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Practitioners' strategies for enhancing early childhood music education in Taiwan

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BOSTON UNIVERSITY
COLLEGE OF FINE ARTS

Dissertation

**PRACTITIONERS' STRATEGIES FOR ENHANCING
EARLY CHILDHOOD MUSIC EDUCATION IN TAIWAN**

by

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Dedication

I dedicate this study to my parents. They have always encouraged me to grow and to pursue my dreams at every stage of my life.

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I would like to thank Dr. William McManus, Professor André de Quadros, Dr. Richard Bunbury, and Dr. Stephen White for their valuable time, comments, and suggestions.

I particularly want to thank the director of the Sun Preschool for letting me conduct research at her school as an observer.

Finally, I want to thank my parents for their constant support in helping me to accomplish my goal of achieving a doctorate degree.

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ABSTRACT

The purpose of this study was to describe practices of pre-school educators and to investigate the extent to which they enhance music instruction among five-to-six-year-old children. This was accomplished through an examination of three early childhood educators investigating what strategies are used for providing music instruction to pre-school children, the attitudes of teachers and parents in regard to this, the most effective approach for providing music instruction, and the assessments used to measure student progress in achieving musical skills.

Primary participants included three early childhood teachers, and secondary participants included nine parents. Qualitative methods were used, including formal interviews with the three chosen teachers. They were each interviewed one time individually. Parents were given open-ended questionnaires designed by the researcher. Observations of teacher interactions with students were conducted in 14 separate sessions over a period of three weeks, where the researcher sat in during general and music class in the same classroom; the field notes cataloged observations of musical activities. The collected documents included teaching materials developed by the music and classroom teachers, such as lesson plans and a teaching activity handbook.

The Taiwanese pre-school music curriculum included singing, music and movement, listening, and playing musical instruments. Data indicated that children can only audiate to one instrumental sound or one melodic line at a time. The teacher provided feedback was found to be effective in enhancing student musical learning. Teachers served as musical models in singing, music and movement, and in playing instruments to assist children's musical learning. Bruner's theory of enactive and iconic modes of representation played an important role in singing, music and movement, as well as listening in the class. The model movements or gestures were presented by the teachers and imitated by the children. Teachers and parents had positive attitudes toward early childhood music education. When music classes were provided, the music teacher could enhance both the classroom teacher and children's musical skills. Effective approaches were storytelling and using body movements. Participants reported several different opinions regarding teachers' assessment of students including having teachers follow the national curriculum standard, assess her students through their classroom response, and observe her students at a graduation concert.

In general, the practitioners' strategies for enhancing pre-school music education were positive and related to previous research findings on music instruction and educational theories.

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CHAPTER 1

INTRODUCTION

Background (Music Education in Kindergarten Setting in Taiwan)

The emphasis on music education in Taiwanese kindergartens is a rather recent phenomenon. In the late 1800s and early 1900s there were no teaching guidelines for kindergarten, and music activities were not required in the curriculum (Son, 1976).

It was not until 1929 that the Ministry of Education of The Republic of China published guidelines for a kindergarten curriculum, which for the first time included music education. The main goal of music education was to enhance the children's singing skills, music appreciation, and rhythmic abilities. In 1939, the government mandated that the kindergarten curriculum should include music, stories, children's songs, games, and general knowledge (Son, 1976). After the civil war in China in 1949, many young couples moved to Taiwan, and the resulting baby boom caused a dramatic increase in the number of Taiwanese kindergarteners. In 1953, the kindergarten curriculum was modified somewhat because of this population increase. Music, stories, and chants became main components of the curriculum. The goals of kindergarten music education were: (a) to satisfy children's desire to sing and thus to add vitality to their lives; (b) to enhance their musical appreciation, singing, and instrument playing abilities; (c) to stimulate children's rhythmic ability; (d) to develop children's sense of love, joy, and cooperation; and (e) to inspire children's interest in games, stories, and children's songs (Tzai & Lin, 1987). In 1975, the guidelines for kindergarten curriculum broadened the content areas to include health, games, music, working, language, and knowledge, which were to be provided to

students on a daily basis (Ministry of Education, The Republic of China, 1975). Based on the shift in 1975, the educational goals were adjusted to (a) to develop young children's interest in music, (b) to cultivate young children's appreciation of music, (c) to satisfy children's desire for singing and to increase joy and vitality in their daily life, (d) to cultivate children's rhythmic and harmonic abilities and the capability of music appreciation and creativity, (e) to promote young children's balanced mental and physical development, and (f) to develop young children's spirits of love, joy, liveliness, and cooperation through music activities (Ministry of Education, The Republic of China, 1975). The Ministry of Education published new guidelines again in 1987. The guidelines stated that curriculum goals should help develop a sound personality in young children and help develop abilities of expression and concentration, good conduct, and social behavior (Tzai & Lin. 1987). The music curriculum would focus on (a) promoting young children's balanced mental and physical development, (b) stimulating young children's interest in music, (c) cultivating fundamental abilities in music, (d) improving musical performance, and (e) developing children's spirit of love, joy, vivacity and, cooperation (Ministry of Education, The Republic of China, 1987). In order to achieve the above stated music curriculum goals, teachers' teaching content includes singing, recreation, eurhythmics, music appreciation, and the playing of simple instruments (Ministry of Education, The Republic of China, 1987).

The Ministry of Education published current preschool curriculum guidelines in 2012. The guidelines state "music rhythm, melody or singing are the materials and the artistic medium of expression" (Ministry of Education, The Republic of China, 2012).

The enhancement of listening skills is achieved through singing, playing percussion instruments and body movements. Children learn through listening, singing, and playing instruments to express different rhythms or music such as fast-slow tempo, loud-soft sounds, and high-low pitches. Through listening to music CDs, children's songs, and percussion instruments, children respond or reflect, and express the feeling of music. They pay attention and appreciate various changes in the character of the music (Ministry of Education, The Republic of China, 2012).

The current preschool guidelines contain ideas for teacher implementation of these standards. Preschool teachers should provide various vehicles for musical expression and interaction, such as listening to CDs, singing and performing children's songs, and using percussion instruments. Regarding teacher assessment of children, teachers should collect data regarding children's performance in music class, such as music and movement, and playing percussion instruments. In order to follow up and analyze data in the future, teachers can bring notepaper or scratch paper and pen, write down children's learning activities and the date, and locate the date in the child's portfolio. They also would take an audio or video recording of children's learning activities. From these recordings, teachers can observe children's singing, playing instruments, and body movements as well as their expression of musical elements such as low or high pitch, soft or loud sound, and fast or slow tempo for assessment purposes (Ministry of Education, The Republic of China, 2012). The results of the assessment, in addition to offering teachers information of children's learning situations, more importantly provides parents an understanding of their child's learning. The results of the assessment also can provide parents and children a way

to review learning opportunities together. Beyond helping parents understand children's learning situations and school teaching contents; it also can benefit the parent-teacher relationship. Moreover, children observe their own learning results, which can help increase their feelings of achievement and promote their learning. (Ministry of Education, The Republic of China, 2012).

Current Music Research in Taiwan Kindergarten

The purpose of this study was to describe practices among a sample of preschool practitioners and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing among the five-to-six-year-old population. While educators in Taiwan recognize the importance of early childhood music education, it would be ideal for them to be apprised of current research in this area. Few studies have been conducted in Taiwan on kindergarten teachers' music experience, children's singing (Lee & Yen, 2008; Lee, 2006; Lin & Chen, 2007; Liu, 2007; Wu, 2002; Liao, 2008; Tzai & Lin, 1987; Wu, 1999), and they did not focus on preschool music instruction holistically. Studies involving the totality of singing, music and movement, listening, playing instruments, educators' and parents' attitudes toward music instruction as well as assessment are greatly needed to be able to examine the impact of music education in early childhood. The design and findings of this study are an important step towards understanding the unique musical abilities and needs of children.

This study will address what curricula, methods, and strategies are prevalently used for providing music instruction to preschool children at Sun Preschool in Taiwan. It will also cover the attitudes of teachers in regard to providing music instruction, the

most effective methods for providing music instruction, and the assessments used to measure student progress in achieving musical skills.

Need for the Study

Developmental psychologists explain that during the first five years of life, a child learns more about the world than at any other time. In one of the most significant reports on preschool music research, Michael (1973) concluded that the musical achievements of preschool age children have been underestimated. Michael determined that the ages between three and six are particularly important to musical development. Taebel (1974) and Zimmerman (1982) indicated that age five to six is the critical period for acquisition of musical concepts and music listening skills.

Edwin Gordon (1990) indicated that 50 percent of all learning occurs before the age of five. Gordon (1986) claimed that everyone possesses some level of music aptitude, which can be developed very early in life and can increase or decrease until around the age of nine. At this point, it stabilizes and is referred to as stabilized music aptitude. It is possible that one's music aptitude is highest at birth and that without music stimulation and a quality musical environment, one's stabilized aptitude level may be lowered (Gordon, 1990). Gordon has stated that whatever is learned in the early days of a child's life forms the foundation for subsequent educational development. It is evident that preschool children may be at the most important age level to receive quality music education. A rich musical environment is therefore crucial during early childhood years. Because the quality of musical experiences offered at the preschool level will ultimately affect the musical development of maturing children, it is important for music educators to be knowledgeable

of child development factors that are related to their musical learning, so that they can provide a foundation for making curricular decisions and developing appropriate instructional materials. Research suggests that children are most receptive to music in the first six years of life. Childhood music experiences have a great influence on future adult attitudes about music and are predictive of musical involvement in later life (Jeanneret 1997). Wesley Ball (1991) found that without active participation in music, a child might lose music aptitude even earlier, between ages five and six. Ball (1995) indicated that music aptitude is developed through active participation in singing and moving to music.

Teaching young children to sing is especially important. Several authors have concluded that the most important time for teaching children how to sing in tune is while children are young (Kavanaugh, 1982). Singing in tune is important because when music teachers evaluate students' singing, they often particularly focus on singing in tune (Chung, 2010). If a student is unable to sing in tune, this student may be identified as tone deaf or as a non-singer. When children are unable to sing in tune, they often lose confidence and falsely conclude that they have no singing ability. As a result, they give up musical pursuits (Chung, 2010; Brophy, 2000). Educators can accept the premise that children who are unsuccessful in math in the primary grades will develop negative attitudes toward math, and will therefore not be interested in taking math courses in secondary school. It is therefore not surprising that a child who is an unsuccessful singer and who is never taught how to sing may develop a similar negative attitude. "The longer the correction is delayed, the more negative personality reactions develop and the more difficult it is to correct the problem" (Gordon, 1979b, p.56). This can cause a parallel lack

of interest in participating in any music courses, which may prevent the child from enjoying music later in life. It has been speculated by music educators, and investigated by some (Buckton, 1977; Goetze, 1985; Welch, 1979), that the use of song ranges consistent with children's natural voice ranges leads to more efficient and effective remediation of problem singers and improves intonation.

Music, especially singing, is an important element of many cultures, and adults who do not feel confident singing may be unable or unwilling to participate in cultural activities such as singing "Happy Birthday to you" or holiday songs. Many adults also like to sing together or make music in other ways, and people who have low confidence in their musical abilities may feel uncomfortable in such situations and lose opportunities to make social connections. It is therefore important for young children to be taught how to sing well. Many authorities in music education believe that every child can be taught to sing. Edwin Gordon (1971) wrote, "Anyone can learn to sing just as anyone can learn to talk" (p. 272). Campbell and Scott-Kassner (2002) stated that "all children are musical" (p.6) and that "nearly all children possess the ability to sing accurately in tune" (p.7). Michael (1973) identified the peak of children's vocal reproductive abilities around age five or six, and notes the importance of early musical experiences. It is hoped that the present research will provide insight into the effectiveness of vocal and music instruction utilizing various types of teaching reinforcement that are frequently recommended by educators.

It is important for educators, administrators, and parents to understand how music competency is developed. This study serves to shed light on the people, places, and actions that play a crucial role in providing a stimulating environment for the musical

growth of young children. Examination of this research will enable classroom teachers, administrators, music teachers, and parents to better understand the role of curricula and teaching strategies for early childhood music programs.

Another possible benefactor of the information provided in this study is teacher education programs for early childhood classroom teachers. The music education profession in Taiwan heavily relies on the quality of music skills and knowledge of not only music specialists, but also classroom teachers. This study sheds some light on the importance of including music training in early childhood pre-service teacher programs. Currently, few departments of education in the metropolitan of Taiwan offer elective or required classes on music for early childhood classroom pre-service teachers. There is a great need for effective pre-and in-service teacher training models in music education, and the data from this study exposes the areas that require attention, which could be provided in professional development workshops. This study will provide information for teacher training programs, professional education organizations, and school administrators to help them consider and determine what kindergarten teachers need in order to effectively implement music education into their classroom and to help them provide more opportunities to develop children's musical potential.

Taiwan's recent rapid economic growth as well as its Westernization has contributed significantly to a growing awareness of early childhood education. Many educators who have studied abroad have introduced different theories of child development to the country, including the well-recognized theories of Jean Piaget. Results of cross-cultural research based on Piaget's stage theory have concluded that

Piagetian stages can be identified in children in non-Western cultures, and those children proceed through the same sequence of stages as Western children (Berry, Poortinga, Segall, & Dansen, 1992). Consequently, developmentally appropriate curricula have gained acceptance and are being practiced in preschools in Taiwan.

This study may become a unique contribution to the literature regarding music teaching and learning, and may lead members of the broader music education profession who read this report to pursue additional learning opportunities to better understand the perceptions of preschool music method, curriculum, and teachers' experiences in teaching and learning of music. It might act as an inspiration for more research in areas of early childhood music education, in order to better prepare music educators and classroom teachers.

Statement of Purpose and Research Questions

The purpose of this study is to describe practices among a sample of preschool educators and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing in the five-to-six-year-old population. This was accomplished through the examination of three early childhood educators about the strategies they used, the attitudes of teachers in regard to music instruction as well as parents' attitudes toward music education, the effective approaches the educators used, and the ways of assessment used by the educators.

Significance of the Study

The results of this study offer valuable insights into one Taiwanese preschool music curriculum, its method, and strategies. It further clarifies issues regarding parents'

attitudes, participation in music activities at home, and other factors related to early-childhood music education in Taiwan. By focusing on the perspectives of the school director, music teacher, classroom teacher, and the parents, additional information is gained that could ultimately improve advocacy efforts. The study also offers many useful suggestions from Taiwanese preschool directors, music teachers, classroom teachers, and parents regarding early childhood music education in Taiwan that could be referred to the Ministry of Education and teacher training programs at colleges and universities in Taiwan for review and implementation. Lastly, this research represents a plausible view of the need for early childhood music instruction in Taiwan, which could be used by music education organizations and teacher training programs at colleges and universities, as well as school administrators, early childhood classroom teachers, music teachers, and parents who are uniquely qualified to promote music as necessary and important for all children in Taiwan.

Summary

In Chapter 1, I presented an overview of the background and context of the curriculum in Taiwanese kindergarten, the purpose of the study, research questions, and definitions. The next chapter will present a review of literature to help provide context and support for this investigation and will explore issues related to theories of learning and their relationship to music learning, the music curricula, methods in early childhood music education, singing, music and movement, listening, playing musical instruments, teaching methods, strategies, teachers' and parents' attitudes toward music instruction, and assessment.

Definition of Terms

Early childhood music education: “The designation ‘early childhood’ as used by professional educators and education organizations in the United States usually refers to the ages from birth through eight years” (Sims, 1995, p. 204).

Classroom teacher: a lead teacher responsible for the preschool classroom curriculum.

Music specialist: a person with some form of music degree who is responsible for teaching music on a regular basis in a given preschool.

Home musical environment: the physical and human resources such as instruments, music books, CDs/tapes, CD player, parents’ musical characteristics, music activities/experiences provided by the family to the subjects.

Parents’ attitudes: an “attitude” is any condition of things or relation of persons viewed as the expression of or as affecting, feeling, opinion, and intentions (Whitney, 1989). However, throughout this study, parents’ attitudes are based on the parents’ general thinking, level of acceptance, and their opinions regarding early childhood music education.

Home musical involvement: for this study, home musical involvement is considered to be music activities such as singing, movement, listening, and using rhythm instruments that are provided by parents for youngsters at home.

