Education at the Department of Music Studies of the Aristotle University of Thessaloniki and a MA in Cognitive Sciences at the Free University of Brussels (ULB). She had additional studies in piano, chamber music, and in the Jaques-Dalcroze Eurythmique methode. Her scientific interests lie in Music Psychology and Music Neuroeducation. She is a member of European Society for the Cognitive Sciences of Music (ESCOM), International Society for Music Education (ISME) and Greek Society for Music Education (GSME).

Korakianiti Katherine works as a part time teacher at a primary school. She has studies Music at the Music Department, Ionian University. Her main field of interest lies in the research of music education.

Kotsira Lilly was born in Thessalonica in 1965. She has a degree in Piano and Harmony from the Greek National Conservatory and completed a course in History of Art at Oslo University. Since 1991, she has been working as a music teacher at Athens College Elementary School and was one of the coordinators in the school's 3-year programme with the Harvard Graduate School of Education. She is a founding member of the Hellenic Union for Musical Education. She has also taken part in many educational programmes such as, the E.E.C educational exchange programme 'Socrates-Comenius', "Meeting my New Borders", the Macedonia University research programme 'Pythagoras II', and more recently the E.E.C programme 'Prelude' on "The Use of Technology in the Music Lesson, at Primary School Level." Furthermore, in 2007-2008, she took part in an educational programme on R.L.Os (Reusable Learning Objects) and made two computer programmes, for young learners, for use in the Primary School. Finally, she has translated, into Greek, the book 'Me and My recorder' written by M.Hobsbawn published in Greece by Nikolaides.

Kountouras Dimitris studied the recorder, the baroque transverse flute as well as early music performance practice at the Utrecht School of the Arts, at the Early Music Institutes of Milan and Trossingen and at the Vienna Conservatoire. He is founding member of the ensemble Ex Silentio and performs often with the Duo Goliardi. He gave concerts in many European countries as well as in Bahrain and in Japan. As a soloist he performed in "Sala Verdi" of Milan, in "Teatro Coccia" of Novara, in "Pablo Casals Hall" of Tokyo and at the "Megaron" of Athens. He has recorded for MDG and ARKYS. He taught at the Aristotle University of Thessaloniki and gave seminars in Austria, Germany, Albania and Switzerland. He currently lives in Vienna and performs with the ensemble Labyrinthe.

Koutsoupidou Theano holds a Ph.D. in Music Education (University of Surrey, UK). Since 2006 she lectures at the University of the Aegean, Department of Sciences of Pre-school Education and Educational Design. She also lectures for the CPD courses of Pre-school and Primary Education (Didaskaleia). She holds a Post-Graduate Certificate of 'Learning and Teaching in Higher Education' (Roehampton University, UK), a First Class Degree of Music Studies (University of Athens, Greece) and a Piano Diploma (National Conservatory). She has presented her work at several European and international conferences, and has published research papers in scientific journals. She has also worked on a number of research projects in the field of education funded by government and European bodies, including the Greek Ministry of Education and Religious Affairs, the British Academy and the European Regional Development Fund. In 2006 she received the 'Young Researcher Award' from the European Society of Cognitive Sciences of Music (ESCOM). Her research interests include children's musical development, teachers' music training, and musical creativity. She is Fellow of the Higher Education Academy of England and Wales and member of ISME, SEMPRE και EuNet MERYC.

Kowal-Summek Ludger, born in Düsseldorf 1956, studied von 1979 - 1983 Musical Education at the conservatory of Cologne, department Wuppertal. Since 1983 he works at the Clara-Schumann music school in Düsseldorf with handicapped and not handicapped children and grownups. From 1985 until 1989 he studied Pedagogy, Disability Studies and Music at the University of Dortmund and did a doctorate in 1991 in Pedagogy. From 2005 to 2008 he did an education to become a music therapist. Since then he also works as a music therapist with children with Down syndrome and Autistics. From 1992 to 1996 he taught at the University of Dortmund. Since 1996 he teaches at the Robert-Schumann conservatory in Düsseldorf musical education and pedagogical psychology. Since 2004 he also teaches musical education for handicapped children and music therapy at the University of Köln. He's a member of different associations for musical education and music therapy and he published many different books and other publications.

Loura Helen is a graduate of the Pedagogy Department of the National and Kapodistrian University of Athens. She has received a diploma for a two-year post- graduate programme of music and movement education in the Orff Schulwerk system from the Moraitis Private School, where she has also completed a one-year seminar on the Orff Schulwerk and Jaques Dalcroze system. In 2004 she attended the "Elementare Musik – und Tanzpadagogik" at the Orff Institut in Salzburg. As an elementary school teacher, she has developed a great deal of environmental and cultural projects and organized educational excursions, as well as music and movement activities. Her experience also includes the organizing of educational programs at museums.

Magaliou Maria was born in Thessaloniki in 1973. She studied Education in the Department of Early Childhood Education (Athens University). She also studied piano and Theory of Classical Music. She attained post-graduate studies at the University of Reading with a scholarship by the State Scholarship Foundation of Greece, and was awarded the degree of M.A in music education in 2000. Then she continued her post-graduate studies at the Department of Music Studies of the Ionian University, with a scholarship by the State Scholarship Foundation of Greece, under the supervision of Professor L. Serghi, and was awarded the degree of PhD in October 2007. Since 1996 she has worked in public Primary Education as a music teacher. She has also taught in further education programs of Maraslio Didaskalio of Primary Education and the Hellenic Pedagogical Institute. She has published articles in scientific periodicals. She is the mother of two children.

