THE EFFECTS OF BAMBOO XYLOPHONE ACCOMPANIMENT ON THE DEVELOPMENT OF MUSIC APTITUDE AND SINGING ACHIEVEMENT IN PRIMARY TWO CHILDREN

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I hereby declare that the material herein this thesis is my own work and effort, except for quotations, excerpts, equations, summaries and cited references, which have been duly acknowledged.

8th August 2011

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ABSTRACT

THE EFFECTS OF BAMBOO XYLOPHONE ACCOMPANIMENT ON THE DEVELOPMENT OF MUSIC APTITUDE AND SINGING ACHIEVEMENT IN PRIMARY TWO CHILDREN

The purpose of this research was to investigate the effect on the use of bamboo xylophone accompaniment as harmonic accompaniment on the development of tonal aptitude, rhythm aptitude and singing achievement in primary two children. Four classes (*n*=80) from two public schools in the city of Kota Kinabalu were randomly chosen served as control and experimental groups. The control group received music instruction without harmonic accompaniment while the experimental group received music instruction with bamboo xylophone as harmonic accompaniment. The Intermediate Measures of Music Audiation (IMMA) test was administered to all subjects (*n*=80) as pre-test and post-test. Each child sang two criterion songs and they recorded individually before and after the 12 weeks treatment period. The singing achievement test was evaluated by three evaluators by using the Singing Achievement Rating Scales. The researcher failed to find statistically significant difference in the tonal and rhythm aptitude test. However, there was significant effect on the singing achievement between the two groups in the comparison of pre-test and post-test mean gain scores. Moreover, the percentage of children in the experimental group improved more than the control group. This suggested that future study of this experiment would have to include with longitudinal and using a larger sample size.

ABSTRAK

Penyelidikan ini bertujuan untuk mengkaji perkembangan pelajar-pelajar tahun dua terhadap kebolehan nada, kebolehan irama dan pencapaian mereka dalam bidang muzik serta nyanyian dengan menggunakan bambu kulintangan sebagai iringan harmoni dalam pengajaran muzik. Empat kelas (n=80) dari dua buah sekolah rendah awam di kota kinabalu telah dipilih secara rawak oleh penyelidik untuk dijadikan sebagai kumpulan kawalan dan kumpulan eksperimental iaitu kumpulan kawalan menerima pengajaran muzik tanpa iringan harmoni, manakala kumpulan eksperimen menerima pengajaran bambu kulintangan sebagai iringan harmoni. Semua subjek (n=80) mengambil ujian pra dan pasca mengikut standard Intermediate Measures of Audition (IMMA) *iaitu setiap pelajar akan menyanyikan dua buah lagu yang telah ditetapkan. Setiap nyanyian akan dirakamkan sebelum dan selepas 12 minggu pengajaran. Diakhir pengajaran, pencapaian nyanyian oleh pelajar akan dinilai oleh tiga orang penilai dengan menggunakan standard* Singing Achievement Rating Scales*. Kesimpulannya, penyelidik tidak berhasil mendapatkan signifikan secara statistik dalam ujian kebolehan nada dan irama yang telah dilaksanakan. Walau bagaimanapun, dapatan kajian adalah signifikan dalam pencapaian nyanyian terhadap dua buah kumpulan perbandingan melalui pencapaian min hasil dapatan daripada ujian pra dan pasca yang telah dilakukan. Tambahan pula, pencapaian peratusan kanak-kanak bagi kumpulan eksperimental adalah lebih baik berbanding kumpulan kawalan. Penyelidik mencadangkan kajian eksperimental pada masa hadapan adalah merangkumi longitudinal dan persampelan kajian yang lebih luas.*

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

In recent years, there have been many from the research community concerned with children's musical development. There are many goals in children music education. Researchers continue to find strategies to improve music learning and teaching. One of the major goals is to understand the importance of music aptitude (Gordon, 1997: 13). Everyone has intelligence and potential in music. In Gardner's (1983) Multiple Intelligences Theory, everyone has intelligence as well as musical ability, but this varies some from individual to individual.

> Just as no person is void of some intelligence, no person is void of some music aptitude. To that extent, everyone is musical. No one is incapable of at least learning to listen to and perform music with some degree of success. More than two-thirds of us are average. That is, we have average music aptitude.
>
> (Gordon, 2007: 46)

In view of this, it seems important to know the extent of children's potential in music. Every child has musical ability. This study was designed to investigate the effect of bamboo xylophone as harmonic accompaniment on the developmental music aptitude and singing achievement of primary two children.