Developmental music aptitude: music potential that is affected by the quality of environmental factors. A child is in the developmental music aptitude stage from birth to approximately nine years old (Gordon, 1990).

Kindergarten: In Taiwan, kindergarten includes children aged three to six. Two

programs are provided, half day and whole day. The half-day kindergarten program begins at 9:00 and ends at 11:20. The whole day program begins at 9:00 and ends at 3:20 (Ministry of Education, Taiwan, 1996).

Music aptitude: potential to achieve in music (Gordon, 1990).

Pitch accuracy: the ability to accurately reproduce through singing melodic contour and melodic intervals, while maintaining tonality. Pitch refers to the highness or lowness of a musical sound. Pitch accuracy can be defined as the ability to match a musical sound of a certain highness or lowness.

Pitch-matching accuracy: can be defined as the ability to match musical sounds, which have certain highness or lowness.

Primary Measures of Music Audiation (PMMA): is a test of developmental music aptitude, and is designed for children in kindergarten through grade 3. (Gordon, 2003).

Audie: a test of developmental music aptitude, is designed for children three and four years old (Gordin, 2003).

Restricted song range: song comprised exclusively of a tessitura not exceeding the pitches D to A and a range not exceeding the pitches C to B.

Singing voice achievement: “Achievement is a measure of what the student has learned” (Gordon, 1997). Accomplishment in singing performance, measured in terms of tonal accuracy, rhythm accuracy and intonation accuracy.

Song range: The lowest to the highest pitches employed by a song.

Tessitura: the range within which almost all of the pitches of a song are found (Gordon, 1990).

Tonal pattern: two, three, four, or five pitches in a given tonality that are audiated sequentially and form a whole (Gordon, 1990).

Uncertain singer: a child who sustains tones but often wavers between a speaking voice range and a singing voice range.

Vocal range: the distance between the highest and lowest pitch a person can match (McDonald, 1989; Randel, ed., 1986); the lowest to highest pitches that a child uses when exhibiting a singing response.

Non-Singer: children who do not sustain tones; their singing response resembles chanting in the speaking voice range. Since “non-singer”, a derogatory term often used to describe these children, might be misinterpreted as referring to those who do not participate in singing activities, Rutkowski (1986) indicated that “pre-singer” was chosen as a more accurate term to describe these children for purposes of her study.

Stabilized Music Aptitude: Music potential that is no longer affected by environmental factors. A child enters the developmental music aptitude stage at approximately nine years old and remains there throughout life (Gordon, 200).

CHAPTER 2

REVIEW OF LITERATURE

Theories of Learning and Their Relationship to Music Learning

The theories of Piaget, Bruner, and Vygotsky support an integrated approach to teaching and learning. According to their writings, learning occurs through active engagement with the environment and through social interaction with others. Through this, children develop the necessary competence for present and future social and intellectual development. These developmental theories of learning provide a theoretical and practical framework for appropriate activity design for the various stages of development, improving insight into children's musical learning (Campbell & Scott-Kasner, 1995).

Piaget postulated that children progress through four stages of cognitive development and do so in the same order (Wadsworth, 1996). Children's development, especially in intellectual structures, is tied to stages: the sensorimotor period (from birth to two years), learning through direct sensory experience, the preoperational period (two to seven years), learning through the manipulation of objects, noting the consequences; the concrete operational period (seven to twelve years), viewing objects in concrete, tangible, and systematic ways but not abstractly, and the formal operational period (twelve years and older), learning abstractly using logic and deductive reasoning. Piaget claimed that there are some common characteristics that children at a certain age level may display. Piaget's preoperational stage consists of two sub stages, the pre-conceptual (two to four years) and the intuitive (four to seven years).

Piaget refers to the fixation of an individual upon a particular element within that individual's perceptual field as "centration." (Pfleiderer, 1970). Peterson and Felton-Collins (1986) found that when two changes occur at the same time, the preoperational child centers on only one. Piaget's preoperational stage is most important to this study since most kindergarten and preschool children are in this stage of the developmental theory. One characteristic of this period is the child's tendency to focus only on one part of a task and to ignore other aspects of it (Flavell, 1977). In a study, Sims (1991) investigated the ability of preschool children to identify single and combined musical elements—using listening, movement, and singing—as responses and age as the variable. Results indicated that subjects were significantly more accurate with single versus double discrimination responses, and that older children scored significantly higher than younger children.

Research conducted by Ginsburg and Opper (1979) suggested that children might not progress through these stages at the same average age. Therefore, one of the purposes of this study is to investigate the ability of 5-to-6-year-old Taiwanese children to demonstrate decentration in discriminating musical concepts such as listening.

McDonald and Simons (1989) described that Bruner asserted that the normal course of intellectual development moves through three stages in sequential order: enactive, iconic, and symbolic. In the enactive stage, knowledge is stored primarily in the form of motor responses. Knowledge is stored mostly in the form of visual images in the iconic stage. The symbolic stage primarily stores knowledge as words, mathematical symbols or in other symbol systems. According to Bruner, the process of learning is active, with new

ideas and concepts constructed based on current and previous knowledge. Bruner has proposed three ways in which children process information and turn it into a model of the world. Some preschool children, at the age of four or five, are at the enactive level and others may be ready for iconic representations of experiences and objects (McDonald & Simons, 1989). McDonald and Simons stated that Boardman and Andress have applied Bruner's theory to classroom practice and described some musical behaviors that preschool children may exhibit. At the 'enactive' level of development, children will be demonstrating their understanding through active physical involvement, performing music by imitating what they hear, and describing what they hear with gestures or dance movements. At the 'iconic' level of development, children will have an increased ability to retain a mental image and to associate a visual image with the musical sounds. For example, ∪ might represent sounds getting higher; | | | might represent steady beats. At the 'symbolic' level of development, children will be growing in their ability to associate their aural concepts of music with traditional symbols (words or notation) describing music by turning sound into symbols, or by using musical terms; performing music by turning symbols into sound (reading notation); organizing their own musical ideas and recording them with traditional notation (McDonald & Simons, 1989).

While teaching in the enactive mode, arm, hand, and body movements can be used to represent melodic contour. Walking at a steady pace can be used to represent the steady beat (Campbell & Scott-Kasner, 1995). Through many direct hands-on experiences at the enactive stage involving manipulation, playing instruments, or moving to music, children form the basis for an understanding of music (Andress, 1998). In the iconic mode,

using a simplified notational scheme for imaging and then getting the child to reproduce a melody shows an iconic representation of understanding. For teaching, line-mapping strategies can be used to represent and trace melodic contour or other elements in music, such as beat or duration (Campbell & Scott-Kasner, 1995; Hargreaves & Zimmerman, 1992). In Andress' (1998) view, information gained enactively during the iconic stage provides children with developmentally appropriate visual tools (icons), such as pictures of rhythmic and melodic ideas rendered in a topical form.

Central to Vygotsky's theory is the importance of cultural and social influences. Unlike Piaget, Vygotsky's sociocultural perspective describes external forces as playing a primary role in the child's cognitive development. "In his theory, rich social and cultural contexts profoundly affect children's cognition" (Berk, 2003, p. 256). The conceptual basis for studying scaffolding in the interaction process stems from Vygotsky's (1978) view of socio-cultural theory in which children's learning comes from social interaction. Vygotsky believed that "learning awakens a variety of internal development processes that are able to operate only when the child is interacting with people in his environment" (p. 90). Furthermore, as Vygotsky explained:

The social environment is the necessary scaffold, or support system, that allows the child to move forward and continue to build new competencies. This interaction style has repeatedly been shown to foster general cognitive growth and to increase children's performance on a wide variety of tasks. (Berk & Winsler, 1995, p. 27)

In the process of interaction within the social environment, scaffolding is modified support given to children that fits their current developmental level of performance and assists in their movement towards the next level. When implementing scaffolding

principles in early childhood activities, teachers play the essential roles of observer, facilitator, and supporter (Yang, 2000). Vygotsky viewed scaffolding as a teaching and learning process; the natural sequence of thought and action should be considered to be the fundamental structure (Berk & Winsler, 1995). In order to provide sequential information structures, correct responses, decision making, and feedback required for interaction with children, teachers should be able to evaluate and analyze the children's understanding and achievement as well as have sufficient knowledge to construct the concept.

Newson and Newson (1975) indicated that intersubjectivity is the process that enables a teacher and children who begin a task with a different understanding to arrive at a shared understanding. Adults need to establish specific goals and help children achieve those goals. Ultimately, by sharing a purpose and making adjustments to each other, adults and children should arrive at a shared understanding. In general, adults contribute to the scaffolding process by simplifying the task, providing information, negotiating meanings with the child, or engaging children in activities (Rogoff, 1990; Rogoff & Morelli, 1989; Yang, 1999). At the same time, children may initiate a task, or follow, accept, reject, or neglect adults' suggestions (Rogoff, 1990).

Adults must link previously acquired information or familiar situations that children already know prior to moving towards engaging children in new experiences (Bransford et al., 2000). According to Tharp (1993), "modeling offers behavior for imitation, which assists by giving children information and a remembered image that can serve as a performance standard" (p. 271). Vygotsky's notion of learning is reflected by a teacher

who models appropriate strategies and provides a meaningful relevant context.

Vygotsky stressed that human beings rely on the use of tools and signs. Although he emphasized language as a tool to mediate relations between persons, any tools and signs can make adult child interactions more capable and competent (Berk & Winsler, 1995; Vygotsky, 1971). Explanations, demonstrations, manipulations, and conversations are considered to be among the significant interaction tools and signs that scaffold children's learning and enhance their formative potential (Daniels, 2001). Jacobs (2001) emphasized modeling as an effective way to instruct children. Through teachers' modeling, children observe instruction, absorb and retain information, and practice (Shunk, 2004).

Smith (1993) indicated that in the Vygotskian framework, early childhood teachers play a highly interactive role. Teachers need to know learners well so that they can provide the right level of guidance, and gradually withdraw it as the child comes to understand and perform the task alone. In order to provide guidance, teachers cannot leave children to discover the world alone in free play, if this is interpreted to mean nonparticipation in the child's activities. Interaction and conversation with children in one-to-one situations and relatively small groups is pivotal to ensure teachers are taking an interactive role.

Price-Rom (1999) surveyed and observed 21 early childhood teachers in Russia to gauge their understanding of Vygotskian child development theory. Through interviews and observations, Price-Rom found that Vygotskian theory forms the core of instructional theory in Russian early childhood education. Price-Rom pointed out that although

teachers may not remember all of Vygotsky's theory; it provided a theoretical foundation for early childhood teachers that served to guide their children's learning. For these teachers, the value of scaffolding was that they could pay attention to individual students and provide instruction according to a child's ability. Price-Rom commented, "early childhood teachers have to determine what children need to learn, rather than waiting for the child to reach the appropriate level of development" (p.162). This statement highlights that the teachers very purposely provided instruction that would challenge children and foster their learning. Importantly, modeling and focusing on individual students were the main scaffolding strategies employed. Although teachers led many activities, children's interests drove the lesson planning process.

Murphy and Messer (2000) provided evidence that early childhood teachers play a critical role, and the scaffolding strategies they implement are important in children's ability to transfer learning. Murphy and Messer compared three groups of adults using different strategies—scaffolding, group discussion, and children work-alone. The majority of children (76%) in the scaffolding group were able to complete the task. On the other hand, children who participated in the work-alone group did not show a significant improvement. Murphy and Messer demonstrated that adults' involvement in activity impacts children's learning. Specifically, using scaffolding allows children to transfer knowledge to a new situation. It is important that adults not only interact with children but pay attention to how they interact with them. As shown in this study, when compared to adults who used a guiding question to encourage the children to participate in a discussion group, the adults who used explicit explanations, modeling, hints, and

questions were seen as more effective scaffolding children's understanding.

In accordance with Vygotsky's belief, Yang (2000) designed an instructional model that includes a three-part sequence planning, doing, and evaluating-to scaffold children's language development. During the observation of the effectiveness of the program in three early childhood settings (Head Start in the United States, and both childcare centers and kindergartens in Korea) Yang identified the teacher's role in the scaffolding process as facilitator, observer, and supporter. She explained that teachers are responsible for observing children's ability and progress, and they use diverse methods such as open-ended questions and encouragement to facilitate children's learning. Yang illuminated the complexity of the role of the early childhood teacher in the scaffolding process by demonstrating both the teachers' roles as facilitator, observer, and supporter during the scaffolding process and the ways in which these roles are interrelated. Finally, the teachers' verbal guidance such as encouragement, and open-ended questions, as well as non-verbal guidance (i.e., gestures, listening, and prompting) were considered to be supportive strategies during the scaffolding process. The child is not simply receiving information; rather, the child and teacher engage in an activity in which both share knowledge and contribute to the task (Rogoff & Gardner, 1984; Wertsch, 1984).

Campbell and Scott-Kassner (1995) stated that Burrhus Frederic Skinner's reinforcement theory holds that when a child's behavior—for example, singing in tune or playing rhythm accurately—is positively reinforced by the teacher's smile, or positive comment, that behavior will be maintained or improved. As well, a teacher's frown or shake of the head can also decrease inappropriate behavior. The Skinnerian technique of

successive approximation, or the shaping of behavior by reinforcing each progressive step toward an ideal, is one of the most common techniques used by teachers. The teacher's reinforcing comments are eventually diminished, as children begin to evaluate their own musical behaviors as approximating the model or ideal sound. Reinforcement theory is recognized by behaviorists influence on learning, with the teacher acting as environmental agent, dispenser of feedback, and model of appropriate behavior.

The National Association for Music Education (NAfME), the largest American music education association, strongly advocates for music in early childhood and believes that (a) all children have musical potential, (b) children bring their own unique interests and abilities to the music learning environment, (c) very young children are capable of developing critical thinking skills through musical ideas, (d) children come to early childhood music experiences from diverse backgrounds, and (e) children should experience exemplary musical sounds, activities, and materials (Ponick, 1999).

Music curricula should include singing, body movement, listening, and playing instruments, and Campbell (1998) stated that of these, singing is the most natural means of musical expression children have. Children show how the human body ranks with the voice as a source of musical expression through movement. Listening engages them immediately to move, sing and play, while instrumental performance produces gratification from learning the mechanics on how the instrument produces sound. Learning music increases social skills, cooperation, and cognitive development. A music curriculum in early childhood will promote and enhance the children's individuality as well as have a positive impact on brain development, which are both

critical in early childhood.

Howard Gardner (1983) proposed a theory of multiple intelligences. He suggested that there may be seven intelligences, one or several of which are dominant in the learner's processing in the world. Gardner was concerned that a person may be intelligent in more than one domain, or especially strong in one area while only moderately so in another. The seven intelligences of Gardner's theory include linguistic, logical/mathematical, spatial, interpersonal, intrapersonal, musical, and bodily kinesthetic. If each intelligence is centered in one hemisphere or the other, then his theory can be related to research in cerebral dominance. Left hemisphere processes are emphasized in linguistic and logical-mathematical intelligences, while spatial intelligence reflects right hemisphere processes. Interpersonal and intrapersonal intelligences emanate from right hemisphere functions. Musical intelligence is balanced by processes of both hemispheres, for it allows both sequential (left brain) processing through its perception of durational and pitch patterns and phrases, and simultaneous (right brain) processing through its perception of various polyphonic textures, including harmony. The bodily-kinesthetic intelligence is the only emphasis that appears to stem more from the motor and sensory parts of the cortex than from either hemisphere in particular. The left side of the brain is involved when someone learns how to read, compose, or play music (Jensen, 1998). It is logical, analytical, rational, and involves speech (Sousa, 1995). The right side is intuitive and creative. It looks for patterns, and interprets through body language and tone of voice (Sousa, 1995). The brain may be designed for music and the arts and using music in education may have positive, measurable, and lasting benefits (Jensen, 2001). Music with

lyrics activates more areas of the brain than instrumental music alone. If movement or actions accompany a song, more neural pathways are activated. The brain regions activated by various music elements. Current research findings demonstrate that interactions with music stimulate whole brain (Purwins et al., 2008).