Markea Georgia G. is a Doctor in Music Education of the University of London (Institute of Education), where she studied under Professor Keith Swanwick with the aid of a grant from the Greek Government (IKY). At the Institute of Education she has also completed post-doctoral research in Talent in Piano Playing under the guidance of Professor Graham Welch. Since the academic year 2007-2008 she has been seconded as a School Adviser for Music Education in Athens. She is the vice -president of the Union for Primary Music Teachers (Ε.Ε.Μ.Α.Π.Ε.). She is a member of the Hellenic Union for Music Education (E.E.M.E.) and she has been head of its Piano Pedagogy Group from 2002 until 2006. She is a founder member and in charge of the music department of the Artistic and Intellectual Association of Egaleo, and also member of the Athens Institute for Education and Research (AT.IN.E.R.). She is an assessor for the Ministry of Labour with responsibility for the activities for human resources in the sphere of Culture, Sports and the Mass Media. Her oeuvre consists of nine books and dozens of articles in books and journals selected by critical committees.

Maropoulos Thomas was born in Athens in 1963. He studied piano, classical song and Music Theory in the Greek Conservatoire and in the Experimental Conservatoire, acquiring degrees of advanced theoretical courses and completed his general studies, receiving the Diploma of Composition with professor the V. Foster. At the same time, he attended courses of Musical Analysis and Music of the 20th Century for three years, under the supervision of musicologist Giorgos Zervos. He also attended Analysis and Modern Music courses with Theodoros Antoniou and Charis Xanthoudakis, while he studied the Kodály education system in seminars. He taught Musical Theory, Morphology, Analysis and Composition for several years in conservatory education. He is a teacher of music in First Degree public Education. During the years 1996-97 and 1997-98, he taught the course "Musical Reading and Dictation" in the Department of Musical Studies of the University of Athens. He composed music for various ensembles, chorus, orchestra. Some of them have been played in various concerts, while he has taken part in international composition competitions. He has worked as a maestro for over twelve years by founding, teaching and directing choral, orchestral and chorus ensembles. He has composed and presented orchestral and choral school music and has elaborated various cultural programs with his students. He has taught in P.E.K. and other training seminars, while he has participated in congresses as rapporteur with object the Musical Analysis and has published various relative articles.

Mattheopoulou Despina was born in Thessaloniki-Greece. She holds a Master of Arts in Music Education from the University of London, Institute of Education, with scholarship from the Lillian Voudouri foundation. She also holds with honors the degree in Harmony, Counterpoint,

Orchestration and Fuga from the "Macedonian" Conservatory in Thessalloniki. She attended the one year course of Music Education at the "Music College" Conservatory in Thessaloniki. She has taught music to children, following contemporary music education methods in private kindergartens and Conservatories in Ptolemaida, in Kozani and at the "Music College" Conservatory in Thessaloniki. She has taught in the Aristotle University of Thessaloniki, for the "Academic and Professional Improvement of Primary Education" the lesson of Music Education. She has taught music education in the Institute of Education (I.E.K) of St. Dimitrious in Athens, Hellenic Conservatory in Athens. Now she is working in the Conservatory F. Nakas. She is the writer of "My first book, theory of music", "Mousikoponiries 1 & 2" "Miss Maro the fox goes to the Athens Concert Hall" and"Pianoponiries ". All of the books have been published from F. Nakas editions.

Mitrogianni Evangelia is a graduate, with distinction, of the Department of Musical Studies, University of Athens and elaborates at this Department her doctoral thesis entitled: "Interdisciplinary approach in Teaching Music at the Greek Primary School: Theory System and Teaching Practice". She holds a Diploma on piano from the "Attic Conservatory" and advanced theory (Harmony), while she has also studied beak flute and greek traditional percussion. She is currently studying flute at the "Athens' Conservatory". She is a Music teacher in Primary Education and for this school year she works on secondment at the Institute for the Greek Diaspora Education and Intercultural Studies. As a Music teacher she has participated in three Educational Interdisciplinary Programmes at Primary School. As a musicologist she has collaborated with the Athens Hall of Music (for the Research Programme "Music Tradition of East Macedonia"), with the Musical Archive of Simon Karas, and the Research Programme of the University of Athens "The song of Karpathos".

Mitropoulos Vassilis was born and grew in Patras. He began his musical studies in accordion, and he afterwards studied piano, theory and composition. At the same time he studied jazz piano and jazz instrumentation with the method of courses of "Berklee College of Music". He graduates with merit from the Department of Musical Study of University Athens in June 2005 and today is a PhD candidate in the sector of instrumentation and aesthetic of music in the same Department. He has attended various of seminars on the piano interpretation, as well as theory and has participated as pianist in forms jazz and Greek music. Besides he has participated in choral performances and works as bass singer in the National Lyric Scene (operetta, Acropol theatre). He is member of syntactic committee of magazine "Music in First Rung", he has written articles on the music in the Public Education and has taken part in congresses with object the musicology and the pedagogics in music. In November 2007, his book titled "The technique of harmonization of melody", circulated from the publications "fagotto".

