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Music education as extra-curricular activity in Portuguese primary schools

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ABSTRACT

Although music has always been part of the Portuguese primary school curriculum, musical practice has been scarce, because classroom teachers have little training, and only few schools have music specialists. In 2006, the Ministry of Education issued a directive for primary schools which offered extra-curricular activities (English, Music and Sports) in addition to curricular areas (Portuguese, Mathematics, Sciences, Music, Sports, Arts). Its implementation, demanding a strong collaboration among all those involved, led to considerable changes in local schools and communities.

In this study, the researchers have investigated the implementation of the programme, and identified its main problems. We visited primary schools and interviewed promoters of 29 municipalities in different regions regarding the following questions: organization of music lessons (frequency, duration, and resources), profile of music teachers (qualifications, age, experience), opinions about positive and negative aspects, and further suggestions.

The results showed different practices and similar problems across schools. The main difficulties were the shortage of qualified music teachers, inflexible timetables, and little collaboration between classroom and music teachers. In municipalities that already offered music in primary schools, the programme generated instability. The most positive aspect was the overall free provision for music in primary schools. Suggestions for improvement included teachers' training and better working conditions, and better overall organization.

INTRODUCTION

Education systems, school curricula, and musical traditions shape the nature of musical learning and development (Hargreaves & North, 2001). The specific historical, political, and cultural contexts of each country also influence aims for music education. Historical views of music education suggest that educational and musical goals have undergone great changes throughout the twentieth century, together with social, political, and technological changes (Pitts, 2000; Choi, 2007). The relative importance of different classroom musical activities (e.g. singing, listening or composing) reflects the social and cultural mood of the times (Pitts, 2000).

In the first decades of the twentieth century, music educators (e.g. Dalcroze, Kodály, Orff, Willems) believed in the value of music for children's development and advocated a music education accessible to all children. They emphasised classroom activities such as movement, singing, improvising and listening. In the second half of the century modern teaching approaches (e.g. Paynter, Murray Schafer), reflecting the experimental character of the 'new' music, motivated children to experiment with new sounds. Philosophies of music education were developed, which emphasized its intrinsic value, based on the uniqueness of musical experiences (Reimer, 1970; Swanwick, 1979). However, whereas this belief was common among secondary music teachers, non-specialists in primary education continued to advocate the benefits of music for mainly learning other school subjects (e.g. language, mathematics). They still firmly believe in the extrinsic, functional value of music education, which is shared by non-musicians, such as children, families, educators, and politicians, who use music for different purposes in their everyday lives.

MUSIC IN PORTUGUESE PRIMARY SCHOOLS

Primary education in Portugal has undergone several changes throughout the twentieth century, according to political, ideological and social changes (the first Republic in 1910, a dictatorship from 1926 onwards, until the democracy in 1974). Despite of changes, and throughout several reforms, music has always been part of the primary school curricula issued by the Ministries of Education, being successively referred to as *Music and choral singing* (1911), *Music* (1921), *Choral singing* (1937), and *Music education* (1960) (Boal-Palheiros, 1993). During the dictatorial regime that lasted for almost five decades, Choral singing was deeply related to patriotism, with a nationalist ideology being transmitted through popular songs and the national anthem (Artiaga, 2001). In the years that followed the 1974 revolution, new curricula and programmes were designed: in primary education, *Music, Movement and Drama* reflected fashionable ideas rooted in the international movement Education through the Arts, and teachers were trained to implement it (Gomes, 1976). During the 1980s major changes occurred both in general and in specialist music education, as well as in higher education, namely: the 1983 reform of music schools and conservatoires; the 1986 Law of the Education System, creating three cycles of basic and compulsory education from years 1 to 9; the 1989 curricula for basic education; and the creation of both first and master degrees in music and music teaching, in universities and polytechnic institutes (Boal-Palheiros, 1993).

Since 1989, in the first cycle (primary school, years 1 to 4) *Musical Expression and Education* was grouped with *Physical Education*, *Drama*, and *Arts* (DR, 1989). Its guidelines (DEB, 1990), based on teaching strategies, lacked a consistent framework (Mota, 2001). The 1986 Law (DR, 1986), recognizing the insufficient musical training of generalist primary school teachers, proposed that specialist music teachers could help and guide them, and indeed this topic has been extensively debated by educators (Mota, 2003). This innovation did not become a common practice in public primary schools. However, music taught by specialists was implemented in projects developed by private schools, local municipalities, or cultural associations throughout the country.

In the 2001 *National Curriculum* (DR, 2001) *Music* is part of *Artistic Education*, together with *Drama* and *Arts* (Ministério da Educação, 2001). The music guidelines, which are for the first time articulated along the three cycles of basic education, define a set of basic musical skills. Being strongly influenced by trends of music education in English speaking countries (as was the 1990 Programme for the second cycle), in particular, New Zealand (Ministry of Education, 1997) the guidelines reflect a broader perspective of children's musical development: they reaffirm listening, performing, and composing as the main musical activities, and stress the learning of diverse musical cultures.

Thus, recent music education policies aim to promote children's musical, cognitive, emotional, and social development. However, despite valuable ideas stated in governments' documents, until the present musical practice has been scarce in most primary schools, not being regularly taught. Classroom teachers have very little instruction and confidence in their coverage of music, and they tend to use music to accompany other subjects and classroom activities (Bresler, 1993; Mills, 1991; Mota, 2001). The lack of teachers' music qualifications has also been a major problem in many other countries (e.g. Temmerman, 2006; Thomas, 1997). This may generate a low status of school music, which may be perceived by children, families, and communities (Gammon, 1996). The recent emphasis upon basic numeracy and literacy skills reminds us of the 'reading, writing, and counting' objective that has prevailed for decades in Portuguese primary education. In the 1960s, children were not assessed in music, arts and physical education, which were regarded as extra-curricular activities (Boal-Palheiros, 1993).

MUSIC IN PORTUGUESE PRIMARY SCHOOLS AS EXTRA-CURRICULAR ACTIVITY

In 2006, the Ministry of Education issued a new directive for public primary schools, offering a 'full-time school' free of charge: this aims at keeping children in schools for longer periods (seven, instead of five daily hours), thereby promoting their educational success and supporting their families (Ministério da Educação, 2006a). The Programme consists of 10 weekly hours of extra-curricular activities – English, Music, Sports, taught by specialist teachers, which children attend on a voluntary basis, after the 25 curricular hours. Guidelines were published for Music (Vasconcelos, 2006) and the other areas. The Ministry of Education finances the programme, being the funding calculated per pupil and per activity. The promoters (municipalities, parents' associations, social institutions or general schools) may apply to these funds. Either the *promoters* or their *partners* (local music or general schools, private entities or others) may be responsible for organizing the activities.

A Commission for Accompanying the Programme (CAP), created and directed by the Ministry of Education, includes representatives of the Education Regional Boards, Municipalities' Association, Parents' Association and teachers' associations of English, Physical Education and Music. The authors, as members of the Portuguese Association for Music Education board, have accompanied the implementation of the Programme, visiting primary schools all over the country and collaborating in a study, the results of which have been reported by the Commission (CAP, 2007).

The rapid implementation of the Programme throughout the country has had a powerful impact in the Portuguese society, as reported by the media. The programme led to considerable changes in local schools and communities, suddenly demanding a strong collaboration among promoting institutions, schools, and generalist and specialist teachers, and a rapid adaptation of children and families. As Pitts argues, educational changes are generally slow, but may become 'aggressively rapid' when government directives 'force the pace' (Pitts, 2000:8). This has been the case, generating some resistance from schools and communities. Furthermore, there was no period for experimenting and evaluating the programme before implementing it. And there was no evaluation of the numerous local sport and music projects that have been developed in the last two decades in primary schools by parents' or cultural associations, private schools, and municipalities.

The aims of the ministerial directive have been widely debated by music educators and non-governmental institutions (e.g. the National Council for Education). Some controversial issues can be identified: 1) the 'full-time school' main aim is to adapt schools' timetables to parents' working schedules. It emphasises the social value of extra-curricular activities, more than their educational value, whereas education should remain school's main purpose; 2) another aim is to promote children's educational success. Assuming that children learn more if they spend more time at school may be especially adequate for economically and socially less favoured families. However, research has also shown the richness of informal musical activities for children's learning; 3) the activities have been named 'enrichment activities', complementing curricular areas that are less practiced. And because they are not compulsory, they are perceived as something between curricular and out of school activities that children usually attend after school.

This ambiguity of the directive has generated some problems. For example, if musical activities intend only to keep children busy, animators are adequate and no music teachers are needed. But being named *Music education* and taught by specialists, they are likely to make *Music* in the curriculum rather meaningless. In fact, another Ministry's new directive for primary education defines minimum weekly hours for each curricular area: Portuguese, 8, Mathematics, 7, Sciences, 5 and Artistic Education and others, 5, thus, about one hour for Music (Ministério da Educação, 2006b). Although Music is still a curricular area, it has often been taught by non-specialists: these are mainly concerned with the 'serious' areas (Boal-Palheiros, 1993). Thus, the emphasis on the 'core' curriculum and simultaneously on Music as extra-curricular activity may lead to either of two situations: its integration in the curriculum, taught by specialists (as was foreseen in the 1986 Law) or, more likely, its gradual disappearance from the primary school curriculum, remaining extra-curricular (as was practiced decades ago).

THE IMPLEMENTATION OF MUSIC AS EXTRA-CURRICULAR ACTIVITY

The observation of music lessons and numerous debates with colleagues generated productive reflections (Boal-Palheiros & Encarnação, 2007) and led to the investigation in this paper. Besides structural problems of the Programme outlined above, we have identified other problems that stem from its implementation: 1) shortage of human resources, i.e. qualified music teachers; 2) lack of physical resources, i.e. music instruments; 3) poor organization, e.g. inflexible timetables. Whereas the second and the third problems could be solved within a short period, teacher training is a long-term enterprise. No music education can be effective without well-prepared teachers, and this becomes therefore the main issue. Thus, our study has investigated the implementation of the Programme, in order to understand its problems.

METHOD

PARTICIPANTS

The promoters of 29 municipalities (10 per cent of its total number in Portugal) from different regions in the continent have volunteered to participate. Because of their political and educational autonomy, the regions of Madeira and Azores are not part of the Music Programme and were therefore not included in the study.

PROCEDURE

A structured interview with closed and open-ended questions was adopted. In order to refine the initial questions, a pilot study was carried out, the data of which were excluded from the analysis. The promoters were interviewed at their municipality. They were pleased to report their problems and their own suggestions, which allowed for a better understanding of specific issues. The interview consisted of following questions: 1) identification of promoter and partner institutions; 2) provision for music; 3) organization of music lessons (frequency and duration; physical, pedagogical and financial resources); 4) profile of music teachers (qualifications, age, and teaching experience); 5) opinions about both positive and negative aspects, and further suggestions.

ANALYSIS

A quantitative analysis of the closed questions was carried out, as well as a categorization of the responses to the open questions. The response categories were revised, and all responses were subsequently coded and assigned to each category. A reliability test was carried out in which an independent judge was asked to assign the responses into the categories. The mean level of agreement between the two ratings was 73.2%, which was considered to be reasonable.

RESULTS AND DISCUSSION

The results showed very different practices and similar problems across municipalities and primary schools throughout the country. The majority of the promoters (90% of the sample) were municipalities. Most partners for music education (53.1%) were local music schools, followed by general schools (18.7%) and others (28.2%). Although the percentage of primary schools offering music is very high (80.2% of its total number),

that of children attending music is much lower (56.8%), because either music was not offered to the whole school or some children chose not to attend to music, as extra-curricular activities are not compulsory. In what the organization is concerned, the weekly frequency of each 45 minutes lesson was mainly twice (60.0%) or three times (33.3%). As expected, physical resources for music were almost nonexistent. None of the primary schools had a music room and most lessons (96.7%) took place in the classroom. However, some schools possessed resources, such as audio equipment (32.5%) and music instruments (17.5%). Some had already acquired instruments (32.5%) and books, CD and DVD (26.2%) with the funding received from the Ministry.

The lack of human resources was indeed the main problem, for a number of reasons: 1) there may be a real shortage of qualified music teachers, a situation that also occurred in music education in the second cycle, about two decades ago (Boal-Palheiros, 1993); 2) the implementation of the programme started shortly after its publication, and the promoters hardly had enough time for selecting the candidates; 3) being the attribution of funding dependent on the provision of all three extra-curricular activities, the promoters desperately tried to find teachers, in order to receive the full amount; 4) the salary of the teachers is generally rather low and most jobs are unstable and temporary (from October until June), which is not attractive to well-qualified teachers; 5) the timetables for extra-curricular activities are inflexible, most of them taking place after the curricular ones (between 15.30 and 17.30). Most teachers get part-time jobs of about 10 weekly hours and therefore many more teachers are needed.

The Ministry of Education recommended that the selection of music teachers should consider their qualifications, but it also allowed teachers with very little musical training (named 'relevant' curriculum). Table 1 shows that one third of the teachers possessed professional qualifications in music education (32.2% of the total number of the sample); some had musical, but no pedagogical qualifications (12.4%), and others had not completed their secondary course (17.6%).

The majority of teachers (37.8%) possessed a 'relevant' curriculum only, which turned out to be rather irrelevant for teaching music. This heterogeneous group included music students and amateur musicians (63.4% of the teachers in this group), non-specialist primary school and kindergarten teachers (24.8%), and others (11.8%): these had teaching degrees in other areas (Visual Arts or English), or they had studied music informally (e.g. singing in choirs or attending to guitar lessons).

Table 1.
Profile of the music teachers

Qualifications			N	(%)
Professional qualification in music education			130	(32.2)
Professional music course (school year 12)			50	(12.4)
Secondary music course (school year 8)			71	(17.6)
Relevant curriculum (few music qualifications)			153	(37.8)
	N	(%)		
Music student, amateur musician	97	(63.4)		
Primary school / Kindergarten teacher	38	(24.8)		
Other qualifications	18	(11.8)		
Total			404	
Age			N	(%)
Under 20 years			18	(5.2)
21-30 years			230	(66.1)
31-40 years			68	(19.6)
41-50 years			28	(8.0)
Above 51 years			4	(1.1)
Subtotal			348	
Previous teaching experience			N	(%)
In the first cycle of basic education			104	(39.4)
In the 2nd and third cycles of basic education			77	(29.2)
In specialist music schools			83	(31.4)
Subtotal			264	

Table 1 also shows that the majority of music teachers are rather young, in their twenties (66.1% out of 348) and in their thirties (19.6%), thus, many getting their first job. Most of their previous professional experience (39.4% out of 264) had taken place as generalists in primary schools, although many of them had also taught as music specialists in music schools (31.4%) and in general schools (29.2%).

In order to minimize the lack of qualified music teachers, some promoters used their financial resources for offering short training courses (15 to 25 hours) to their staff, most of them free of charge. The only case of a 105 hours course was the initiative of a partner music school that had already offered music in primary schools for almost two decades, long before this programme was implemented. The director was very pleased with the positive results of this course in their teachers' practice, which obviously reinforces the need for a consistent, long-term training for music teachers.

CONCLUSION
The last interview questions asked the promoters' opinions about both positive and negative aspects of the implementation of music, and further suggestions. The main difficulty was indeed the shortage of qualified teachers, and the inflexible timetables of extra-curricular activities. They also reported the lack of adequate rooms for music and insufficient financial resources. Other negative aspects were pedagogical ones, such as a low receptivity of classroom teachers to music lessons, which sometimes turned into hostility towards the new music teachers; little articulation between classroom and music teachers, and between curricular and extra-curricular activities; and the optional character of music lessons, which hindered children's musical progress. In some municipalities that already had a tradition of music in primary schools, the new programme has generated some instability.

The positive aspects were more general. The promoters emphasised children's musical and cultural development, and the generalization of free music education to all primary school children. They also considered occupying children and supporting their families as positive aims. Further suggestions for the improvement of the music programme included: stronger coordination between promoters and partner schools, and between classroom and specialist teachers; more resources and flexible schools' timetables; improving the training of music teachers, as well as their working conditions; and developing music in the curriculum.

The future will show if music in primary schools remains a curricular or extra-curricular activity. Despite the problems caused by the structure and the rapid implementation of the directive, the greater autonomy recently attributed to local schools and communities has generated positive effects: the greater responsibility of those involved in the programme favours their adaptation to the new reality and their ability to improve it. Furthermore, the new work opportunities opened by the programme will hopefully increase music teachers' education and develop the quality of musical practice in primary schools.

REFERENCES

Artiaga, M.J. (2001). A disciplina de Canto Coral e o seu reportório de 1918 a 1960. *Música, Psicologia e Educação*, *3*, 45-56.

Boal-Palheiros, G. (1993). *Educação musical no ensino preparatório. Uma avaliação do currículo*. Lisboa: Associação Portuguesa de Educação Musical.

Boal-Palheiros, G. & Encarnação, M. (2007). *Acompanhamento da AEC-Ensino da Música*. Paper presented at the Seminar on Primary School Extra-Curricular Activities, Amadora, April.

Bresler, L. (1993). Music in a double-bind: Instruction by non-specialists in elementary schools. *Bulletin of the Council for Research in Music Education*, *115*, 1-13.

CAP-Comissão de Acompanhamento do Programa (2007). *Actividades de enriquecimento curricular. Relatório intercalar de acompanhamento*. Lisboa: Ministério da Educação.

Choi, M.-Y. (2007). The history of Korean school music education. *International Journal of Music Education*, *25*(2), 137-149.

DEB-Departamento de Educação Básica (1990). *Organização curricular e programas. Ensino básico 1º ciclo*. Lisboa: Ministério da Educação.

DR – Diário da República (1986). Lei nº 86/46, 14 de Outubro. *Lei de Bases do Sistema Educativo*. Assembleia da República.

DR – Diário da República (1989). Decreto-Lei nº 286/89, 29 de Agosto. *Planos curriculares dos ensinos básico e secundário*.

DR – Diário da República (2001). Decreto-Lei nº 6/2001, 18 de Janeiro. *Reorganização curricular do ensino básico*.

Gammon, V. (1996). What is wrong with school music? A response to Malcolm Ross. *British Journal of Music Education*, *13*, 101-122.

Gomes, G.C. (1976). Música, movimento e drama. Um projecto experimental nas escolas primárias em Portugal. *Boletim da Apem*, *13*, 4-13.

Hargreaves, D.J. & North, A.C. (2001). *Musical development and learning: The international perspective*. London: Continuum.

Mills, J. (1991). *Music in the primary school*. Cambridge: Cambridge University Press.

Ministério da Educação (2001). *Currículo Nacional do Ensino Básico. Competências Essenciais*. Lisboa: Departamento de Educação Básica.

Ministério da Educação (2006a). *Despacho nº 12.590 (2ª série)*. Diário da República, II Série, 115, 8783-8787.

Ministério da Educação (2006b). *Despacho nº 19.575 (2ª série)*. Diário da República, II Série, 185, 20013.

Ministry of Education (1997). *The Arts in the New Zealand Curriculum*. Learning Media. Online version http://www.tki.org.nz/r/arts/curriculum/statement/music_saole_e.php

Mota, G. (2001). Portugal. In D.J. Hargreaves & A.C. North (eds.), *Musical development and learning: The international perspective*, 151-162. London: Continuum.

Mota, G. (2003). A formação para a Expressão Musical na educação de infância e no 1º ciclo do ensino básico. Contributo para um olhar crítico. In Bárrios, A.G. and Ribeiro, J.O.S. *Educare, Apprendere*, 23-37. Lisboa: Escola Superior de Educação.

Pitts, S. (2000). *A century of change in music education. Historical perspectives on contemporary practice in British secondary school music*. Aldershot: Ashgate.

Reimer, B. (1970). *A philosophy of music education*. New Jersey: Prentice-Hall.

Swanwick, K. (1979). *A basis for music education*. London: NFER-Nelson.

Temmerman, N. (2006). Equipping future arts educators for primary schools of the 21st century: an Australian point of view. *International Journal of Music Education*, *24*(3), 271-282.

Thomas, R. (1997). The music National Curriculum: Overcoming a compromise. *British Journal of Music Education*, *12*, 185-201.

Vasconcelos, A.A. (2006). *Ensino da música. 1º Ciclo do ensino básico. Orientações programáticas*. Lisboa: Ministério da Educação.

Music education as extra-curricular activity in Portuguese primary schools

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ABSTRACT

This study explores advice published for instrumentalists over the last century, focusing on nine instruments with particular attention to advice on practicing. The study encompasses two parts: 1) developing a database of the most appreciated and accessible materials from master teachers available through university libraries, and 2) conducting a content analysis on suggestions regarding practice. Libraries' catalogues were searched and compared to determine six libraries well-suited to the project. These sites' databases were analyzed to determine the most accessible resources. Then a sample of materials (1854-2005) was analyzed for content regarding practice. Authors for sources found in all six libraries included: Mantel (strings); Boland, Chapman, Debost, Hotteterre, Mahaut, Quantz, Gingras, Spencer (woodwinds); Fantini, Schuller, Kleinhammer (brass). Thirty-five sources (appearing in at least three libraries) were analyzed further. Most resources published before 1950 provided little text overall, with just a few practice suggestions. The latter half of the century saw a great expansion of pedagogical text and authors were more verbose and specific in their practice suggestions. This advice was studied, looking for patterns across time and similarities/differences between the instrument families. Patterns included: use of repetition, rest, when and how to structure or vary practice sessions, health, and reliance on psychological and scientific data for pedagogy. Advice appearing most consistently included: isolating difficult passages, progressing from smaller to larger passages, changing articulation/bowing/rhythm, practicing slowly and accurately and then increasing tempo. Some recent sources referred to psychology/ neuro-motor work. Anomalies in the practice advice may inspire further pedagogical research.