The left hemisphere responds better to verbal, sequential, and linear processing, while the right hemisphere is inclined toward nonverbal, spatial-visual, and simultaneous processing (Restak, 1979). While music can be analyzed linearly by the left hemisphere, it can also be nonverbally experienced and creatively expressed by the right hemisphere. The nature of music instruction allows children occasions for activating the best of both brains (Campbell & Scott-Kassner, 1995). Wolfe (2001) stated that exposure to music activates multiple areas of the brain in both hemispheres. According to Kassner (2003), the public developed a new awareness on brain development in children and the role that music plays in the developmental process and the importance of including such programs during the early childhood years. Kassner indicated that even with the multiplicity of reasons why music is crucial to the development of the whole child, teachers still neglect incorporating musical-components into their early childhood curriculum because they feel inadequate as musicians or music teachers. Kassner recommended that courses preparing teachers of young children to use music in their instruction should include the following subjects: (a) the musical world and musical nature of the young child, including the role of musical play; (b) the impact (intellectual, physical, social, emotional, and spiritual) of music on the whole child; (c) the musical growth of the young child through singing, moving, listening, creating, playing instruments, and thinking about sound; (d) techniques

for reaching all children through music, including at-risk children and those with special needs; and (e) music materials for young children, with opportunities for building a repertoire of songs, including multicultural materials, movement activities, rhymes, and singing games as well as becoming familiar with recordings, instruments, literature about music, and musical toys that are appropriate for young children at various developmental stages.

In a recent national survey, Kirsten (2006) found that most teachers (82%) did not use a formal music curriculum. Nonetheless, Kirsten probed teachers' incorporation of a variety of music activities associated with preschool musical environments. Singing was the most common activity. More than 90% of the responding teachers provided opportunities for singing in a group and singing and dancing. In addition to singing, Kirsten examined movement, listening, and instrument playing in the preschool musical environment. Teachers indicated that they encouraged imitative movement (90%). Listening activities were generally combined with movement (96%). A majority of teachers (85%) also indicated that they had access to a wide variety of sound recordings from different styles and cultures. Drums, rhythm sticks, jingle bells, triangles, and cymbals were found in more than half of the preschools.

The development of a multifaceted music curriculum considers the variables of popularization, traditionalization, and contemporization. Popular music is the major influence in the cultural milieu and musical interests of the students; traditional (including folk and classical) music is crucial for the preservation of cultural heritage and for cultivating cultural identity; and contemporary music is evidence of the ongoing

development of music and its culture as a living art. In view of providing students with a comprehensive understanding of music, it is suggested that the proportion of popular, traditional, and contemporary music should be relatively equal (Leung, 2004).

Studies on Singing

Several music educators have confirmed singing is a principle activity, as well as an important and primary objective (Atterbury, 1984a, 1984b). Abel-Struth (1973) declared that singing is still traditionally one of the richest and most employed musical experiences of children. Sims (1993) indicated that singing is the most intimate way for children to make music and to express themselves. Kodály and Orff emphasize singing as the foundation of a child's musical learning. The main objectives of Kodály's approach are "to aid in the well-balanced social and artistic development of the child and to produce the musically literate adult" (Choksy, 1974, p.15). Kodály believed that "only through singing could music truly become a part of the child" (Mark, 1978, p.96). Singing has long been regarded as central to the elementary school music curriculum, and the issue of vocal development is a concern to music educators. Campbell & Scott-Kassner (2006) indicated that if kindergarten teachers can select appropriate songs and teaching methods by focusing on children's vocal ability, then with appropriate training, children will achieve good vocal development.

Klanderma's (1979) study was to describe the preschool child's singing ability. Klanderma extended Smith's theory by stating that 3-year-olds comfortably sing the bottom tones of the lower range, whereas 4- and 5-year-olds can expand their range to the upper tones of that register. Singing performances of 3-year-olds (n=17), 4-year-olds

(n=12), and 5-year-olds (n=18) were evaluated by the investigator. These children were asked to match individual pitches in the range of C4 to A4, imitate a spoken rhythm, and sing a tune. The melody test revealed that ascending and descending patterns were equally difficult and that once a child began singing in a certain melodic direction it was difficult to change direction. It was concluded that tessitura of preschool voices is in the lower part of the range, range extends with age, melodies should have several notes in one direction before changing direction, and songs should concentrate on the child's most comfortable singing range. Pitches in the lower part of the child's natural vocal range were easier for the younger children to perform.

Joyner (1971) suggested a slightly larger range for five-to-six-year-olds, B flat to A flat. In addition, the music chapter of the kindergarten Curriculum Standard (Ministry of Education, 1987) contains singing games within the music section of the table of contents. This section directs the pitch range and interval to be from C4 to C5 (one octave).

Pitch accuracy develops in the lower ranges first, thus songs should be pitched according to children's developmental level (Rosborough et al., 1972; Young, 1971). After children can sing their comfortable range well, then teachers can expand children's vocal range through instruction (Young, 1971). Young suggested that the bottom of the range extends below C4 to A3 or B3, and that range expands upward with maturity. Young recommended that the upper range be developed through training.

Richner (1976) found training with an emphasis on singing most effective as well as small-group arrangements. Richner's study was to measure, analyze and compare the

effects of three common methods of music instruction and one remedial method, on the ability of inaccurate singers in the third, fourth, and fifth grades, to reproduce pitches. The design used in this study included four experimental groups consisting of 77 children selected from inaccurate singers in the third, fourth, and fifth grades. The students for each of the groups were selected from randomized lists of inaccurate singers within each of the four treatment schools. The four methods of instruction were assigned randomly to the participating schools. During the eight-week treatment period the students in the sample received music instruction by one of the following methods. Treatment I, the music instruction is normally provided by the classroom teacher in the self-contained classroom. The second treatment, music instruction emphasized all areas of music education and is taught to each classroom by a music specialist. In the next treatment, instruction consisted entirely of singing songs taught to small groups by a music specialist. The final treatment involved remedial vocal training for small groups of children taught by a music specialist. All of the students in the sample were pre-tested to determine their initial level of singing ability. A post-test was given at the end of the treatment period in order to measure gains or losses. In order to compare the relative effectiveness of the treatments, an analysis of covariance was computed for the inaccurate singers at each grade level.

The procedure for multiple comparisons was used when the analysis of covariance indicated that significant differences existed. Results indicated that significant differences existed between the treatment groups at the fifth grade level and at the third grade level. There were no significant differences between the treatment groups at the fourth grade level. Six separate comparisons made between the treatment groups at the fifth grade

level indicated that the inaccurate singers who received Treatment IV, the remedial voice training, improved significantly (at the .01 level) in comparison to all other treatment groups. The comparisons made between the treatment groups at the third grade level indicated that the inaccurate singers who received Treatment III and those who received Treatment IV improved significantly (at the .01 level for Treatment III, the .05 level for Treatment IV) in comparison with the inaccurate singers in Treatment I. No other comparisons were significant at the third grade level. Therefore, the null hypotheses, which state that no significant differences exist in the adjusted, mean scores between the treatment groups was rejected for the fifth grade level, and for the third grade level. The null hypothesis, which states that no significant difference exists between the treatment groups at the fourth grade level, was accepted.

Rutkowski (1996) has found that individual or small group instruction and response opportunities resulted in increased achievement. Further, Rutkowski's research indicated that individual and small group instruction were particularly beneficial to those with low or high (as opposed to average) music aptitudes. Rutkowski investigated the effect of individual/small-group singing activities used within the traditional large-groups setting on kindergartners' use of singing voice and developmental music aptitude; the strength of relationship between tonal aptitude and use of singing voice; the length of time over which instruction is needed to provide significant results. Songs, activities, and games were the same for both the control and treatment groups; however, instruction for the treatment group involved small group and individual participation in the singing activities. Results showed that the treatment did have an effect on the children's

development of use of singing voice, that an entire year of instruction was needed for the treatment to be effective, and that a very small relationship seems to exist between use of singing voice and developmental tonal aptitude.

Flohr's (1981) study was to determine the influence of short-term music instruction on five-year-old children's developmental music aptitude as measured by Gordon's Primary Measures of Music Audiation (PMMA). After the pretest, twenty-nine children were randomly assigned to one of three groups. Both group one and group two received 12 weeks of instruction. However, group one emphasized instrumental improvisation. In contrast, group two focused instruction on singing, playing percussion instruments and movement. The control group received no instruction in music. The analysis revealed a significant difference between the groups receiving music instruction and the control group. The group one and group two's combined mean scores on the PMMA were significantly higher. Results indicated that short-term music instruction influences five-year-old children's developmental music aptitude. Flohr concluded that a 12-week period of music instruction significantly increased five-year-old children's scores on the PMMA. The control group's mean score on PMMA actually decreased during the period of no instruction.

According to a book by Burton, Taggart, and MENC (2011), Taggart investigated the developmental, tonal and rhythmic music aptitudes of preschool through second grade students. A music teacher administered age-appropriate music instruction with two twenty-minute classes per week for one academic year. Prior to and following instruction The Primary Measures of Music Audiation (PMMA) was administered to the

kindergarten, first-, and second-grade children. The instruction consisted of singing and chanting in a variety of tonalities and meters, tonal and rhythmic pattern instruction in major and minor tonalities and duple and triple meters, and movement instruction designed to help students move in continuous fluid manners. Taggart reported that aptitude scores of kindergarten, first-, and second-grade students at the end of instruction were significantly higher than pre-instruction scores, even after controlling for maturation. Kindergarten children reported the largest gain, followed by first-grade children, and followed by the second-grade children. Taggart concluded that appropriate instruction for children between the age of three and eight significantly increases tonal and rhythm developmental aptitudes. Second, the effect of appropriate instruction on developmental music aptitudes is dependent on the age of the child. Taggart emphasized the importance of appropriate instruction at an early age. Taggart mentioned that the younger the child, the stronger the effect of instruction.

Repeated song singing is the main teaching approach in Taiwan's early childhood education (Liao, 2008), with the majority of Taiwanese kindergarten teachers relying on commercial CDs to teach young children to sing (Lee & Yen, 2008). Apfelstadt (1984) suggested that repeated singing only focuses on aural learning, and is not sufficient to develop children's singing pitch accuracy. Liao and Davidson (2007) pointed out that teachers need to possess skills for teaching singing as well as professional knowledge in order to help children to develop their singing voice.

Singing has been taught through imitation (phrase by phrase), with children echoing a teacher's vocal model. This is the most frequently used approach to vocal instruction

(Andress, 1980; Smith, 1970; NTAEC, 2000). The imitation may be reinforced by visual or kinesthetic means (as in the use of hand signs to show pitch levels), but having the child echo a vocal model through tone matching and rote singing remains the basic instructional technique (NTAEC, 2000). On the other hand, Klinger, Campbell, and Goolsby (1998) examined the effect of two teaching procedures for teaching songs to children: (a) immersion, where the teacher presents the song in its entirety repeatedly, always from the beginning of the song to its conclusion, and (b) phrase-by phrase, where the teacher fragments and then gradually connects song phrases toward the creation of a meaningful whole. Results showed that children taught by the immersion method performed the songs with fewer errors than those taught through the phrase-by-phrase process.

Tatem (1990) and Green (1990) suggested that the relationship of vocal production to a vocal model is especially important for young children. Tatem investigated effects of selected timbres, tasks, grade level, and gender on vocal pitch-matching accuracy of kindergarten through third-grade children. Five primary null hypotheses were tested to determine significant effects of these variables on vocal pitch-matching accuracy of kindergarten through third-grade children. Two secondary null hypotheses were tested to identify possible relationships of home musical environment (HME) and socioeconomic status (SES) to vocal pitch-matching accuracy (VPMA) of kindergarten through third-grade children. A pitch-matching test was constructed and administered individually to 111 subjects. The test consisted of three subtests that required subjects to vocally match aurally presented single tones, melodic intervals, and tonal patterns. Six timbres were used

as stimuli: oboe, piano, resonator bells, soprano voice, trumpet, and violin. Subjects' vocal pitch-matching responses were recorded individually and analyzed via Visi-Pitch, computer interface, and a Packard Bell IBM-compatible computer. Results of the study demonstrated that timbre and task significantly affected children's VPMA ($p < .001$); that single-tone tasks significantly reduced children's VPMA ($p < .001$); that grade level and gender, independently functioning, did not significantly affect children's VPMA ($p > .05$); and that task, gender, and grade level interact, significantly affecting children's VPMA ($p < .01$). Children responded most accurately when a soprano voice served as the presentation stimulus and when there were two or more frequencies in the aurally presented stimuli. Subjects' responses were significantly less accurate when the presentation stimulus was resonator bells ($p < .001$). No significant relationship was observed between HME and VPMA or between SES and VPMA.

Green (1990) pointed out that children more easily matched a child's voice followed by a female model. Male vocal models singing in the lower octave produced the most incorrect responses. Green examined the ability of subjects to match a descending minor third sung by an adult female, an adult male, and a child. Results showed that there were the most total correct responses to the child model and the least number of correct responses by the male model. Green investigated the effects of adult female, adult male, and child vocal modeling on the pitch-matching accuracy of children in Grades one through six. The researcher tested 282 subjects individually on three separate occasions, each time with a different vocal model. Model pitch stimulus and testing conditions were the same on each testing occasion, the only difference being the model voice. Results

indicated that vocal modeling had an effect on the subjects' pitch-matching accuracy. There were more correct responses to the child model, followed by the female and the male models, respectively. Incorrect responses were more often flat for the female and male models and more often sharp for the child model. First-grade and sixth-grade subjects sang the highest percentages of incorrect responses for all three models. First-grade subjects sang the highest percentage of flat responses.

Campbell and Scott-Kassner (1995) and Flohr (2005) stated that the kinesthetic modality is especially appropriate for young children. Kodály's *sol-fa* combined with Curwen's hand signs provides visualization in space of the high-low relationship between the notes being sung (Chosky, 1999). Many researchers believed that providing a rich learning modality has a positive effect in aiding pitch perception and the resultant development of accurate singing (Apfelstadt, 1984; Mueller, 1993; Wis, 1993). For instance, showing the pitch by hand levels and providing pictures for melodic contour are suggested by many music educators as the best strategies to reinforce pitch perception.

The use of kinesthetic sensations to strengthen motor pictures in memory seems to have a strong impact on the cognition of melody (Mueller, 1993). Liao (2008) found that gesture use had immediate positive effects for young children in aiding their pitch accuracy. The use of aural and direct kinesthetic imagery can affect patterns of learning and comprehension (Kramer, 1985; NTAEC, 2000).

Apfelstadt (1984) investigated the effects of melodic perception instruction on the auditory discrimination of pitch and vocal accuracy of kindergarten children. Sixty-one

subjects were assigned to three different instructional settings for 11 weeks. E1 had vocal instruction designed to promote melodic perception through visual and kinesthetic reinforcement; E2 had vocal instruction consisting primarily of imitation alone; and C had a traditional, non-conceptual approach. Subjects were pre- and post-tested on the Gordon Primary Measures of Music Audiation (Tonal Test), the Boardman Test of Vocal Accuracy, and a rote-singing test. Results showed that there were (1) no differences among groups in auditory discrimination, (2) significant differences on vocal pitch-pattern accuracy between E1 and C and E2 and C, and (3) significant differences in rote-singing accuracy between E2 and C.

Mueller's (1993) study was to determine the effect of movement-based instruction on the ability of primary-age general music students to perceive certain properties of the concept of melody. These properties, functioning as the dependent variables, included register (high, low), direction (upward, downward, same), and progression (steps, leaps, repeated tones). Subjects in the study included four intact classes of third-grade students, two randomly assigned to the treatment group (N = 46), and two randomly assigned to the control group (N = 47). The treatment group received music classes with movement-based instruction, and the control group received music classes without movement-based instruction. The gestures formulated as part of the movement-based instruction represented the melodic properties of register, direction, and progression. An intact nonequivalent control group design was utilized in the study. It can be concluded that movement-based instruction aids students' conceptual development of the properties of melodic progression.

Wis (1993) investigated how the use of gesture and movement in the choral rehearsal may function as physical metaphor in order to facilitate learning and to enhance musical experience. Documentation and discussion of the movement activities of two choral directors who regularly use bodily-based learning in their rehearsals were included to provide an empirical realization for the practical application of a movement-based choral teaching pedagogy. Conclusions from this study include that movement activities (1) make use of the choral singer's natural inclination towards bodily-based learning and allow for the freedom and energy inherent in everyday activities to be metaphorically transferred to the singing process, (2) may encourage more active participation on the part of the singer and can provide a visible accountability system for the learning that goes on in the choral rehearsal, and (3) are less subject to misinterpretation than words and are better able to capture the ineffable qualities of music.