Nena Evangelia is resident in Occupational Medicine, and holds a PhD degree from the Medical School of Democritus University of Thrace. She has worked as a lecturer in Social Medicine, and she is a collaborator in the Laboratory of Hygiene and Environmental Protection in the Medical School of Democritus University of Thrace. Among her main scientific interests are: Occupational Health and Safety, Public Health and Social Medicine. She is a co-writer of many publications in international and Greek scientific journals and she has presented her work in a significant number of international and Greek congresses.

Nikolaou Eirini was born in 1975. She graduated as a musician from the Music Department of University of Athens. She received the Postgraduate degree "Philosophy" from the department

Philosophy-Pedagogy-Psychology of Ioannina University and she is a P.h.D candidate of Music Department of Ionian University. Furthermore she is a Diplomatic Piano soloist and composer where she took the first and second award as well. She has been involved with the conducting (chorus and orchestra) and she has done many concerts as a piano soloist and conductor as well. From 2002 she is a main teaching member for the Primary Educational Department of Ioannina University, teaching music and she is also responsible of the chorus conducting of the Department. From 1999 she is a contract teacher in the Technological Institute of Epirus, with subject "music pedagogue". She was a lecturer on high theory, piano and music for pre-school education at the Conservatory of Athens, Ioannina, Agrinio and a.c.t. Her research interests is focused on music pedagogue, philosophy and ancient Greek music as well. She is a member of the club of musicians graduated from the Music Department of Athens and of the Greek Society for Music Education.

Ntziouni Garyfallia E. is a musicologist of Music Department National and Kapodistrian University of Athens, from where she gained a PhD in Musicology with the title "Music therapeutically action through ancient Greek writings". She also went on with her music studies: theory of music (Harmonics and Counterpoint degrees at the Hellenikon Odeon) and piano degree (at the Orphic Odeon). She is a music teacher in primary school and the center of her researching interest is about music therapy, music medicine and music psychology.

Ognenska-Stoyanova Nikolina is a Professor at the South-West University "Neophit Rilsky" in Bulgaria and has a Ph.D in Music Education. She also delivered lectures as a part-time professor at Bourgas Free University in Methodology of Music Education, Music Theory and Solfege. She is a member of ISME since 1998. She participated with papers and workshops in many conferences. The main field of her research work is educating music teachers in elementary through high school and Bulgarian folk music, focusing especially on irregular meters. The theme of her Ph.D.(1984) is "Developing a sense of meter through improvisation in Bulgarian folk dances in the first grade". She is the author of the MELOPEIA method for developing musical skills, which is part of music system in Bulgarian schools. Prof. Nikolina Ognenska is a Vice President of the General Meeting in South-West University "Neofit Rilski"-Blagoevgrad. She is a Head of the Union of Scientists in Bulgaria- brunch Blagoevgrad town and member of the Managing Committee of Union of Scientists in Bulgaria. The author speaks Bulgarian, Russian and English.

Onuray Egilmez Hatice is lecturer at music education department at Uludag University, Bursa, Turkey. She completed her Masters of Arts Degree (1998) and Doctor of Phylosophy degree (2003) in music education at Gazi University Ankara, Turkey. She teaches piano and accompanies in student concerts. She has presented papers at conferences in Turkey, Bulgaria and in Hungary. She works as an Erasmus Coordinator at the Music Education Department at Uludag University. As a coordinator she signed LLP/ Erasmus agreements with music schools in Italy, Hungary and Germany. In the frame of teaching staff mobility of LLP/Erasmus Education Project she also taught in Szeged University, Hungary (2007).

Özeke Sezen is an assistant professor at music education department at Uludag University, Bursa, Turkey. She received her Master of Music degree (1997) and Doctoral of Musical Arts degree (2003) in music education at Arizona State University, USA. She worked as an Editorial Assistant (2000-2002) for the Journal of Historical Research in Music Education, a scholarly refereed journal published twice a year. She has presented papers and workshops at the

conferences in Turkey, Norway, Greece, Bulgaria, Netherlands, Denmark, and in the USA. She is the coordinator of pre-service teachers' student practices in schools and serving as Faculty ECTS Coordinator at Uludag University. She is also a member of Board of Directors of the Bursa Philharmonic Association and serving as regional coordinator of the European Association for Music in Schools (EAS). She currently serves as an academic adviser for the national curriculum development project working towards the development of high school music curriculum (grades 9-12) in Turkey.

Özeke Kocabaş Ezgi is an assistant professor at Department of Educational Sciences, Guidance and Psychological Counseling Program at Ege University, İzmir, Turkey. She received her Master of Science (1998) and Ph.D. degrees (2005) in the area of guidance and psychological counseling at Middle East Technical University, Ankara, Turkey. She has participated in research in the area of special education through her education. She got certificates on intervention programs for traumatized children who are exposed to earthquake. She was also participated the 12-week workshop on music practices with children using Orff Methodology. She spent a year at Amsterdam Free University in the Netherlands as a visiting scholar and participated in and conducted collaborative research activities. Her research interests include use of music in working with children, parent education, psychoeducational programs in counseling, and counselor education.