Infant Music Categorization

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ABSTRACT

We completed 3 experiments with 7- and 11-month olds to study the development of music categories during the first year of life. A habituation-novelty preference procedure was used. In agreement with previous research, the results of the study showed that timbre is a very salient musical feature for young infants and that even 7-month olds can discriminate between instruments. Infants can also discriminate melody during the first year of life as shown by their longer looks when presented with a novel melody. The main contribution of our study to the existing literature in infant music perception is related to their ability to perceive invariant properties of the music, namely timbre and melody. We found that infants can recognize the sound of an instrument playing different melodies but cannot recognize a melody played by different instruments. In other words, in these experiments, infants showed timbre categorization, but not melody categorization. The reasons for infants' difficulty in categorizing melody are discussed.

Interpersonal dynamics and teacher objectives in instrumental teaching

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ABSTRACT

This paper investigates the association between teacher objectives and interpersonal relating style in one-to-one violin teaching. A survey was completed by 263 violin teachers which included quantitative measures of the interpersonal dimensions of control and responsiveness as well as qualitative, open questions, eliciting information about teacher objectives. The qualitative results were merged with teacher scores for control and responsiveness. Teacher objectives were found to range from holistic (personal development) to task-specific (musical skills). Responsiveness and control were found to account for some differences in the specific objectives identified by individual teachers. Implications for future research are discussed.

INTRODUCTION

Teaching objectives lie at the heart of the learning environment and are driven by the changes in understanding that teachers want to see in their students (Ramsden, 2003). These objectives are embedded within the context of teacher-pupil interactions, which in one-to-one musical instrument instruction have been found to play a key role in determining the level of musical expertise learners are able to attain (Sloboda & Howe, 1991; Sosniak, 1990; Manturzewska, 1990).

Teaching objectives in instrumental lessons have been the focus of a relatively small body of research. Mills and Smith (2003) found sharp differences in conceptions of effective teaching between teachers of school-aged instrumental pupils and their colleagues in higher education, with the former rating enjoyment, communication and inclusivity more highly than the latter. Professional private music teachers (ages of pupils not specified) were found by Ward (2004) to rate the encouragement of spontaneity and personal choice amongst their pupils as the least important aspects of performance teaching. Disparities have been found between teachers' and school-aged pupils' objectives (Murphy & Brown, 1986). The decisions instrumental teachers take regarding their objectives may be constrained or influenced by a number of factors, including formal curriculum requirements (Lehmann, Sloboda, & Woody, 2007), contact with other teachers (Jorgensen, 1986) and personal life histories (Morgan, 1998). The question of whether teacher objectives are mediated through interpersonal characteristics of teacher-pupil relationships has not been extensively researched.

Different models of teacher-pupil interaction have been proposed, including the *master-apprentice* and the *mentor-friendly* models (Lehmann et al., 2007). The former describes a teacher-pupil relationship where the teacher's role is to control, while the latter is characterized by greater responsiveness between teacher and pupil, with the teacher acting as facilitator rather than superior. A more detailed framework has been proposed by Pratt (1992) which includes five conceptions ranging from strong teacher domination with a focus on transmission of subject-specific knowledge through to a pupil-centred approach with a focus on nurturing pupil autonomy and the development of intellect (Hallam, 1998). The question of whether these diverse teacher-pupil orientations are associated with differences in teaching objectives will be explored in this paper. Specifically, the aim of this paper is to explore whether interpersonal dimensions of one-to-one teacher-pupil relationships in instrumental learning may be associated with particular types of teacher objectives.

METHODS

This research represents a small part of a larger project, where the focus of investigation was the impact of interpersonal dynamics on learning and teaching outcomes, in the context of musical instrument learning.

A survey of teacher attitudes was distributed to British violin teachers via three recognised professional organisations: The British branch of the European String Teachers Association, the Incorporated Society of Musicians, and the British Suzuki Institute. 263 responses represented a return of 31%. Respondents were aged from 20 to 75, their years of teaching experience ranged from one to over 30, and they taught in maintained schools, independent schools, private studios, specialist music schools, music colleges, and university music departments. Their pupils ranged from beginner to post grade 8, and from age 5 to adult, and the teachers taught between 14 and 60 violin pupils each week. Several teaching methods and approaches were represented; 177 (67%) teachers taught by 'no specific method', 49 (19%) taught by the Suzuki method, and the remaining 37 (14%) taught by a range of other specific methods that included those devised by Paul Rolland, Sheila Nelson, Eta Cohen and Colourstrings.

The surveys of teachers, developed for this research, included scales measuring the interpersonal mechanisms of *control* and *responsiveness* as they were manifest within teacher-pupil dyads (Creech & Hallam, in press).

These scales comprised groups of statements that participants responded to on a five-point Likert scale ranging from strongly disagree to strongly agree. The measures were based on Wubbels' Questionnaire on Teacher Interaction (QTI), developed from Leary (1957) who maintained that all interpersonal behaviour could be represented around the two axes of responsiveness and control. The original QTI was developed and tested for reliability by Dutch and Australian researchers (Brekelmans, 1989; Creton & Wubbels, 1984; Fisher, Fraser, & Wubbels, 1992; Wubbels, Creton, Brekelmans, & Hooymayers, 1987). Alpha coefficients on each scale (segment of the model) were consistently greater than .70, demonstrating internal consistency. Quantitative analyses were carried out using SPSS (Field, 2000).

Survey respondents were given the opportunity to make additional comments relating to their teaching objectives. Qualitative text was analysed using the approach known as empirical phenomenology (Cooper & Macintyre, 1993), with themes translated into coding categories drawn directly from the text itself. The coding scheme was tested and revised until all text had been examined and points of difference and similarity amongst texts had been identified. NVivo software facilitated the coding process and organisation of the qualitative data (Bazeley, 2007).

RESULTS

CONTROL AND RESPONSIVENESS WITHIN TEACHER-PUPIL DYADS
The overall mean score for teacher control (maximum score = 60) in this sample was 39.5 (standard deviation = 5.26), while the overall mean for responsiveness (maximum score = 60) was 49.5 (standard deviation = 4.17).

CONTROL
Each variable on the control scale bore a significant correlation with the overall scale (Table 1). Teachers generally agreed that they had high expectations of their pupils, gave critical appraisals of their pupils' performances, explained their explanations clearly, believed that pupils would achieve their potential, and parents would value the lessons if the teacher's advice was followed. There was more ambivalence over statements relating to tolerance and patience with pupils and parents, and the responses indicated that many teachers were sometimes uncertain about how to proceed with a pupil ($M = 3.46$).

RESPONSIVENESS
Significant correlations were found between each variable on the responsiveness scale and the overall scale (Table 1). Survey responses indicated that the majority of teacher respondents wºe views of parents, there was less agreement relating to whether teachers considered themselves to be tolerant when parents disagreed with them.

Table 1: Correlations between individual control and responsiveness variables and the overall scales for control and responsiveneTeacher objectives

Qualitative open questions relating to teacher objectives were coded into categories drawn directly from the

Overall control scale: Pearson Correlation		Mean	SD
I always offer critical appraisals of my pupil's performance, during violin lessons.	.431**	4.07	.866
I have high expectations of my pupils.	.467**	4.19	.866
I am sometimes uncertain as to the best way to proceed with a pupil.*	-.455*	3.46	1.022
I am not tolerant when my pupils make musical mistakes in pieces they know.	.409**	2.14	.977
I have little patience with pupils who do not meet my expectations on the violin.	.382**	1.87	.818
I believe my pupils will achieve their potential on the violin, if they do what I say.	.547**	3.62	.983
I find it difficult to be patient with parents who do not make a serious commitment to their child's violin study.	.544**	3.38	1.047
I find it difficult to be patient with parents who do not follow my advice on matters related to their child's violin study.	.538**	3.41	.975
I explain my expectations clearly to parents.	.428**	3.99	.791
I expect parents to give high priority in their lives to their children's violin study.	.522**	3.30	.953
I am sometimes uncertain as to the best way to communicate with parents.*	-.315**	2.76	1.057
I believe parents will value their children's violin lessons, if they follow my advice on matters related to their children's violin study.	.437**	3.84	.772
Overall responsiveness scale: Pearson Correlation		Mean	SD
I am happy to communicate with pupils outside of scheduled lesson time.	.452**	4.28	.680
I am prepared to compromise, when pupils have different goals from my own.	.510**	4.07	.791
I reward my pupils' musical achievements with praise.	.436**	4.78	.431
I am interested in knowing what my pupils hope to achieve, through violin study.	.534**	4.48	.687
I know when pupils do not understand my directions.	.420**	4.13	.649
I don't like explaining musical concepts again, to the same pupil.*	-.459**	1.83	.958
I am patient with pupils, when they find it difficult to master something on the violin.	.594**	4.49	.659
I welcome the views of pupils, on matters relating to violin study.	.605**	4.55	.603
I am interested in knowing why parents want their child to learn the violin.	.415**	4.00	.739
I am tolerant when parents disagree with me over matters relating to violin study.	.450**	3.06	.924
I never know if parents understand my directions.*	-.412**	2.41	.815
I welcome the views of parents on matters relating to violin study.	.511**	3.89	.759

*Scores for these variables were reversed when calculating the overall control scale;
** p < .001

TEACHER OBJECTIVES

Qualitative open questions relating to teacher objectives were coded into categories drawn directly from the text itself. These detailed categories of teacher objectives were then subsumed into broader areas, ranging from task-specific (musical skills) to holistic (personal development) objectives.

Table 2 reveals that the most frequently stated objectives (41% of teacher respondents) related to instilling in pupils an enjoyment of music, a life-long interest, enthusiasm and love for the instrument. Furthermore, 24% of teachers stated that their objectives were related to the personal development of their pupils, including achieving personal potential, providing a stress-free activity, providing encouragement, self expression and self fulfilment. Whilst 30% of teachers stated that their objective was to establish musical skills in their pupils, only 9% claimed to aspire to high musical standards. Social skills and cross-curricular transferable skills, including the development of concentration, memory, discipline, confidence, and independent learning were reported as objectives by 14% and 13% of teachers, respectively.

Table 2: Teacher objectives ranging from task specific to holistic

Objectives: % and (number) of teachers	Responses: example quotes
Musical Skill 30% (80) • Technique • Listening • Improvisation • Musicianship	*That they have a very firm integrated learning of the basics of technique so they can be free as musicians.* *That they understand the feeling and listening of playing beautifully.* *To encourage rounded musicianship, i.e. how to play with others, solid rhythm and tuning, good violin tone, aural training, improvisation.*
Performance 9% (23) • Achieving high standards • Pupil performance	*I hope very much to instil a love of music in my pupils and at the same time give them a technique which will enable them to develop their playing to the highest possible levels.* *Ability to perform, overcoming nerves; not stopping for an error; feeling of importance, 'the show must go on'.*
Social Skills 13% (33) Ensemble participation	*To discover the joys of playing in groups.*
Transferable Skills 14% (36) • Memory • Concentration • Discipline • Confidence • Independent learning	*To develop memory skills.* *I also think that learning an instrument helps a child develop concentration and reading skills which will benefit a wide range of learning skills* *To instil disciplined, effective practice methods.* *To help children towards self-confidence and fulfilment.* *To help children to learn how to learn, and be independent.*
Enjoyment 41% (109) • Life-long interest • Enthusiasm • Love of music • Love of the violin	*To nurture a life long enjoyment of music making/listening.* *To get children started on a life long love affair with music in general, violin/viola in particular*
Personal Development 24% (62) • Achieve personal potential • Stress free activity • Encouragement • Self expression • Self fulfilment	*To enable each pupil to achieve their maximum potential, however basic it may be.* *To give a place to escape to, when under school exam (or whatever) stresses.* *To encourage those who struggle: this can be one of the most rewarding aspects when a pupil who finds the violin difficult overcomes a problem.* *It is an instrument by which they can express themselves and be creative.* *To help the child to become a fine human being through the skills gained by learning the violin.*

THE INFLUENCE OF CONTROL AND RESPONSIVENESS ON TEACHER OBJECTIVES

Teachers were grouped according to scores for teacher responsiveness and teacher control: 1) high responsiveness-high control, $n = 78$; 2) high responsiveness-low control, $n = 63$; 3) low responsiveness-high control, $n = 59$; 4) low responsiveness-low control, $n = 63$. Scores for control/responsiveness type were imported from SPSS into NVivo. A comparison of qualitative text (teacher objectives) according to quantitative scores (control and responsiveness) was thus possible.

The Chi-Square test, testing for relationships between teacher type and teacher objectives, revealed a significant difference between groups with respect to the objectives of personal development ($X^2_{(3)} = 18.959$, p < .01), performance ($X^2_{(3)} = 7.923$, p < .05), and musical skills ($X^2_{(3)} = 22.772$, p < .01).

Of those who identified personal development as a teaching objective ($n = 58$) just 17% (10) were low responsive-high control teachers and a further 22% (13) low responsive-low control, while 35% (20) were high responsive-high control and 26% (15) were high responsive-low control. This suggests that it was variation in teacher responsiveness that accounted for the difference in these responses, with highly responsive teachers more likely to subscribe to personal development as a teaching objective.

Regarding those who identified the objective of performance ($n = 25$), 40% (10) of teachers were low responsive-high control teachers while a further 28% (7) were high responsive-high control. Just 20% (5) of those who stated performance as their objective were high responsive-low control and 12% (14%) were low responsive-low control. This suggests that it was variability in control that accounted for differences in numbers of responses, with high control teachers more likely to state performance as a teaching objective.

Finally, of those teachers who identified musical skills as a teaching objective ($n = 83$), equal numbers ($n = 26$, 31%) were low-responsive-high control and high responsive-high control, suggesting that variability in responsiveness was not associated with whether or not teachers identified musical skills as an objective. These figures demonstrated that a total of 62% (52) of teachers who identified musical skills as their objective were high control. In contrast, just 14% (12) were low responsive-low control together with a further 23% (19) who were high responsive-low control, suggesting that it was variability on the control dimension that accounted for most of the differences in numbers of responses relating to musical skills.

DISCUSSION

The interpersonal dimensions of control and responsiveness, as measured in the 'Survey of Teacher Attitudes', were found to be associated with the objectives that instrumental teachers pursue. Teachers who scored above the mean for responsiveness were most likely to articulate holistic objectives, while teachers who scored above the mean for control were more likely to state task specific objectives. Specifically, the Chi-Square test revealed that variation on responsiveness scores was associated with whether or not teachers identified holistic objectives relating to personal development, while variation on control scores was associated with whether or not objectives were related to the task-specific area of musical skills. There was thus some evidence that the dimensions of control and responsiveness may have influenced whether or not teachers were inclined towards objectives at the task specific or holistic ends of the spectrum of objectives.

These findings support Pratt's conceptions of teaching (1992) whereby at one end of the spectrum lies a model of teacher control, transmission of task-specific knowledge and passive learning. This particular conception of teaching resembles the master-apprentice model that has been found to dominate musical instrument teaching environments (Hallam, 1998). Pratt's contrasting conception of teaching is characterized by the promotion of pupil autonomy and nurturing of a range of learning strategies amongst pupils. This is close to the mentor-friendly model (Lehmann et al., 2007), where holistic objectives have a higher profile and teachers have the scope to be responsive to the individual needs of students.

CONCLUSION

The evidence presented in this paper suggests that teacher objectives are firmly embedded within the interpersonal dynamics of teacher-pupil dyads. However, data relating to teacher objectives were drawn from open questions, and thus some teacher respondents may not have articulated their objectives. This study points to future research that specifically and systematically examines the teacher objectives defined by participants in this study in relation to interpersonal dimensions. Furthermore, the spectrum of teacher objectives found amongst respondents may represent a source of much conflict between teachers and pupils. Whilst shared objectives may have the power to engender collective efficacy and consequently positive outcomes, where the teacher follows objectives that occupy the opposite end of the spectrum to those held by pupils the potential for conflict is surely great. As Murphy and Brown (1986) suggest, truly effective teaching takes account of teacher *and* student objectives. This study suggests that there is scope for future research that investigates the interpersonal processes that may underpin learning environments characterized by shared objectives.

REFERENCES

Bazeley, P. (2007). *Qualitative data analysis with Nvivo*. London: Sage.

Brekelmans, M. (1989). *Interpersoonlijk gedrag von docenten in de klas (Interpersonal teacher behaviour in the classroom)*. Utrecht, the Netherlands: WCC.

Cooper, P., & Macintyre, D. (1993). Commonality in teachers' and pupils' perceptions of effective classroom learning. *British Journal of Educational Psychology, 63*(3), 381–399.

Creech, A., & Hallam, S. (in press). The influence of interpersonal dynamics on outcomes for violin teachers. *Psychology of Music*.

Creton, H., & Wubbels, T. (1984). *Discipline problems with beginning teachers*. Utrecht, the Netherlands: WCC.

Field, A. (2000). *Discovering statistics using SPSS for windows*. London: Sage.

Fisher, D. L., Fraser, B. J., & Wubbels, T. (1992). *Teacher communication style and school environment* (Conference paper). Enshede, the Netherlands: ECER Conference.

Hallam, S. (1998). *Instrumental teaching*. Oxford: Heinemann.

Jorgensen, E. R. (1986). Aspects of piano teacher decision making in London, England. *Psychology of Music, 14*(2), 111–129.

Leary, T. (1957). *Interpersonal diagnosis of personality: A functional theory and methodology for personality evaluation*. New York: Ronald Press.

Lehmann, A. C., Sloboda, J. A., & Woody, R. H. (2007). *Psychology for musicians: Understanding and acquiring the skills*. New York: Oxford University Press.

Manturzewska, M. (1990). A biographical study of the life-span development of professional musicians. *Psychology of Music, 18*(2), 112-139.

Mills, J., & Smith, J. (2003). Teachers' beliefs about effective instrumental teaching in schools and higher education. *British Journal of Music Education, 20*(1), 5–27.

Morgan, C. (1998). *Instrumental music teaching and learning: A life history approach*. Unpublished doctoral dissertation, University of Exeter, UK.

Murphy, M., & Brown, T. (1986). A comparison of preferences for instructional objectives between teachers and students. *Journal of Research in Music Education, 34*(2), 134–139.

Pratt, D. (1992). Conceptions of teaching. *Adult Education Quarterly, 42*, 203–220.

Ramsden, P. (2003). *Learning to teach in higher education*. Oxon, UK: Routledge Falmer.

Sloboda, J., & Howe, M. (1991). Biographical precursors of musical excellence: An interview study. *Psychology of Music, 19*(1), 3-21.

Sosniak, L. A. (1990). The tortoise, the hare, and the development of talent. In M. Howe (Ed.), *Encouraging the development of exceptional skills and talents* (pp. 149-164). Leicester: The British Psychological Society.

Ward, V. (2004). Good performance, music analysis and instrumental teaching: Towards an understanding of the aims and objectives of instrumental teachers. *Music Education Research, 6*(2), 191–215.

Wubbels, T., Creton, H., Brekelmans, M., & Hooymayers, H. (1987). The perception of the teacher-student relationship. *Tijdschrift voor Onderwijsresearch, 12*, 3–16.

Music teacher's innovative activity in contemporary conditions: Latvia's music teachers' view

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ABSTRACT

The research emphasizes the importance of identifying what music teachers think about innovations in education, as well their view about music teacher's innovative activity.

The eight music teachers (four teachers with a student/learning-centred orientation towards teaching and four teachers with content-centred orientation towards teaching), who worked at different Latvian schools, were interviewed in April and May 2007. Ettlie and O'Keefe's scale of attitude to innovations was employed as the basis during the interview (Ettlie & O'Keefe, 1982).

The research revealed the criteria for determining music teacher's motivation towards innovative work, the most important factors hampering music teacher's motivation for innovative activity and pedagogical regularities for stimulating innovations.

KEYWORDS
Innovation, music teacher's innovative activity, music teacher's motivation for innovative activity.

INTRODUCTION
The problem of improving and furthering the professional development of music teachers becomes the object of interdisciplinary research, which greatly enriches traditional approaches.

Wexler points to two problematic aspects of the ongoing educational reforms for teachers:
- the changing definition of professional performance, which can come into conflict with daily practices and the professional orientation of teachers;
- innovative activity that is the element in the structure of teacher's pedagogical activity (*Wexler, 2002*).

Introducing different innovations in the development of actual music education entails reconsideration of the whole row of principal positions: for example, what and how the specialists should be taught. Intensively developing innovative educational systems has high demands. The music teachers' creative individuality and creativity must be considered.

The range of concepts included in the term "innovations" is wide. Since the research object "innovations" itself is still in progress, and, the terminology used for "innovations" in Latvian is still quite new; international words and simplified terms are used. For instance, notions like "innovations and National innovation system", "a new paradigm of pedagogy", "knowledge-based innovations", "innovations in education", "innovation management" etc. are widely used in strategic development plans of Latvia.

This research emphasizes the importance of identifying what music teachers think about innovations in education, as well their view about music teacher's innovative activity.

What actually are innovations? How do they "work"? Why do we more and more often encounter innovation concepts in pedagogical theories? How can we explain novelties existing in pedagogical processes and evaluate their influence and necessity? These and similar questions exist. Often they are not fully answered and understood, therefore the authors of the paper have made an attempt to explore this problem in more detail.

Research aim: to investigate theoretical foundations of innovative activity and the opinions of Latvia's music teachers about innovations in schools of Latvia.

THEORETICAL BACKGROUND
The innovative system of solving the problem presupposes forming the necessity of the music teacher to be not so much the transmitter of the culture, as the subject of its development in the process of pedagogical activity. For instance, the process of the music teacher's creating of the conditions for the development of the personality of the child. Thus, a high professional level of the 21st century music teacher implies not only the deep knowledge of the music subject, but also a respect and love with regard to the child, and an ability to bring up the creative potential of the student (*Davidova, 1998*).

The transformation of the teacher's personality itself takes place on the basis of reflection, creative approach, and self-education. On the one hand, the pedagogical activity is "meta-activity" (i.e., the activity in order to organize another activity, and namely, the students' learning activity); on the other hand, in the process of pedagogical activity. The creative nature of musical art intensifies to a considerable degree the creative direction of the music teacher's pedagogical activity, which includes musical improvisation, instrumentation, arrangement, composing original musical works, as well as creating different kind of practices for the purpose of the students' effective mastery of music skills for the formation and development of the music auditory notions, music perception, imagination, creative thinking, etc. (*Davidova & Znutinsh, 2001*).