Liao (2008) examined the effects of gesture regarding the improvement of young children's singing. The second purpose was to examine the differences in gesture use among boys and girls and different melodic motions. Eighty Taiwanese young children, five to six years old, participated in this experiment. The children were asked to sing six tonal patterns with and without gestures, which subsequently were evaluated by three professional music teachers. The results showed that gesture use had immediate positive effects for young children in aiding their pitch accuracy. The effect of gestures for girls was greater than for boys. However, the level of gesture effects in melodic motions was different. Gesture had a greater effect for repetition, ascending patterns and large leaps. Sweeping and opening—closing arm gestures especially appeared to work very

successfully. This suggests that gestures provided a kinesthetic sense of motion, which can be an effective tool in aiding singing.

In a study on melodic discrimination, Kramer (1985) tested the effects of two different instructional programs on the ability of third and fourth graders to vocally match pitch. Two hundred and one students from grades three and four were subjects in a ten-week study. Control groups received a traditional curricular approach in teaching singing; the experimental program focused on the use of imagery, both as a mental and kinesthetic exercise. Imagery activities included physical, visual and vocal tracing of a rainbow; the kinesthetic and visual sensations of tracing high and low note progression with accompanying arm and hand motion. Kramer found that the intervention groups (experimental groups) scored significantly higher than the control groups on post-tests determining the students' ability to match pitch, discriminate between high and low pitches and to remember simple melodies. The researcher concluded that the use of indirect visual, aural and direct kinesthetic imagery can affect patterns of learning and comprehension. In addition, the success of the intervention in correcting [the perceptual problem of identifying high versus low in music] also implies that the use of the physical response movement of the body, arms, and mind to the implied movement of the visual rainbow strategy affected the learning process in a positive manner. Findings suggest that there is a reliable instrument to identify, assess, and evaluate the singer; environmental forces can assist or hinder the child in increasing his or her singing ability; singing remains the core of music learning, and singing instruction is a prioritized scope and sequence. Additionally, imagery can act as a mediating agent to facilitate musical skill

acquisition, but tests are needed to measure this function in the learning process.

Wu's (2002) study adopted an observational approach, taking as subjects the young children in two kindergartens in Kaohsiung, Taiwan. Music classes in the two educational settings are observed 45 minutes a day, four days a week, over a period of two semesters. The teaching and learning of kid's songs is then recorded for further analysis. Based on the observations in Wu's study, several findings are derived as follows:

According to the cognitive development theories proposed by J. Piaget and J. Bruner, the young children at the ages of four to six years in this study are in the preoperational stage and the iconic representation stage. They tend to concentrate on one perceptual feature of an experience instead of the whole and describe what they hear by organizing their own musical ideas and communicating them through icons of their own invention. It is thus recommended that teachers have awareness of young children's levels of development and choose age-appropriate experience to ensure successful music teaching and learning. For instance, simplified materials with icons or graphics are preferred to help young children appreciate the contrast of volumes and tone colors.

Children at these stages are characterized by the rapid development of language and perception. They learn to "identify words" in the learning of nursery songs and they acquire some knowledge of animals, plants and nature in the process. Under the influence of their peers, children aged four to six exhibit some of the characteristics of language development, such as reading words from their native language or foreign

languages. To inspire creativity, teachers often tell stories to encourage young children to perform, to stretch their imagination and to express various movements with the help of body language.

Teachers conduct situational teaching based on the content of nursery songs to nurture self-discipline and moral character in young children. Children acquire experience in their daily life and turn them into habits, which is a way to adapt themselves to the real world. When some young children make certain movements or dramatic sounds related to the situations or words of nursery songs, other children in the same class will imitate. On the other hand, teachers also employ a good number of activities, e.g. eurhythmic activities or musical games, to stimulate children's creativity as well as imagination. This allows them to relieve themselves both mentally and physically.

Young children can perform and read not only half and quarter note rhythm, but also sixteenth note rhythm. Moreover, teachers often have them work in groups to practice rhythmic clapping and patting, or they teach the children to read musical notation by putting the rhythmic cards in order. Young children at these stages are able to clap long rhythmic patterns and they need hand-eye coordination to play the xylophone. Xylophones, recorders, and wood blocks are introduced at the age of five or six. Young children prefer songs with clear patterns and musical games with rules, which contribute to better teamwork and to a substantial increase of experience sharing. In addition, they are also interested in group activities and group play. When they sing, their facial expressions change in the meantime. Children of the same age

exhibit striking differences in terms of their singing skills, musical and rhythmic abilities, creativity and performance. Yet when they sing together, they coordinate their pitches and rhythm with others more accurately.

Studies on Music and Movement Instruction

Musical operations involve all lobes of the brain and both cortical and sub cortical structures. In particular, movement coordination, balance and equilibrium, the roles of the cerebellum and emotional responses/memory, the roles of the amygdala are becoming increasingly appreciated. The components of music, including pitch, rhythm, contour, and timbre, are distinct and separable neural processing units (Levitin, & Tirovolas, 2009). Jensen (2001) stated that using the body means using more of the brain than what would typically be used for seatwork.

Music and movement activities can be shared experiences that make children feel part of a group. They develop social skills through playing musical games, playing musical instruments with others, or singing in unison, which require cooperation. Through movement activities children can improve large muscle skills, balance, and coordination (Dodge, Colker, & Heroman, 2002). Children solve problems while engaged in music and movement activities. They use logic and reasoning to figure out which instrument can be used to make a sound like thunder. They create patterns with the words they sing or chant, with the motions they make with their bodies, and with musical instruments. Children learn about number concepts as they clap their hands and stomp their feet or as they sing number songs. Story and narrative associated with songs are important? Experiences with music, which often involve movement as well, are memorable because they are not

restricted to the intellect, but also touch the emotions and involve the senses. Equally important, music and movement help people form relationships and bond with one another (Dodge, Colker, & Heroman, 2002).

Kodály stated that with young children, singing and movement are naturally simultaneous. He believed that singing games in pre-school and early elementary grades are an important activity (Landies & Carder, 1972). Carl Orff (1895–1982) also believed in instruction that combined movement and music (Warner, 1991). Orff advocated the idea of teaching music by integrating the elements of language, movement, and dance (Warner, 1991). Phyllis Weikart's (1995) research in the area of movement has revealed that movement assists and enhances the formation of cognitive and creative abilities in young children and that all aspects of music can be taught through movement, such as rhythms and beat awareness.

Sherrill and Gench (1981) revealed that children aged four to six who received a combination of music and movement training were more advanced at motor abilities than children who only received movement exercises. Two approaches to facilitating perceptual-motor development in children, ages four to six years were investigated. The experimental group (n = 15) received 24 sessions of integrated physical education/music instruction, while the control group (n = 15) received 24 sessions of movement exploration and self-testing instruction. Analysis of covariance indicated that significant improvement occurred only in the experimental group, with discharge changes in the motor, auditory, and language aspects of perceptual-motor performance as well as total score.

Schleuter and Schleuter (1985) found that kindergarten children had the highest success in their chanted responses, had the least success with stepping, and moderate success with clapping. Schleuter and Schleuter examined the relationship of grade level and gender differences with rhythmic responses of clapping, chanting, and stepping with K-3 children after one year of school music instruction. The subjects were 99 children in kindergarten through third grade who participated in eight months of music instruction for one hour per week. The parochial school that the subjects attended was without a music teacher prior to the study, so for the majority of the students (except for 30 transfer students), participation in the study represented their first year of group music instruction. The researchers developed and taught lessons on melodic and rhythmic concepts utilizing singing and eurhythmics. The Rhythm Response Test (RRT) developed by the researchers involved responses of clapping, chanting, and stepping to tape-recorded prompts. Results indicated that the kindergarten children had the highest success in their chanted responses, but the researchers caution that the low reliability of the kindergarten chanting test should be considered in interpreting the results. Further results indicated that the kindergarten children had the least success with stepping, and moderate success with clapping. Overall, the stepping response appears to have been least accurate. All rhythm response tasks were more accurate as grade levels progressed. Girls in Grades 1, 2, and 3 consistently received higher mean scores than boys.

Rainbow and Owen (1979) found that in the performance of rhythmic tasks by three and four year olds, those requiring large muscles were more difficult than tasks involving playing simple instruments, while speech patterns were the easiest (NTAEC, 2000). This

finding has been supported by other researchers (Frega, 1979; Gilbert, 1981).

Simultaneous tasks such as singing and moving present a challenge to young children. On the other hand, Gordon (1993) asserted that while the young child must use both large and small muscle movements, the large muscle movements should be particularly encouraged. This included marching, walking, galloping, swinging, hopping, and jumping.

The naturalistic studies by Metz (1986) provided substantive information on the movement responses of preschool children. Beyond the typical expressions of beat and rhythmic awareness, children can show elements of music such as style, melodic contour, and legato articulation versus staccato articulation through movement. Metz concluded that since musical elements such as tempo, dynamics, and melody have a natural link to movement, music education through movement is ideal for preschoolers. She further speculated that movement is a vital link between learning music and perceiving music. Moreover, movement may be an indicator of musical perception and understanding (Sims, 1991). Taylor (1989) found that physical movement and gesture (a kinesthetic strategy) does make a positive difference to recognition and leads to a higher retention of musical information.

Metz (1986) conducted a naturalistic study investigating the instinctive movement responses of preschool children to music. In her work with two-, three-, and four-year olds, Metz found that, before researcher interaction (i.e. when the children were left to respond to various musical excerpts without any guidance or direction from the researcher, a period known as “free exploration”), children moved naturally to the elements of “sound/silence, overall musical style, and fast/slow. Children in all three age groups did

not appear to respond to high or low pitch fluctuations. It also appeared that they could not differentiate between loud and fast music or quiet and slow music.” (p.106) Metz did not make it clear, however, if the inability to make this distinction was the result of confusion in terms on the part of the children in the study. In Phase Two of her study “guided exploration”, Metz interacted with the children in order to determine what effect the role of the teacher might have. Metz found that by encouraging movement responses that the children naturally exhibited during free exploration (such as galloping and swinging), the teacher could enhance the children's response to music. Their movements became more dynamic when the researcher described how their bodies were moving (bending knees, pushing off the floor, etc.) The researcher recommends a “child-centered” approach to the development of teaching objectives in music, believing that “musical perceptions may be enhanced by selecting musical objectives based on movements the child exhibits naturally, rather than attempting to encourage responses to an arbitrarily selected musical element” (p.107). Metz concludes her study by stating:

Since musical elements have a natural link to movement concepts, the marriage of music and movement may be an ideal medium for teaching and learning music in the preschool. It may be that movement is a key to increasing musical perception at all levels of instruction. Naturalistic research in early childhood music shows the power of movement in perceiving and expressing musical ideas. Future naturalistic studies are recommended to observe people of all ages and levels of expertise in music-making situations to determine the effectiveness of movement as a tool for increasing musical perception. The use of movement as an instructional method is often cited as a means of developing a student's rhythmic understanding and skill. (p.118)

Bebeau (1982) tested the differential effects of traditional rhythm-reading instruction and a simplified speech-cue method on third graders' rhythm-reading accuracy. The speech-cue method used with the experimental group was derived from elements of

the Orff and Kodály approaches to rhythmic learning. A separate spoken cue, selected because of its inherent durational value, is permanently paired with each kind of note and rest. The speech cues elicit appropriate rhythmic responses to notes, and a combination of speech and movement cues inhibits inappropriate motor responses on rests and the successive pulses of held notes. The steps involved are considerably less complex than those that must be learned when applying mathematical concepts as in the traditional method. When rhythmic symbols are read by applying speech cues, the child (1) identifies the symbol by word and hand movement, (2) speaks the word and executes the body motion that simultaneously performs the rhythmic response, and (3) maintains a steady pulse while accenting the appropriate pulse. Bebeau determined from the results of her experiments that, at least for the kinds of rhythmic instruction described herein, several advantages are associated with the use of the speech cue method with beginning musicians. First, students using the speech cue method performed rhythmic patterns more accurately than students using the traditional method. Second, although the number and kinds of errors made by students were not systematically recorded during training, the investigator noted that when using the speech cue method the teacher stopped less frequently to correct rhythm-reading scores and thus completed more practice exercises during instruction than when using the traditional method. Third, the investigator observed that students using spoken cues had little difficulty maintaining an independent part during ensemble playing and were not as easily confused as traditional students by a part that was inconsistent with their own. The studies reviewed above show the positive effect of movement activities on musical learning in a variety of learning situations. The

kinesthetic realization of musical concepts appeared to have a stronger impact on learning than methods that did not include physical activity. Whether the learning task was rhythmic in nature or focused on other aspects of musical learning or experience, movement activities increased the subjects' performance and led to a greater level of musical understanding. This finding lends support to the claim that gestures and body movements may be effectively used in the teaching of musical skills and concepts in music classes.

In another study conducted by Lin and Chen (2007), six kindergartens in Tainan County, Taiwan were studied. In order to investigate the multisensory music teaching orientation in each kindergarten, the researchers created the “Observational Recording Table of Music Teaching for Young Children” and used an observational method to collect relevant data from the schools. Lin and Chen concluded that:

1. Young children’s further understanding and feeling of musical concepts can be triggered by diverse sensory learning experiences.
2. Nowadays’ multisensory learning orientation of music concept teaching is mainly based on audio sensory learning, secondly on kinaesthesia and tactile sensory learning, and thirdly on visual sensory learning.
3. Music teaching in each kindergarten generally emphasized the concepts of timbre, beat, melody, tempo, rhythm, and dynamics; however, teaching on the concept of form was insufficient.

Studies on Listening Instruction

Several authors present strategies for use in structuring music listening activities for

young children. One of the techniques most frequently recommended is for the children to be given a specific aspect of the music on which to concentrate (Sims, 1991). Sims examined the effects of task design on concept identification. Sims documented preschoolers' high degree of success when asked to make a single identification about the music while listening to a musical excerpt; however, when asked to make multiple identifications, the children responded at a chance level. Sims noted that most pre-school aged children may not be ready for music tasks requiring attention to more than one element at a time in listening situations. Sims investigated two studies that were completed to investigate young children's ability to identify single and combined musical elements in response to listening, movement, and singing activities. Study one was an examination of the effects of short-term instruction on preschool children's ability to apply decenteration to musical tasks. Subjects (N = 30) were divided into (a) an experimental group, which participated in four small group instruction sessions designed to teach the discriminations fast/slow and smooth/choppy as well as these elements' four possible combinations and (b) a posttest-only control group. Results indicated that instruction was significantly related to subjects' ability to identify and label musical characteristics, and that subjects were significantly more accurate with single versus double discrimination responses. Study two was designed to replicate aspects of the previous study, with the addition of singing as a response mode and age as a variable. All the preschool-age subjects (N = 42) received the instruction component of Study one. Results of the listening test again indicated that subjects were significantly more successful with the single discrimination task and that older children scored significantly higher than younger

children. The subjects were better able to label simultaneous musical characteristics in their own singing than in recorded listening examples. Conclusions drawn, based on both studies, include: (1) preschool-age children can easily learn to make and label single discriminations, (2) most young children may not be ready for music listening tasks requiring attention to more than one element at a time, (3) children's ability to make discriminations based on their own performance may develop earlier than their ability to make discriminations in listening situations, and (4) initial indications of discrimination maybe demonstrated through singing in simultaneous imitation with a model.

Van Zee's (1976) study was to obtain information on the aural discriminations and verbal responses of kindergarten children to selected musical stimuli and on their ability to demonstrate, through performance on a simple keyboard instrument, understanding of terms commonly employed in teacher manuals to describe various properties of musical sounds. Two individualized tests were developed and administered to 80 children (40 boys and 40 girls) from four Midwestern public schools representing contrasting socio-economic areas. From results of this study it appeared that:

1. Kindergarten children appear to be more efficient in demonstrating understanding of duration of tones and rhythm patterns than in verbally describing them.
2. Children of this age are quite susceptible to training in musical discrimination.
3. Physical movement and other kinesthetic approaches play an important role in developing musical understanding.
4. The musical terminology commonly used with kindergarten children is not

necessarily a part of their vocabulary, but most children through meaningful experiences with it must learn musical terminology.