Papa Olympia is a graduate of Department of Music Studies of Aristoteles University of Thessaloniki (scholarship of IKY) and has a Master Degree from the Department of Educational and Social Policy of University of Macedonia (direction of Special Education). Furthermore, she has diploma of piano (class of V. Victoratou) and degree of Fuga (class of K. Tsougra). She has been teaching in UMCA, in elementary schools, in special schools, in general secondary schools and in the Music School of Serres. She is scientifically interested in the field of music and special education.

Papageorgi Ioulia is a lecturer and researcher in the Department of Arts and Humanities and the Department of Psychology and Human Development at the Institute of Education, University of London. She has a BA in Music from the University of Leeds, an MA in Music Education and a PhD in Music Psychology and Psychology of Education from the Institute of Education, University of London. She also holds Piano and Harmony Diplomas from the National Conservatoire with Distinction. She has presented her work at international conferences and seminars and has published papers in international peer-reviewed journals. She has been a coordinating research officer in a number of research projects. She is a reviewer for the journal 'Psychology of Music' and is a member of OUPS, ISME, SEMPRE, GSME, and is also in the scientific committee of GSME's journal 'Musical Pedagogics'. She is a Fellow of the Higher Education Academy, UK.

Papadopoulou Maria Eleni is a Music Department graduate (Aristotle University of Thessaloniki) and has a Postgraduate Diploma in Music Therapy (University of Surrey, Roehampton). She is also a postgraduate student in Special Education (Department of Educational and Social Policy. University of Macedonia). Furthermore, she has degrees in Piano, Fugue, Orchestration and Byzantine Music (classes of M. Georgiadou, K. Siempis, K. Zarimpas and P. Mavroudis). She has worked as a music therapist and music teacher in primary and secondary education, general and music schools. Her scientific field of interest is music therapy, music education and special education.

Papapanagiotou Xanthoula (M.A., PhD, University of London, Institute of Education) is a music teachers' advisor. She is lecturing on Music Education at the Department of Primary Education, University of Thessaly, Greece.

Papatziki Stefania was born in Thessaloniki, Greece. She studied piano and composition in the State Conservatory of Thessaloniki, taking part in many different concerts, seminars as well as master classes. In 1996-1997, she became a member of the "Studio of Opera", an operatic scheme that was brought up by the organization "Thessaloniki, Cultural Capital of Europe". She attended classes of Lied interpretation and singing accompaniment with Ur. Rademacher as well as classical singing with D. Wirtz and E. Seele in Germany. During the past, she was employed as a piano teacher at the "Serres Music Gymnasium and Lyceum". Since 2003, she has been a permanent civil servant as a teacher, teaching music at a primary school. Stefania holds a Master of Arts in Music Education by the Institute of Education, University of London.

Pavlakou Metaxia is a Ph.D. student in the Department of Music at the University of Sheffield, a pianist and a music educator. She studied piano at the State Conservatoire of Thessaloniki and completed her undergraduate studies in the Department of Music Studies in the Aristotle University of Thessaloniki. She holds a Masters degree in Music Psychology from the University of Sheffield. The focus of her doctoral research is the therapeutic effects of group singing on people suffering from eating disorders.

Perakaki Elissavet has a degree in Musical Studies from the University of Athens, and is a Doctoral Candidate in the field of Music Education at the same University. She has worked in primary and secondary schools and in conservatories. She wrote book reviews for the Music Library of Greece "Lilian Boudouri" (1997-2003). She has actively participated in a number of seminars relating to her work and interests. She has written the book "How to plan a music lesson" (Athens: Fagotto, 2008).

Printza Athanasia. Otolaryngologist. Lecturer, Medical School, Aristotle University of Thessaloniki, Greece. Obtained from the Medical School in the Aristotle University, Thessaloniki, Greece: Medical Degree, 1991, MSc in Medical Research Technology, 2003, PhD, 2004. Master of Science in Speech and Swallowing research Medical School, University of Newcastle, England, 2006. Qualified as Otolaryngologist in 2000. Further training in Medical School, University of Newcastle, England, Otolaryngology-Head and Neck Surgery Department and Phoniatric Department, University of Erlangen – Nürnberg, Germany. Postgraduate studies in educational methodology: "Educating the educators", "Incorporating technology in teaching practice". Research interests: voice and swallowing disorders.

Procter Simon is Director of the Master of Music Therapy training programme run by Nordoff-Robbins Music Therapy UK and validated by City University, London. He is Editor of the *British Journal of Music Therapy* and a member of the Sociology of the Arts Research Group at Exeter University, UK.

Raptis Theocharis was born in Ioannina and studied philosophy, pedagogy and psychology in the University of Ioannina and music in the "Tsakalof" Conservatoire of Epirus. Thereafter he studied music pedagogy, philosophy and musicology in the Ludwig-Maximilians-Universität in Munich. After his Magister (MA) at the Institute of Musical Pedagogy (LMU), he received his

PhD in February 2007. During his studies he was funded by „The Panayotis & Effie Michelis Foundation" in Athens. Among his relevant work experience is his involvement in a music education project for early childhood in Munich (TreFam). Since July 2008 he works in the postdoctoral project "New Aesthetic - Restructurings of Aesthetic". Since 2005 he teaches in the Department of Traditional Music in the Epirus Institute of Technology. His special interests include aesthetics of music, systematic music education, instruction of instrumental music and music education in ancient Greece.