In connection with social conditions, singularity of cultural and pedagogical environment, the uniqueness of students and teachers, and also in connection with the variety of educational tasks the innovative element in pedagogical activity becomes inevitable. Today the development of music pedagogy could be imagined as the music teacher who participates in the innovative process.

The word "innovation" has originated from Latin "*innovatio*" which means: something newly introduced. The attempts to interpret and define the concept *"innovation"* have been many and diverse (*Urban & Hauser, 1980; Everett, 1983; Guile & Quinn, 1988; Schumann, 1994; Main Definitions…, 1994; Partnership and Co-ordination East-West…, 1997 etc.*).

The notion of innovations comprises three meanings: innovations as instrument, innovations as process or action, innovations as end result (new offers, new technologies, or changes in social life). Innovative activity is the application of scientific and technical achievements, knowledge and information in accordance with the changes in the society and for improvement and promoting economic, social, legal, cultural, educational and other processes vital for the society as well. According to this formulation, innovative activity should include knowledge about scientific, technological and management processes and about other disciplines pertaining to social and humanitarian sciences.

Evolutionary Model, Innovative Milieux Model and Propulsion Model of Creative Contributions are the methodological basis of this study.

Saviotti (*1996*) enlists the following key concepts in an evolutionary approach to innovation: generation of variety; selection; reproduction and inheritance; fitness and adaptation; population perspective; elementary interactions; external environment. This approach suggests that innovations are connected with social and economic processes, where the main values are oriented towards the relationship between the person and the social environment. Thus, we believe that the innovations created by music teachers have to be linked to the social context of societal development and directed toward the consideration of social context in the improvement of capacity of pedagogical process.

The Innovation Milieu Model states that "*innovation stems from a creative combination of generic know-how and specific competencies*" and "*territorial organization is an essential component of the process of techno-economic creation*" *(Bramanti & Ratti, 1997, 5).* An early description of Innovative Milieux by Camagni *(1991)* lists the following components:

- a productive system, e.g. innovative firm;
- active territorial relationships, e.g. inter-firm and inter-organizational interactions fostering innovation;
- different territorial socio-economic actors, e.g. local private or public institutions supporting innovation;
- a specific culture and representation process;
- dynamic local collective learning process.

The Propulsion Model of Creative Contributions (*Sternberg, Kaufman & Pretz, 2002*) is a descriptive taxonomy of eight types of creative contributions: replication, redefinition, forward incrimination, advance forward incrimination, redirection, reconstruction/redirection, reinitiation and integration.

The model may be instrumental in understanding the types of inventions and why some inventions are more successful than others, often independent of their quality or level of novelty. This approach explains how inventions differ from one another, not just in their level of creativity but in the type of creativity they demonstrate.

Apparently, Latvia has to proceed to a certain stage of development in social and economic growth for innovative activities to impact education according to the Innovative Milieu Model and the Propulsion Model of Creative Contributions, because the processes which are singled out in the Innovative Milieu Model (active territorial relationships, different territorial socio-economic actors, a specific culture and representation process) are not

sufficiently developed in the regions of Latvia. For the time being, the teachers' innovative activity is possible in accordance with the types of creative contributions (replication, redefinition, and forward incrimination) as distinguished in the Propulsion Model.

In the music teacher's sustainable development context the following features of teachers' innovative activity in contemporary school have been actualized: flexibility, interdisciplinary / transdisciplinary, collaboration, experiencing, holism, future-orientation, action- orientation, learner- centered approach (*Institute of Environmental Studies, 1999*). This is why the research we offer is concerned with the opinions of Latvia's music teachers about innovations and their motivation for innovative activity.

METHOD

SAMPLE

The eight music teachers in our study were selected from a larger sample of 126 Latvian secondary school music teachers who had participated in previous studies (*Davidova & Kokina, 2004, 2006*). The selection criterion was strong difference in professional orientations, assuming the music teachers would also differ in their attitudes related to innovations in education, and, therefore, would clearly show the way they experience and appraise the innovations in schools. The previous studies were conducted in 2003 and 2005 and explored secondary school teachers' orientations towards different aspects of their work quantitatively.

The eight music teachers, who worked at different Latvian schools, were interviewed in April and May 2007. Ettlie and O'Keefe's scale of attitude to innovations was employed as the basis during the interview (*Ettlie & O'Keefe, 1982*). The following four music teachers were selected from the group of teachers with a student/ learning-centred orientation towards teaching and an extended orientation towards the school organization (all names are pseudonyms):

- Ineta, a music teacher, with more than 12 years' experience;
- Solvita, a music teacher, with more than 16 years' experience;
- Maris, a music teacher, with more than 18 years' experience;
- Marite, a music teacher, with more than 21 years' experience.

The other four music teachers were selected from the group with teachers with content-centered orientation towards teaching and a restricted orientation towards the school organization (all names are pseudonyms):

- Lidija, a music teacher, with more than 13 years' experience;
- Inese, a music teacher, with more than 16 years' experience;
- Lolita, a music teacher, with more than 19 years' experience;
- Marina, a music teacher, with more than 22 years' experience.

PROCEDURE

The interviews took place either at school or at home. The first interview lasted 1-2 hours. Two researchers conducted each of the interviews: one asked questions with the aid of a topic list, and the other listened, took notes, and occasionally posed additional questions at the end of the interview. The interviews were recorded and transcribed to create a written protocol. The first analyses followed (see next section, phases 1-4). Then a second interview was conducted, lasting 1-1. 5 hours. The interview protocols and the initial analyses were sent to the respondents for validation. All of the teachers subsequently agreed with the content of the protocols and the initial analysis. Both during and after the interview, a research log was kept (*Kelchtermans, 1994)*. In this log, the researchers reported their general impressions of the interview, what went well, what could be improved, their personal impression of the respondent in terms of pleasantness and interest, their impression of the environment in which the interview took place, and their role in the interview (*Miles & Huberman, 1984; Kelchtermans, 1994*). Following Miles and Huberman (*1984*) protocols, we analysed the written interview protocols in seven phases.

RESULTS

Interviews with music teachers testify to the fact that they are aware of the importance of innovations for the development of education institutions, nevertheless the notion "innovations" is interpreted in quite a variety of ways. Music teachers also realize that innovations are possible and necessary for their pedagogical activities. For them innovation is everything that seems new if compared to what has been done previously. It should be mentioned, however, that effectiveness of innovation is seldom viewed from global and sustainable development aspect, because, in music teachers' opinion, the effect of innovation is often perceived as something abstract and short-termed.

The self-stimulating potential of music teacher's innovative activity is realized in achieving the set aims and in identifying and solving problems important for himself/herself. In the research, the following music teachers' self-identified motivation stimuli were distinguished:

• application of effective technologies for music teaching, education and development of pupils;
• recognition and prestige among pupils;
• respect shown by other teachers and administrations.

Other teachers' and administration's respect is closely linked with recognition by pupils.

The analysis of the research showed that music teacher's desire to gain recognition and prestige among pupils strengthens his/her interest about innovative activity, stimulates the development of skills to be unbiased at evaluating the results of his/her own and pupils' activities, promotes the development of sense of responsibility, and stimulates striving for success in a music teaching process. Awareness about the needs to achieve good results in personal activities interlinks with the necessity to raise the level of professional skills and pedagogical culture, with achieving personal success in creative and innovative activity as well as with the need to analyze errors and failures in an attempt to avoid those situations that have caused them. In their essence, the conditions of innovative activity should be considered as non-standard conditions of a pedagogical experiment. The needs to be informed about effective music teaching, music education, and development technologies are closely linked with the necessity to perfect professional skills and pedagogical culture. Working under the conditions of experimenting, the music teacher experiences a need to change some features of his/her character and peculiarities of his/her personality, because conditions of innovative activity require determination, purposefulness, communicability, and benevolence.

Under the conditions of active creative search, the music teacher experiences needs to organize experimental research and therefore he/she strives to raise the level of his/her knowledge in the field of scientific research, studies the research materials, and works on gaining knowledge in psychology and methodology of music teaching his/her subject. This in its turn entails the necessity to have a deeper insight into the experience of effective innovative activity, thus extending the application of his/her own creative approach in innovative pedagogical activity.

The research revealed the most important factors hampering music teacher's motivation for innovative activity:

1) low payment;
2) music subject at school is not prestige;
3) formalism of administration requirements;
4) poor material and technical basis for studies;
5) biased recognition on administration's part;
6) music teacher's discontent with self-realization methods;
7) lack of information about innovative music teaching technologies which music teachers are interested in;
8) unfavorable moral and psychological atmosphere among teachers;
9) overly strict work regulations on school administration's part.

At the same time, music teachers emphasize many problems and discrepancies in Latvia's education which require flexibility in pedagogical work:

A. Music teachers with a student/learning-centred paradigm underline such problems as
   • restriction of teachers' and pupils' freedom;
   • restriction in differentiation and individualization possibilities of a teaching process;
   • development of pupils' initiative, activities, and independence etc.
B. Music teachers with content-oriented paradigm mention such problems as
   • need to develop new music teaching aids;
   • improvement of school material and technical basis;
   • increasing music subject at school;
   • increasing music teachers' prestige and salaries;
   • perfection of music teaching standards etc.

CONCLUSIONS
1. Music teachers' activity is multi-shaped and diverse, but today, it is even more subordinated to the existing social and economic processes in the country.
2. Latvia's music teachers associate the notion of innovation with original new things and progress. They are aware of the role of innovations in the music education development process. For music teachers with student/learning-centred orientation innovations mainly mean introduction of new methods into the music teaching process. Music teachers with a content-centred orientation emphasize the necessity to introduce innovations in the sphere of new technologies and to train music teachers to work with these new technologies. Music teachers with a student/learning-centred paradigm stress that it is vital to organize innovative teams, because one person is not able to put innovations into practice. It is also mentioned that innovations are seldom discussed at school and teachers are extremely loaded with work. Some music teachers, who have a long work experience and who are content-oriented, are pessimistic about the possibility to implement innovative ideas in Latvia's education.
3. Latvian music teachers are often involved only in the implementation of the reforms and not in their design, which offers them very little control over the actual innovative process. Music teachers need to feel themselves a part of the innovative process in school and society.
4. As the result of the analysis of contributing and hampering factors of motivation for a music teacher's innovative activity, the stimulation of motivation for music teacher's innovative activity were formulated:
   • a music teacher's innovative activity and the stimulation of its motivation are united and interconnected;
   • the results of the stimulation of motivation for a music teacher's innovative activity depends on the understanding of the changes in the role of a music teacher, processes in the society, sustainable development of the society and education. They also depend on the level of a music teacher's pedagogical, psychological and scientific preparedness and his/her involvement in professional improvement;
   • the stimulation of motivation for a music teacher's innovative activity depends on a cooperation at several levels (with pupils, teachers, school administration, department of education, local government etc.), on the competence of management education department employees, heads of local government and on preparedness of other stimulation subjects for such kind of activity, as well as on a music teacher's involvement in a creative self-development within a diversity of professional creative activities and communication.
5. As the result of the research the most effective criteria for determining music teacher's motivation towards innovative work have been formulated:
   • involvement of music teacher in innovative experimental research activity;
   • ability of the music teacher to be involved in the innovative activity;
   • the authentic use of pedagogical technologies;
   • engaging music teachers in exploring possibilities of innovative activity;

- enhancement of
  - productivity of music teacher's creative activity,
  - music teacher's cooperation with students and teachers,
  - music teacher's qualification and self-education,
  - music teacher's level of culture;
  - music teacher's effective innovative activity.

REFERENCES

Bramanti, A. & Ratti, R. (1997). The multi-faceted dimensions of local development, in Ratti, R., Bramanti. A. & Gordon, R. (eds.) *The Dynamics of Innovative Regions: The GREMI Approach.* Aldershot: Ashgate, 3-44.

Camagni, R. (1991). "Local milieu", uncertainty and innovation networks: Towards a new dynamic theory of economic space, in Camagni, R. (ed.) *Innovation Networks: Spatial Perspectives.* London: Belhaven Press, 121-143.

Davidova, J. (1998). The principal components of the teacher's proficiency model: Paper presented at The International Conference of the ECHA "Potential into Performance". Oxford, United Kingdom. 21 September 1998.

Davidova, J. & Kokina, I. (2004). Motivation of teacher's creative self-development in conditions of innovative activity. *Omnia mutantur et nos mutamur in illis*: *Scientific articles IV.* R□ga: SIA Petrovskis & Ko, 178 – 188.

Davidova, J. & Kokina, I. (2006). Co-operative Partnership in Teacher's Creative Activity: Motivation Aspects. *31st Annual ATEE Conference.* Ljubljana: Ljubljana University.

Davidova, J. & Znutinsh, E. (2001). The music teacher's professional development in different kinds of pedagogical activity: Paper presented at The Second International Conference in Exeter, United Kingdom, 3 – 7 April 2001.

Ettlie, J.E. & O'Keefe, R.D. (1982). Innovative attitudes, values, and intentions in organizations. *Journal of Management Studies, 19, 163-182.*

Everett, R. M. (1983). *Diffusion of Innovations.* New York: A Division of Macmillan Publishing Co.

Guile, B. R. & Quinn, J.B. (Eds.). (1988). *Technology in Services: Policies for growth, trade, and employment.* Washington: National Academy Press.

Institute of Environmental Studies (1999). Education for Sustainability. Integrating Environmental Responsibility into Curricula: A Guide for UNSW Faculty. The University of New South Wales.

Kelchtermans, G. (1994). Biographical methods in the study of teachers' professional development. In: I. Garlgen, G. Handal & S. Vaage (Eds.). *Teachers' Minds and Actions: Research on Teachers' Thinking and Practice.* London: Falmer, 93-108.

Main Definitions and Conventions for the Measurement of Research and Experimental Development (R&D): A Summary of the Fraskati Manual 1993. (1994). Paris: OECD.

Miles, M.B. & Huberman, A.M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods.* Newbury Park, CA: Sage.

Partnership and Co-ordination East-West in the Sphere of Intellectual Property Utilization and Innovative Process Development. (1997). *In: Materials of NATO Workshop.* Tashkent.

Saviotti, P.P. (1996). *Technological Evolution, Variety and the Economy.* Cheltenham: Edward Elgar.

Schumann, P. A. (1994). *Innovate! Strait Path to Quality, Customer Delight & Completive Advantage.* R.R. Donnelley & Sons Company.

Sternberg, R.J., Kaufman, J.C. & Pretz, J.E. (2002). The propulsion model of creative contributions applied to the arts and letters. *Journal of Creative Behavior,* 35, 75-101.

Urban, G.L. & Hauser, J.R. (1980). *Design and Marketing of New Products.* New Jersey: Prentice-Hall, Inc., Englewood Cliffs.

Wexler, P. (2002). Chaos and cosmos: educational discourse and social change. *Journal of Curriculum Studies,* 34 (4), 469-479.

Young people's perceptions of their instrumental music practice

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ABSTRACT

Practice is central to the development of all aspects of musical expertise. The extent to which practice is effective may therefore impact on learning outcomes. This study explored reported differences in practising as students selected by their teachers to participate increased in levels of expertise. 163 children from pre grade 1 to grade 8 were asked to complete a questionnaire which required rating scale responses to statements concerned with concentration, work undertaken preparatory to actual practice, actual practice strategies, monitoring practice, organization of practice, and enjoyment of practice. Other questions focused on issues relating to time spent practising. There was a statistically significant increase in average weekly practice as expertise developed, although there were large individual differences. Most students practised once each day on 5 days of the week for 20 or 30 minutes. The content of practice was predominantly reported as pieces. The more advanced students were distinguished by practising studies and establishing where difficult sections were located, the least expert more frequently reported working things out by looking at the music before practising. The least and most advanced students most frequently marked things on the part. Implications for educators are considered.

Adolescent Musicians' Perception of Conductors within Musical Context

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ABSTRACT

Perception of changes occurring in music has a long history of research. Indeed, attention to subtle changes in music, whether inadvertent or purposeful, occupies a great deal of practice and rehearsal time for the performer. Regardless of the extremely subtle acoustic changes that are perceptible within almost all studies, it is the total overall effect that most occupies the individual listener. A long line of research indicates that often many subtle "music changes" are not perceived accurately and are actually mistakenly identified. This study investigated spliced versions of Johann Strauss' "Blue Danube Waltz" all performed by the Vienna Philharmonic Orchestra with various conductors. One group of orchestra musicians grades 7-12 participated in the study (N= 38). All subjects listened to two conditions: 1) audio only and 2) audio/video combination. Results indicated that subjects were not able to correctly identify that there were five different conductors in the audio-only condition. Additionally, many students indicated that there were differences in the audio portions of the two conditions when in fact there were not.

Investigation of New Song Acquisition

by Six Year Olds in China, Taiwan,

and the United States

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Xiang-Qing Feng

ABSTRACT

Researchers in three countries investigated new song acquisition by six year-old children in China, Taiwan, and the United States. Thirty children from each country individually learned a new song related to their native language that used E4, G4, and A4 pitches in 16 beats of 2/4 meter. Due to its brevity, the entire song was taught without dividing it into phrases. Subjects learned and performed the new song alone and with a model over repeated trials during a 10-15 minute period. Analysis of recordings shows positive learning curves for subjects acquiring over 70% of a new song in ten trials. Significant positive correlations occurred between singing accuracy for both new song acquisition and familiar song performance. Accuracy of singing was measured by frequency of correct pitches, intervals or melodic contour, and words. The 90 six year olds learned the words to the new song with a mean accuracy of 85% and achieved only 67% on intervals and 51% on pitches. In word acquisition of new songs, subjects frequently learned rhyming words at phrase endings first and gradually added more correct responses across repetitions. American subjects sang more accurately with modeling, and Chinese subjects demonstrated no significant differences singing alone than with a model. Findings corroborate previous research that when young children learn new songs in their language, they tend to acquire words first, then contour or intervals, and finally exact pitches. Six year olds demonstrated ability to learn a new song quickly with simultaneous modeling and contingent feedback.

A qualitative investigation of practitioners' views on cross-community music education in Northern Ireland: reality and potential in a post-conflict society

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ABSTRACT

This paper explores the perceptions of eight practitioners with experience of music education activities with the two main communities in Northern Ireland (NI), Protestant and Catholic. The current segregation of the NI education system is outlined in the introduction, which is followed by a review of relevant literature and cross-community music education projects, the research objective, and the methodology. Over one hundred and fifty pages of transcripts of semi-structured interviews with practitioners were analysed using thematic analysis with the assistance of the specialist software NVivo. The participants' comments on 'Stereotypes and alienation', 'Socio-economic factors', 'Project advice' and 'Music education potential' are discussed. The reported music activities and aims vary depending on a number of factors, one of the most important being the level of acknowledgement of integration of the educational setting, which is heavily influenced by the socio-economic environment. It is apparent that cross-community development of music skills has been and continues to be an effective means of addressing prejudice with young people. Educational implications are examined in the conclusions.

Assessment for music aptitudes: Preliminary findings from some children in Asia

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ABSTRACT

In the first stage of a longitudinal study with elementary school students' music aptitude, we found some basic factors forming their music aptitude. Two kinds of musical tests were conducted to measure music aptitude of Japanese and Hong Kong students: *Japanese Musical Ability Test (JMAT)* and *New Musical Aptitude Test version 1 (NMAT-ver.1)*. Participants in the *JMAT* included 68 male and 80 female Japanese students, aged 8 years (2nd grades) and 12 years (6th grades) and 66 male and 76 female Hong Kong students in the same respective age subgroups. Thirty-one male and 35 female Japanese students, aged 12 years old were tested in the *NMAT-ver1*.

All participants had 1 or 2 music lessons per week in elementary school, and some female students also had receive private music lessons. Results of *JMAT* suggested Japanese and Hong Kong students seem to be very comparable. Both student groups seemed to demonstrate very similar patterns of strengths and weaknesses. They got higher score in "Appreciation" and "Creativity" task. On the other hand, in "Score-reading", they received lower scores than the other task. Especially "Score-reading 11" was a subtest on solfege where both Japanese students and Hong Kong students yielded the lowest scores. Results of *NMAT-ver.1* indicated that significant differences existed between boys and girls. Some Japanese female students struggled "Tonal Imagery-Melody," other Japanese male students had trouble about "Pitch" and "Tonal Imagery-Melody."

BACKGROUND

The age between birth and 9 years is a period of developmental music aptitude. It is during the elementary school years that children advance from the initial developmental stage to the stabilized stage. A student enters the stabilized music aptitude stage and remains in that stage throughout life (Gordon, 1965). In the present study we were concerned with the acquisition of some musical factors related music aptitude.

In the twentieth century, many researchers and scholars have queried the nature of music aptitude. Some researchers focused on the relationship among musical aptitude, musical talent, and discrimination skills, and regarded it as an innate ability. Other researchers, such as Seashore (1919) have changed his idea that music aptitude was not only innate, but that it was inherited.

Various tests were developed based on this belief. Meanwhile, others investigated inter-related elements in their test batteries, such as pitch, loudness, rhythm, meter, harmony, phrasing, style, and memory (e.g., Shuter-Dyson, 1999; Wing, 1981). After the long debate about the source and nature of music aptitude, we may say that music aptitude is the potential for music achievement (Gordon, 1979).

Over 40 years ago, two Japanese researchers Mashino and Hamano (1966) developed and standardized the *Japanese Musical Ability Test* (*JMAT*). Although *JMAT* was behind the fashion, unfortunately, there is no current music test to guide school students. One reason for the lack of research in this area in Japan may be the belief among some music teachers that music aptitude is too individualistic to be studied empirically. Others do not pay attention to the difference between musical achievement and music aptitude. Actually many subtests of *JMAT* related to both musical achievement and music aptitude, however, a differentiation was not explicitly addressed. Mashino and Hamano strongly thought that: (1) musical ability consisted of both musical achievement and music aptitude, (2) musical ability were closely related to the school music curriculum, and (3) music teachers have to cultivate the children's auditory skills that would be rich their musical life.