Studies on Approaches

At the 1984 National Conference on Piano Pedagogy, a national director of Yamaha Instruction presented the Yamaha approach as a system established on developmental, psychological, and musical principles (Looney & Kavakov, 1985). One of the tenets of the method is that the keen aural perceptions of children between the ages of three and seven create an optimal window for learning in which children absorb rhythm, pitch, and harmony in a manner similar to language acquisition (Looney, 1985; Yamaha Corporation, 1994).

In an article titled “Ear before Eye: The Yamaha Method,” Wagner (1985) explains that “listening leads to imitation, imitation leads to application and ultimately, application leads to creation” (p. 11). The emphasis on singing and playing by ear in the Yamaha method is based on this belief. Singing is a critical component, and a fixed-do system is used to cultivate absolute pitch (Looney & Kavakov, 1985; Wagner, 1985). The primary course is a two-year program in basic musicianship for children ages four through six. The curriculum focuses on pitch recognition, rhythm, singing, introduction to keyboard and ensemble playing. The basic elements of music are isolated and presented one at a time to the children aurally or through repetition singing, imitation, clapping, and other activities, melodic patterns, and isolated pitches. In the primary course, children are not expected to sight-read the text (Yamaha, 1988).

Studies by Zimmerman (1971), Taebel (1974), and Moog (1976) were cited as

supporters of Yamaha developmental psychology principles. Zimmerman (1971) stated that piano classes for nursery school children stress the development of accurate performing gestures, and the playing of simple nursery rhyme tunes by ear. Playing by ear and improvising should occur prior to the serious study of any instrument. Taebel (1974) indicated that ages five to six are critical for the child to acquire music concepts and music listening skills. Moog (1976) stated that movement, hearing, and singing skills increase between the ages of four to six. Taebel's study was to investigate the development of children's concepts of volume, tempo, duration, and pitch. The specific goals were to determine the effects of grade level, instructional mode, and task variables on performance of music concept tasks. The instrument chosen to measure conceptual behavior consisted of four parts, each of which contained twenty-two choice problems. The listener was asked to select the positive exemplar of a concept. Treatment consisted of four modes of instruction designated as discovery, verbal cue, verbal response, and motor response. Tests were administered to 260 children randomly selected from kindergarten, first, and second grades. The sample, which was stratified by grades, was divided into four nearly equal treatment groups. The results led to the conclusion that age was a significant variable, particularly between kindergarten and first grade. It also was concluded that volume concepts were readily available and that tempo concepts were slightly less so. Duration and pitch concepts were demonstrated poorly. The effect of the instructional mode was not significant in a consistent manner but varied with the ages of the subjects and the kinds of conceptual tasks given.

In Orff Schulwerk teaching, rhythm is the primary component of musical expression.

Children naturally use the body as a means of expressing rhythm through clapping, patting, snapping, or stamping. The body can provide accompaniments to rhythms, song or games. Alternatively, rhythm can be experienced through movement, superimposed instrumental ostinatos, or instrumental accompaniments on Orff percussion instruments (Saliba, 1990).

Additionally, the Orff approach utilizes speech as a part of musical experience. Orff made this a part of his plan because he felt that a gradual progression from speech patterns to rhythmic activities, and then to song was most natural for the child. The planned sequence begins with speech, continues with body rhythms such as clapping or tapping, and culminates in the playing of instruments (Landis & Carder 1990). When the teacher presents word rhythms in notation, he or she must take care that these rhythms are represented with precision. Care also should be taken, however, not to distort the natural rhythms of speech by forcing them into preconceived duration patterns. For instance, when the goal is to show the relationship between the duration patterns of notes and the durations of names or other words, it is important not to change one to fit another (Landis & Carder 1990).

Movements such as running, skipping, turning, hopping, and jumping, often thought of as play, are part of musical development in the Orff plan. The teacher encourages these movements and relates them to music by using them in building musical concepts. The body rhythms such as clapping and stamping serve several purposes. They provide a way for children to sense rhythms through movement in addition to hearing them; they are used extensively to accompany singing and chanting,

and they give practice in performing rhythms, developing a skill that is then transferred to the playing of the percussion instruments (Landis & Carder 1990).

Orff instruments are designed to be playable by children. The percussion instruments are soprano, alto and bass xylophones, soprano and alto glockenspiels, and soprano, alto, and bass metallophones, which are all played with mallets. Other non-pitched instruments such as drums, cymbals, triangles, and so forth are considered resources for use with the ensemble. Simple patterns on the piano, used sparingly, may be an effective addition.

Recorders are used as melody instruments along with the ensemble, which provide and expand opportunity for students to develop musical skills. The percussion instruments suit the physical development of the child, since they require primarily large muscle movements (Landis & Carder, 1990). Instruments are often used as extension of speech, singing, and movement activities. Children can play rhythmic and melodic figures and learn to manipulate them in many ways. By playing instruments, children can participate in ensembles and begin to understand such musical principles as homophony and polyphony (Landis & Carder 1990). The instruments may become too large a part of the instrumental program. Teachers should use them sparingly, recognizing that “they are primarily an extension of the child’s own singing, speaking, and moving. The desire to play the instruments is often very strong, demanding sensitivity on the part of the teacher to make the right choice at the right time.” (Keller, 1970) According to Landis and Carder’s article (1990), in the Orff approach, children should always play from memory, but notation should not be disregarded. Notation should be introduced together with speech-patterns for which rhythmic notation is sufficient.

Studies on Teachers' Attitudes toward Music Instruction

If teachers like to sing, children will also enjoy singing. In the process of young children's learning, teachers' attitudes are important. Greata (2006) indicated that it is important for kindergarten teachers to sing for young children. Greata believed that if a teacher does not have a positive attitude towards music, the teacher will not make a good musical environment. Teaching attitude and the teacher's own musical ability influences teachers' willingness to teach music (Lee & Yen, 2008). Teachout (1997) indicated that teachers' characteristics and professional attitude are more important than musical teaching skills. Teachout compared the responses of pre-service teachers and experienced teachers when asked, "What skills and behaviors are important to successful music teaching in the first three years of experience?" The sample consisted of randomly selected groups of pre-service teachers (n = 35) and experienced teachers (n = 35). Subjects were given a list of teacher skills/behaviors and asked to rate the level of importance of each item using a 4-point Likert-type scale. A two-way ANOVA with repeated measures was used to determine that both groups rated personal skills and teaching skills as significantly more important than musical skills.

Jeanneret (1997) showed that teachers' attitude toward the teaching of music also plays a key role in the education of children. Jeanneret's research focused on pre-service teachers in the primary grades and how their attitude toward teaching music was shaped by experiences from their undergraduate music classes. His or her survey questions looked at these pre-service teachers' confidence in teaching music and the results showed a significant change in the degree of their confidence before and after their taking a music

fundamentals course. Those students who had reported negative experiences with music in the past showed a low level of confidence. The fundamentals course was meant to help teachers have positive experiences with music so that their confidence might be boosted. In addition to the fundamentals course itself, the instructor of the music fundamentals course also played a significant role in the development of the pre-service teachers' confidence. Jeanneret's study attempted to assess whether or not pre-service primary teachers' confidence to teach music might be influenced by their experiences in a music fundamentals course that was a prerequisite to a music methods course. Although there have been some research studies related to the development of confidence in pre-service primary music teachers via music methods classes, few have focused on the role a music fundamentals course may play in the formation of these attitudes. The study was conducted with pre-service primary teachers (N = 222) enrolled in music fundamentals courses in two settings: the University of Arizona, United States of America, and the University of Newcastle, Australia. Some of the general findings have revealed that a music fundamentals course can affect a significant gain in confidence to teach music. It was also found that the instructor of these classes provided a strong model for teaching strategies and content.

Calderhead (1996) stated that confidence in music education was further increased by teachers' knowledge about the subject they were teaching, teachers' creative abilities, personal teaching knowledge, knowledge gained from experience, and theoretical knowledge of teaching. Because teachers' attitudes toward teaching music are shaped by undergraduate music class experiences, pre-service training programs need to help pre-

service teachers to develop the proper attitude toward teaching music and singing. The instructors need to develop pre-service teachers' confidence. Schools administrators and in-service teachers' training programs should provide workshops to promote successful teaching experience. Better experience and higher confidence in the teacher will benefit the students and may help improve their musical learning.

Lee and Yen's (2008) research attempted to understand the music teaching profile and effecting elements in public kindergartens in southern Taiwan. A method of quantitative analyses was used. A total number of 550 questionnaires were sent, and 466 effective questionnaires were received. Through the statistical analyses, there were several findings of the profile: (1) Music appreciation is the most frequently applied musical activity, followed by singing, eurhythmics, and instrumental play. Furthermore, music appreciation is used for classroom management, transition, or as background music. (2) Most of the music teaching materials are videotapes from bookstores. In addition, the effecting elements of music teaching have been found to be as follows: (1) the years of teaching experience the teachers have, (2) the various music courses the kindergarten teachers have taken, (3) the teachers' ability to use a keyboard, and (4) the music learning experiences the kindergarten teachers have.

Wu's (1999) study investigated the perceptions of 145 kindergarten teachers in the Kaohsiung and Pingtung regions of Taiwan about using music with children and in their classrooms. The participants were all the kindergarten teachers studying at The Institute of Inservice Teacher Training, National Pingtung Teachers College. The data was gathered using a questionnaire, The Kindergarten Teachers' Musical Experience and

Attitude (KTMEA), designed by the investigator specifically for the study. A total of 145 kindergarten teachers completed the questionnaire. Descriptive statistical analysis was used to compute the frequency, percent, mean, and multiple regressions of the data. Wu concluded that the musical experiences offered were varied and frequently used; these teachers believed that music is important in childhood development, classroom management, and development of music skills (Most teachers agreed that music motivates children's learning in other subjects as well), and the teachers in Kaohsiung and Pingtung regions exhibited high confidence in their music teaching ability and enjoyed music with their students.

Studies on Parents' Attitudes toward Music Instruction

Mallett (2000) examined the relationship between the attitudes of parents and caregivers of preschool children toward early music instruction and children's aptitudes. One hundred sixty-one preschool children between the ages of three and four and their parents/caregivers participated. Mallett found that the attitudes of the parents and caregivers toward music instruction were relatively positive. All participants strongly agreed that music should be included in the early education curriculum and children should explore music as early as possible.

Various studies indicated that home practice when combined with parental musical involvement produced greater success in student achievement. Studies in non-musical fields arrived at similar conclusions. Cutietta (2001) stated, "What is most important to realize is that the parent may be the single most influential person in his or her child's development as a musician" (p. 3). Since parents are the first and often closest teachers

for their children, the way their children's musical learning develops will be strongly related to their parents' interests (Silverman, 1992). Parents need to show their concern through creation of a musical environment for their children at home (Atterbury & Silcox, 1993 b; Gordon, 1995; Bonifati, 1997; Mallett, 2000).

Bonifati (1997) stated that the most important predictor of successful music students was parental involvement. Successful students generally have parents who are involved with their child's music by showing interest and support. Therefore, parental involvement is very important in early musical learning (Ponick, 1999). Bonifati's study takes a different approach to determining possible causes for success. Rather than examining the reasons for discontinuing musical instruction, it focuses on the impact of the home environment on instrumental music students considered successful by their teachers. A qualitative as opposed to a quantitative approach to the research allowed a free flow of information that was analyzed and interpreted. Public school students in grades four through twelve involved in instrumental music programs in three counties in New York State were chosen as subjects. Questionnaires canvassed music teachers for the names of families containing successful instrumental music students. Responses from 19 teachers resulted in the names of 150 families, who were sent a questionnaire. Of the 100 questionnaires returned, 19 families were chosen for personal interviews. A broad base sample of families was chosen by taking students at different levels of study, i.e., Elementary, Middle and Secondary, and by taking one family from each of the 19 teachers who returned a questionnaire. Interviews with the 19 families took place at their homes, thus providing optimum opportunity for first-hand investigation of the home

environment of successful instrumental students. The results showed that the most important variables for successful music students were parental concerns, such as support and encouragement. Homes that contained parents who were involved with their child's music by showing interest and support were common among the successful students studied. Observable indicators such as parents' musical background and listening to music were also an important part of the home environment. Although these observable indicators were important in creating the overall positive musical home environment of successful students, they had less impact than parental concerns such as support and encouragement.

Doan (1973) examined relationships between parental involvement and the performance achievement of violin students. A significant positive relationship occurred between parental involvement and performance achievement of students. Brokaw (1982), in a similar study, examined parental involvement by investigating the relationship among the amount of parental supervision of home practice and performance achievement at technical-physical performance objectives (i.e., proper embouchure, hand position) and performance objectives (i.e., correct articulation, rhythm). A strong positive correlation was found between student achievement and amount of parental involvement.

Brokaw's (1982) study was to determine the extent of relationship between amount of parental supervision of home practice and achievement of technical-physical (proper embouchure, acceptable hand position, correct instrument position, and correct posture) and musical (correct articulation, accurate melody, precise rhythm, and proper phrasing) performance objectives by beginning instrumental students. Ancillary problems were to

investigate relationships between student achievement and (1) amount of student home practice, (2) Musical Aptitude Profile (MAP) scores, (3) expressed interest in music before beginning instrumental study, (4) student's age, (5) student's grade level, and (6) percentage of time English is spoken in the home. Consistency of student achievement after seven months was also assessed. The study involved 25 sixth-, seventh-, and eighth-grade wind instrument students. *The Individualized Instructor - Preliminary Book* was used as an initial method book, because it provides parents with clear directions for supervising and assisting students during home practice. Student achievement was ascertained by evaluating performances videotaped at the conclusion of ten weeks of instruction. A second evaluation of the fourteen subjects remaining in the school took place at the end of seven months of study. Pearson product-moment and Spearman rank-order correlations comparing student achievement with amount of parental supervision of home practice resulted in coefficients that were statistically significant ($p < .01$). Analyses of variance using categorized levels of parental supervision supported these findings. The relationship between student achievement and amount of student home practice was found to be significant.

Temmerman (1998) surveyed parental involvement in the early childhood music education programs in Australia. Participants were coordinators of early music programs in forty music centers and private music studios. The survey indicated that most of the parents felt it was difficult to play two roles (i.e., parents and teachers). Although they agreed that music was important to their children's lives, they had no idea how to teach it.

Children bring their own unique interests and abilities to the music-learning

environment. Therefore, creating a home musical environment was considered important by parents in many studies (Moore, 1982). Moore stated that young children are living in an environment which provides more exposure to music and music making instruments, and where they are encouraged and rewarded in their musical attempts, are more apt to demonstrate higher levels of musical development than those children who have few or none of these advantages.

Buescher's (1993) study suggested that many parents of preschool children do not know how to provide an appropriate musical setting. Early childhood music education need not only be part of a formal curriculum, but also requires parents to create better musical environments for their children at home. Parents should realize the importance of play and provide appropriate settings at home for children. Moog (1976) emphasized the relationship between home environment and music development. The young child's behavioral response is dependent upon an environment rich with musical stimuli. The process of development of singing and movement skills grows as the skill is practiced. Such practice occurs more frequently in the musical home. The best child singers come from their environment.

Gawlick (2003) created home musical environment profiles for eight children based upon interviews with parents and the Home Musical Environment Scale (HOMES). She classified families into three categories: (1) musical families (where mothers had a college degree in music), (2) families where a parent formerly played an instrument, and (3) non-musical families (where parents had no formal music experience). The children from families in categories 1 and 2 scored highest on a music performance test of singing,

playing instruments, moving to music, verbalizing about music, and creating short rhythms and melodies. Gawlick suggested that home musical environment may have had a stronger influence on the child's music skills than the preschool musical environment.

One study simultaneously considered home musical environment and classroom environment when investigating children's music skills. Persellin (2006) investigated the effects of teaching models, musical aptitude, and home musical environment on vocal pitch accuracy of kindergartners (N=134). Three experienced music teachers in southern Texas were introduced to three teaching methods: (1) singing for classes, (2) singing with classes, and (3) singing both for and with classes. Three kindergarten classes in each teacher's school were randomly assigned to each teaching strategy. The Vocal Accuracy Assessment Instrument (VAAI) was used as a pre-test at the beginning of the year and as a post-test eight months later. Persellin determined that there was no significant difference among the three treatment groups. When including home musical environment in the regression analysis, though, the home musical environment score (HOMES) was significantly related to the gains in students' singing accuracy. The relationship was positive, implying that children with high HOMES scores scored highest on the test of vocal accuracy.