Sarris Dimitris is a music teacher at special school ELEPAP, Agrinio, Greece. While teaching at Culture and Technology Lab (Department of Popular Music, Technological, Educational Institute of Epirus, Greece) and Cultural Lab for Music (Department of Communication, Media and Culture, Panteion University of Athens), he researched about uses of improvised and home-made music instruments in education and arts (educational sound lab). He presented this work by articles, papers, and publications. He is creator of "Metasound Group Project" (www.metasound.gr) which presents educational installations (edulations), "metasound" workshops, and educational concerts (ConcertoPedias), with artists, teachers, and other partners. As a PhD candidate at Panteion University of Athens (C.M.C. Department) he researches about cultural dimensions of sound and music in education. Results of his works are in the internet at users.ait.sch.gr/dsarris and cmc.gr.

Savvidou Dina holds her undergraduate Piano Performance Degree from the University of Illinois and her masters from Florida State University studying with Ian Hobson and Carolyn Bridger. Currently, she is pursuing a DMA in Piano Performance at Arizona State University with Robert Hamilton. Ms. Savvidou has received a Diploma in Piano Performance with high honors and first prize from the Hellenic Conservatory in Athens under the tutelage of Betty Gaetanou. She has taught and performed throughout the United States, Greece, and Italy as a soloist, in chamber ensembles, and duo piano performances. She has taught piano and related courses at the European University Cyprus. Since October 2009 she is teaching piano courses at the University of Nicosia. Her research interests are in contemporary Greek piano composers and teaching techniques for elementary piano students. Ms. Savvidou has been invited for piano pedagogy seminars geared towards teachers and graduate students as well as master classes in various European Universities and Conservatories.

Serghi Lenia is Emeritus Professor of Music Education at the Department of Music, Ionian University. She studied Music at the Greek Conservatory and the Guildhall School of Music and Drama in London, Education at Bretton Hall College, University of Leeds, and Musicology at the Sorbone, Universite de Paris IV. She attended special seminars at the Orff Institute in Salzburg. She holds a Master's of Education from Boston University, USA and a Doctorate in Music Education from the University of Athens. She taught at the Pedagogical Academy of Cyprus, the Pedagogical Institute of Cyprus and the Department of Education at the University of Thessaly. She has published the books "Creative Music Education for our children" (1982/1995), "Drama Expression and Education of Children" (1987/1991), "Issues in Music and Music Education" (1994), "Preschool Music Education" (1995). She has published many articles and studies on education and musicology. She has participated and organized educational and musicological conferences. She has written music mainly for the theatre and for children.

Sidiropoulou Christina. MMUS Piano Performance, LLCM, T.V.U., Detached Instructional Personnel at the Department of Music Science and Art at the University of Macedonia. Born in

Komotini-Greece. She holds a Master's degree in Piano Performance from the London College of Music at Thames Valley University after specialized in solo and chamber music, analysis and 20th century music. Her thesis concerns the Research on the Psychology of Performance. She graduated from the Aristotle University, Department of Philosophy, Pedagogy and Psychology, was awarded Performers' Piano Diplomas from the LLCM, and Sychrono Conservatory and Diplomas in Harmony, Counterpoint and Fugue. She has been an active solo and chamber music performer. She published the "Historical and Interpetative Elements" on Beethoven's Piano Sonatas (MMM edition) and the Georgios Sahinidis' Concerto for contrabass and orchestra, op. 26, Transcription for contrabass and piano, a critical edition with editing and arrangement by Evgenios Politis and Christina Sidiropoulou, Edition Orpheus, Music Creation Series-Greek Composers, ISBN: 979-0-801150-30-1, Athens 2007. Christina taught at the TVU Junior Music School, the Music School of Thessaloniki, in primary education and conservatories. She teaches piano and accompaniment as Detached Instructional Personnel at the Department of Music Science and Art at the University of Macedonia

Simou Evaggelia is a graduate of Department of Music Studies, Aristotle University of Thessaloniki, Greece and has a Master's degree on Music Education, University of London, Institute of Education. She is teaching music at Thessaloniki's Music Secondary School. She is one of the founding members of Greek Society for Music Education.

Slavik Agelika was born in Austria. She has graduated from Orff Institute in Salzburg. She has taught Orff Schulwerk system in Maraslio School of Education and has done extra teaching practice at PEK and seminars all over the Greece. In 1985 she organized for Moraitis Private School the one year course of music and movement education in Orff Schulwerk system as well as J. Dalcroze system and in 1986 in cooperation with Orff Schulwerk Forum of Salzburg, she established the two year course post graduate program of music and movement education in Orff Schulwerk system for which she was responsible until 1990 and where she is steel teaching. Since, 2000, she is responsible for the Early childhood music education in public Conservatory of Amarousio. She has cooperated with Polixeni Matei in Publishing the book "Prrr" (Shott Publishing) and with Nefeli Atesoglou she published "Santa Claus Company" – Christmas music and movement stories for the twelve days of traditional customs.