We now stand in the first stage of a longitudinal study with elementary school students' music aptitude. We proposed the *New Musical Aptitude Test (NMAT)* last year (Ogawa, Murao and Fung, 2006), and have revised it as *New Musical Aptitude Test version 1 (NMAT-ver.1)*. The two studies reported here represent different approaches. The first was designed to assess whether the importance and the issue of *JMAT* were consistent with Asian countries. The second was to revise new test items in the context of the contemporary Japanese culture.

The following research questions were asked: (1) How do Japanese school students response to *JMAT* ? (2) How do Hong Kong students response to the same test? (3) Are there any differences in nationality? (4) How do Japanese school students response to *NMAT-ver.1*? (5) Are there any differences among students' responses of test items of *NMAT-ver.1*? (6) What are the fundamental aspects of music aptitude for school students?

STUDY 1

METHOD

AIMS OF THE STUDY
The purpose of the study was to compare Japanese school students' response with Hong Kong school students' response using *JMAT*, and to explore new test items using *NMAT-ver.1*.

SUBJECTS
Sixty-eight male and 80 female Japanese students, aged 8 years (2nd grades) and 12 years (6th grades) and 66 male and 76 female Hong Kong students in the same respective age subgroups formed the sample of this study. The Japanese students were drawn from two elementary schools, medium-scale levels, from the small, rural

district, in southwest Tottori area. All participants had 1 or 2 music lessons per week in each elementary school. Some female students have received private music lessons. The Hong Kong students were from a government elementary school in a lower-middle class suburb of Hong Kong. They received two 35-minute music lessons per week. The school had a Western orchestra and a Chinese music ensemble and some students received private music lessons.

PROCEDURE
All subjects responded to each item on paper while listening to the *JMAT* recording tape. The Hong Kong students listened to a translated Cantonese version of the *JMAT*. All stimuli were presented to subjects through a high quality sound system in each music classroom. The *JMAT* required approximately 40 to 45 minutes to complete. According to Mashino and Hamano (1966), satisfactory measures of reliability, validity and norms were obtained from various standardized samples (pp.52-56). After taking the *JMAT,* open-ended interviews were informally conducted by either the researcher or the researcher assistants.

RESULTS AND FINDINGS
Subjects' responses were collected and analyzed for the six categories using 13 (or 14) items: rhythm, melody, harmony, score reading, creativity, and appreciation.

2ND GRADERS
The overall raw scores of Japanese and Hong Kong students seem to be very comparable. Also, Japan and Hong Kong students seem to demonstrate very similar pattern of strengths and weaknesses.

"Appreciation 13" was a subtest on affective response and it yielded the highest scores. In this subtest, several musical excerpts were played and students were required to choose the most appropriate descriptor that best describes the overall mood of the excerpts. Both Japanese and Hong Kong students almost got full marks in this part.

"Score-reading 10" was a subtest on solfege and it yielded the lowest scores. In this subtest, several short melodies were played and students were required to dictate the melodies in solfege. Japanese girls scored the highest among other subgroups of student and they correctly answered half of the questions.

"Creativity 12" was a subtest on music and lyricism. Japanese students scored higher than Hong Kong students did. In this subtest, a phrase of Japanese lyrics was sung to two different melodies and students were asked to decide which melody went better with the lyrics. Japanese students' mean scores were 0.6 higher than that of Hong Kong students. Despite the notion that the test lyrics were not translated, the Japanese students did not performed dramatically better than the Hong Kong students did.

"Creativity 11" was a subtest on matching of musical phrases and in general, Hong Kong students performed better than the Japanese students. In this subtest, two musical phrases were played. The openings of the two phrases were the same but the endings were different and students were required to decide which ending was a better match with the opening. Hong Kong students' mean scores were 0.4 higher than that of Japanese students.

6TH GRADERS
The overall raw scores of Japanese and Hong Kong students seem to be very comparable. However, Japanese students performed slightly better than the Hong Kong students did by 0.1 to 0.2 in almost every mean score in the subtests. Note that statistical analyses had not been performed at this stage and hence the significant level of such difference is not determined.

"Appreciation 14" was a subtest on affective response and Japanese students yielded the highest scores. In this subtest, several musical excerpts were played and students were required to choose the most appropriate descriptor that best describes the overall mood of the excerpts.

"Creativity 12" was a subtest on melody writing and Hong Kong students yielded the highest scores. In this subtest, short melodies were played and students were required to decide whether the melodies were good melodies or not.

"Score-reading 11" was a subtest on solfege and both Japanese students and Hong Kong students yielded the lowest scores. In this subtest, several short melodies were played and students were required to dictate the melodies in solfege. Japanese girls scored the highest among other subgroups of students and they correctly answered more than one question.

"Harmony 8" was a subtest on cadence and Japanese students' mean scores were higher than those of the Hong Kong students. In this subtest, cadences were played and students were required to identify whether the cadences were perfect or imperfect. Japan students' mean raw scores were higher than those of the Hong Kong students' by one point.

"Melody 6" was a subtest on tonality and Hong Kong students performed slightly than Japanese students. In this subtest, musical excerpts were played and students were required to identify whether the excerpts were in major or minor key. Hong Kong students' mean score was 0.2 higher than that of Japanese students. This small difference in raw scores seems unlikely to be of any statistical significance.

STUDY 2

METHOD

AIMS OF THE STUDY
The purpose of the study was to explore new test items using *NMAT-ver.1*.

SUBJECTS
Thirty-one male and 35 female Japanese students, aged 11 and 12 years old (6th grades) were tested in the *NMAT-ver1*. All students had 1 music lessons per week in an elementary school attached to a national university in Japan. Some female students and a few male students had received private music lessons.

PROCEDURE
Each subject responded to each item on paper while listening to the CD tapes of *NMAT-ver.1*. All stimuli were made in MIDI format using a Mackintosh computer with a sound card (Sound Blaster 16) and sequencer software. *NMAT-ver.1*, including five categories of 20 items, was developed: timbre, time, pitch, loudness, and tonal imagery-melody. Four categories: timbre, time, pitch, and loudness required subjects to make a same or different judgment in all items, and the tonal imagery-melody required subjects to make a like or different judgment in all items.

The four categories, involving phrase memory, asked the subject for a same or different judgment in 20 pairs: a song and a musical answer. In the last category of Tonal imagery-melody required like or different judgment for 20 pairs: after extra notes are removed from the answer, the musical answer and the song are like each other or not. The entire *NMAT-ver.1* required approximately 80 minutes to complete. All data were collected under the same conditions as in experiment 1.

RESULTS AND FINDINGS
Subjects' responses were collected and analyzed for the 5 categories separately. Table 1 shows the mean score and standard deviations of the ratings for 6th grades' male and female of each category in order (Table 1). The results of ANOVA, gender by items, revealed that the effect of gender was significant in Pitch category [$F_{(4, 56)} = 2.56$, $p < .01$].

Table 1: Mean Score and SD of 6th Grades: 5 categories

	Timbre	Time	Pitch	Loudness	Imagery-Melody
Male	16.0	18.5	13.4	17.8	10.3
	1.1	1.3	1.9	0.4	2.3
Female	18.3	18.0	17.2	18.8	11.1
	0.3	0.5	0.8	0.2	2.6

*Total score is 20 each.

Results indicate female students got a little higher score than male students in 3 categories: timbre, loudness and tonal imagery-melody. The mean score for pitch category, male students' mean was fairly lower than female students'. "Pitch" included memorizing short phrases and discriminating between a song and a musical answer while listening to a CD. It seemed difficult for some male students to memorize the whole phrase in detail.

Scores of both male and female for the tonal imagery-melody category were close to half of the total score, and no gender differences were found. Our *NMAT-ver.1* provides "Four-level Ranking Chart" based on the raw scores in order to become appropriate tools for the elementary school teachers. Rank "A" for tonal imagery is the best score that ranges from 15 to 20, and "D" is the worst score that ranges from 0 to 4, for instance. Figure 1 shows the ranking results of tonal imagery-melody. The point to observe is that, over 50% students had some trouble while they listen to the song and the answer melody of this category. Some females demanded the repeated trial and the others confused which note is extra note or how to remove them.
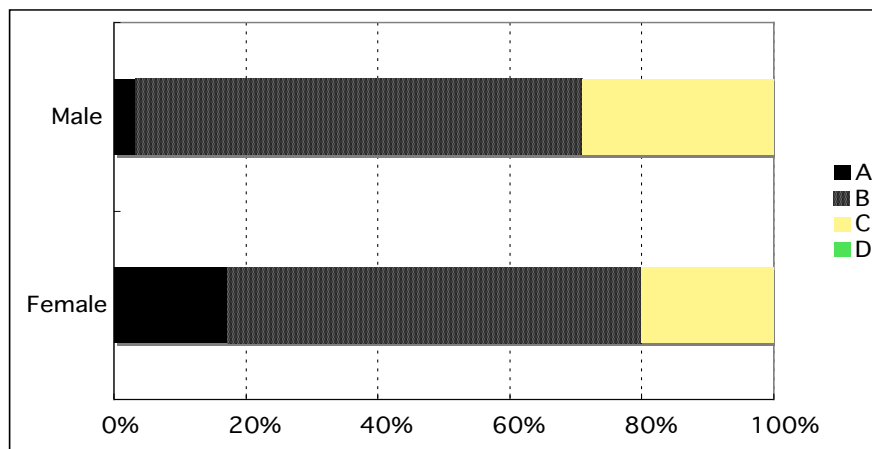
Figure 1: Ranking Chart: Japanese Male students and Female students' responses in Tonal-imagery (Melody)
A=15-20, B=10-14, C=5-9, D=0-4

DISCUSSIONS

This paper is exploratory in nature, and the results should be viewed as providing tentative avenues for further research into school students' music aptitude. The results of *JMAT* indicated that there are many similarities between Japanese and Hong Kong students. Students from both nationalities seemed to demonstrate very similar pattern of strengths and weaknesses regardless of age and gender. Some male students were weak in musical achievement, especially in melody and score reading. Over 80% of the male students between 11 and 12 years in age could not dictate a phrase. However, they scored high in harmony, creativity, and appreciation subtests. There was a tendency for female students to be better readers and dictators than male students.

The results here suggest that *JMAT* would be equally effective for some Asian countries. Most of us would accept that many subtests of *JMAT* are outdated and tone quality of the tape is not satisfactory. However, the core of ideas for musical achievement or music aptitude would be long established and useful for school students. We may speculate that there are some similarities among the school systems, curriculums, or teaching strategies of Hong Kong and Japan schools. Musical backgrounds of both students are perhaps also similar to each other. Although these points are noteworthy, further investigation into this area is beyond the scope of the present study. Hence, we should notice that some test items of *JMAT*, appreciation and creativity are inspiring.

Findings for the next research question, "How do Japanese school students response to *NMAT-ver.1*?" are important for us. The greater part of school students got appropriate in 3 categories: timbre, time and loudness, although female students got a little higher score than male students.

On the other hand, there is significant difference between male and female students concerning pitch category. This result of pitch differs from our previous study in which subjects were required to indicate whether the second tone of each of 20 pairs was same or different (Ogawa, Murao, & Fung, 2006). Almost all students were easy to point out which tone was different and received high scores, ranked as A. These differences might be attributed to the difference in tactics or to the degree of each item difficulty. We should not overlook that it is necessary to weigh the relative difficulty of the test items.

Furthermore, in tonal imagery-melody, it was found that over 50% students struggled and gave up answering them. Gordon suggested and mentioned the basic idea about the tonal imagery-melody.

> "The Tonal Imagery-Melody subtest goes beyond isolated pitch discrimination, which is
> merely a matter of acoustical perception, because the subtest also measures sensitivity to
> melodic contour, which is more pertinent and basic to music itself" (p.16)

There is no disagreement on his point that the test should reflect musical understanding rather than mere keenness of hearing. But we must not forget that all students are not used to removing extra notes from the musical answer and judging whether it is like or different from the first song. Even though school students could understand how to remove extra notes, they have to realize the musical meaning of extra notes and melodic variations.

We must also examine whether the tonal imagery-melody category is suitable for music aptitude test for school students or not. This brings us to the last research question: What are the fundamental aspects of music aptitude for school students? Most people would appreciate the importance of timbre, time, pitch, loudness, and tonal imagery-melody. What is not so widely understood, however, is how to cultivate these abilities in school students. Findings of the present paper suggest that we shall observe more carefully school students' musical behavior through systematical analysis of their musical performance. Further longitudinal research in *NMAT* would focus on test reliability, validity, and stability.

REFERENCE

Gordon, E. (1979). *Primary Measures of Music Audiation*, Chicago, GIA.

Gordon, E. (1995). *Musical Aptitude Profile (Kit)*, Chicago, GIA.

Gordon, E. (1995). Manual of Musical Aptitude Profile, Chicago, GIA.

Mashino, S., Hamano, M., & Motegi.S. (1966). *Japanese Musical Ability Test for elementary school students*. Japan: Nihon Bunka Kagaku-sha.

Ogawa, Y., Murao, T., & Victor, Fung C. (2006). A pilot study in the development of a new music aptitude test for children in an Asian country, paper presented at The 6th Asia Pacific Symposium on Music Education Research: ISME Asia Pacific Regional Conference

Seashore, C. E., Lewis, L., & Saetviet, J. G. (1960). *Seashore measures of musical talents.* New York: The Psychological Corporation.

Shuter-Dyson, R. (1999). Musical ability. In D. Deutsch, (Ed.), *The Psychology of Music,* New York, Harcourt Brace and Company.

Wing, H.D. (1981). *Standardised Tests of Musical Intelligence*. Windsor, England: National Foundation for Educational Research.

Effect of Virtual Reality Exposure on Eye Contact, Directional Focus, and Focus of Attention of Novice Wind Band Conductors

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ABSTRACT

The study examined the effect of virtual reality immersion on eye contact, directional focus and focus of attention of thirty-eight undergraduate conductors. Subsequent to pretest videotaped conducting of a live ensemble, experimental groups were immersed in a virtual ensemble environment with ($n = 13$) or without ($n = 12$) motion-tracking. Control participants ($n = 13$) received no virtual reality exposure. All participants completed focus of attention questionnaires and videotaped live ensemble posttest conducting. Results showed a significant increase ($p < .001$) in mean eye contact and directional focus from pre- to posttest for all groups; however, there was no significant difference among groups, nor was there a significant interaction ($p > .05$). While nonsignificant, questionnaire analyses showed virtual reality participants with motion-tracking focused their attention more on eye contact than participants of the other groups. Results should help guide future decisions regarding appropriate adaptations of virtual reality for music teaching and learning.

Underlying mechanisms linking music education and cognitive modifiability

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ABSTRACT

It is well known that high-risk children throughout the world tend to underachieve academically. Recent studies have shown that carefully designed experiences with music can have a positive impact on children's academic performance, self-efficacy, and social skills, especially among high-risk children. While these studies examine the <u>outcomes</u> of studying music on learning in other disciplines, the <u>mechanisms</u> through which this may occur are largely left unaddressed. The purpose of this study was to inquire more deeply into the impact of innovative music teaching practices on children's learning skills, and to identify possible links between cognitive structures, music education, and self-efficacy among high-risk elementary school children. The approach used in this study draws on constructivist theories that explain the mechanisms of learning in general. One such approach is Feuerstein's theory of Structural Cognitive Modifiability which identifies cognitive functions that act as prerequisites for learning, and suggests that if these skills are inadequate, poor academic achievement is likely to result. Three of these cognitive functions: (1) pattern conservation (2) holistic perception, and (3) the ability to relate simultaneously to multiple stimuli and integrate them, bear similarity to cognition involved in the deeper perception of components in music that we consider to be relevant to learning in other domains. We argue, therefore, that music can become a learning context in which basic cognitive structures shared with other disciplines, such as mathematics and reading comprehension, can be elicited.

The research design interconnected between three components: a) the content of the music lessons; 2) the creation of educational frameworks, which nurture active teacher-child interactions (mediated learning environments), and 3) specific learning skills (cognitive functions) to be fostered during the music lessons. All of the participants (N = 81) attended the Jaffa Institute Child-Care Centers, to where high-risk children are referred by the Ministry of Welfare. Children in the Experiment group (N=45) partook in 2-3 hours a week of mediated music lessons (music appreciation, mastering an instrument, group performance) over a period of two years, while children in the control group (N=36) did not. Pre- and Post- Assessments evaluated the development of general cognitive skills (Raven, Complex Figure), self esteem (Glantz), and social esteem (Fitts). Assessments administered during the intervention evaluated levels of musical understanding and the development of felicitous learning strategies applied within music contexts. This paper presents a sampling of these results, indicating significant differences between the groups in the acquisition of the targeted learning skills, and positive though not significant differences in improved social esteem. Addressing the central questions of WHY and HOW music education influences cognitive modifiability, this study provides empirical evidence that supports the far-reaching benefits of retaining quality music education programs within the schools.

An Examination of the International Scope of Papers Presented at the ISME Research Commission 12th through 21st International Seminars on Research in Music Education

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ABSTRACT

This study classified ISME Research Seminar citations across a 20-year period based on the ISME six geographical regions. A total of 4,535 citations were examined from 238 papers presented at the 12th through 21st International Seminars on Research in Music Education. Journals were the most prevalently cited source (n = 2,250) of citations found in this study. Somewhat surprisingly, there were 407 separate journals cited within this same time frame. The main result of this study is that researchers primarily cite sources within their own geographical regions; however, the *Journal of Research in Music Education* was by far the most referenced. Yet, results also indicate there has been an increase in cross-cultural comparisons directly attributable to the Research Commission as evidenced by the papers presented. Twenty-eight papers from this sample focused on multinational content where there was a far greater proclivity for USA researchers to pursue international research than those from other regions.

The 9 to 11 months old infants' vocalisations face to music and language stimuli: analysis by expert judges

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ABSTRACT

This study deals with the topic of musical competence by observing vocalisations made by babies. It is therefore concerned with the hypothesis that musical competence exists and is different from other human competences, namely, articulated speech. In this context, it draws upon data provided by current research which has pointed out a close connection between stimuli and responses in a musical environment.

An experimental approach is adopted which consists in a statistical analysis of a sample based on the appropriate tests to identify patterns and relationships. This paper thereby aims at answering the question whether clear musical vocalisations occur in a corpus of responses of a group of 9 to 11 months old infants to musical and linguistic stimuli. In order to achieve this goal, all vocal responses were assessed by one group of judges, and statistical tests were subsequently applied to their assessments. The data show some degree of coherence among judges, which supports the claim that musical responses contrast with other types of responses, such as the linguistic ones.

KEY WORDS
Baby, development, early childhood, education, infant, musical, musical babbling, music perception

INTRODUCTION
Recent research carried out in fields of Paediatrics and Psychology has demonstrated that babies show great sensibility to the acoustic parameters of sounds and sophisticated auditive processes of perception are present right at birth (Fassbender, 1996, Pedro, 1985, Ilari, 2006, Tafuri & Villa, 2002, Welch, 2000).

Amongst the behaviour patterns resulting from sound, baby vocalisations can be highlighted. According to Bower (1983), the vocalisations of infants develop in two phases. However, the studies by Bower only address vocalisations in relation to language, and leave to one side the question of vocal reactions of the baby with regard to music.

In the area of musical development in early childhood, one of the first studies to systematically describe the behaviour of babies was that of Moog, in 1976 (Hargreaves, 2001). Moog distinguished between musical babbling and non-musical babbling: the former appears first, in preparation for language acquisition, whilst the latter is a specific reaction to the music heard by the child.

More recently, Rodrigues (2003) observed that the baby has a great tendency to vocally explore and imitate, and it is thus difficult to establish musical and linguistic boundaries. Gordon (2000) has also argued that the period between 0 and 18 months of age is crucial for informal musical learning and that the child should, from birth onwards, be exposed to spoken voice and sung voice models.

There is also literature which supports biological origins regarding musicality which is quite precocious and demonstrated in human interaction with babies (H. Papousek, 1996; Mechthild Papousek, 1996). There are also studies of auditive perception which have been carried out with infants which have demonstrated their capacity to differentiate between different types of auditive stimuli (Trehub, 1987, 2003; Trainor, 1996).

However, the way in which this capacity to differentiate is reflected in their vocal productions still has not been satisfactorily confirmed.

AIMS OF THE RESEARCH
This research aims at contributing to a systematisation of knowledge in the area of musical behaviour in childhood in an identical way to that which has already been carried out in motor, social and linguistic development. If it is shown that it is possible to differentiate between "sung" vocalisations and "spoken" vocalisations, thess data will have major implications for the empirical confirmation that the emergence of musical behaviour occurs at an extremely precocious age.

The study can also produce descriptive data relevant to the understanding of the acquisition of the sung voice and the learning of songs, thus naturally bringing consequences to teaching practices. It also has consequences in the establishing of a corpus of knowledge relative to that which constitutes the nature of musical behaviour which can help to define curricular paths for school and pre-school education.

METHOD
This study, which was carried out with infants (9 - 11 months old), sought to determine whether there were different kinds of vocalisation in response to musical stimuli ("sung" vocalisation) and to linguistic stimuli ("spoken" vocalisation).

To answer these questions 20 infants were exposed individually to both musical stimuli and linguistic stimuli. Their vocalisations were taped and analysed acoustically. Use was made of independent judges to classify

the vocalisations obtained as being musical or linguistic. By using techniques involving acoustic analysis and statistical approaches based on the descriptions provided by the independent judges, it was thus hoped to discover the nature of the vocalisations produced by the babies and their relation to the stimuli.

RESULTS AND DISCUSSION

This section discusses the analysis of samples concerning 100 musical and linguistic vocalizations which were produced by 9 to 11 months old babies. A group of 7 judges was asked to assess and classify these samples according to the following scale: 1 = "he/she sang"; 2 = "he/she talked"; 3 = "he/she neither sang nor talked".

As reliability tests showed that 2 of the judges taking part in this research were not consistent with the remaining 5 judges, the results which are presented here do not include the former and only regard the latter.