Buckton (1983) stated that 6-year-old children of Polynesian descent consistently sang with greater vocal accuracy than 6-year-olds of European descent. The Polynesian family and community are very supportive of having their children sing at a young age. Activities such as singing, listening to music, family participation and parental help in the development of musical skills are among the factors most frequently mentioned as

positively influencing the development of a young child's musical skills and interests (Peery & Peery, 1986; Gordon, 1993).

The richness of the physical environment augments the elements of social interactions in relation to developmental issues in music. Doxey and Wright (1990) remarked that "although parents' attitudes and behaviors influence the development of music behaviors in children, it appears that the physical environment that the parents provide for their children is also important in developing music aptitude" (p.437). Among the vital aspects of the physical environment are the presence of musical resources such as musical instruments, tapes or CDs, musical older siblings, and preschool music instruction (Mitchell, 1985).

Mitchell's (1985) study was an investigation of the effects of musical experiences from birth to age six on the development of tonal memory. To what extent, if any, does a relationship exist between the development of tonal memory and (a) the presence of an instrument in the home, (b) parents who are musical, (c) the presence of older musical siblings, (d) formal preschool music instruction, (e) informal music learning, or (f) the child's self-expressed interest in doing something musical? This was a correlational study. Tonal memory test scores (Primary Measures of Music Audiation, Gordon, 1979) of 121 third grade students (68 males and 53 females) from the Beverly Hills Unified School District were compared with 13 predictor variables identified from a researcher-designed questionnaire completed by parents of all subjects. No significant correlations were found for the total sample between the tonal memory test scores and the presence of an instrument in the home or of parents who were musical. Male subjects evidenced a

slight correlation between test scores and (a) presence of a piano and (b) mother playing the piano. A weak correlation existed between test scores and the presence of older musical siblings. Females appeared to have a stronger correlation ($p < .01$) than males (.05). A weak correlation existed between test scores and the presence of formal preschool music instruction. Informal music learning did not provide a significant correlation with test scores. No relationship was established between the child's self-expressed interest in doing something musical and test scores. This research suggests that development of a child's tonal memory is not heavily dependent upon presence of instruments in the home, having musical parents, or engaging in formal or informal music learning during the first six years. The presence of older musical siblings appears to influence the tonal memory of younger siblings.

When materials and sound sources are provided, children prefer spontaneous music play behaviors over nonmusical activities (Littleton, 1991). Littleton's study was designed to determine the influence of a music-specific play setting on children's music and play behaviors. A comparison of the music-specific play setting with the non-music house play setting was made to determine the influence of different play settings on children's social, cognitive, and music play behaviors. Analysis of quantitative data collected by 1-minute, time sampling procedures recorded on videotape from twenty-six 30-minute play sessions revealed that the music setting promoted more functional and constructive play vs. dramatic play in the house setting. The music setting engendered nearly twice as much solitary play than did the house play setting, while both settings encouraged group play. Boys and girls in the music setting exhibited a strong preference

for instrumental musical play. When music play occurred in the house setting, girls showed a preference for movement, and boys demonstrated vocal and instrumental music behaviors. The most popular play items with boys and girls in the house setting were paper/pens/pencils. Dress-up clothes (girls) and cooking utensils/dishes (boys) were the second most frequently selected play materials. Anecdotal descriptions of noteworthy play episodes and events were analyzed to amplify the interpretability of the quantitative data.

Studies on Use of Assessment in Classroom

In *The New Handbook of Research on Music Teaching and Learning*, Colwell contributed a chapter entitled “Assessment’s Potential in Music Education” (Colwell & Richardson, 2002). Colwell described the educational political climate of the time, in which assessments served not only their traditional role in facilitating teaching and learning but were also used to “portray the success of society in enabling all students to attain high standards in multiple areas, with the additional role of determining the value of funding for administration, programs, and facilities” (p. 194). Colwell admonished researchers and teachers to remember that assessments must directly correlate with the curriculum taught, and that assessments must attempt to record progress toward important musical outcomes, not just those that are easy to measure. Assessments must authentically describe the richness of musical experience and learning (Swanwick, 1998); that assessment cannot be an afterthought tacked on after a lesson is complete (Lehman, 2008).

Assessment plays an important role in the instructional process in music education

by providing feedback to guide instruction, determining student achievement of curriculum objectives, reporting student progress towards achieving the goals of the curriculum, and demonstrating the value of the music program (Nye, Nye, Martin, and Van Rysselberghe, 1992). When the role of music is questioned, it is vital that music educators make the value of music clear to students and the community. According to Campbell and Scott-Kassner (1995), this message can be conveyed through a clearly stated music curriculum with a sense of the direction in which the students are growing. If music educators fail to assess and report student progress to parents, it gives the public the impression that music is not a core subject (Regelski, 2004). Music educators must work to change the public perception that music education is frivolous. Using benchmarks to provide a sense of expectations for the students will help counter this attitude on the part of students and parents. Assessment of student progress towards these benchmarks will also help prove to students and parents that real musical learning takes place in the music classroom. Educators must keep accurate records of student assessment and the assessment process should be made available for students, parents, and the public to review.

Taylor (2003), Gronlund (1976), Hart (1994), Whybrew (1971), Regelski, (2004), Saunders and Holahan (1997), Kotora (2001), and Brummett (1993) discussed a number of evaluation techniques including observation, anecdotal records, rating scales, checklists, rubrics, student self-evaluation, authentic assessment, and portfolios. These assessment techniques can be used in music classrooms as well as general education classrooms. Observation is an essential part of assessment (Taylor, 2003), and is

especially valuable in a performance-based discipline such as music. “Direct observation provides the only means we have for evaluating some aspects of learning and development” (Gronlund, 1976, p. 427). In order for it to be effective, however, observation-based assessment must be systematic. This means that all students must be observed on a regular basis. Furthermore, the observations must be documented to be credible (Hart, 1994). Documentation includes a written record of the observations on a seating chart, in a grade book, or on a computer. In addition, educators may need to create a system, or use some methodical approach to minimize the time it takes to record these observations. Anecdotal records are also helpful in keeping an objective record of student achievement. Anecdotal records are factual descriptions of meaningful student events that the teacher has observed; however, these impressions may give an incomplete picture of student achievement unless an accurate record is maintained. Though they are time consuming, anecdotal records can provide a more detailed description of actual student behaviors than many other types of assessment (Gronlund, 1976).

Rating scales are a systematic procedure for reporting observations. They use a set of characteristics to be judged and some type of scale for indicating the degree to which each characteristic is present (Gronlund, 1976). Whybrew (1971) believed rating scales are the best tools for evaluating musical performances. They can provide a common frame of reference for comparing all students on the same set of criteria. For example, when assessing singing, a music teacher may use a descriptive scale to determine how well a student is singing. The scale might list the criteria such as singing in tune or singing with expression that must be met for a student to receive each possible letter grade. A

rating scale is the most appropriate instrument for the measurement of music performance achievement (Saunders & Holahan, 1997). According to Saunders and Holahan (1997), criteria-specific rating scales, which include descriptions of specific levels of performance abilities, provide a greater level of diagnostic feedback than traditional Likert-scale formats. Zdzinski and Barnes (2002) suggested performance measurement to be improved through the use of specific criteria. Rating scales for measuring pattern performances have included two-, three-, five-, and six-point scales. More typical is a five-point scale (Feierabend, 1984) that allowed for a normal distribution curve. Sinor (1984) used a six-point scale to provide an equal division of high scores (3–5) and low scores (0–2) for a dichotomous analysis to determine pattern difficulty levels. For a six-point rating scale to be dichotomous, scores 3–5 should be considered correct, 0–2, incorrect. Checklists are a method of recording whether or not a characteristic is present (Gronlund, 1976). A checklist does not indicate degree of frequency to which the characteristic is present as a rating scale does, but it indicates the presence or absence of a behavior (Taylor, 2003). Checklists are valuable for evaluating performance skills that can be divided into a series of specific actions (Gronlund, 1976). For example, a checklist for evaluating student performance on recorder might include the following actions: (1) sit straight, (2) place both hands on recorder, and (3) demonstrate proper mouth position. The observer should systematically document student progress by placing a check next to the objectives that have been demonstrated. This system can even be used to assess a large group of students (Kotora, 2001). A rubric is a comprehensive analysis of a task, project, or assignment that describes important criteria according to various levels of quality in a way that provides

feedback and evaluation (Regelski, 2004). Rubrics are helpful in assessment because students understand the teacher's criteria in advance of the assignment. They also provide more specific feedback than checklists or rating scales. Rubrics function as a general scoring guide that help students to understand their task, monitor their work, develop critical thinking skills, and self-assess their work after completion (Taylor, 2003). Rubrics are especially valuable for evaluating performance-based activities such as singing, playing instruments, improvising, or composing.

Another way to gather information about a student is through self-assessment. For example, students could watch a video of their performance to reflect on and assess different aspects such as facial expression, posture, or tone. This type of assessment will help the teacher gather information regarding student behaviors and thoughts (Gronlund, 1976).

Miller, Linn, and Gronlund (2009) advocated for the use of more authentic assessment strategies, such as portfolios and performance assessments, which music teachers could certainly design. Ongoing use of a variety of assessments, including authentic measurements of music achievement, could facilitate teaching and learning in a way that increases variance in student performance levels and also raises the mean level of achievement (Eisner, 2005).

Traditional paper tests may be used to assess some music standards, but because of music's performance-based objectives, authentic assessments are often a better choice. In authentic assessment, the student becomes an active participant in the process of assessment. Student performances, compositions, oral responses, and portfolios are

examples of authentic assessment (Bolye, 1996). Portfolios are a common type of authentic assessment that has been praised in general education (Hart, 1994; Brophy, 2000; Taylor, 2003). Portfolios are collections of students' work assembled over a period of time that document growth, allowing easy assessment of students' progression for teachers. In music, some suggested components of a portfolio are compositions, progress reports, performance assessments, music journals, self-assessments, composer information, practice records, concert critiques, audiotapes, or videotapes. This provides tangible evidence of a student's growth, which is not only beneficial for the student, but the parents as well. Parents become engaged in the educational process through open communication with the teacher about their child's progress. Audio and videotapes can be used to assess individual or group performances. Rehearsals or performances can be recorded and reviewed later. Specific objectives and criteria should be used when assessing performance from an audio or videotape (Kotora, 2001). Some traditional types of assessment such as rubrics, checklists, and rating scales may be used in conjunction with authentic assessments to evaluate student achievement. When watching a videotape of a concert performance, the teacher might use a checklist or a rubric to or rating scales to assess each student's performance. Brummett's (1993) study was to provide a descriptive of two teachers' use of a framework for process-oriented student evaluation. Two generative elementary music teachers from the Ferguson-Florissant School District near St. Louis, Missouri, implemented the Interactive Evaluative Framework, which was developed by the researcher. How the teachers modified the framework before applying it within selected sixth grade music classrooms, as well as their reactions during and

following implementation, was of primary interest. Triangulation was achieved through observation, interviews, and examination of documents during the time period from November 1991, to June 1992. The researcher conducted an in-service seminar with the two teachers in November 1991, as preparation for implementing the evaluative framework. Five on-site visits were made during the next months. Raw data included: (a) field notes and audiotapes from classroom observations, (b) teacher, student, and administrator audio-taped interviews, (c) teacher logs, (d) student process folios, and (e) district-wide documents. The students' process folios were found to be manageable for the selected classes. The study revealed possibilities for a process-oriented evaluative framework as an alternative mode of assessing elementary students' musical learning. Brummett concluded that the use of process folios (portfolios that document student work over time) was a valuable assessment strategy for the music teachers involved. The process folios included written projects, reflections, journal notes, quizzes, tapes, and checklists, which allowed the teachers to document student achievement and growth in a variety of ways.

There are many factors that may contribute to elementary music teachers' ability to accurately assess student achievement. Some of these factors include teacher experience and teacher training. One possible factor in effective assessment is the number of years of experience that a teacher has. In a study conducted by Anderson-Nickel (1997), the assessment practices of elementary music teachers with one to four years of teaching experience were compared to the assessment practices of elementary music teachers with five or more years of teaching experience. More experienced teachers made notations

about individual performance and used seating charts or attendance rolls to keep track of student participation and achievement. These teachers also had more advanced grading systems and were more consistent in assigning grades than the less experienced teachers. The primary method of assessment for the less experienced teachers was observation, and they often relied on memory to keep track of student achievement instead of notating the information. Teacher training may influence teacher assessment practices. According to Wise, Lukin, and Ross (1991), most states do not require a course in tests and grade measurements for teacher certification. Their study showed that 47% of the 397 participants believed their measurement training was somewhat or very inadequate. Although this study was not specific to music education, it indicates a general problem in teacher training which may also be relevant in music.

Subsequently, Kotora's (2001) study showed that teacher training influenced assessment practices in music education. In Kotora's study of music teachers, 66% of the participants believed that their undergraduate college courses did not prepare them much or at all in the area of assessment. Fifty-three percent of the participants with graduate degrees said the same about their graduate courses. This shows that college courses may not be providing music teachers with the training they need in assessment.

In contrast to Kotora's (2004) participants, most respondents in Peppers' (2010) study felt that their undergraduate studies adequately prepared them to assess music learning. Peppers took a survey of all the elementary music teachers in Michigan regarding attitudes toward formal assessment. Through her 100 respondents (43% return rate), she investigated why teachers used formal assessment, what challenges they

encountered related to assessment, and what teachers believed would improve their ability to assess their students' learning. Overall, her results indicated that respondents strongly agreed that assessment was a valuable tool in their classrooms. Respondents' beliefs varied regarding the purpose of assessment but were similar to results found in other studies. Most teachers reported using assessments to improve instruction, including measuring student progress over time, identifying students' needs, and modifying curriculum. Respondents reported that assessments were used to communicate music learning to parents and to inform report card grades. However, respondents did not view formal assessment as a way to communicate with or motivate students: "Perhaps... because they believe that it may negatively affect their development or because they do not use formal assessment in their classrooms" (Peppers, 2010, p. 71). Some respondents reported negative attitudes toward formal assessment and seemed to equate assessment with grading (Peppers, 2010). Most respondents indicated that assessment should be used to validate music education in the curriculum and that music assessments could communicate music learning to policy makers who controlled resources, though they did indicate that their ability could be improved with more study, reading, and observation.

Shih (1997) reported that most teachers "checked group performance" when assessing singing voice. However, Hoffer (2008) found that the assessment of individual students is required for meaningful assessment; informal group assessment is not sufficient. Assessing singing by having students sing in a group is the equivalent of a classroom teacher having groups of students read a passage in unison and using that information to decide that all students in the class read on grade level. Assessment of the

group at best gives a vague idea of what some students can do and at worst allows others to fall behind without intervention.

Systematic assessment as a method of improving instruction may be underutilized in the majority of elementary music classrooms. Instead of systematic assessment, many teachers rely on informal methods, such as observation of group progress, and asserted that formal assessment of individual progress toward specific music learning goals was rare. Although informal observations may allow a teacher to adjust instruction to address the broad needs of a group, "...it is only through formal assessment techniques that teachers are able to gather and report, detailed, objective information regarding individual musical achievement") (MENC, 2001, p.23). Schuler (1996) agreed that good music teachers have always informally monitored student learning, but few music teachers have systematically tracked the music learning of all individuals in their classrooms.

Hepworth-Osiowy (2004) surveyed 190 elementary music teachers in Winnipeg, Canada regarding assessment in their classrooms. Her 88 respondents (46% return rate) indicated that they used a variety of assessment tools and stated that assessment was most valuable when it informed instruction. Hepworth-Osiowy concluded that

1. Some teachers used on-going assessment (time spent assessing during each class), but the majority of respondents assessed on a less consistent basis (mostly prior to reporting times).
2. Teachers who did not engage in ongoing assessment reported that they had difficulty obtaining adequate amounts of assessment data, and they felt that

assessment was stressful and difficult to schedule.

3. Teachers who used ongoing assessment reported less stress related to assessment and greater success in obtaining and reporting data.

The impact of these findings in relation to student learning was not reported.