Stamou Lelouda (Ph.D.), music educator and researcher, is currently an assistant professor of music education at the University of Macedonia, Department of Music Science and Art, in Thessaloniki, Greece. She has also taught (1998-2000) as an assistant professor at the School of Music, University of Nevada, Las Vegas. She received her Ph.D. degree from Michigan State University and has specialized in and taught *Music Learning Theory*, Orff pedagogy, and Suzuki pedagogy. For a number of years, she has served as president and also member of the Board of Directors of the *Greek Society for Music Education (G.S.M.E.),* as well as member of the Editorial Board of the *International Journal of Music Education: Practice.* She is currently serving in the Editorial Board of the *International Journal of Music Education: Research,* as well as in the Editorial Boards of the research journals *Music Pedagogy* and *Approaches* in Greece. She is the scientific supervisor of *the "Early Childhood Music Program for Infants, Babies and Toddlers"* and the *"Dance, Community, and Joy: A dance program for babies, toddlers and their parents"* in Thessaloniki, Greece. She has received numerous awards and has been honoured with scholarships by the State Scholarships Foundation, "A. Onasis", "L. Voudouri", and Fulbright foundations.

Stavrou Yannis is a PhD in the Department of Musical Studies of the Ionian University. He teaches music in Special Schools and "Musical Pedagogy" at the Department of Traditional Music T.E.I. of Epirus. His scientific interest is focused on the history of the course of Music in education, on the songs that have been taught in Greek schools since the foundation of the Greek State, as well as on the books that have been published with regard to the teaching of music in Primary School. He has presented and published relative works. He is writer of books "Musical pedagogics questions" and "The teaching of music in the Municipal Schools and in the Kindergartens of Greece (1830-2007): Evidences of History".

Stefanakou Katia is a graduate of the Department of Primary Education, University of Western Macedonia. She has also studied electric guitar, theory and solfege for two years in the Conservatory of Florina.

Steiropoulos Paschalis is a Pulmonologist, with a PhD degree from the Medical School of Democritus University of Thrace, currently working as a consultant in general hospital "G. Papanikolaou" of Thessaloniki. He was also trained in the Vrije Universiteit Hospital of Brussels, Belgium and he is a collaborator of many European scientific centers. Among his main scientific interests are sleep disturbances, bronchial asthma and chronic obstructive pulmonary disease, interstitial lung diseases and cardiopulmonary exercise testing. He is the author of many studies, published in international scientific journals and he has numerous presentations of his work both in international and in Greek congresses. He has been an invited speaker concerning pulmonary diseases and he has received grants for his scientific projects.

Theodoridis Nikos is a graduate of the Department of Kindergarten Education and the Economy Department of the Aristotle University of Thessaloniki. He is a PhD in music education. He has worked in kindergartens and primary schools as well as in teachers' education programs and has held respective seminars. He has composed a lot of children songs. He has created a music curriculum for preschool and is the author of a book and co-author of two books, as a member of the Artistic-Pedagogic Group "Elate na Paiksoume". He is a founding member of the Greek Society for Music Education where he served as a member of the Board of Directors and of Kroustophono, a Percussion Workshop, where he plans its productions, participates in performances, and teaches classes.

Theodoridou Xenia studied piano at the Thessaloniki New Conservatory, at the Music Academies in Freiburg and Karlsruhe (pedagogy and postgraduate diplomas) and at the Conservatoire Supérieur de Musique de Paris with Michel Beroff, Jean-Philippe Collard, Anne Queffelec, Denis Pascal and the pianist of the Ensemble Intercontemporain, Florent Boffard. She studied musicology at the Aristotle University Thessaloniki. She is currently a Ph.D. candidate in musicology at the Athens University with a scholarship of the State Scholarship Foundation. She has given numerous piano and chamber music recitals in Greece, Germany and Austria and appeared as soloist with the Thessaloniki Municipal Orchestra. Xenia Theodoridou won prizes in national piano competitions and made recordings for the greek TV and the german radio. She taught piano at the Thessaloniki Music School and as a member of the special scientific personnel at the Department for Music Science and Art of the University of Macedonia. She received training in the Alexander Technique.

Tobler Michalis is a musician (music facilitator and performer) who is working several years in special education. At this time he is working with different kind of groups (children and adults)

involving all this means that can develop fillings and expression. At the same time he teaches in the postgraduate program of the department of education at the University of Athens.

Toumpakari Nancy is a music teacher at the Moraites School since 1986. She headed the Music Laboratory for Children of the Piraeus Musical Center – Municipal Conservatory (1994-1999), and was collaborator at the Research Center for Contemporary Music (1989-1994). Actually she is collaborator at the Research Institute for Music and Acoustics (1996 till now) and trainer at the program "MELINA – Education and Civilization" organized by the ministries of Education and of Culture. She has organized and taught at several seminars for musical education for children. She carries out applied research on musical education with emphasis on the intercultural and multimodal approach to the musical education of children, as well as the incorporation of musical education to other topics of the Primary School curriculum. She obtained a scholarship from the Music Friends Union (1995-1997) and was researcher at the project for the development of educational material for Muslim children of Thrace (1998-1999, University of Athens). She co-authored the books with selected songs and music pieces (musical anthology) for the Primary and Secondary Schools (2003-2004, Pedagogical Institute of Greece).