1.2 Background of the Study

Music education in Malaysian schools is considered a recent development in comparison to other countries. Emphasis has been placed on an intercultural approach to music education in order to acknowledge the diversity of cultures within the country. However, music education in Malaysia has been greatly influenced by the British government, which implemented elements such as choirs and marching bands into the school curriculum. Some parents also enroll their children in private music classes, such as piano, violin, guitar, drum and vocal classes.

The Malaysia Primary School Music Curriculum was implemented in 1983 and music was introduced as a compulsory school subject under the New Primary School Curriculum (KBSR). The four main aims of Malaysia Primary School Music Curriculum are to provide Malaysian children with an exposure to musical knowledge, music experience, music appreciation and music creativity. The school curriculum comprised two levels in a six year program. The first level comprised of pupils from primary one to three and the second level comprised of pupils from primary four to six. The primary school music instruction consisted of two thirty-minute lessons per week.

In the Malaysia Primary School Music Curriculum, the content of the music education curriculum was designed based on the following four aspects:

i. Aesthetic Perception: Knowledge and understanding of music theory (musical concepts)
ii. Music Experience: Knowledge of the basic elements of singing and playing musical instruments.
iii. Creative Expression: Developing creativity and self-expression.
iv. Aesthetic Appreciation: Music appreciation of various types of Malaysian music and culture.

Though Malaysian Music Education was made compulsory in primary schools, many of the music teachers in primary schools are not specially trained through the collegiate teacher-education program to teach music. This observation of the researcher is supported by Johami Abdullah (2010: 248), "The major problem is the lack of trained music teachers."

It is also supported by Ghaziah Mohd. Ghazalia and McPherson (2009: 195) state:

> Although music is a compulsory subject in primary schools, the active implementation of the curriculum is still lacking in many schools throughout the nation. Factors such as a lack of trained music teachers, facilities and adequate resourcing of music are often the reasons why many primary children are exposed to poor experiences in school.

In addition, Ku (2009: 7) observed that some of the music teachers lack skills in playing musical instruments. Most of the teachers only play cassette or compact disc recordings to accompany the children's singing. This effect is observed in the yearly intake of trainee teachers who major in music at Kent Teachers' Training College. According to Soh, some of the teachers cannot sing in tune and do not have much interest in this field. Lack of trained music teachers and a poor musical environment might influence the children's development of music aptitude and achievement.

Singing has long been agreed upon as a basic element to the school music curriculum (Atterbury & Silcox, 1993; Guilbault, 2004; Levinowitz et al, 1998; Rutkowski & Miller, 2003). Many researchers work continuously to find strategies and use supportive data from their findings to help children to develop singing accuracy. Many factors influence children's singing accuracy. Some researchers believed that singing accuracy was related to the quality of instruction (Apfelstadt, 1984; Persellin, 2006). Another factor that influences singing accuracy is the use of accompaniment (Atterbury & Silcox, 1993; Gouzouasis, 1987; Guilbaut, 2002; Hale,

1977; Moog, 1976; Pelphrey, 1998; Petzold, 1969; Sterling, 1984). Several studies had shown that singing individually and singing in small group could improve singing accuracy (Rutkowski, 1996; Rutkowski & Miller, 2003). Also, some research had shown that singing accuracy was influenced by maturation (Goetze, 1985; Goetze & Horii, 1989; Levinowitz et al., 1998). Levinowitz (1989) has noted that children aged four and five performed better in singing without words than with words. However, no difference was found between children involved in rhythm performance with and without words.

The effect of harmonic accompaniment on children's developmental music aptitude, singing and improvisation has not received much attention from the research community (Guilbaut, 2002: 2). Previous research findings into the effectiveness of accompaniment indicated different results on children's singing achievement. Petzold (1966) indicated that children experienced improved singing by using chord I, IV and V accompaniment. Hale's study (1977) reported that the children sang better by using a three-step sequence after a year of music instruction which included both a melodic and harmonic piano accompaniment. Sterling's (1984) results indicated that children in grades one, three, five and seven sang better with melodic replication and traditional tonal accompaniment than chromatic and dissonant accompaniment. Gouzouasis (1987) reported that singing achievement seems to be influenced by the type of accompaniment.

In contrast, after a year of study, Atterbury and Silcox (1993) failed to find statistically significant differences for kindergarten children's singing accuracy when comparing those who received music instruction with piano and without piano accompaniment. Pelphrey's (1998) findings indicated that no significant differences existed between groups who received music instruction with piano or guitar accompaniment, CD recordings and *a cappella*. Guilbaut (2002: 2) found that song instruction with harmonic accompaniment had not received much attention from the research community. Guilbaut's findings indicated that the use of xylophone accompaniment did not help the singing achievement in kindergarten and first grade children.