In order to gather data on the types and frequency of these assessments, Livingston (2000) surveyed the 414 members of the Organization of American Kodály Educators Midwestern Division 3 regarding assessment and grading practices. One hundred ninety-six surveys were returned for a response rate of 47%. In terms of assessment frequency, 44 teachers (31% of respondents) reported assessing 0–9 times per year, and an additional 44 teachers said they assessed 10–19 times a year. Seven teachers (about 3% of respondents) assessed 20–29 times, 12 (about 6%) reported assessing 30–39 times, and 28 respondents (about 20% of the total) said they assessed “constantly.” The survey did ask what kinds of assessment were used, and the most frequent responses were teacher observation and live performances.

In 2005, Talley surveyed 200 elementary music teachers in Michigan. Of the 35 respondents (18% response rate), many did not frequently assess their students, and some did not assess at all. The survey asked what skills were assessed at which grade levels and how they were assessed. Talley’s results indicated that elementary music teachers did not use published achievement tests, and few used aptitude tests. Nearly 16% of respondents indicated that they did not formally assess students or did not believe in assessment. Teachers who did assess used self-designed measures including rating scales or rubrics, checklists, written tests, and worksheets. Each of these methods

seemed to require individual response, but this was not stated explicitly in the research. Respondents to Talley's survey assessed subjects such as beat competency, singing voice, matching pitch, rhythm, playing recorders, music reading, and instrument identification. However, there was not broad agreement regarding the topics assessed: The highest level of agreement among the respondents on any single area of assessment was 50% for beat competency in kindergarten (p. 49). In addition, due to the low response rate, Talley's results cannot be interpreted to represent all elementary music teachers or even those teaching in Michigan.

Liu's (2007) study aimed to explore parental perceived information from young children's assessment reports in a public kindergarten located in Hsinchu City. There were 207 questionnaires sent out, with 181 valid responses (87.44% of total). Liu concluded:

1. Most parents received information pertaining to their children, separated into the categories "my child's learning condition at school," "my child's strengths," and "my child's progress" from both written and oral assessment reports, but few received information in the categories "whether my child reached teachers' expectations" and "comparing my child with other children." (pp. 159–164)
2. When comparing the information that parents received with what they wished to receive, parents expressed a desire for more information overall. Among the information received, the category, "where my child needs assistance," was most desired by the parents.
3. Almost all parents expressed that they would use the information from

assessment reports, particularly about their children's past performance compared to their current performance, to assist their children with learning at home and to better understand their children through the assessments.

4. Some parents wished that teachers would inform them orally of their children's performance in school. Among them, parents who had less formal education showed the highest expectation for more oral communication.

5. Parents with more formal education wished to receive more information from both written and oral reports, relating to their children's progress relative to other children than parents who were less educated.

6. Parents with more formal education were more sensitive to information provided by the researcher in the written reports.

Lee's (2006) study attempted to understand: (1) how kindergarten teachers in Taoyuan County, Taiwan implement assessment, and (2) what the teacher's needs and problems in implementing assessment are. Questionnaires were distributed to 163 randomly sampled kindergartens in all areas of Taoyuan County, Taiwan, two questionnaires per kindergarten. A total of 98 valid responses were collected. Although the response rate was approximately 30%, the responses were evenly distributed through all areas in Taoyuan County, Taiwan. Despite the low response rate, the data provided valuable information in understanding how kindergarten teachers in the Taoyuan area implement assessment and their needs relating to assessment. Three conclusions were made based on the analyses of the questionnaires. First, there were gaps between teachers' assessment knowledge and their assessment practices. Second, among several

factors, kindergarten teachers' personal beliefs about assessment had the greatest influence on their assessment practices. Third, kindergarten teachers in Taoyuan County needed concrete and practical assistance in implementing effective assessment in their classrooms.

Chapter Summary

Studies on Theories of Learning and Their Relationship to Music Learning

Piaget's preoperational stage is important to this study since most kindergarten and pre-school children are in this stage of the developmental theory. Peterson & Felton-Collins (1986) found that when two changes occur at the same time, the preoperational child centers on only one. One characteristic of this stage is the child's tendency to focus only on one part of a task and to ignore other aspects of it (Flavell, 1977). Piaget refers to this fixation of an individual upon a particular element within that individual's perceptual field as "centration" (Pflederer, 1970). Sims (1991) indicated that pre-school children were significantly more accurate with single vs. double discrimination responses. Ginsburg and Opper (1979) suggested that children might not progress through Piaget's stages at the same average age. Therefore, one of the purposes of this study is to investigate the ability of 5–6 year old Taiwanese children to demonstrate decentration in discriminating musical concepts such as listening.

McDonald and Simons (1989) described that Bruner asserted that the normal course of intellectual development moves through three stages in sequential order: enactive, iconic, and symbolic. The enactive stage stores knowledge primarily in the form of motor responses, the iconic stage in the form of visual images, and the symbolic stage as words,

mathematical symbols, or other symbol systems. At the 'enactive' level of development, children demonstrate their understanding through active physical involvement, performing music by imitating what they hear, and describing what they hear with gestures or dance movements. Children have an increased ability to retain a mental image and to associate a visual image with the musical sounds in the 'iconic' level of development. Whereas, in the 'symbolic' level of development children grow in their ability to associate their aural concepts of music with traditional symbols (words or notation) describing music by turning sound into symbols, by using musical terms, or by performing music through turning symbols into sound (reading notation). In teaching in the enactive mode, arm, hand, and body movements can be used to represent melodic contour (Campbell & Scott-Kasner, 1995). Through many direct hands-on experiences at the enactive stage including manipulation, playing instruments, or moving to music, children form the basis for an understanding of music. Information gained enactively during the iconic stage provides children with developmentally appropriate visual tools (icons), such as pictures of rhythmic and melodic ideas rendered in a topical form (Andress, 1998).

The conceptual basis for studying scaffolding in the interaction process stems from Vygotsky's (1978) view of socio-cultural theory in which children's learning comes from social interaction. In the process of interaction within the social environment, scaffolding is modified support given to children that fits their current development level of performance and assists in their movement to the next higher level. Vygotsky viewed scaffolding as a teaching and learning process (Berk & Winsler, 1995). Newson and Newson (1975) indicated that intersubjectivity is the process that enables a teacher and

children who begin a task with a different understanding to arrive at a shared understanding. Adults contribute to the scaffolding process by simplifying the task, providing information, negotiating meanings with the child, or engaging children in activities (Rogoff, 1990; Rogoff & Morelli, 1989; Yang, 1999). At the same time, children may initiate a task, follow, accept, reject, or neglect adults' suggestions (Rogoff, 1990). According to Tharp (1993), "modeling offers behavior for imitation, which assists by giving children information and a remembered image that can serve as a performance standard" (p. 271). Although Vygotsky emphasized language as a tool to mediate relations between persons, other tools and signs can make adult-child interactions more capable and competent (Berk & Winsler, 1995; Vygotsky, 1971). Explanations, demonstrations, manipulations, and conversations are considered to be among the significant interaction tools and signs that scaffold children's learning and enhance their formative potential (Daniels, 2001). Many researchers (Jacobs, 2001; Murphy & Messer, 2000; Price-Rom, 1999) emphasized modeling as an effective way to instruct children and scaffold their learning. Through teachers' modeling, children observe instruction, absorb and retain information, and practice (Shunk, 2004). Smith (1993) indicated that in the Vygotskian framework, early childhood teachers played a highly interactive role.

Teachers need to know learners well so that they can provide the right level of guidance, and gradually withdraw it as the child comes to understand and perform the task alone. Yang (2000) stated that when implementing scaffolding principles in early childhood activities, teachers play the essential roles of observer, facilitator, and supporter. The teachers' verbal guidance (encouragement) and non-verbal guidance (i.e., gestures,

listening, and prompting) were considered to be supportive strategies during the scaffolding process. The child was not simply receiving information; rather, the child and teacher were engaged in an activity in which both shared knowledge and contributed to the task (Rogoff & Gardner, 1984; Wertsch, 1984).

Campbell and Scott-Kassner (1995) stated that B. F. Skinner's reinforcement theory holds that when a child's behavior—for example, singing in tune or playing rhythm accurately—is positively reinforced by the teacher's smile or positive comment, that behavior will be maintained or increased. As well, a teacher's frown or shake of the head can also decrease inappropriate behavior. Reinforcement theory includes the teacher acting as the environmental agent, dispenser of feedback, and model of appropriate behavior.

Studies on the Curricula, Methods, and Strategies

The National Association for Music Education (NAfME) believes that all children have musical potential (Ponick, 1999). Campbell (1998) reported that singing is the most natural means of musical expression children have. Children show how the human body works with the voice as a source of musical expression through movement. Listening engages them immediately to move, sing and play. Instrumental performance produces gratification from learning the mechanics on how the instrument produces sound. A music curriculum in early childhood will promote and enhance the children's individuality as well as have a positive impact on brain development, which are both critical in early childhood. The development of a multifaceted music curriculum considers the variables of popularization, traditionalization, and contemporization (Leung, 2004).

Howard Gardner's (1983) musical intelligence is balanced by processes of both brain hemispheres. The brain may be designed for music and the arts, and using music in education may have positive, measurable, and lasting benefits (Jensen, 2001). Current research findings demonstrate that interactions with music stimulate whole brain (Purwins et al., 2008). The nature of musical instruction allows children occasions for activating the best of both brain hemispheres (Campbell & Scott-Kassner, 1995). Kassner (2003) indicated that even with the multiplicity of reasons why music is crucial to the development of the whole child, teachers still neglect incorporating musical components into their early childhood curriculum because they feel inadequate as musicians or music teachers. Kassner recommended that courses preparing teachers of young children to use music in their instruction should include a broad array of subjects and tools to help them feel confident to properly educate children on music, such as learning curriculum content on singing, moving, listening, creating, and playing instruments. Kassner also recommended teachers build a repertoire of songs, including multicultural materials. Kirsten (2006) found that most teachers (82%) did not use a formal music curriculum. More than 90% of the responding teachers provided opportunities for singing in a group and singing and dancing. Kirsten indicated that pre-school teachers encouraged imitative movement (90%). Listening activities were generally combined with movement (96%).

Studies on Singing

Several music educators have confirmed singing as a principal activity that is an important and primary objective (Atterbury, 1984a, 1984b). Abel-Struth (1973) declared that singing is still traditionally one of the richest and most employed musical

experiences of children. Sims (1993) indicated that singing is the most intimate way for children to make music and to express themselves. Kodály, and Orff emphasize singing as the foundation of a child's musical learning. Wu's (2002) study found that teachers conduct situational teaching based on the content of nursery songs to nurture self-discipline and moral character in young children.

Campbell and Scott-Kassner (2006) indicated that if kindergarten teachers can select appropriate songs and teaching methods by focusing on children's vocal abilities, then with appropriate training, children will achieve good vocal development. Klanderma (1979) found that the tessitura of pre-school voices is in the lower part of the range, but range extends with age. Joyner (1971) suggested a slightly larger range for five-to-six-year-olds, B3 flat to A4 flat. The music chapter of the kindergarten Curriculum Standard (Ministry of Education, 1987) contains singing games within the music section of the table of contents. This section directs the pitch range and interval to be from C4 to C5. Pitch accuracy develops in the lower ranges first, thus songs should be pitched according to children's developmental level (Rosborough et al., 1972; Young, 1971). After children can sing their comfortable range well, then teachers can expand children's vocal ranges through instruction (Young, 1971). Young suggested that the bottom of the range extends below C4 to A3 or B3, and that range expands upward with maturity. Young recommended that the upper range be developed through training.

Richner (1976) indicated small-group arrangements and training with an emphasis on singing most effective. Rutkowski (1996) has found that individual or small group instruction and response opportunities resulted in increased achievement. Flohr (1981)

found that a 12-week period of music instruction significantly increased five-year-old children's scores on the Primary Measures of Music Audiation (PMMA). According to Burton, Taggart, and MENC (2011), Taggart found that appropriate instruction for children between the age of three and eight significantly increases tonal and rhythm developmental aptitudes. Kindergarten children reported the largest gain, followed by first-grade children, and then second-grade children. Taggart mentioned that the younger the child, the stronger the effect of instruction.

Singing has been taught through imitation (phrase by phrase) with children echoing a teacher's vocal model. This is the most frequently used approach to vocal instruction (Andress, 1980; Smith, 1970; NTAEC, 2000). However, children taught by the immersion method performed the songs with fewer errors than those taught through the phrase-by-phrase process (Klinger, Campbell, & Goolsby, 1998). Tatem (1990) found that children responded most accurately when a soprano voice served as the presentation stimulus. Subjects' responses were significantly less accurate when the presentation stimulus was resonator bells. Green (1990) pointed out that children could sing with the most ease when following a child's voice; an adult female voice was the second best, and an adult male produced the most incorrect responses.

Many researchers believed that providing a rich learning modality had a positive effect in aiding pitch perception and the resultant development of accurate singing (Apfelstadt, 1984; Mueller, 1993; Wis, 1993). For instance, showing the pitch by hand levels and providing pictures for melodic contour are suggested by many music educators as the best strategies to reinforce pitch perception. The use of kinesthetic sensations to

strengthen motor pictures in memory seems to have a strong impact on the cognition of melody (Mueller, 1993). Liao (2008) noted that gesture use had immediate positive effects for young children in aiding their pitch accuracy. Kramer (1985) and NTAEC (2000) stated that the use of aural and direct kinesthetic imagery can affect patterns of learning and comprehension.

Studies on Music and Movement Instruction

Musical operations involve all lobes of the brain (Levitin & Tirovolas, 2009). Jensen (2001) stated that using the body means using more of the brain than what would typically be used for seatwork. Learning music increases social skills, cooperation, and cognitive development. Music and movement activities can be shared experiences that make children feel part of a group. They develop social skills through playing musical games, playing musical instruments with others, or singing in unison, which requires cooperation. Through movement activities children can improve large muscle skills, balance, and coordination. They also strengthen small muscle skills as they learn to play musical instruments (Dodge, Colker, & Heroman, 2002). Phyllis Weikart's (1995) research in the area of movement has revealed that movement assists and enhances the formation of cognitive and creative abilities in young children and that all aspects of music can be taught through movement, such as rhythms and beat awareness. Sherill and Gench (1981) revealed that children who received a combination of music and movement training were more advanced at motor abilities than children who only received movement exercises. Schleuter and Schleuter (1985) found that kindergarten children had the highest success in their chanted responses, had the least success with stepping, and

had moderate success with clapping. Rainbow and Owen (1978) found that in the performance of rhythmic tasks by 3–4 year olds, those requiring large muscles were more difficult than tasks involving playing simple instruments. Speech patterns were the easiest, which has been supported by other researchers (Frega, 1979; Gilbert, 1981). Simultaneous tasks such as singing and moving presented a challenge to young children. On the other hand, Gordon (1993) asserted that while the young child must use both large and small muscle movements, the large muscle movements should be particularly encouraged. Metz (1986) concluded that since musical elements such as tempo, dynamics, and melody have a natural link to movement, music education through movement is ideal for pre-schoolers. Taylor (1989) found that physical movement and gesture (a kinesthetic strategy) made a positive difference on musical recognition and led to a higher retention of musical information. Bebeau (1982) indicated that students using the speech cue method performed rhythmic patterns more accurately than students using the traditional method. The kinesthetic realization of musical concepts appeared to have a stronger impact on learning than methods, which did not include physical activity. Movement activities increased the subjects' performance and led to a greater level of musical understanding. Wu's (2002) study found that teachers often tell stories to encourage young children to perform, to stretch their imagination, to inspire creativity, or to express various movements with the help of body language. Lin and Chen's (2007) study found that nowadays' multisensory learning of music concepts is mainly based on audio sensory learning, kinaesthetic sensory learning, and visual sensory learning.

Studies on Listening Instruction

Sims (1991) noted that most pre-school aged children may not be ready for musical tasks requiring attention to more than one element at a time in listening situations. Van Zee (1976) found that kindergarten children are quite susceptible to training in musical discrimination. Physical movement and other kinesthetic approaches play an important role in developing musical understanding.