Triantafyllaki Angeliki completed her PhD in Music Education in 2007 (University of Cambridge), supervised by Dr. Pamela Burnard. Since then, she has worked as Principal Investigator with the University of the Arts London and as Researcher at the Faculty of Education, University of Cambridge, on a variety of projects in arts education. She is now conducting postdoctoral research at the Faculty of Music, University of Athens, exploring music students' transitions into the workplace, employability and transferable skills. She is a graduate of the Department of Philosophy, Pedagogy and Psychology, University of Athens, and the School of Piano Performance, National Conservatoire of Athens.

Troulou - Kapoulitsa Thomais Lecturer (education and art) in the Alexandreio Technological Institute Thessaloniki (Department of Early Childhood Care and Education. She teaches a) Didactic and Methodology of Visual Activities in pre-school ages, b) Planning, Growth and Implementation and Application Approaches of Visual Artworks in the Classroom.

Tsakiridou Helen is currently an Assistant Professor of Applied Statistics and Educational Research in the Department of Primary Education of the University of Western Macedonia in Greece. She holds a BSc and a PhD from the Department of Mathematics of the Aristotle University of Thessaloniki in Greece. Her research interests include Educational Research in preschool, primary and higher education and she has published several papers in Greek and international scientific journals on these issues.

Tsakoniatis Nikolaos studied Pysiotherapy and Medicine at the University of Athens. After the essential training in General Surgery, he had been trained in Plastic Reconstructive and Aesthetic Surgery at the University Hospitals of Marseille, Strasbourg and Bordeaux. He also received the University Diploma of Microsurgical techniques. He participated in a lot of scientific studies with main interest head and neck surgery and microsurgery. Dr Tsakoniatis is a plastic surgeon in Athens's private hospitals since 1993. He assists in a lot of educational groups for young surgeons and has published a plethora of studies and scientific papers at the international and national medical journals. Since 2006 he operates at the "Hygeia" General Hospital.

Tsiris Giorgos is a Nordoff- Robbins qualified music therapist. He works as a music therapist at St. Christopher's Hospice and as a research assistant at the Research Department of Nordoff-Robbins Music Therapy Centre (London, UK). He is also a graduate of the Special Education Department, University of Thessaly (Greece) and he has worked as a special educator in primary schools. He is the Editor-in-Chief of the online journal *Approaches: Music Therapy & Special Music Education* (http://approaches.primarymusic.gr), as well as an editor of the Greek journal *Music in First Grade*.

Varvarigou Maria holds a PhD in Music Education (Institute of Education, University of London) as a scholar of the A. Onassis Foundation. She has an MA in Performance Practice (University of York, UK) and a BA in Music (Ionian University, Corfu). Maria has studied classical singing, Byzantine and Greek traditional music, oboe and choral conducting and has been an active performer for many years. In 2006 she participated in *'I'mPULSE'*, a singing project that celebrated the human voice in traditional culture in the contemporary world organized by the Asian-European Foundation. Maria has also recorded Greek traditional songs in the CD productions 'Aegean of the Angels', 'On the West Wind' and 'Languages from the Cradle', a European Union project with lullabies from different countries. She is currently working as a Research Officer at the Institute of Education, University of London, as well as a free-lance external evaluator of music projects and as a music teacher in Greek schools in London.

Vasiliadis Anastasios 1955: Year of Birth. Kavala (Greece). 1978: Diploma of Economics, A.U.Th. 1978: Studies of Composition in Guildhall School of Music and Drama-London. 1984: Diploma in percussion and timpani, Music Academy in Munich (Germany). 1984: First timpanist in the State Orchestra of Thessaloniki. 1987: Established the class of percussion in the State Conservatorium of Thessaloniki till today. 1994: Became member of the Greek Composers Union. 1998: Winner of first price in a composition competition with the work *Sa.te.ka.pe*. 2003: Beginning PhD in Ionian University a research on multimedia. 2006: Lecturer in Department of Music and Art in University of Macedonia. His work enumerates 101 compositions: 11 symphonic, 2 concerts, 2 multi medias,3 theatricals, 6 chorus, 4 for chamber orchestra, 16 songs, 2 octets, 2 sextets, 1 quintet, 4 string quartet, 6 quartets for different instruments, 4 trios, 18 duets and 20 solos. The most are performed.

Ververis Antonis was born in 1982 in Athens and raised in Mytilene, Lesvos. He studied Musicology and Music Education at Aristotle University of Thessaloniki. He holds a Master of Arts in Choral Education from Roehampton University, where he is currently a doctorate student. He has also studied theory of music (Harmony and Counterpoint), singing and piano and is a performer of traditional Greek music playing the santouri (Greek Hammered Dulcimer). As a researcher, he is interested in children's singing and vocal development, sociological analysis of choral groups, and teaching methods of traditional Greek music. He lives in Mytilene where he teaches music in primary schools; conducts various choirs and teaches vocal technique in Municipal Youth Choir of Mytilene. He has also worked in Higher Education level as a faculty member of Technological Educational Institute of Epirus, Department of Folk and Traditional Music where he taught santouri and organology.

Voulgari Eleftheria (1980, Athens) She had her piano diploma in 2002 and composition diploma in 2007. She has participated in music seminars about special education, children with

learning difficulties and dyslexia. She was a chairwoman in May 2008 at the 2nd convention for the children choir singing. In April of 2008 she suspended a poster in a Symposium for Current Trends and Dynamics of School Psychology in Education and Music Pedagogy in Piraeus. She works as a teacher in a conservatory and in a primary school. She is a member of the Greek Association of Primary Music Education Teachers and a fundamental member of the Greek Association of Choir and Orchestral Conductors.