Table 1 – Summary of Cramer's V association values between assessments of all judges for Musical and Linguistic Experimental Sets

Juízes / Juízes	MC	K	J	A
I	0,347	0,277	0,406	0,461
MC	-	0,355	0,325	0,450
K	-	-	0,333	0,363
J	-	-	-	0,450

The values in Table 1 are therefore the result of 500 assessments of vocal productions (100 samples x 5 judges) which were elicited in musical and linguistic experimental contexts. This experiment aimed to know whether classification by judges depended on contextual stimuli, and, if so, how intense this relation was.
Table 2 presents the results of Cramer's V coefficient concerning 5 judges.

Table 2 – Results of Cramer's V association measure between stimulation contexts and judges' assessments

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Nominal by Nominal	Cramer's V	,520			,000
N of Valid Cases		500			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

x^2 value 135,236, for $p<0,001$, and Cramer's V 0,520, for $p<0,001$.

This study points to the following conclusions:

a)   the intensity of vocal assessment association between judges ranges from moderate to relatively strong;
b)   judges responses/assessment suggest that the babies' vocalizations depend on contextual stimuli;
c)   the association between the classification of the babies' vocalizations by judges and the context of stimulation is relatively strong.

The study reveals that not only the judges reach moderate association values (Kotrlik and Williams, 2003) but also the classifications of baby vocalizations by judges show greater intensity with contextual stimuli; in other words, the classified baby responses *versus* the context of their occurrence amount to a relatively strong association value. In addition, the data show homogeneous results from the point of view of the association of judges, as the association of their classifications is moderate to relatively strong.

The χ^2 value indicates dependency between bay vocalizations after judges have classified them, and the tested stimulus, either musical or linguistic. Therefore, association of bay responses and stimuli is relatively strong. It is noteworthy that all the 100 samples selected by Reigado (2007) were deemed highly consistent with stimuli, in other words, they were regarded as "more musical" and "more linguistic" accordingly.

On the other hand, the study suggests that babies have a specific response to musical stimuli which is different from that concerning linguistc stimulus. The judges' assessments are thereby in line with Reigado (2007) who argues that in view of the fact that babies accurately vocalize in melodic intervals segments of the melodic contour of songs used in experimental sets, their sound samples become highly consistent with the musical stimulus they previously heard, and clearly different from those sounds produced in response to language. In the linguistic empirical context, babies vocalized more vocoid sounds, consonant-vowel pairs, and dissylabic structures (ibidem).

The results of this study thus agree with research which indicates that babies perceive musical structures (Fassbender, 1996; Trainor & Trehub, 1993) and vocalize musically (Moog, 1976; Sloboda, 2000; Hargreaves, 2001).

REFERENCES
Bower, T. (1983). *Uma introdução ao desenvolvimento da primeira infância*. Lisboa: Moraes Editores.
Fassbender, C. (1996). Infants' auditory sensitivity towards acoustic parameters of speech and music. In Deliège, I. & Sloboda, J. (Eds), *Musical Beginnings-Origins and Developments of Musical Competence* (pp. 56-87). Oxford: Oxford University Press.
Gordon, E. E. (2000). *Teoria de aprendizagem musical para recém-nascidos e crianças em idade pré-escolar:* Lisboa: Fundação Calouste Gulbenkian.
Hargreaves, D. (2001). *The Developmental Psychology of Music*. Cambridge: Cambridge University Press.
Ilari, B. & Polka, L. (2006). Music cognition in early infancy: infants' preferences and long-term memory for Ravel. *International Journal of Music Education, Vol. 24, No. 1, 7-20*
Kotrlik, J. W. & Williams, H. A. (2003). The incorporation of effect size in information technology, learning, and performance research. *Information Technology, learning, and Performance Journal, 21, 1,* 1-7.
Maroco, J. & Regina, B. (2005). *Estatística aplicada às ciências sociais e humanas.* Lisboa Climepsis Editores
Moog, H. (1976). *The musical experience of the pre-school child*. London: Schott
Papoušek, H. (1996). Musicality in infancy research: biological and cultural origins of early musicality. In Deliège, I. & Sloboda, J. (Eds.), Musical *Beginnings - Origins and Developments of Musical Competence* (pp. 37-55). Oxford: Oxford University Press.

Papousek, M.(1996). Intuitive parenting. In I. Deliège & J. Sloboda (Eds.), *Musical Beginnings:Origins and Development of Musical Competence* (pp.88-112). Oxford: U. Press.

Pedro, J. (1985). O comportamento do recém-nascido (2): os processos sensoriais. *Jornal de Psicologia*, 4, 3, 8-17.

Reigado, J. (2007). *Análise acústica das vocalizações de bebés de 9 a 11 meses face a estímulos musicais e linguísticos*. Dissertação de mestrado em Ciências Musicais. Faculdade de Ciências Sociais e Humanas

Rodrigues, H. (2003). *Bebébabá: Da musicalidade dos afectos à música com bebés*. Porto: Campo das Letras Editores.

Sloboda, J. (2000). *The musical mind: the cognitive psychology of music*. Oxford: Oxford University Press.

Tafuri, J. & Villa, D. (2002). Musical elements in the vocalisations of infants aged 2-8 months. *British Journal of Music Education, 19:1,* 73-88.

Trainor, L. J. (1996). Infant preferences for infant directed versus non-infant-directed playsongs and lullabies. *Infant Behavior and Development, 19,* 83-92.

Trainor, L. & Trehub, S. (1993). Musical context effects in infants and adults: key distance. *Journal of Experimental Psychology: Human Perception and Performance*, 19 (3), 615-626.

Trehub, S. (1987). Infants' perception of musical patterns. *Perception and Psychophysics, 41,* 635-641.

Trehub, S. (2003). Musical predispositions in infancy: an update. In I. Peretz & R. Zatorre (Eds.),*The cognitive neuroscience of music* (pp.3-20). Oxford: University Press.

Welch, G. F. (2000) The developing voice. In L. Thurman & G. F. Welch (Eds), *Bodymind & Voice: Foundations of Voice Education*, pp. 481-494. Iowa City: National Center for Voice and Speech.

Non-formal music education outside the school of music: Venezuelan Youth and Children National Orchestra System

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ABSTRACT

The Venezuelan Youth and Children Orchestra National System has been regarded as a non-formal music education initiative outside the school of music. Through qualitative research, survey and non-structured interviews, a research approach to investigating the three orchestra nucleus of The System has been realized to find out the teaching and learning music conception they assume. The study concludes that it seems possible to think of the orchestra as a Community of Musical Practice which has its own ways to promote learning. Learning in the orchestra is a process of vicarious observation and imitation, which takes place within the Proximal Development Zone. Student-teachers in the orchestra have no teaching training, instead they have high performance training and great pride in being responsible for teaching less trained girls and boys.

INTRODUCTION

Non-school music teaching and learning is an issue for Latin America researchers (Wille, 2005) and in the world (Almeida, 2005). Music teaching in social projects is expected to prevent youngsters and children from being socially marginalized (Santos, 2005). Thus, social projects consider music as a cultural tool for cultural identity reconstruction and social changes (Kleber, 2006). Also social projects are more available than the music schools (Wille, 2005, p. 40) and have positive outcomes in both promoting music and improving people development.

State Foundation for Youth and Children Orchestras Venezuelan National System (FESNOJIV) is an example of a social project which cares for children socially excluded and using, or at risk of using, drugs in Venezuela. It is a project that articulates private initiatives and state administration (Almeida, 2005, p. 50) to overcome access restrictions to symbolic and material goods that are important for full citizenship realization (Kleber, 2006, p. 95).

Given FESNOJIV's remarkable position in Venezuelan music life and music training, Venezuelan music teachers should know all about this project, including knowledge of the teaching and learning contexts. Rigorous diagnostic research and case studies that reveal its functional logic and identify professional working places for music teachers must be carried out (Wille, 2005, p. 51). We also should think of a new paradigm for music education to connect pedagogical performance, citizenship realization and social, emotional and economic precariousness of the pauperized population (Kleber, 2006, p. 96). Many researchers think that new non-schooling education sociology is emerging (Almeida, 2005, p. 51).

Jose Antonio Abreu started the project creating the Youth National Symphony Orchestra Juan José Landaeta in 1972. This comprised 5 orchestras located in an equivalent number of cities. It became FESNOJIV a few years later, when new orchestras were created and the Venezuelan government at that time took an interest in it. Nowadays it is known all over the country and colloquially identified as The System. FESNOJIV has 300,000 performers and 200 symphony orchestras, which function independently as nuclei located in 24 states and several municipalities. Igor Lanz has commented that all the orchestras have common purposes: excellent performance and local music leadership (Borzacchini, 2004, p. 80).

Young musicians come from poverty homes and/or have "dropped out" of school, and/or are socially marginalized (Méndez, 2007); some are law offenders, and some have cognitive, visual or hearing disabilities (Benavides, 2007). Venezuelan governments in the last three decades have budgeted for The System, and IDB, UNICEF, AEO, UNESCO, and UNO have recently sponsored it.

The System's international success took Venezuelan music teachers by surprise. Conductor Simon Rattle said that The System is the most important event in Venezuelan classical music today. Why is this? There is no single answer, but the key to answering this question is held, collectively, by Venezuelan music teachers.

This research focuses on The System's educational processes and tries to answer questions like the ones Almeida (2005) poses in her non-formal social-musical contexts and professional participation research:
- As a social project, what is The System?
- What are the teaching and learning conceptions held in the orchestras and in The System?
- Who teaches in The System? What is his/her training? What are his/her music teaching conceptions?

METHOD

This study is the first to investigate The System. To answer the research questions, the researcher followed a qualitative approach (Bresler, 2007), and worked on a 3-orchestra multi-case study (Wille, 2005, p. 42), which considered each orchestra as a unique context to be described (Kemp, 1993).

Observation and non-structured interviews were used to find music learning and teaching characteristics within the context of each orchestra (Ferreira do Amaral, 1991). The data was collected in situ: interviews were recorded on an MP3 device. These recordings were later transcribed and added to the researcher's observations, recorded as field notes. Finally, national newspaper interviews along with a large interview publication were analyzed.

The researcher has known The System from its beginning and has kept in touch with it over the years (Bresler, 2007, p. 12). Interpretations of interview and observation data were based on the informants' roles in the orchestra, following an inductive path (Glaser, 1967), while data was collected. Informants' experiences and values were analysed to understand each case rather than compare them (Stake, 1994). The System was explored in relation to music education literature (Wille, 2005, p.42). Final interpretations are presented in a detailed descriptive narrative.

The research involved three orchestras, which are the most important ones, near to Caracas and within the researcher's reach, namely: Montalban Nucleus and La Rinconada Nucleus, both in Caracas, and Puerto La Cruz Nucleus in Anzoátegui state. Visits to these places took place during 6 months from 2006 to 2007) for the purpose of conducting observation and interviews. The informants were: one administrator, two conductors, nine performers and three mothers.

The analysis centres on two research areas:
- The music learning environment of The System; and
- The System's music learning process.

THE MUSIC LEARNING ENVIRONMENT OF THE SYSTEM

The System is a big family according to Jose Antonio Abreu; a community where individuals can not be separated from the group (Arocha, 2007, p. 4). Abreu says that music contributes to the struggle to alleviate poverty (Dao, as cited in Borzacchini, 2004, p. 5). For this reason, he believes that creating an orchestra in each town is enough to make social changes. The Symphony Orchestra Simón Bolivar's percussionist and former Youth Orchestra performer, says in his interview: "[Jose Antonio's] relationship with us was like sons and father. Actually, many of us regarded him as a kind of father".

Performers in the orchestras get involved with the world, gain a sense of belonging, enjoy sharing life with friends and the feeling of being cared for and well fed. Above all they know that being there is important for parents and that people outside appreciate very much the work they do. Besides this, they have theatre presentations.

Blanca, a mother in La Rinconada Nucleus, said in her interview:

> I tell you … we [mothers gathered in the entrance] think more or less the same about the orchestra. We are happy here. Of course there are complaints here and there … but I assure you, none of us would like to see our children out of the orchestra. It has been vital for our children … it has given them discipline and the certainty that they are doing something real and important.

Young musicians realize how important it is to play instruments very well, since this is vital for being a member of the orchestra. Alonso, a violin player, said:

> When in the 'children's' [orchestra] we looked forward to being in the 'youth' [orchestra] … I knew the more I play the better chance I have to be there, with all those guys playing … touring internationally and enjoying public applause.

The collective values of participants in the orchestra create a subculture which is different from the music school subcultures described by Russell, (2006). For example, in the orchestra children start playing music instruments from the beginning and public performance is relevant.

The orchestras' repertory is standard nationwide and comprises modern 19th century European music tradition, and symphony arrangements of Latin American and Venezuelan popular music. It would be expected that performers were affected by the dissonance between the music they experience in the orchestra and the music they experience in the world outside (Russell, 2006, p. 12). Russell found that Ghanaian children described occidental (euro-centric) music as being the most useless curriculum subject matter. For them, European music takes away school's significance because it alienates their own cultural values.

However, the repertory issue didn't appear in the interviews. Instead, orchestra members talked about the conducting work and the feelings they experienced through it, and repertory was not mentioned. Alonso said in his interview when taking about Dudamel as a conductor:

> Emotion makes the difference. When Gustavo conducted Romeo and Juliet he talked about the drama … we actually read the play and also saw a movie about it. In one of the music movements he urged us to find the sound that brings lovers' fear, uncertainty and emotions in the first meeting … the same happened when playing the death movement … the violins' sound was sad and expressed Juliet's grief. All is emotion and we all wait to share those feelings while playing together.

It is possible to think of repertory dissonance being diminished by the powerful experience of making music collectively, which involves dialogue, inter-subjectivities, rituals and significant interactions. Moreover, the conducting process involves participants in a process of knowledge construction that is very pleasing (Wille, 2005, p. 47).

The System creates a "space" to explore and validate knowledge while expanding musical horizons. What really matters, according to Russell (2006, p. 14), is the energy that flows and the feeling of having control. In this way, musicians gain confidence, take risks, live social solidarity and create meaning, identity and values in a shared practice.

The System closely resembles a Community of Practice (Wenger, 1998), in the same way that the Fiji community looked before Russell's eyes (2002). The System shows three elements: domain, community, and practice (Wenger, 2008). There is a music collective learning within a shared domain; and there are practitioners that share repertoire, resources and practice. This type of community nurtures music abilities, according to Russell (2006, p. 8). This community of 200 orchestras has a core group in Caracas and has many peripheral nuclei in each state's capital city. All of them are formally recognized and supported with a budget from the State.

THE MUSIC LEARNING PROCESS
In Montalban Nucleus in Caracas, young musicians run up and down stairs going to the rehearsal room. They hold instruments in their hands or carry them on their backs. Suddenly there is the realization that there are no teachers among the young musicians, the only visible adults are the mothers at the entrance of the building waiting for their children. Montalban looks like a place where musicians make music without teachers.

Teaching and the teacher's role, contrary to what we know from the school, have a minimal relevance in The System. While student learning at school is generally mediated by teachers, learning in The System is promoted without the mediation of teachers or curriculum prescription. Amilcar, one of the informants in the Moltalban Nucleus, shows the preeminence of learning over teaching in his mind:

> I came to the orchestra, like everybody else, to learn to perform. I learned by watching others perform. I always knew that children who would come after me would learn the same way we all did: observing the one who plays better.

Nor is the students' role similar to what we know from school. While at school children are learners, in The System they take the role of student-teachers, who are at the same time learners and models for others to learn. Rogelio, a performer in the Symphony Orchestra Simón Bolivar, shows in the interview some aspects of the learning process he went through:

> When I was a kid I came to Caracas from Maracay. Maestro Abreu put me in the orchestra. He said: Look to the guy next to you … as if there were a mirror before you. Look at him carefully and then imitate him. That way you'll learn to play and perform. I remember the guy next to me then. It was painful trying to follow him. That's why I think you cannot imitate just anyone. I remember when I was moved in the orchestra next to Rodrigo … the guy over there … Fine! I could follow him immediately and imitate him close to his performance. I learned a lot from Rodrigo.

The System's learning process appears to be based upon a very simple principle: more trained performers act as models to learn from for less trained performers. We have seen this natural way of learning in popular musicians' everyday lives outside school. It has also been described as apprenticeship learning (Abbott & Ryan, 2001, p. 18). The learner learns by doing, by constructing functional abilities through experimentation and history construction. This way, the process integrates learning, work and life.

A natural learning apprenticeship is what appears prominent in The System, rather than teaching in the way we know it from school. There is little didacticism and guidance (Gardner, 2006). Gardner says (2006), "I believe that the questions that one learns to ask are ultimately more important than the answers that are passed on from one generation to the other" (p. 3).

The learning process with little teaching mediation has been described by Bandura (Good & Brophy, 1983) as vicarious social observational learning. We can learn by observing and then imitating what others do very well (Undurraga, 2004). The observer must be attentive and highly motivated when it comes to integrating the learning in a new symbolic pattern of behavior (Bermeosolo, 2005).

María Eugenia is a 12-year-old girl performer at Children Orchestra in La Rinconada Nucleus. In her interview she said:

> I have to study every day because I see girls and boys in the [Youth] orchestra and I feel envious … because I want to be there with them. I envy being in master classes where only top performers are invited. My dream is to be there one day. That's why I study hard … I watch them carefully and bit by bit I learn what they do.

The learning process closely follows Lev Vygotsky's Proximal Developmental Zone theory (Fusco 2003). Everybody tries, each time, to perform better on their musical instruments than they have before, and, in doing so, they rely on emulating the work done by others with more training (Undurraga, 2004, p. 69). Well trained musicians are a strong stimulus to less trained ones, who are consequently pushed to go beyond their actual ability and to perform whatever they don't know how to do, and that is the way development results (Fusco, 2003). In Vygotsky's theory, a child learns to perform by performing, and develops musical abilities performing in environments that favor imitation activities (Undurraga, 2004, p. 70).

Additionally, learning goes hand-in-hand with a high level of motivation. The interviews suggest that performers are very much involved with the musical work in The System. The System appears to have the three conditions Scherer (2002) described as necessary to keeping learning alive: modeling, support and challenges. Modeling comes from having access to good performers as models to imitate, support comes mainly from families, and challenges come from the music that must be very well played in order for children/performers to remain in the orchestra.

The System also seems to invite children to learn (Tomlinson, 2002), through its environment of contribution and cooperation. The orchestra's clear purpose enables performers to have control of their learning, and of the notion of quality. This fact empowers all performers in The System.

RESULTS

As a social project, The System looks like a Community of Musical Practices in the sense that Wenger (1998) describes communities of practice. This community comprises 200 symphony orchestras and 300,000 young musicians who share a common concern and a passion for the music they play.

Formal teaching does not exist in this community, nor does didacticism, at least not in the way it takes place at school. Trained teachers are absent from the community; instead there are performers, with no teaching training, who have achieved different music performing levels in the orchestra (Almeida, 2005, p.50). Consequently, they do not have a conception of themselves as teachers, although they are aware of the learning model role they have to play in the orchestra. For them, being in the orchestra implies two things: one, learning a lot to progress musical growth, and two, being a learning music model for others.

There are, however, master classes scheduled from time-to-time for top performers from both Youth National Symphony Orchestra and Youth Orchestras in the states´ capital cities. Performers and conductors well-known locally and internationally are invited to do these master classes. These young performers are expected to share their new knowledge to others in the orchestras, either in the rehearsal room or through music instrument clinics.

The System has no stated learning theory or method whatsoever. Nevertheless, it is a learning community. There is a natural learning-teaching interplay close to apprenticeship that allows young musicians to learn from each other and be at the same time model performers for others to learn from. Learning stems from the community's collective work and knowledge is constructed from abilities each performer has already at the moment s/he confronts a new musical work in the rehearsal room. The fact of being together makes it possible for interactions that promote knew knowledge through gesture and verbal communication (While, 2005, p. 47). Vicarious observation, imitation of more trained performers and a very high level of motivation, which comes from the whole context, give learners the incentive to explore new abilities in the Zone of Proximal Development described by Lev Vygotsky (Fusco, 2003).

REFERENCES

Abbott, J., & Ryan, T., (2001). *The unfinished revolution: Learning, human behavior and political paradox.* Alexandria, VA: The 21st Century Learning Initiative. Association for Supervision and Curriculum Development ASCD.

Almeida, C. M. Galdini de. (2005, September). Educaçâo musical não-formal e actuaçâo profissional. *Revista da ABEM*. Porto Alegre, *13*, 49.

Benavides, L. (2007). Venciendo el silencio. *Tal Cual*, martes 17 de abril p. 22.

Bermeosolo B. J. (2005). Cómo aprenden los seres humanos. Mecanismos psicológicos del aprendizaje. *Ediciones Universidad Católica de Chile*. 86-99.

Borzacchini, C. (2004). *Venezuela sembrada de orquestas*. Caracas, Venezuela: Banco del Caribe.

Bresler, L. (2007, March). Pesquisa cualitativa em educação musical: contextos, caraterísticas e posibilidades. *Revista da ABEM*, Porto Alegre, Brasil.*16*, 7-16, 8.

Fusco, D. (2003).*Teaching developmental psychology developmentally*. New York: CUNY Workforce Development Initiative.

Ferreira do Amaral, K. (1991). Pesquisa em música e educação. Edições LOYOLA. *São Paulo, Brasil*, 76-77.

Gardner, H. (2006). *The development and education of mind: Selected works of Howard Gardner.* New York: Routledge.

Glaser, G. A., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago: Aldine.

Good, T., & Brophy, J. (1983). Psicología Educacional (2da Ed). México: *Nueva Editorial Ineramericana, SA.*

Kemp, A. (Ed.). (1993). Aproximaciones a la investigación en educación musical. *Ediciones ISME. Número Cinco. Comisión de Investigaciones. Traducción de Ana Lucía Frega y Dina Poch de Crätzer.* Buenos Aires, Argentina: Collegium Musicum.