1.3 Statement of Problem

During the past few decades, music psychologists have designed tests to measure to what extent people have music ability, aptitude, achievement, intelligence and musicality. Most people around the world believe that talent is an inborn capability and gifting. According to Suzuki (1981: 3), talent is not innate or gifted, and it should be considered the outcome of education. Gordon (2007: 46) agrees that there are no unmusical children and every child is capable in learning music. Boyle and Radocy (1987: 139) define music aptitude as "the result of genetic endowment and maturation plus whatever musical skills and sensitivities may develop without formal music education". According to Gordon (2003: 13), music aptitude refers to a measure of children's potential to learn or to achieve in music. Music achievement is a measure of what a child has already learned in music (Gordon, 1982, 1986, 2003, 2007; Radocy & Boyle, 1979).

All children are born with an inborn potential. Music achievement is based on their aptitude and music experience. A high achiever must also have high music aptitude. However, a low achiever does not necessarily have a low music aptitude. There is a possibility that children with high music aptitude may not fully utilize their potential due to a lack of proper music instruction (Gordon, 2007: 46). If a child is born with a low or moderate aptitude, training may improve his or her aptitude when he or she explores a rich musical environment and with proper guidance.

> It is important to remember that the informal music guidance children receive at home and preschool and the formal music instruction they receive in kindergarten and early grades will directly influence their levels of developmental music aptitude and, directly, their levels of stabilized music. Most likely, this early guidance and instruction will have a direct influence on their music achievement, far more influence than formal music instruction they receive in the upper elementary grades, middle and high school, and even colleges and universities.
>
> (Gordon, 2007: 49)

Gordon believes that music aptitude stabilizes at age nine and above. After age nine, environmental changes no longer affect a child's music aptitude (Gordon, 1979). He emphasizes the importance of a child's early music development, a musical environment that explores sound through singing, movement, listening and playing instruments. A rich music environment can improve a child's music achievement and the level of his or her music aptitude. However, there was research findings suggested that music aptitude can be stabilized early, at age five or six instead of age nine (Schleuter & De Yarman, 1977).

Children's innate music aptitude can be measured through the use of valid tests (Gordon, 2003: 13). Gordon developed several tools for measuring developmental and stabilized music aptitude. A developmental test is designed specifically to measure children's music aptitude from age three to nine, such as Audie, Primary Measures of Music Audiations (PMMA) and Intermediate Measures of Music Audiations (IMMA). The Musical Aptitude Profile (MAP) and Advanced Measures of Music Audiation (AMMA) are stabilized music aptitude tests for measuring children nine years and above.

The effect of music instruction on the development of musical aptitude has led researchers to explore whether the quality of instruction is effective. Flohr's (1981) study concluded that short-term music instruction significantly improves children's music aptitude as measured by PMMA. Moore (1984) highlighted the finding that children who received music instruction in an Orff approach group scored significantly higher than others in rhythmic aptitude. Pelphrey (1998) conducted experimental research with three experimental groups: group one received music instruction with piano or guitar accompaniment, group two sang *a cappella* and group three used CD accompaniment. The results indicated that no significant differences existed between these groups on grade one children's tonal aptitude.

For the past few decades, most researchers and educators have debated about the importance of the quality of instruction, such as teaching approaches to developmental musical aptitude, music achievement and singing accuracy. They

continue to seek an appropriate teaching strategy for improving children's musical development. However, there is a serious lack of research on the effects of harmonic accompaniment on children's musical development. A review of Malaysian literature reveals no research material on whether music instruction affects developmental musical aptitude and singing accuracy focusing specifically for those in lower primary schools.

In addition, there are no studies about whether playing a bamboo xylophone as accompaniment facilitates musical development. In light of the scarcity of research, this study was designed to investigate the effects of a bamboo xylophone as harmonic accompaniment on the developmental musical aptitude and singing accuracy of primary two children to gather information on the extent of children's potential in music. It could be important to examine whether the type of music instruction (song instruction with accompaniment versus song instruction without accompaniment) is an important factor on children music development. Also, it might provide more inside into the development of music aptitude and singing achievement.

1.4 Purpose of the Study

The purpose of this study was to investigate the effect of an additional bamboo xylophone in music instruction on children's musical aptitude and singing achievement, specifically with primary two children. The present study was intended to examine whether the children in primary two responded positively to music instruction with an additional bamboo xylophone.

This research focused on children's musical aptitude development and singing accuracy. A pre-test and post-test were designed and used to measure children's musical aptitude on Gordon's (1982) IMMA Scale and children's singing achievement was measured using an adapted version of Guilbault's (2004) Tonal Rating Scales.

Through learning the bamboo xylophone, children learn to play simple harmonic accompaniments, such as drone, bourdons and ostinato. This can help to