Vraka-Martone Maria is a music educator and a PhD candidate at the School of Arts and Humanities, Institute of Education, University of London. She completed her BA in Musicology at the Department of Musical Studies, School of Philosophy, University of Athens and an MA in Music Education at Middlesex University. She was awarded a full scholarship by the Greek Institute of Scholarships (IKY). She has presented her research in international conferences. Her interests lie in the areas of Psychoacoustics and Musicology. Her main research interest is the study of the influence of cultural environment in the development of aural abilities. Since 2007 she has been working as a research assistant in several research programmes.

Welch Graham holds the Institute of Education, University of London Established Chair of Music Education and is Head of the Institute's Department of Arts and Humanities. He is elected Chair of the internationally based Society for Education, Music and Psychology Research (SEMPRE) and a recent past Commissioner and Co-Chair of the Research Commission of the International Society for Music Education (ISME). He holds Visiting Professorships at the Universities of Sydney (Australia), Limerick (Eire), Helsinki (Finland) and Roehampton (UK) and has recently been appointed as a member of the UK's Arts and Humanities Research Council (AHRC) review college for music. He has acted as a special consultant to (i) the USA National Center for Voice and Speech (NCVS) in Denver, the Swedish Voice Research Centre in Stockholm and UK Government agencies on aspects of children's singing and vocal development; (ii) the British Council in the Ukraine and Ministry for Education and Youth in the United Arab Emirates on education and teacher development; and (iii) the National Research Foundation of South Africa and British Council in Argentina on the development of national research cultures in music. Publications number over two hundred and embrace musical development and music education, teacher education, the psychology of music, singing and voice science and music in special education and disability. Publications are primarily in English, but also in Spanish, Portuguese, Italian, Swedish and Chinese. He is on the Editorial Boards of the world's leading journals in music education, including IJME, JRME, RSME, BJME and MER.

Yeorgouli-Bourzoukou Styliani is a teacher of Piano and of Contemporary Music Ensemble in the Music Gymnasium of Pallini. She holds a doctorate for her research on «Examining the role of Composing and Improvising in Greek Music Education with particular reference to the Musika Gymnasia», from University of Southampton, 2004. She is also an ex-economist, having a first Degree in Economics from University of Athens (1975) and a Masters' in Economic Development from Cardiff University (1977). She has worked as writer for the first Programme of Studies for Music of the Pedagogical Institute (1998) and in the monitoring and evaluation of two handbooks for music currently in use at schools. She has worked for music teachers training since 1986, and she is an Accredited Trainer of Continuing Vocational Training (2006). She has also taught music to primary school children and to groups on the margins of social exclusion, such as juvenile delinquent and mentally retarded children.

Yiamaloglou Tzeni. Music Teacher. She was born in Piraeus. She holds a diploma in piano with N. Semitekolo and diploma in high level theory of graduated a two years' professional course in «Carl Orff's» method of music education for children .Nowadays she is graduating the Music School Department of Philosophy, in the University of Athens. She has been a trainer at RTC (Regional Training Centers) for introductory training teachers at primary and secondary school of Education. She has been participating actively in conferences concerning both Greek and international issues of music education science. In the past she participated in a pilot course in Ralio Experimental School in cooperation with the Board of Education of the University of Athens. She has taught in seminars and training workshops for primary school and has implemented the approved curricula. Since 2007 she has been working with Professor Smaragda Chrysostomou of Music Department in the University of Athens in the Seminar: "Research Methods in Music Education". Since 1999 she has been working as a music teacher in the Primary education.

Zachariadou Maria. Born in Thessaloniki, Maria Zachariadou holds a violin diploma from Synchrono Concervatory of Thessaloniki, a bachelor's degree in violin performance from the Department of Music Science and Art, University of Macedonia, and a master's degree in music education from Northwestern University, Chicago Illinois. During the academic year of 2008-2009 she was accepted as a doctorate degree candidate in music education at the Department of Music Science and Art, in Thessaloniki. She has taught violin and general music in Greece and United States. Since August 2008 she is a permanent music teacher at High School Education. In addition, she has performed with many ensembles in Greece, Europe and United States. Today she is member of the tango quartet "Locos de atar" that performs all over Greece. She is a member of GSME (Greek Society of Music Education). Her research interests deal with early childhood music education, especially violin teaching and music teachers' education.

Zisopoulou Eleni is a kindergarten teacher and dramatic game animator. She has a postgraduate title from T.E.P.A.E. of Aristotle University of Thessaloniki, Greece. She researched the contribution of the pedagogical re-designed space to the appearance and development of cooperative teaching and learning forms. She has organised and taught many workshops and forum on aesthetic education. She applies aesthetic education curricula and dramatic game in groups of children and adults. She participates in research programmes, meetings and conferences for the promotion of inter-scientific dialogue. She is a member of the group that founded the artistic and pedagogic team "ELATE NA PAIKSOUME".

Πρακτικά του 6ου Διεθνούς συνεδρίου της Ελληνικής Ένωσης για τη Μουσική Εκπαίδευση
Μουσική: Παιδεύει, Εκπαιδεύει, Θεραπεύει