Kleber, M. (2006, March). Educaçâo musical: Novas ou outras abordagens – novos ou otros protagonistas. *Revista da ABEM*. Porto Alegre, *14*, 91-98.

Méndez, C. V. (2007). Así es el maestro Abreu. *Tal Cual, Segundo cuerpo: Los Músicos.* Martes 17 de abril, p. 5.

Russell, J. (2002). Sites of learning: Communities of musical practice in the Fiji Islands. *En: FOCUS Areas Report. Sanspel – Berger: Internacional Society for Music Education ISME,* 31-39.

Russell, J. (2006, March). Perspectivas socioculturais na pesquisa em aducaçâo musical: experiência, interpretaçâo e prática. *Revista da ABEM*, Porto Alegre, *14*, 13.

Santos, M. A. C. (2005, March). Educaçâo musical na escola e nos proyectos comunitarios e sociais. *Revista da ABEM*, Porto Alegre, 12, 31-34.

Scherer, M. (2002, September). Perspectives: Who cares? Who wants to know? *Educational Leadership. Association for Supervision and Curriculum Development,* 60(1).

Stake, R. E. (1994). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.). *Handbook of qualitative research* (pp 236-247)*.* Thousand Oaks, CA: Sage.

Tomlinson, C. A. (2002, September). Invitation to learn. *Educational Leadership Association for Supervision and Curriculum Development*, 6*0*(1), 6-10.

Undurraga I. C. (2004). ¿Cómo aprenden los adultos? Una mirada psico-educativa. *Ediciones Universidad Católica de Chile*, 58-62.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge, UK: Cambridge University Press.

Wenger, E. (2008). Communities of practice. A brief Introduction. Available from http://www.ewenger.com/ theory/communities_of_practice_intro.htm

Wille, R. B. (2005, September). Educaçâo musical formal, nâo formal ou informal: Um estudo sobre processos de ensino e aprendizagen musical de adolescentes. *Revista da ABEM*, Porto Alegre, 13, 39-48.

Evidence of the development of higher order thinking skills in instrumental music instruction

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ABSTRACT

Students' critical thinking is a key educational objective and should be apparent in instruction methods of instrumental music educators. Vocalized techniques of 38 middle and high school band directors observed from the core 15 minutes of typical rehearsals were analyzed for the inclusion of Teaching, Feedback, Modeling, Questions, and Non-instruction. Focus on evidence of the use of higher order thinking skills in instruction was of primary importance. Data support research findings of the past 20 years. Vocalizations were split thusly: Teaching - 50.91%, Feedback – 15%, Modeling – 12%, Questions – 10.40%, Non-instruction – 10.86% Regarding subcategories of Teaching, nearly 70% of vocalizations were Musical Directives or 'do it' statements. Very little evidence of teachers' overt efforts to develop students' musical independence through critical thinking skills was found. Middle school directors vocalized more in both Teaching and Modeling. Less experienced directors vocalized more than experienced directors. Further inquiry is needed determine the best practices in instrumental instruction that will achieve the goal of cultivating independence among musicians. Attention should be given to developing vocal instruction skills in instrumental music teachers that includes the development of higher order thinking skills in young musicians as a critical technique accompanying gesture.

BACKGROUND

The development of music learners' higher order thinking cultivates independent thinkers and problem solvers. Learners taught without this expectation are bound by fragile, nontransferable knowledge. Those taught with a constructivist approach and the expectation of acquiring skills leading to independence develop ability to apply concepts to new situations, and move from simple understanding to inference (Boddy, Watson, & Aubusson, 2003; Darmer, 1995; Harrigan & Vincenti, 2004; Ivie, 1998; Snyder, 2001; Stoney & Oliver, 1999; Torff, 2003). These learners are better able to continue independent music learning than those for whom critical thinking skills have not been developed (Bauer & Daugherty, 2001; Burnard & Younker, 2004; Pagliaro, 1997).

Critical thinking is a key educational objective (Hmelo & Ferrari, 1997) and should be apparent in instruction methods (Smeaton, 1993). Often, teachers skilled in inference and critical thinking are also skillful in instruction methods that reinforce such skills among students (Amdur, 1990; Manning & Payne, 1993). There are concerns regarding conceptual teaching as a viable teaching strategy among band directors (Blocher, Greenwood, & Shellahamer, 1997). Similar concerns were raised about physical education and secondary social-studies teacher training programs (Daniel & Bergman-Drewe, 1998; Torff, 2003). Teachers trained in using higher order thinking skills and conceptual development in instruction are often perceived as effective (Daniel & Bergman-Drewe, 1998; Marlow & Ingman, 1992; Sheldon & DeNardo, 2005). The development of these skills among pre-service teachers is associated with teacher efficacy (Amdur, 1990; Manning & Payne, 1993; Sheldon & DeNardo, 2004, 2005; Standley & Madsen, 1991; Torff, 2003).

Teacher talk and questioning can assist students' critical thinking and provide insights into student understanding. Research concerning instrumental methods has often focused on rehearsal time use with verbalization being one broad category among a number of teaching behaviors (Cavitt, 2003; Goolsby, 1996, 1997; Napoles, 2006; Worthy, 2003; Yarbrough & Price, 1989). Cavitt (2003) reported that middle and high school instrumental music teachers in festival music rehearsals included more negative feedback than positive and a substantial amount of error correction. A differentiation of approach seems to be necessitated by student ability. The less experienced the ensemble, the more teachers vocalize instruction (Napoles, 2006; Worthy, 2003).

Casual observation and expert analysis suggest that instrumental music directors favor directives that impart knowledge and only require minimal cognitive processing from students (Goodlad, 2004; Watkins, 1993). Carpenter (1988) found that band directors' use of negative feedback outweighed positive; they were more specific in negative feedback while more general in positive. *Verbal-Technical Directions* were most frequent while talk more closely associated with higher order thinking and conceptual teaching, *Verbal Imagery* and *Questioning* was nearly non-existent. Likewise, questioning techniques are scarce in rehearsal settings (Carpenter, 1988; Goolsby, 1997; Yarbrough & Price, 1989). Goolsby (1997) suggested that this deficiency means these techniques deserve attention in teacher training. Colprit (2003) indicated a difference between descriptions and directives uttered by 12 string teachers and surmised that teachers' shifts between one and the other might be drawn from the nature of the music.

Our purpose was to determine the degree to which critical thinking techniques are used in instrumental music rehearsals. To this end, we examined effects of experience and teaching level on directors' vocalized rehearsal behaviors were examined. Comparisons were made between middle and high school directors, and directors with less and more experience.

PROCEDURES

PARTICIPANTS

The sample consisted of middle and high school instrumental music teachers representing schools within a 50-mile radius of Philadelphia (PA). One hundred directors were randomly selected from a membership list of the Pennsylvania Music Educators Association, contacted individually and asked of their interest to participate voluntarily. Of these, 43 responded affirmatively, all from middle class suburban situations. We were compliant with rules governing the use of human subjects in research. Following review of videotapes,

it was determined that 38 cases grouped by teaching level and experience ($n_{\text{middle school}} = 14$, $n_{\text{high school}} = 24$; $n_{\text{less experienced}} = 17$, $n_{\text{more experienced}} = 21$) were useable. Others were discarded because of non-rehearsal activity and shortened class periods. Participants were aware of the nature of the study and understood our interest in their typical teaching methods in this sort of rehearsal setting.

REHEARSALS

Prior research in this topic focused on expert conductors, matched rehearsal works, and festival or pre-performance rehearsals. We reviewed and compared data obtained during typical instrumental music rehearsals with unmatched works in the heart the performance rehearsal cycle (i.e., not in the beginning weeks of the cycle when works are likely to be sight read and not during the last two week of the cycle when works are likely being polished for performance but in the center of the cycle when works are likely being studied intensely).

VIDEOTAPING

Rehearsals were videotaped using Canon ZR-850 Mini DV camcorders. Wireless lavalier microphones enabled us to clearly hear director verbalization and modeling. Directors were videotaped rehearsing in normal circumstances, in the manner to which they were accustomed using the materials pertinent to the day's plans, during the core of the performance cycle. No students were videotaped. Total rehearsal times were rounded up or down to the nearest half minute. Durations ranged from 29 to 52 minutes ($M = 38.67$ mins). The middle 15 minutes (equidistant in time from the beginning and end of rehearsal) were calculated and used for observation. These 15 minutes were mostly likely to contain rehearsal interactions primarily focused on learning a musical work rather than warm up or concluding activities. Three video recordings made prior to the execution of the full project served as pilot. We independently observed full rehearsals and agreed that the proposed time frame was sufficient and appropriate for our purposes.

Six independent trained reviewers analyzed videos for frequency and timing of director vocalizations. *Quicktime (7.2)* or *iMovie HD (6.0.3)* were used for video review video. Reviewers stopped and started the video as they wished to attain accuracy in identifying type and time of vocal behaviors. Reviewers were trained using an example video. Outcomes were discussed so all reviewers were certain of the meaning of each vocalization category. Following discussion, reviewers practiced and then completed another rehearsal observation. Strength of inter-rater reliability (vocalizations, $r = .84$; timing [minute, second], $r = .91$) enabled distribution of video observation among reviewers. Subsequent re-analysis of 25% of videos resulted in strong inter-rater reliability (vocalizations, $r = .92$; timing [minute, second], $r = .93$). In previous research, durations of teaching vocalizations were compared to durations of student performance. We, however, examined frequencies of types of verbalizations and modeling in order to determine the most commonly used strategies in voice-generated (vocalized) teaching techniques. Timing of vocalizations were collected. These data were not included due to space limitations.

Analysis categories were determined following piloting. Categories were derived from previous research (Carpenter, 1988; Cavitt, 2003; Colprit, 2003; Goolsby, 1997) and expanded for specificity in identifying vocal instruction strategies. Final categories included 18 items that fit into five categories and adequately described vocalized instrumental music teaching behaviors:
- *Teaching:* Descriptions, Music Directives, (Explanations Using) Figurative Language, Inferential Statements, Instruction Verbalizations, Problem-Solving
- *Feedback:* Negative Nonspecific, Negative Specific, Positive Nonspecific, Positive Specific
- *Modeling*
- *Questioning:* Gather Information, Reinforcement, Teach
- *Noninstruction:* Verbalizations, Noninstruction Questions, Directives, Answer Questions

RESULTS

Table 1 shows vocalization frequencies. Data were grouped by experience (high [years teaching > 5] and low [years teaching ≤ 5) and by teaching level (middle and high school) and compared. Level of significance for all analyses was α = .01. Total vocalization frequency ranged from 63 to 304 (M = 168) or once every 5.37 seconds. Vocalizations were split thusly: *Teaching – 50.91%, Feedback – 15%, Modeling – 12%, Questions – 10.40%, Non-instruction – 10.86%* Directors, regardless of teaching level of experience, gave more *Music Directives* (vocalizations such as *here we go, back to the coda, again,* counting off entrances, and audible breath as preparatory beat) than any other type of Teaching instruction, followed by *Instruction Verbalizations* and *Modeling*.

Table 1. Vocalization Frequency – Mean Occurrences and (Standard Deviations)

Category	Vocalization	All	M	HS	Less Exp	More Exp
Teaching	Descriptions	3.16 (5.46)	4.71 (7.77)	2.25 (3.38)	3.53 (4.52)	2.86 (6.21)
	Music Directives	58.71 (30.81)	76.57 (37.77)	48.29 (20.33)	69.47 (29.71)	50.00 (29.53)
	Figurative Language	.95 (2.16)	.64 (1.22)	1.13 (2.56)	.71 (1.21)	1.14 (2.71)
	Inferential Statements	.97 (1.92)	.79 (1.37)	1.08 (2.21)	1.71 (2.57)	.38 (.87)
	Instruct. Verbalizations	21.05 (13.93)	23.43 (16.01)	19.67 (12.72)	25.35 (17.26)	17.57 (9.59)
	Problem Solving	.68 (1.07)	.93 (1.39)	.54 (.83)	.82 (1.19)	.57 (.98)
	Teaching Total	85.53 (40.27)	107.07 (50.45)	72.96 (26.89)	101.59 (36.81)	72.52 (38.98)
Feedback	Negative Nonspecific	2.42 (3.14)	2.21 (3.75)	2.54 (2.81)	2.65 (3.32)	2.24 (3.06)
	Negative Specific	10.08 (7.65)	13.29 (9.78)	8.21 (5.49)	11.18 (7.27)	9.19 (8.00)
	Positive Nonspecific	8.61 (4.81)	7.86 (3.66)	9.04 (5.40)	10.65 (5.27)	6.95 (3.78)
	Positive Specific	4.05 (3.19)	4.21 (2.72)	3.96 (3.48)	5.35 (3.43)	3.00 (2.61)
	Feedback Total	25.16 (11.70)	27.57 (12.70)	23.75 (11.11)	29.82 (8.95)	21.38 (12.47)
Modeling	Modeling	20.00 (14.54)	27.21 (17.90)	15.79 (10.43)	19.65 (13.83)	20.29 (15.42)
Questions	Gather Information	5.32 (5.68)	6.14 (6.70)	4.83 (5.73)	6.06 (5.65)	4.71 (5.76)
	Reinforcement	5.68 (6.61)	6.00 (6.52)	5.50 (6.80)	7.06 (8.28)	4.57 (4.81)
	Teach	6.47 (7.29)	8.50 (8.53)	5.29 (6.35)	6.77 (7.23)	6.24 (7.50)
	Questions Total	17.47 (12.72)	20.64 (13.67)	15.63 (12.04)	19.88 (14.51)	15.52 (11.04)
Non-instruction	Verbalizations	12.95 (12.29)	13.86 (14.70)	12.42 (10.96)	16.76 (11.65)	9.86 (12.19)
	Questions	1.03 (1.68)	1.43 (2.10)	.79 (1.38)	1.35 (2.32)	.76 (.89)
	Directives	4.26 (4.68)	6.00 (5.59)	3.25 (3.84)	3.53 (4.00)	4.86 (5.19)
	Answer Questions	1.61 (1.81)	2.21 (2.29)	1.25 (1.39)	1.88 (1.69)	1.38 (1.91)
	Non-instruction Total	18.24 (14.79)	21.29 (16.28)	16.46 (13.91)	21.65 (14.56)	15.48 (14.74)
Total	Total	168.00 (67.03)	206.00 (80.31)	145.83 (46.80)	194.47 (56.39)	146.62 (68.46)

Total vocalizations differed significantly by level, $F (1, 34) = 28.17$, $p = .0001$. *Post hoc* analysis (Scheffe's, $p < .01$), used for all significant findings, indicated middle school teachers vocalized more frequently than high school teachers. Totals were significantly different by experience, $F (1, 34) = 23.37$, $p = .0001$, with less experienced teachers vocalizing more often than experienced. No significant interaction was found.

Regarding specific vocal behaviors in *Teaching*, the only significant difference found between middle and high school directors was in *Music Directives*, $F(1, 36) = 9.08$, $p = .005$. Middle school directors made more 'do it' (Colprit, 2003) statements than high school directors. Differences due to experience were not significant in any subcategory. In the aggregate, combined vocal behaviors in *Teaching* (see Table 1) were significantly different by level, $F(1, 34) = 28.53$, $p = .0001$. Middle school directors vocalized more ($M = 107.07$) compared to high school ($M = 72.96$). Differences due to experience were significant, $F(1, 34) = 25.69$, $p = .001$. Less experienced vocalized more ($M = 101.59$) compared to the more experienced ($M = 72.52$). No interaction was found.

In *Feedback* vocal behavior frequency, differences in *Negative Nonspecific* and *Negative Specific* were not significant. In reviewing *Positive Nonspecific* feedback, a significant interaction between level and experience was found, $F(1, 34) = 13.11$, $p = .001$. Differences in *Positive Specific* feedback were not significant. In the aggregate, differences in feedback were not significant.

Differences in *Modeling* frequency due to level or experience were not significant. No interactions occurred. Likewise, differences in specific *Questioning* and in the aggregate due to level or experience were not significant. Finally, differences in specific and aggregate *Noninstruction* vocalizations were not significant.

Differences in *Teaching* compared to *Feedback* vocalizations due to teaching level were significant, $F(3, 72) = 34.99$, $p = .0001$. While *Teaching* vocalization frequency of middle school teachers ($M = 107.07$) outweighed that of high school teachers ($M = 72.96$), *Feedback* vocalizations were similar ($M_{MS} = 27.57$, $M_{HS} = 23.75$). Middle school teachers spoke more but the ratio of *Teaching* vocalization to *Feedback* was smaller compared to high school teachers. Similarly, differences due to experience were significant, $F(3, 72) = 33.10$, $p = .0001$. While *Teaching* vocalizations of the less experienced ($M = 101.59$) outweighed that of the more experienced ($M = 72.52$), differences in *Feedback* vocalizations were similar ($M_{\text{less experienced}} = 29.82$, $M_{\text{more experienced}} = 21.38$). Less experienced teachers vocalized more than more experienced but the ratio of *Teaching* vocalization to *Feedback* of the less experienced was smaller compared to more experienced teachers. Differences *Teaching* subcategories and *Modeling* for analysis groups. were significant due to level, $F(3, 72) = 9.58$, $p = .0001$ and experience, $F(3, 72) = 7.22$, $p = .0003$.

DISCUSSION

Vocalization was a prevalent technique in these rehearsals. Middle school teachers vocalized more than high school directors; less experienced teachers more than more experienced. Directors, especially middle school, were predisposed to *Musical Directives* statements. Positive and negative feedback was scarce; there was no measurable difference in types of feedback. These findings are supported in research that has occurred over that past 20 years (see Background).

It was supposed that more experienced directors might show evidence of *Figurative Language*, *Problem Solving*, *Inferential Statements*, and *Questioning* techniques. Such strategies signal a focus on students' critical thinking skills development. Goolsby (1997), upon finding that directors avoided questioning, suggested that questions could better assist students to achieve higher levels of cognition "…than the lower level of mere performance, for which much criticism is raised regarding performance-based music education" (p.38). Figurative language assists music instruction and improves motivation to learn, particularly in expressive performance (Barten, 1997; Sheldon, 2004; Woody, 2006). Teachers who use inferential statements and problem solving strategies and expect the same from the student are identified as effective (Sheldon & DeNardo, 2005). These higher order strategies, however, occurred infrequently compared to *Musical Directives* that require lower levels of student cognition. This outcome supports those of Blocher, et al., (1997), that middle and high school directors' verbal instructions teach more by directive than concept. Results support Sheldon and DeNardo's (2005) assertion that music educators "…tend to engage in relatively direct methods of teaching that emphasize the imparting of knowledge" (p.41). Perhaps higher order techniques are not addressed in music teacher training as fervently as others (directives, modeling, gesture); teachers thus default to methods with which they are most familiar. The directive/demonstrative approach is more rule than exception in instrumental rehearsal techniques. While

this may lead to acceptable performance skills among music learners, it does little to increase concept learning for later applications in musical problem solving and independent continued learning.

Developing critical thinking skills that lead to independent music making is crucial in a child's music education (Serafine, 1988). These skills are essential from the beginning of music study, "Very young children are capable of developing critical thinking skills through musical ideas" (MENC, 2007). If music educators are charged with assisting youth in developing critical thinking towards becoming independent learners, these data are troubling. Band directors' vocalized rehearsal strategies are primarily directive and demonstrative. As such, students engage in minimal cognitive processing. The data support assumptions that instrumental music teachers largely impart information in prescriptive ways rather than compel students to develop problem-solving strategies (Carpenter, 1988; Cavitt, 2003; Colprit, 2003; Goodlad, 2004; Goolsby, 1997; Watkins, 1993; Yarbrough & Price, 1989). In recent years, there has been a palpable effort in the US to elevate instrumental music in the schools (MENC, 2007; Blocher, et al, 1997; Miles, 1997) These data, however, would refute that this move is afoot and suggest that directors teach autocratically leaving little for student musicians to do but comply.

Higher order vocalized strategies oblige learners to take responsibility for deriving meaning from given information that requires inference, deduction, and concept application. Directives require learners to apply a specific action to complete a specific task upon demand. In instrumental music rehearsals, this often amounts to musicians responding to commands such as *"Play it louder"*, *"Ready, go"*, or *"Watch"*. A goal of instrumental music education is optimal student performance. If directive is a main technique used by directors and if ensembles play well as a result of that approach, should it not be assumed that the technique is appropriate? Why be concerned, then, with higher order strategies? The performance nature of instrumental music education in addition to perceived and real time constraints suffered by directors who must attend to curricula that include public performance of reasonable quality may compel directors to use brief 'do it' instructions, often coupled with a vocal model, since it might be the most expedient way of achieving a performance goal. These techniques have been lauded as necessary in helping students develop eye-to-hand coordination and kinesthetic responses when studying an instrument (Hickey, 1991). Such methods, however, often fail to give students the deep experience of learning musical concepts such that they are able to make music independent of the rehearsal setting and in the long run.

With a history of data reaching back at least 20 years reporting similar issues in instrumental music teachers' vocalized instruction, perhaps it is time to review band director priorities. On one hand, there is a united call for increased musicianship and development of musical independence through conceptual training and increased transfer skills (Blocher, et al., 1997; Jellison, 2000). On the other hand, analysis of instrumental music instruction behaviors of the past 20 years suggests that this objective may not be a priority for band directors. This study showed little evidence of the use of techniques to develop students' critical thinking skills in instrumental teacher instruction. There appears to be a divide between those calling for more conceptual development in teacher instruction and those who train young instrumental musicians. Further inquiry may determine the best practices in instrumental instruction that will achieve the goal of cultivating independence among musicians. Attention should be given to developing vocal instruction skills as a critical technique accompanying gesture. The development of effective music educators is the charge of all music teacher-training programs. It is natural that these skills be a focus in the training of young instrumental directors.

REFERENCES

Amdur, S.M. (1990). Divergent questioning strategies for general music classes based on music literature (Doctoral dissertation, Columbia University Teachers College, 1990). *Dissertation Abstracts International, 51-07A*, 2305.

Bauer, W.I. & Daugherty, J.F. (2001). Using the internet to enhance music teacher education. *Journal of Music Teacher Education, 11*(1), 27-32.

Blocher, L., Greenwood, R., & Shellahamer, B. (1997). Teaching behaviors of middle school and high school band directors in the rehearsal setting. *Journal of Research in Music Education*, *45*, 457-469.

Boddy, N., Watson, K., & Aubusson, P. (2003). A trial of the five Es: A referent model for constructivist teaching and learning. *Research in Science Education, 33*(1), 27-42.

Brookhart, S.M. & Freeman, D.J. (1992). Characteristics of entering teacher candidates. *Review of Educational Research, 62*, 37-60.

Burnard, P. & Younker, B.A. (2004). Problem-solving and creativity: Insights from students' individual composing pathways. *International Journal of Music Education, 22*(1), 59-76.

Carpenter, R.A. (1988). A descriptive analysis of relationships between verbal behaviors of teacher-conductors and ratings of selected junior and senior high school band rehearsals. *Update: Applications of Research in Music Education, 7*(1), 37-40.

Cavitt, M.E. (2003). A descriptive analysis of error correction in instrumental music rehearsals. *Journal of Research in Music Education*, *51*(3), 218-30.

Daniel, M.F., & Bergman-Drewe, S. (1998). Higher-order thinking, philosophy, and teacher education in physical education. *Quest, 50*(1), 33-58.

Darmer, M.A. (1995). Developing transfer and metacognition in educationally disadvantaged students: Effectiveness of the Higher Order Thinking Skills (HOTS) Program (Doctoral dissertation, University of Arizona, 1995). *Dissertation Abstracts International, 56-05A,* 1641.

Hickey, M.R. (1991). A comparison of verbal instruction and nonverbal teacher-student modeling in instrumental ensembles. *Journal of Research in Music Education*, *39*, 132-142.

Goodlad, J.I. (2004). *A place called school (12th ed)*. New York: McGraw-Hill.

Goolsby, T.W. (1996). Time use in instrumental rehearsals: A comparison of experienced, novice, and student teachers. *Journal of Research in Music Education*, *44*, 286-303.

Goolsby, T.W. (1997). Verbal instruction in instrumental rehearsals: A comparison of three career levels and preservice teachers. *Journal of Research in Music Education*, *45*, 21-40.

Harrigan, A. & Vincenti, V. (2004). Developing higher-order thinking through an intercultural assignment. *College Teaching*, *52*(3), 113-120.

Hmelo, C.E., & Ferrari, M. (1997). The problem-based learning tutorial: Cultivating higher order thinking skills. *Journal for the Education of the Gifted, 20*(4), 401-422.

Ivie, S.D. (1998). Ausubel's learning theory: An approach to teaching higher order thinking skills. *High School Journal, 82*(1), 35-42.

Jellison, J.A. (2000). How can all people continue to be involved in meaningful music participation? In C.K. Madsen (ed.), *Vision 2020 : the Housewright Symposium on the Future of Music Education*. Reston, VA: MENC.

Manning, B.H., & Payne, B.D. (1993). A Vygotskian-based theory of teacher cognition: Toward the acquisition of mental reflection and self-regulation. *Teacher and Teacher Education, 9*(4), 361-371.

Marlow, L., & Ingman, D. (1992). Higher order thinking skills: Teachers' perceptions. *Education, 112*(4), 538-541.

MENC (2007). *The K-12 national standards, PreK standards, and what they mean to music educators*. Retrieved September 30, 2007, from http://www.menc.org/publication/books/prek12st.html

Miles, R. (Ed.) (1997) *Teaching music through performance in band (Vol. 1)*. Chicago; GIA.

Pagliaro, M.J. (1997). Teach them how to fish. *American String Teacher, 47*(3), 51-54.

Serafine, M.L. (1988). *Music as cognition*. NY: Columbia University.

Sheldon, D.A. (2004). Listeners' identification of musical expression through figurative language and musical terminology. *Journal of Research in Music Education*, *52*(4), 357-368.

Sheldon, D.A., & DeNardo, G. (2004). Comparing prospective freshman and pre-service music education majors' observations of music interactions. *Journal of Music Teacher Education, 14*(1), 39-44.

Sheldon, D.A. & DeNardo, G. (2005). Comparisons of higher order thinking skills among prospective freshmen and upper level music education majors. *Journal of Research in Music Education, 53*(1), 40-50.

Smeaton, P.S. (1993). An investigation of the existence and generic nature of effective teaching behaviors as related to elementary grade level and secondary subject matter areas (Doctoral dissertation, Lehigh University, 1993). *Dissertation Abstracts International, 54-04A*, 1224.

Snyder, S. (2001). Interdisciplinary curriculum: Connection, correlation, and integration. *Music Educators Journal, 87*(5), 32-39, 70.

Standley, J.M., & Madsen, C.K. (1991). An observation procedure to differentiate teaching experience and expertise in music education. *Journal of Research in Music Education, 39(1),* 5-11.

Stoney, S., & Oliver, R. (1999, October). Can higher order thinking and cognitive engagement be enhanced with multimedia? *Interactive Multimedia Electronic Journal of Computer-Enhanced Learning, 1*(2). Retrieved September 21, 2007, from http://imej.wfu.edu/articles/1999/2/07/index.asp

Torff, B. (2003). Developmental changes in teachers' use of higher order thinking and content knowledge. *Journal of Educational Psychology*, *95*(3), 563-569.

Watkins, R.C. (1993). Nonperformance time use in middle and junior high school choral rehearsals. *Update: Applications of Research in Music Education*, *11*(2), 4-7.

Woody, R.H. (2006). The effect of various instructional conditions on expressive music performance. *Journal of Research in Music Education*, *54*(1), 24-36.

Worthy, M.D. (2003). Rehearsal frame analysis of an expert wind conductor in high school vs. college band rehearsals. *Bulletin of the Council for Research in Music Education*, *156*, 11-19.

Yarbrough, C. & Price, H.E. (1989). Sequential patterns of instruction in music. *Journal of Research in Music Education*, *37*, 179-187.

Musical memories from childhood and adolescence: Excerpt from a biographical research project

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ABSTRACT

This paper is based on doctoral work, conducted in Brazil, which documents the musical autobiographies and self-narratives of a group of 20 women, students enrolled in the same pedagogy course. Specifically, my major goal was to analyze how these teachers, and teachers-to-be, narrate themselves and write about their memories in the form of musical autobiographies, reconstructing memories of different times of their lives. The theoretical references that underpin this paper are structured upon several authors such as Allan Luke, Lucy Green, Brian Roberts, Ivor Goodson and Pat Sikes, Leonor Arfuch, and Lawrence Grossberg (1992), among others. Within the scope of this paper, I present examples drawn from the interviews and autobiographies, paying particular attention to the themes emerging in childhood and adolescence. I then analyze this material using theoretical tools from the perspective of Cultural Studies, Music Education, and Pedagogy.

INTRODUCTION

This work derived from my doctoral thesis *Musical Identities of Pedagogy Graduate Students: Music, Memory and Media* (Torres, 2003). I began with the following research question: How do primary school teachers remember and report their musical experiences and choices, and how do their music biographies shape their identities? I documented the musical memories of a group, of 20 women students enrolled in a pedagogy course using reports from childhood and youth of their musical choices – and represented by their experiences, fans, and idols of the musical scenery. I used this material as a basis for exploring issues of identity. My analysis required re-reading interview transcripts to identify the explicit and implicit musical autobiographies and the discourses that were used by interviewees to shape their identities.

My analysis was driven by the ideas discussed by Foucault in his work, *Orders of Discourse Order*, that underline the power of discourse and "what people say about their discourses" (1996), relating them to the multiple musical discourses and discourses *about* music that permeated this research and interlaced with the process of building identities.

With the intention of focusing some specificities of the biographic method related to this research through the handling and material analysis, I referred to the conceptions presented by Ferrarotti (1988), when considering both kinds of material that are less frequently used in studies chosen for this approach: primary biographical material (narratives and autobiographic reports), and secondary biographic material (correspondences, diaries, photos, official documents). My preference was to generate primary biographical material.

When proposing to research a theme that involves memories and musical autobiographies of females, I found that authors such as Roberts (2002), Goodson and Sikes (2001) have reported research aligning with/encompassing this perspective and have discussed examples as case studies, life stories and biographical research. Why were these authors important for the autobiographies of females? I had better explain.

A record was made, of the resemblances and differences that I noticed between the oral reports, through the interviews, and the written reports, in the autobiographies, that were significant for the analysis of this material. The first aspect that I stressed is related to the size of the reports, for the written ones were considerably shorter and more objective than the orally produced ones.

The conditions in which the interviews took place were clearly different, but all were open-ended and involved active listening to enable the story of the individual interviewee to emerge. Whilst in the interview situation, the students were questioned directly by an attentive interviewer, in the process of writing the autobiography, each individual answered the questions without the 'pressure' of the interview situation. However, unlike the oral interview, there was a greater formality to the process of autobiographical writing, as it brought to mind what the students used to do as university students.

Based on the perspective of trying to capture the different knowledge and musical tastes that emerged from these groups discourses, and in relation to them, being able to delineate their musical identities, I looked to the vast publications by Foucault (1996), Luke (2000), and Vila (1996). This was, perhaps, rather audacious, as this present study does not belong to the fields of either Foucaultian research or 'discourse analysis', but to the field of Cultural Studies, to which these, and other authors, bring their ideas and conceptions in a theoretic discussion. I undertook this approach with the intention that it would help me to compose the 'scenario' for this present thesis, as the musical autobiography began to be analysed.

RESCUING THE CHILDHOOD SOUNDS:
"OH, I REMEMBER VERY WELL MY FATHER LISTENING 'CHORINHO'…"

I commenced my interviews with the question, "What are the musical memories that you have from your childhood?" Many different responses were received, and I began their interpretation with the following one:

> *Intoxicated by Xuxa I became her fan, I watched her TV show, listened to her music, played at participating in her shows, wanted her boots, dolls, everything related to her to be consumed. A bit later (as in the fifth or sixth grade) I changed to Angelica, mainly because my schoolmates sang her music in class, we also were fans of Angelicos (the boys that took care of the stage).* (**Capitu,** 23 years old, I[1])

Capitu's narrative captures her childhood music choices along with her choices of consumption in clothes and toys that reflected the music idols of her childhood. I considered it pertinent to bring some characteristics related to the analysis of her childhood experience, using ideas from the field of Cultural Studies and Music Education.

I found that the interview transcripts and autobiographies of these students were filled with fragments of lyrics of the melodies, remembrances of parents' and grandparents' voices singing, "June parties", "circle" songs, children's stories on CD, preschool sounds and melodies, TV programs with Angelica, groups as *Balão Mágico*[2] and many others. In some excerpts of interviews and autobiographies there were references to remembrances of a childhood full of sound.

> *In childhood, I heard the LP of 'songs of circle' and music stories ("The Story of the Little Roach", "The Ugly Duckling", "Peter and the Wolf", "Three Little Pigs", and others). I heard and learned music that my sister, 6 years older, brought from school.* (**Manoela,** 21 years old, A)

In Manoela's autobiography, music stories in narrative format in the CDs such as "Peter and the Wolf" and "The Three Little Pigs" enabled them to associate music and characters with literary text. In the repertories of CDs of childhood and adolescent groups of their times, I could find articulations between sound and image, where not only melodies were recalled, but also photos and colored pictures from the cover of these CDs.

Common findings in the described memories of interviewed subjects were the school parties of this phase, the games and plays they sang during break time and the civic celebrations, including music and dance choices, hymns, and rituals following each day. An example was depicted in one of *Margaret's* remembrances:

> *I remember that every "June Parties" time, we were asked to learn a dance; we presented in the theatre, but this dance was always followed by music… I remember that initially was "Pezinho".* (**Margaret,** 51 years old, A)

Music was in the school, in the classes, in civic moments, sometimes in the break intervals, animating play and giving rhythm to the game of jump with a rope, as recalled Milena in her interview:

> *From my childhood, I remember much of Xuxa, Sandy, and Junior, when they sang Roberto Carlo's songs, "Splish, and Splash"… "Splish splash was the kiss that I gave..." This kind of music… oh, music present in the school? Like "Frog doesn't wash its foot, because it doesn't want to ... these music".* (**Milena,** 23 years old, I)

Another aspect that permeates musical narratives of this group relates to childhood TV programs, as with the singers/show stars such as Xuxa, Mara Maravilha[3], and Angelica, as well as the music groups with children and adolescents, as *Balão Mágico*, and *Trem da Alegria*[4]. I selected some excerpts of interviews and autobiographies to remember the childhood sounds, interspersed by reflections of the interviewed subjects about the success of these singers and TV show idols of the music market.

> *I enjoyed much to hear and to see Xuxa, Then, I had the first LP: I had three… It was a farm… I was fascinated. I danced, sang; I used to choreograph the music that I knew.* (**Liliane,** 21 years old, I)

Liliane's narratives highlight the influence of Xuxa's singing, and dancing, which left the girls "fascinated". There are also visual aspects – cultural artefacts, coloured pictures, clothes of these children's singers/ presenters, I drew a connection with Bucci's argument (1997). In his article, "An Idea for the Educators", he focuses questions raised during a debate on the power of TV, emphasising that "what is missing is to listen and to give a more sincere attention to what the child can talk about television".

At the end of the analysis of this topic related to childhood, I highlighted that, of 20 subjects in the present study, Sofia, Margaret, Magdalena, and Carolina, born in decades 40, 50, 60 and 80, remembered the civic hymns played in school, which, at the time, were essential to "form Brazilians".

SOUNDS AND RHYTHMS OF ADOLESCENCE:
"THE MEETING WAS ANIMATED BY LONG PLAYS"

> *Adolescence: In this period, music from the pop national scene; Legião, Paralamas, Biquini Cavadão, lastly all the bands that made success at that time. I also started to like my "secret": Zezé de Camargo and Luciano. What my mother was listening to became enjoyable to me: Tom, Elis, Chico Buarque, people from MPB. At the end of this phase, the situation was reversed: I introduced my mother to the "son's of MPB: Jairzinho, Max de Castro, Pedro Mariano, etc. She enjoyed this. (**Ana**, 22 years old, A)*

I have decided to open this section with Ana's written narratives about the music of her adolescence. During an interview, she revealed her "secrets", her enjoyment of her mother's musical choices, and inter-generational relationships, when she – the daughter – introduced to her mother the children of her mother's favourite singers in an exchange of influences and situations.

I had other questions. How would I identify and register the music diversity that is available to these students during their adolescence? How would I link these choices with the constitution of their adolescent identities? To achieve these ends, I used the work of Pais (1993), Garbin (2001), and Green (2000) on music and adolescent identities formation.

Based on Pais' understanding of youth and diversity, I listed and recorded on a CD the interviewed subjects' musical memories of their youth. I intended to show their diversity and to question the "common sense" understanding that adolescents play and like the same kind of music. I established that the great majority of interviewed students experienced adolescence roughly at the same time, since this group were about the same age (between 22 and 26 years old). The list of musical preferences of this present group of students included many different styles, including rap, MPB, rock, Brazilian country, and erudite, among others.

The participants noted activities such as taking note and remembering the lyrics of the music they loved, much it from the English repertoire, indicating that these students recalled both English as well as Portuguese. Having made their own translations, the new translated lyric now belonging to the subject. This was a recurrent aspect in the memories of some of the interviewed students of this series, independently of their age.

> *Yes! I liked to take note; I had a notebook where I wrote the lyrics from the music, especially from hit parades. I enjoyed cutting out material from the newspaper, photos from artists, singers. The music that I liked I used to glue in this notebook, although I have never considered myself a person with a good singing voice, but I loved it! (**Margaret,** 51 years old, I)*

These musical remembrances were generally associated with an informal manner; a fraternal atmosphere, where brothers and sisters, family, and friends, were involved, as illustrated by Manoela's recollections:

> *At this age my musical preferences were eclectic: I listened to "pagode", pop, rock, "metálica", "tradicionalista", "axé", "romantic English song", and reggae. However, MPB was always stronger than other musical styles, and has remained so until today. (**Manoela**, 21 years old, I)*

These memories interlinked music with dreams, strong emotions, even moments of anger; in all of these experiences, the walkman was a usual partner. The remembrances speak of dreams and emotions – some involving anger – others more placid, but equally moving.

Based on the reflections of Alvermann and Hagood (2000) about youth musical consumption, I considered some excerpts of the autobiographies. As in Eva's example, certain ages corresponding to the beginning and end of her adolescence, were linked to her preferences and musical taste.

> *Adolescence – 12 to 14 years – I never stopped listening to "Tradicionalistas Gaúchas", but there was a major tendency for "Pagode" and "Samba".*

> *End of adolescence – 15 years – I was called to listen to many kinds of sounds: Rap/MPB and mainly the band Legião Urbana. (**Eva**, 22 years old, A)*

These students spoke about their musical memories saying that they were "intoxicated" by different music styles, and possibly included such discourses of *rebelliousness*. Choosing some rock bands, traditionally understood as the prototype of rebellion music, showed the desire of these young students to make music choices that were opposed to repertories chosen by their parents, maybe in a mixture of independence and of "rebellion without a cause".

> *In my adolescence, the songs that I liked were the ones I listened to in school, in the group of my friends. I remember "Claudinho and Buchecha". I was sad with Claudinho's death, as something that I had in memory was also dying! We used to sing his music, know the lyrics by heart. (**Yasmin**, 22 years old, I)*

Yasmin's recollections highlight the importance of idols and fans – in youth culture. For example, Yasmin recalled how much she liked music of the dual *Claudinho and Buchecha* and, following, revealed her sadness caused by *Claudinho's* death. I listened to the expression of sadness at the death of her idol by this student. Hobsbawm (1995) describes aspects of youth culture in what he says was the *Cultural Revolution of the 20th century*. He discusses a new "autonomy" of youth, away from romantic parallel of 19th century, where heroes had their lives and youth ending together.

Within Brazilian music, there is a list of idols that left behind a legion of 'orphans'. Garbin (2001), examines *youth identities as they emerge in chats about music on the internet*, more particularly, the links they make with the identities of many rock idols, now deceased, independently of age; youth construct is a real pattern with them. We may connect Hobsbawn with our present study and points raised in Garbin's research, by listing facts that came together and marked the precocious death of idols of Brazilian music.

Bennett (2000) consider relations between the everyday life and music choices and musical experiences with young students with some possibilities to articulate experiences of everyday youth life, as ideas outlined in his study with popular music and youth culture. The author could begin "to illustrate expansion of experience of everyday life" (p.198) and articulate musical preferences.

I have attempted to relate students' everyday music, with their lyrics and preferred composers, in the format of different CDs, styles and languages – encompassing music discourses – to the musical autobiographies of these students, which I suggest are informed by media studies and youth. Analysis that takes into account a cultural perspective, includes a variety of musical styles.

FINAL CONSIDERATIONS

To sum up my analysis of musical memory, I have illustrated the different musical tastes of young people as narrated in their autobiographies, and through interviews.

I added that, of the group of 20 students that I interviewed, only three of them did not mention specifically the title of some of the preferred music of their youth. Referring to the name of the group, band or even musical

style, points to the special relevance of such artefacts in constitution of a subjectivity that affirms itself by *"like x"*, *"love y"*, and so on.

When I was documenting the musical memories of childhood, the fathers and grandfathers' voices stood out in the family meetings chants, churches, choirs and the songs choices, which were played on the radios and records. The female voices of the mothers and grandmothers were heard in few moments, mainly through songs that were sung while doing the housework, in catechism lessons or in church. I have also listened to the tales and songs from children's records, interwove with children's games and entertainment.

It is important to remember, since one of the aims of this research was based on memories, that I tried to include the theme of the musical identities. However, this particular theme was so complex and broad that several narratives were unable to be included in this final version, as it was necessary to select and cut the broad material collected throughout the analyses. I was challenged, during the research, to listen, to realize and to organize participants'/students' musical narratives to make it possible to highlight their musical identities. I looked to place my lens in the direction of the theme of construction of musical identities of students enrolled in a Pedagogy course. I emphasize that this work has informed my musical identity as a music teacher and recorder teacher for many years, teaching fundamental school and Pedagogy courses, through the self narratives of this group.

REFERENCES

Alvermann, D., & Hagood, M. (2000). Fandom and critical media literacy *Journal of Adolescent and Adult Literacy, 43*(5), 436–446.

Bennett, A. (2000). *Popular music and youth culture: Music, identity and place.* London: Macmillan Press.

Bucci, E. (1997) . Uma idéia para os educadores (pp. 14). *Revista Veja*, 21 maio.

Ferrarotti, F. (1988) . Sobre a autonomia do método biográfico. In A. Novoa & M. Finger (Org.). *O método (auto) biográfico e a formação* (pp. 17–34). Lisboa: Ministério da Saúde/Departamento de Recursos Humanos.

Foucault, M. (1996). *A Ordem do Discurso*. São Paulo: Loyola Editora.

Garbin, E.M. (2001). *www.identidadesmusicaisjuvenis.com.br – um estudo de chats sobre música na Internet.* 2001. Tese (Doutorado em Educação) – UFRGS, Programa de Pós-Graduação em Educação, Porto Alegre.

Goodson, I., & Sikes, P. (2001). *Life history: Research in educational settings*. Buckingham: Open University Press.

Green, L. (2000). Music as a media art: evaluation and assessment in the contemporary classroom. In J. Sefton-Green & R. Sinker (Eds.), *Evaluating creativity* (pp. 89–106). London: Routledge.

Grossberg, L. (1992). *We gotta get out of this place*. London: Routledge.

Hobsbawm, E. (1995). *A era dos extremos: breve século XX: 1914-1991*. São Paulo: Companhia das Letras.

Luke, A. (2000). Análise do Discurso numa perspectiva critica. In Á.M. Hypólito & L.A.A. Gandin (Org.). *Educação em Tempos de Incerteza* (pp. 93–110). Belo Horizonte: Autêntica.

Pais, J.M. (1993). *Culturas juvenis*. Lisboa: Imprensa Nacional da Casa da Moeda. (Colecção Análise Social).

Roberts, B. (2002). *Biographical research.* Buckingham, UK: Open University Press.

Torres, M.C.A.R. (2003). *Musical identities of pedagogy graduate students: Music, memory and media.* Unpublished doctoral thesis, PPGEDU/UFRGS, Porto Alegre/RS.

Vila, P. (1996, November). Identidades narrativas y música: una primera propuesta para entender sus relaciones. *Revista Transcultural de Música, 2*. Retrieved September 30, 2003, from http://www.sibetrans.com/trans/trans2/vila.htm

ENDNOTES

[1]   When retrieved from interviews, texts are identified by "I", when coming from autobiographies, they are identified with "A".

[2]   Many child-adolescence music groups were mentioned in this section, which involved childhood memories. I will give a brief presentation of each one, when mentioned in text: "*A Turma do Balão Mágico*"; group of 4; appeared in the 80's: Mike, Tob, Simony, and Jairzinho, presented a TV program, and had many records with a repertory composed specially for them, as *Menina, Pa-ra-tchi-bum, Putz, O grande mago, and* others.

[3]   These three began as show hosts of a daily TV program for children, each one for a TV channel. *Xuxa* was the precursor of this program format and a model, in the beginning of the 80s. *Mara Maravilha* and *Angelica* appeared in the same decade, proposing a program with games, plays, music presentation, and coloured stages. *Mara Maravilha* had her program on *SBT* channel, and Angelica hosted the program "*Clube da Criança (Children Club)*", among others, in the old TV channel *Manchete*. A common characteristic of these three hosts was that they sang, danced, and inserted lots of music in their TV programs.

[4]   *Trem da Alegria (Happiness Train)* was a children's musical group also from the 80s that had its first record released in 1984 and produced an annual CD for almost a decade. At the same time, they had a TV program, where hosts/components talked with children, played games, plays, and song and danced with choreography.

Project "Ulice": Exploration of the Creative Process Employed by School Aged Children Faced with a Musical Composition Task

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ABSTRACT

The present paper focuses on the progressive development of music thinking by study groups of children aged between 8 and 11 years old, when faced with musical composition activities, such as sound exploration, improvisation and music composition. When a child faces a musical composition task they will use their creative thinking; this implies the manipulation of musical images and also the action of emotional mechanisms that are connected to those images. These mechanisms will both determine the child's choices and also the end result of the musical composition and, consequently, retroact with the child's musical thinking. This paper attempts to apply the "Creative Process Theory", as defined by the "Geneplore Model", articulated with Damásio's view on the emotional mechanisms underlying the thinking process, as a way to clarify the importance of the Thinking/Creative Act in the process of constructing musical thinking.

Independent music teachers conducting collaborative practitioner inquiry

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ABSTRACT

The research findings presented here share the situated experiences of independent music teachers (IMTs) within a collaborative action research project. Our experiences exposed the problematic nature of the everyday lives of IMTs in the private music teaching studio, including institutional and collaborative teacher-researcher relationships. The question I asked was "why don't IMTs generally conduct practitioner research?" Answers to this question led to new questions about how IMTs engaged in collaborative research and how they established conditions in their collaboration that sustained and enhanced their ability to construct knowledge. Knowledge production was used to investigate the outcomes of collaborative practitioner research. A team approach was used to investigate how IMTs work collaboratively; improved their knowledge and understandings; shifted individual perspectives; attained commitment to outcomes for professional practice. This research reveals insights into ways in which the teachers accepted the group's outcomes, their initial uneasiness of sharing existing knowledge and uncertainties about disseminating and practicing the results of their enquiry. As a result of this research project, an Independent Music Teachers' Research Group has been established in an area where originally there was no research being conducted.

INTRODUCTION

Practitioner inquiry occurs when practitioners: (a) form a research community within a program or across a range of program sites; (b) undertake collaborative investigation of a select issue in the field, using their own experiences and the literature, through which they critically analyze current theory and conduct research from a field-based perspective; (c) generate research questions and conduct intentional inquiries into learning and teaching in their own program setting; (d) organize their research as collaborative and social processes; and (e) disseminate their findings through a range of written and oral presentations (Lytle, Belzer et al., 1993). The chief difference between expert-driven training and teacher-researcher inquiry is that IMTs produce validated knowledge that addresses issues facing them in their own practice. In other words, they are not passive recipients of others' knowledge.

Dewey (1929) talked about teachers as investigators. Piaget (1973) argued that teachers should become research oriented in their professional lives. Critical theorists like Kincheloe (1991) have called for teacher empowerment through teachers as researchers. Unfortunately little research has been fore grounded in the independent music teacher's role of generating knowledge about teaching. There are very few IMTs participating in identifying research agendas, codifying what they know and creating new knowledge and this is a problem. Those who have extensive expertise and have daily access to their private teaching studio, have no formal way to make their knowledge part of the literature on teaching. Many teachers believe they have no time or expertise to become teacher-researchers. One way to help teachers become researchers and construct professional knowledge is through collaborative research.

Collaboration is more than a group of researchers getting together or working on the same project. It is a process that demands a sense of shared endeavour, purpose and an equal sharing of ownership, power and responsibility (Goodlad, 1993). Collaborative enquiry is regarded as an important means for enhancing teacher professional development (Cobb et al., 2003; Putman & Borko, 2000). In collaborative research groups professionals discuss, study and construct conceptual principles and ideas, generate new strategies for their working environment and share insights about what they have learned. Such collaborative enquiry can result in a vibrant co-construction of knowledge (Bereiter, 2002; Huberman, 1995; Nonaka & Takeuchi, 1994).

In action research projects teachers examine problems they observe in their practice in order to produce new ways of dealing with situations and bring about reforms (Hargreaves, 1997; Woods et al., 1997). A collaborative research team organizes its own learning along self-determined interests by studying an issue from different professional perspectives and by sharing existing knowledge, while working together towards a common goal of generating new knowledge (Farr-Darling, 2001).

**PRACTITIONER RESEARCH: CHANGING IMTS'
RELATIONS TO PROFESSIONAL KNOWLEDGE**

In an effort to address this problem, as a Past-President of the Nova Scotia Registered Music Teachers' Association (NSRMTA), I invited members of the Association to form the Independent Music Teachers' Research Group (IMTRG) and develop a research agenda. Five members joined the group and under the mentorship of a university professor, who is an academic researcher, the group decided to research motivation and retention of private students in the independent music studio. The group met on a monthly basis. All the group members agreed on the research topic, design and method. The data was obtained by the teacher-researchers interviewing students, parents of students and other IMTs asking them open ended questions about what they thought motivated students to start private piano lessons and continue with them. The data generated by each of the teacher researchers was then subjected to a thematic analysis whereby key themes were discussed and noted. Each of the member's perspective was included. The findings were presented at the

annual convention of the NSRMTA with each of the IMTRG members making up a panel. One member gave a brief history about the Group and why it was formed; another described the research process; a third member described our analysis and the main themes that were in the data, and a fourth member presented the findings and future recommendations. Our mentor talked about the collaboration between the academy and the group.

While the IMTRG was conducting this research, as a participant observer, I kept a journal recording what happened in the meetings, observed how the teacher/researchers engaged in collaborative research and how they established conditions in the collaboration that sustained and enhanced our ability to construct knowledge.

METHODOLOGY

Over a period of four years, I watched, kept notes and on two different occasions interviewed four of the teacher-researchers. The study was qualitative in nature. According to Berg (2001), "quality refers to the what, how, when and where of a thing – its essence and ambience'. My aim was to achieve a rich and detailed representation of the 'what, how, when and where' of IMTs conduct of collaborative practitioner research. Data collection procedures included:

- an individual taped interview with three of the teacher-researchers of 60 minutes duration; and
- a second individual taped interview after the project's completion with four of the teacher-researchers of 30 minutes duration.

The first set of interviews was conducted about two years after the IMTRG was formed and midway through the process. The second set, a year later, as follow up. I asked open ended questions such as: what did you think about the collaborative research process? What do you feel you gained, if anything, from the research process?

I kept extensive notes in my journal which included minutes of our meetings and observations I made. These notes were written over a period of four years, from the inception of the group's first project to its completion.

A grounded theory approach was used in the analysis of the data whereby theory was inductively derived from the data (Bernard, 2000). Transcripts were made of the interviews and key themes were coded and categorized. As categories developed they were reviewed to identify similarities, differences and other patterns that linked them. This process led to the themes that form the basis of this paper.

The findings on participants' perceptions about conducting research illuminated insights about both their characteristics and the factors that hindered and supported their success as teacher/researchers. These insights are presented within a framework of four key themes which emerged from the data analysis. These are:

- the person who is the teacher-researcher
- how IMTs gain knowledge
- how they responded to their new role of researcher
- opportunities for ongoing research

ANALYSIS

THE PERSON WHO IS THE TEACHER-RESEARCHER

The data revealed that each of the teachers came from a different cultural background and all of them were women who were either married, with children who had either left home or were still living at home, or widows whose children had grown up and left home. Each of them taught private and group piano lessons in their independent studio located in their home.

They each commented that "they liked people" and "enjoyed getting out with other teachers". They all talked about the "isolation of the private studio", especially because they taught in home studios away from other

teachers. They also spoke about wanting to teach in home studios because this enabled them to be at home with their children. Being at home was a convenience and a problem. They didn't have to travel to work, they were home if needed, but this also meant that while teaching, they could be interrupted by family needs and demands. They each said in their interviews that they were "quite enthusiastic" about having "an opportunity to get together and talk about the teaching of music and the profession itself".

The teacher-researchers had many years of teaching experience, this varied from 25 to 60 years each. They all wished that there were more members involved in the IMTRG, but recognized that IMTs have very busy lives. Not having enough time was one of the themes that emerged from the interviews. One teacher commented that she discovered "that research is an awful lot of work". Another commented that she used to think that "only school teachers did research not IMTs".

When I asked the teachers how they would describe their work as researchers within the group, they said they "wished they could give it a lot more time" but were unable to because of "teaching music lessons and family needs".

The significance of the 'everyday' was clear in the lives of these women (Smith 1987). Daily life presented unique challenges to each of them. Each of them was acutely aware of and responded to, the demands of others in her daily life.

The teacher-researchers were all passionate about their teaching. Statements such as "I love teaching" and "I always wanted to be a music teacher" were typical.

HOW IMTS GAIN KNOWLEDGE
Generally, IMTs meet at workshops presented by large conservatories or music publishing companies. The purpose of these workshops is for those institutions to promote their publications and materials. Each of the teacher-researchers stated that they learned a great deal from their students. Each of them said that they liked to read magazines which focused on private studio teaching and they particularly looked forward to the NSRMTA meetings and conventions, because at these meetings they had the opportunity to discuss topics of interest with their colleagues.

> The role of an educational researcher is always to work in specific circumstances with rather than on or even for the people who inhabit them… Such a way of working is also a way of dealing with some of the arrogance presupposed in some forms of knowledge, and their implication instructures of dominance and oppression. (Griffiths 1998)

Each of the teachers believed that "when you do the research yourself… it is a lot more meaningful". In her interview one teacher-researcher said:

> You read a book or you read an article in a magazine, well that is somebody else's studio and that is somebody else's life, you may glean a few examples or a few experiences [from] that person into your own teaching, but I have never been as receptive towards it as when you do your own research with your own students who mean something to you.

I believe we teacher-researchers joined the IMTRG and stayed because we wanted to learn and know authentically. That is, we all wanted to learn from our own questions, concerns for issues and understandings, rather than assume without question the perspectives of presumably more knowledgeable others. Each of these teacher-researchers attempted to rethink what she had been handed down by her own teacher. Each recreated predefined realities to be more considerate and more conclusive to their own learning.

HOW THE TEACHER-RESEARCHERS RESPONDED TO THEIR NEW ROLE OF RESEARCHER

One of the teacher-researchers said:

> I learned from [the research] a very very valuable thing … you have to think more deeply. If … your motivation [for conducting research] depends on what the needs of the child are and the personality of the student, that goes far beyond just what your curriculum is, what you are going to teach and how you are going to teach music."

Each of the teacher-researchers said that being part of the research group had given them the opportunity to reflect upon their experiences as a teacher more and to be critical about what they do. They realized the importance of being a reflective, critical teacher-researcher (Schon, 1982) and each intended to continue working in the group.

Generally, comments were made by the teacher-researchers at the completion of the IMTRG's first project on motivation and retention of students in the private music studio, that this new form of teacher knowledge, that which they had acquired through the research process, had caused them to learn 'things' that before engaging in the process, they hadn't considered important to the teaching of music.

One teacher-researcher commented that:

> The most important thing that I got out of it is that it set me thinking a lot more. There were things I didn't consider important to the teaching of music. Yes I was teaching, but I [always felt] I had to finish my syllabus.

The types of responses I received when I asked the teacher-researchers what they thought of their new role of researcher in the interviews were: "I love it. I guess you would say I'm a nosy person." "Nobody knows everything. You have got to keep learning". "As a teacher you are supposed to be a role model". "It's a different angle. We do things like festivals and concerts but this is different."

As a group, the teacher-researchers acknowledged how much we enjoyed being researchers and believed that the IMTRG could play an important part in contributing to the construction of our professional knowledge. At the beginning of the project the IMTs were uncertain because we had never acquired knowledge in this fashion before.

Our mentor-facilitator was an encourager. Like Freire, she insisted that learning must begin with the learner's experiences and be grounded in their conscious understanding of their world, even if those understandings were naïve. Freire asserts that individuals must act upon their own ideas, and it is only by examining those ideas that change can occur (Freire, 1993).

While the IMTRG worked on their first project, the teacher-researchers each interviewed two students, two parents of students and two other teachers to get their views on what motivated students to continue with their private music lessons. After completing the interviews one teacher-researcher said:

> I thought more in depth about what really keeps a music student in lessons and what doesn't. I didn't really focus on it as an issue earlier… After interviewing, it [was] interesting to find out how different people reacted to different situations they have gone through.

Each of the teachers felt that the research work had enriched their experience as teachers. Comments were made such as "even interviewing the parents, I never spent that much time talking to a parent about a student". "Interviewing parents enhanced my understanding of parents and their children". "I want to continue doing this sort of thing, it really has helped me to relate to my students and their parents more".

After completing the project, the teacher-researchers were a little apprehensive about publishing the IMTRG's findings nationally, but after successfully presenting the findings at the NSRMTA annual provincial convention,

confidence rose, because the panel presentation was well received, and the group agreed to publish the research provincially and eventually nationally.

Generally, the group felt they could have done a better job, been more organized and better prepared when they came together for meetings. There was frustration when interviews were not completed on time and the teachers wished they had more time to do their research work.

There were times when we were frustrated by our slowness to get the task done. Interviews were difficult to schedule. There were the constant stresses of preparing students for examinations, festivals, concerts and rescheduling lessons due to illnesses. However, the IMTRG continues to meet and wants to sharpen new found skills.

OPPORTUNITIES FOR ONGOING RESEARCH

In this project I have sought to show that IMTs do not see the role of researcher as being part of our professional practice. The formation of the IMTRG helped to change this.

For me, research is an emotional matter. Ideas can be satisfying, enraging and even inspiring and mine involve me. In writing about the process of forming the IMTRG and how the members took on the roles of teacher-researcher, I realized that social location of the researcher and access to theories is central to the motivations and framing of the research. As a teacher-research in the group, I was working from that stand-point.

In writing, I'm aware that however unintentionally, I'm reconstructing and re-presenting a messy process as a coherent account, highlighting certain aspects and obscuring others.

Theoretical decisions informed how the research was conducted and how it was used. Knowledge is textually produced and does not exist outside its social constructions (Clifford, 1986).

Theories have changed and developed over the years. There is a 'temporality' about theories. Validity becomes a matter of most reasonable theory. One of the values of ethnography is that the research is continually exposed to these changes and therefore the process has to be explained rather than the facts. In focusing on the process of producing knowledge; in theorizing and representing myself and the other members of the IMTRG as teacher-researchers, I developed a sensitivity to and responsibility for power relations, representation, and dissemination. Attention to the processes by which we produced our research and theories became somewhat more important than 'getting it right' (Skeggs, 1995).

In closing, I wonder how the field of IMTs gaining knowledge is changing, how will it change in the future as we endeavour to create knowledge from and for our practice? What new and different topics and ways of knowing will emerge? How will these add to our field?

When we discussed these issues in the group, we wanted to believe that there might be several developing changes in our field. We hope that as women and IMTs, as we take up our positions as recognized "authentic" leadership in the field of private music education and instruction, as our thoughts and research become more widely accepted as legitimate intellectual concerns, that "intellectualism" will include the personal concerns of our everyday lives as experienced by IMTs in the private music studio, caring about our students; having a passion for music teaching; encouraging critical awareness and supporting each other's efforts to articulate what we know.

REFERENCES

Bereiter, C. (2002). *Education and mind in the knowledge society.* Mahwah, NJ: Lawrence Erlbaum Associates.

Berg, B.L. (2001). *Qualitative research methods for the social sciences* (4th ed.). Needham Heights: Allyn & Bacon.

Bernard, R.H. (2002). *Social research methods: Qualitative and quantitative approaches.* Thousand Oaks: Sage.

Clifford, J. (1986). Writing culture: The poetics and politics of ethnography. In J. Clifford & G. Marcus (Eds.), *Partial Truths* (Introduction). Berkeley: University of California Press.

Cobb, P., McClain, K., DeSilva Lamberg, T., & Dean, C. (2003) Situating teachers' instructional practices in the institutional setting of the school and district. *Educational Researcher, 32*(6), 13-25.

Dewey, J. (1929). *The sources of a science of education.* New York: Horace Liveright.

Farr-Darling, L. (2001). When conceptions collide, constructing a community of inquiry for teacher education in British Columbia. *Journal of Education for Teaching, 27*(1), 7-21.

Freire, P. (1993). *Pedagogy of the oppressed.* New York: Continuum.

Goodlad, J. (1993). School university partnerships and partner schools. *Educational Policy, 7*(1), 24-39.

Griffiths, M. (1998). *Educational research for social justice getting off the fence*. Buckingham, Open University Press.

Hargreaves, A. (1997) *Changing teachers, changing times: Teachers' work and culture in the postmodern age.* London: Cassell.

Huberman, M. (1995). Networks that alter teaching, conceptualizations, exchanges and experiments. *Teaching & Teachers.* 1(1), 193-212.

Kincheloe, J.L. (1991). *Teachers as researchers: Qualitative inquiry as a path to empowerment.* New York: Falmer Press.

Lytle, S.L., Belzer, A., & Reumann, R. (1993). *Initiating practitioner inquiry: Adult literacy, teachers, tutors, and administrators research their practice* (Technical Report TR93-11). Philadelphia: University of Pennsylvania, National Center on Adult Literacy.

Nonaka, I. & Takeuchi, N. (1994). A dynamic theory of organizational knowledge creation. *Organization Science, 5*(1), 84-103.

Piaget, J. (1973). *To understand is to invent: The future of education.* New York: Grossman.

Putman, R.T. & Borko, H. (2002). *What do new views of knowledge and thinking have to say about research on teacher learning? Education Researcher. 29*(1), 4-15.

Skeggs, B. (1995). Theorising, ethics and representation in feminist ethnography. In B. Skeggs, *Feminist cultural theory: Process and production*. Manchester: Manchester University Press.

Schon, D.A. (1982). *The reflective practitioner.* New York: Basic Books.

Smith, D.E. (1987). *The everyday world as problematic – a feminist sociology*. Toronto: University of Toronto Press.

Woods, P., Jeffrey, B., Troman, G. & Boyle, M. (1997) *Reconstructing schools, reconstructing teachers.* London: Falmer Press.

A Two-Year Investigation of Accurate and Inaccurate Singing Among Primary Grade Children

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ABSTRACT

The purpose of this study was to examine longitudinal differences in singing accuracy and pitch discrimination between males and females, and between accurate and inaccurate singers. Ninety-six children, ages five-six years, were administered an investigator-designed singing accuracy test and a standardized music aptitude test in kindergarten and again in second grade. They were classified as accurate or inaccurate singers on the basis of the kindergarten singing accuracy test scores. Only the scores of the most accurate singers ($n = 32$), 16 males and 16 females, and the most inaccurate singers ($n = 32$), 16 male and 16 females, were used in this study ($N = 64$). Results of independent t-tests indicate that gender was not a factor in singing accuracy or pitch discrimination, but ability in kindergarten was a factor in both singing accuracy and pitch discrimination. The accurate singers scored significantly higher than the inaccurate singers in kindergarten ($p < .001$) and maintained a significant difference through second grade ($p < .001$). Accurate singers scored significantly higher in pitch discrimination than inaccurate singers both in kindergarten ($p < .001$), and in second grade ($p < .001$). The benefit of developing accurate singing skills by kindergarten seems to extend at least through second grade. Music educators can expect boys and girls to be equally successful in singing and pitch discrimination, and may identify a child's ability to discriminate pitch by the ability to match pitch.

Musical Home Environment, Family Background, and Parenting Style on Success in School Music and in School

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ABSTRACT

The purpose of the study was to examine the role of various aspects of parental involvement-home music environment, family background, and parenting style and their influence on success in school music and in school. Participants (N=1223) were music students in grades 4-12 from six regions of the United States. Measures of parental involvement-home environment in music (PIHEM), attitudes towards music, music achievement, parenting style, and psychosocial maturity were administered, and additional data were gathered related to academic success. Musical home environment, parental musical expectations, and family musical background were related to all outcomes, and parental attitudes towards music study were related to all outcomes except for work orientation. ll PIHEM factors were related to each of the composite outcome measures, as well as with parenting style. Regression results accounted for 18.6% of the variance in academic outcomes, 20.5% in psychosocial outcomes, and 34.9% in musical outcomes. Parental musical expectations showed a significant direct effect for both academic and psychosocial outcomes, while parental attitudes towards music study, home musical structure, and family musical background obtained significant direct effects for musical outcomes.

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