Studies on Approaches

Singing and playing by ear are the emphases within the Yamaha method. Singing is a critical component, and a fixed-do system is used to cultivate absolute pitch (Looney & Kavakov, 1985; Wagner, 1985). The curriculum focuses on pitch recognition, rhythm, singing, introduction to keyboard, and ensemble playing. In the primary course of the Yamaha method, children are not expected to sight-read the text (Yamaha, 1988). Zimmerman (1971) stated that piano classes for nursery school aged children stress the development of accurate performing gestures and the playing of simple nursery rhyme tunes by ear. Taebel (1974) indicated that ages five to six are critical for the child to acquire musical concepts and music listening skills. Taebel also found that volume concepts were easily acquired, but tempo, duration, and pitch concepts were much more difficult. The efficacy of the instructional mode was not consistent, but varied with the ages of the subjects and the kinds of conceptual tasks given. Moog (1976) stated that movement, hearing, and singing skills increased between the ages of four to six. Orff felt that a gradual progression from speech patterns to rhythmic activities and then to song was most natural for the child. The planned sequence begins with speech, continues with

body rhythms such as clapping or tapping, and culminates in the playing of instruments (Landis & Carder 1990). Non-pitched instruments such as drums or cymbals are considered resources for use with the ensemble. Simple patterns on the piano may be an effective addition. Recorders are used as melody instruments along with the ensemble. Children should be introduced to the notation for rhythmic speech patterns (Landis & Carder, 1990).

Studies on the Teachers' Attitudes and Parents' Attitudes toward Music Instruction

Greata (2006) claimed that it is important for kindergarten teachers to sing for young children. Teachout (1997) indicated that teachers' characteristics and professional attitudes are more important than musical teaching skills. Jeanneret's (1997) research showed a significant change in the degree of the pre-service teachers' confidence before and after their taking a music fundamentals course. Those students who had reported negative experiences with music in the past showed a low level of confidence. The fundamentals course was meant to help the pre-service teachers have a positive experience with music in hopes that they would in turn have a higher level of confidence. Calderhead (1996) stated that confidence in music education was further increased by teachers' knowledge about the subject they were teaching.

Lee and Yen's (2008) study found that music appreciation is the most frequently applied musical activity in the schools studied, followed by singing, eurhythmics, and instrumental play. Furthermore, music appreciation is used for classroom management, transition, or as background music. In addition, the influencing factors in music teaching have been found to be: the years of teaching experience the teachers have, the various

music courses the kindergarten teachers have taken, the teachers' ability to use a keyboard, the kindergarten teacher's personal musical learning experiences, the teaching attitude, teachers' music teaching ability, school music equipment, and preservice training. Wu's (1999) study found that: (1) The music experiences offered were varied and frequently used; (2) these teachers believe that music is important in childhood development, classroom management, and development of music skills (most teachers agreed that music motivates children's learning in other subjects as well); and (3) the teachers in Kaohsiung and Pingtung regions exhibited high confidence in their music teaching ability and enjoy music with their students.

Mallett (2000) found that the attitudes of the parents and caregivers toward music instruction were relatively positive. Bonifati (1997) remarked that the most important predictor of successful music students was parental involvement. Doan (1973) found that a significant positive relationship occurred between parental involvement and performance achievement of students. Brokaw (1982) concluded that a strong positive correlation was found between student achievement and the amount of parental involvement. Moore (1982) stated that creating a musical home environment was considered important by parents. Temmerman (1998) found that most of the parents felt it was difficult to play two roles (i.e., parents and teachers), and although they agreed that music was important to their children's lives, they had no idea how to teach it. Buescher's (1993) study suggested that many parents of pre-school children do not know how to provide an appropriate musical setting. Early childhood music education need not only be part of a formal curriculum, but it also requires parents to create better musical home

environments for their children. Moog (1976) emphasized the relationship between home environment and music development. The young child's behavioral response to music was dependent upon an environment rich with musical stimuli. Gawlick (2003) suggested that musical home environments may have had a stronger influence on the child's music skills than the pre-school musical environment. Persellin (2006) found that the Home Musical Environment Score (HOMES) was significantly related to the gains in students' singing accuracy. The relationship was positive, implying that children with high HOMES scores scored highest on the test of vocal accuracy. Activities such as singing, listening to music, family participation, and parental help in the development of musical skills are among the factors most frequently mentioned as positively influencing the development of a young child's musical skills and interests (Peery & Peery, 1986; Gordon, 1993). Doxey and Wright (1990) stated, "Although parents' attitudes and behaviors influence the development of music behaviors in children, it appears that the physical environment that the parents provide for their children is also important in developing music aptitude" (p.437). Among the vital aspects of the physical environment are the presence of musical resources such as musical instruments, tapes or CDs, musical older siblings, and pre-school music instruction. Mitchell's (1985) research suggested that development of a child's tonal memory is not heavily dependent upon the presence of instruments in the home, having musical parents, or engaging in formal or informal music learning during the first six years. However, the presence of older musical siblings appears to influence the tonal memory of younger siblings. Littleton (1991) noted that when materials and sound sources are provided, children prefer spontaneous music play behaviors over

nonmusical activities. Boys and girls in the music classroom setting exhibited a strong preference for instrumental musical play. When music play occurred in the house setting, girls showed a preference for movement, and boys demonstrated vocal and instrumental music behaviors.

Studies on Use of Assessment in the Classroom

If music educators fail to assess and report student progress to parents, it gives the public the impression that music is not a core subject (Regelski, 2004). Observation is an essential part of assessment (Taylor, 2003). “Direct observation provides the only means we have for evaluating some aspects of learning and development (Gronlund, 1976, p. 427).” The observations must be documented to be credible (Hart, 1994). Documentation includes a written record of the observations on a seating chart, in a grade book, or on a computer. Anecdotal records can provide a more detailed description of actual student behaviors than many other types of assessment can (Gronlund, 1976). Whybrew (1971) and Saunders & Holahan (1997) believed rating scales are appropriate tools for evaluating musical performances. Checklists are valuable for evaluating performance skills that can be divided into a series of specific actions (Gronlund, 1976). Rubrics function as a general scoring guide that help students to understand their task, monitor their work, and self-assess their work after completion (Taylor, 2003). Students could also watch a video of their performance to reflect on and assess different aspects such as facial expression, posture, or tone; this type of assessment would help the teacher gather information regarding student behaviors and thoughts (Gronlund, 1976). Student performances, compositions, oral responses, and portfolios are examples of authentic

assessments (Bolye, 1996). Brummett (1993) concluded that the use of process folios (portfolios that document student work over time) was a valuable assessment strategy for the music teachers involved. Audio and videotapes can be used to assess individual or group performances, and with these rehearsals or performances can be recorded and reviewed later. Specific objectives and criteria should be used when assessing performance from an audio or videotape (Kotora, 2001).

Anderson-Nickel (1997) found that the more experienced teachers made notations about individual performance and used seating charts or attendance rolls to keep track of student participation and achievement. The more experienced teachers also had more advanced grading systems and were more consistent in assigning grades than the less experienced teachers. The primary method of assessment for the less experienced teachers was observation, and they often relied on memory to keep track of student achievement instead of notating the information. Wise, Lukin, and Ross's (1991) study showed that 47% of the 397 participants believed their measurement training was somewhat or very inadequate. Kotora's (2001) study found that 66% of the music teacher participants believed that their undergraduate college courses did not prepare them much or at all in the area of assessment. Fifty-three percent of the participants with graduate degrees said the same about their graduate courses. Although Shih (1997) reported that most teachers "checked group performance" when assessing singing voice, Hoffer (2008) found that the assessment of individual students was required for meaningful assessment. Informal group assessment is not sufficient, although informal observations may allow a teacher to adjust instruction to address the broad needs of a group, "...it is only through

formal assessment techniques that teachers are able to gather and report detailed, objective information regarding individual musical achievement” (MENC, 2001 p. 23).

Hepworth-Osiowy (2004) found that teachers who did not engage in ongoing assessment reported that they had difficulty obtaining adequate amounts of assessment data, and they felt that assessment was stressful and difficult to schedule. In addition, teachers who used ongoing assessment reported less stress related to assessment and greater success in obtaining and reporting data. In Kotora’s (2001) study, most of the participants believed that their undergraduate and/or graduate courses did not adequately prepare them in the area of assessment. Peppers’ (2010) survey indicated that respondents strongly agreed that assessment was a valuable tool in their classrooms.

Respondents reported that assessments were used to communicate music learning to parents and to inform report card grades. In contrast to Kotora’s participants (2004), most respondents in Peppers’ study felt that their undergraduate studies adequately prepared them to assess music learning, although they did indicate that their ability could be improved with more study, reading, and observation. Livingston’s (2000) survey did ask what kinds of assessment were used, and the most frequent responses were: teacher observation (n=137) and live performances (n=118). Talley (2005) found that many elementary music teachers did not frequently assess their students, and some did not assess at all. Teachers who did assess used self-designed measures including rating scales or rubrics, checklists, written tests, and worksheets. Respondents to Talley’s survey assessed subjects such as beat competency, singing voice, matching pitch, rhythm, playing recorders, music reading, and instrument identification.

Liu's (2007) study found parents were most interested in receiving more information about areas where their child may need assistance. Almost all parents expressed they will use the information they received from assessment reports. Parents with less formal education showed the highest expectation for oral communication from teachers. Parents with more formal education wished to have more written and oral information about their children's learning in comparison with other children. Parents with more formal education were also more sensitive to information provided by the researcher in the written reports. Lee's (2006) study found that kindergarten teachers still need practical assistance in implementing assessment in their classrooms.

The review of literature included studies on theories of learning and their relationship to music learning, studies on the curricula, methods, and strategies, studies on singing, studies on music and movement, studies on listening, studies on the teachers' and parents' attitudes toward music instruction, studies on approaches, and studies on use of assessment in the classroom. However, there are no researchers who have investigated in case studies the holistic combination of the curricula, methods, strategies, attitudes, and assessment in early childhood music instruction. Therefore, there is a need for a case study inquiry that investigates holistic musical learning within a pre-school population.

In the next chapter, I will discuss the methodology that I used to collect and analyze data to explore the pre-school practitioners' practice of curricula, methods, and strategies in the present study.

CHAPTER 3

METHODOLOGY

The purpose of this study was to describe the extent to which common practice among a sample of preschool practitioners is consistent with recent research on music instruction including singing among the five-to-six-year-old population. This research was qualitative and based on a case study design in a preschool in Taiwan. Data was collected through interviews, observations, questionnaires, documentation, archival records, and the researcher's journal.

Research Questions

This study focused on the following four research questions:

1. What curricula, methods, and strategies are prevalently used for providing music instruction, to preschool children at Sun Preschool in Taipei City, Taiwan?
2. What are the attitudes of the early childhood teachers and the music teacher in regards to providing music instruction, and what are the attitudes of the parents?
3. What approaches do educators feel are most effective for providing music instruction?
4. In what ways do teachers assess and measure students' learning progress in achieving and enhancing musical performance skills?

Data to answer these questions was obtained from a number of sources: transcripts of classroom observations, interviews of administrator, music teacher, classroom teacher;

questionnaires of parents, teaching materials written and developed by the teachers, and researcher's field notes.

Research Design

Merriam (1998) stated, "Unlike experimental, survey, or historical research, case study does not claim any particular methods for data collection or data analysis. Any and all methods of gathering data, from testing to interviewing, can be used in a case study" (p. 28). In addition, the case study is "anchored in real-life situations" (p. 41), and it is designed to produce a "rich and holistic account of a phenomenon." Yin in his 2009 book, *Case Study Research: Design and Methods*, defines a case study as "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real life context" (p. 18). Whereas an experiment or survey would divorce the phenomenon from its context and limit the variables that could be investigated, the case study shows how numerous variables are linked within a given phenomenon and its real life context. Furthermore, the case study invites the use of multiple sources of evidence in order to provide detailed descriptions of the phenomenon under investigation. As Yin comments, real-life situations, rather than abstract concepts, lend themselves to case studies. He therefore considered the need for "spatial, temporal, and other concrete boundaries" of the case (p. 32). Consequently, this investigation was bound by place and time. The site of the present study was restricted to a single classroom at a single preschool in Taiwan, and observations of teacher interactions with students were conducted in 14 separate sessions, two hours each, over a period of three weeks. This research design is in line with Creswell's (2007) definition of a within-site case study as an in-depth exploration of a

bounded system (e.g., an activity, event, process, or individuals) restricted to a single location. One of the advantages of case study research is that the researcher, through a process of thick description, can bring a case to life in a way that is not possible using the statistical methods of quantitative research and help individual readers relate cases to their own situations (Gall, Gall, & Borg, 2007).

For these reasons, I believe the case study's flexibility, ability to contextualize a phenomenon, and use of thick description best serves the interpretation of a multi-layered phenomenon. I concluded that a case study approach might best assist educators in understanding the real phenomenon of teachers' experiences, instructional practices, and strategies.

A qualitative research method is most appropriate to accomplish the purpose of this study for several reasons. First, as Creswell (1998) stated, "[the] qualitative approach is appropriate to study individuals in their natural setting" (p. 17), and to examine one's everyday life (Denzin & Lincoln, 2005). In the present study, the daily musical interactions of early childhood teachers and the children in a preschool class were investigated. Second, as Creswell (1998) noted, qualitative research is suitable for inspecting human behaviors and presenting a detailed view of a program, event, activity, or of an individual. In this study, the early childhood teachers' and children's musical interactions in the early childhood program were described.

I chose qualitative methodology because it best suited exploring individual participants' actions and experiences. By collecting and analyzing the data using a within-site case study design, this study clarified the kind of musical interactions that

took place among early childhood teachers and young children in the preschool setting. In sum, a qualitative, case study design was selected because it was appropriate and suitable.

This study included data gathering techniques as outlined by Yin (2003) and Stake (1995). Data was collected from researcher observations and interviews, as well as written and oral sources, such as teaching materials, video and audio recordings, and course syllabi, which allowed the researcher to have a better understanding of the site that was examined (Yin, 2003). I addressed the research questions through a series of observations over the course of three weeks. I interviewed participants early in the observation period, allowing participants to share their own beliefs and experiences about their instructional practices. Additionally, I asked participants to share communication materials, written materials, or other documentation that might further inform my understanding of their use of music instruction. These methods of data collection provided me with rich sources of material that answered the posed research questions.

Site and Participants Selection

In the selection of the site for this study, I used the following criteria: a preschool-level classroom that included singing and other musical instruction in Taiwan, teacher willingness to participate in this project, and feasibility of traveling to the site for conducting to interviews and observations. Through searches of the Ministry of Education online database and suggestions gathered from conversations with several professional early childhood specialists in preschools in Taiwan, potential schools were contacted and reviewed. The schools received information regarding the research purposes, time constraints, and participant-access considerations via e-mail, telephone, and letter (see

Appendix A). The Sun Preschool in Taipei City is the school fit the criteria, has well-respected music program, and highly supported the project. Creswell (1998) pointed out that “The purposeful selection of participants represents a key decision point in a qualitative study. Researchers designing qualitative studies need clear criteria and need to provide rationales for their decisions” (p. 198). The school that was chosen was recommended highly by several early childhood specialists in preschools in Taiwan. In addition, according to an administrator at this school, their students graduate and are accepted into other musical programs, and the school also places an emphasis on music instruction.

This case study was conducted at Sun Preschool, located in Taipei, which is the major northern city in Taiwan. This licensed preschool, which can accommodate approximately 105 students, has a population of 2-to 6-year-old children from middle-and upper-socioeconomic class families. The Sun pre-school was founded almost 60 years ago. It has won three awards: the Early Childhood Education Superior Kindergarten award from the Republic of China, Taiwan, the Early Childhood Education Superior Kindergarten award from the Department of Education of the Taipei City government in Taiwan, and the Pre-school Superior award from the Ministry of Education in Taiwan. The preschool employs eight early childhood teachers and one music teacher for 87 students, divided into four classes in the building. Music is included in the daily activities of this preschool, with emphasis placed on rote singing of children’s songs. All children receive 50 minutes of general music instruction each week from a music specialist. The music curriculum focuses on engaging children in activities such as singing, listening,

playing instruments, and moving to music.

Participants

Primary participants in this study included the administrator, the early childhood classroom teacher, and the early childhood music teacher. The nine students' parents who chose to participate in the research and complete a questionnaire were the secondary participants in this study.

According to Creswell (1998), criterion sampling works well when all individual studies represent people who have experienced the phenomenon, and individuals are expected to meet all criteria. Gall, Borg, and Gall (1996) stated that, "purposeful sampling is not designed to achieve population validity. The intent is to achieve an in-depth understanding of selected individuals, not to select a sample that will represent accurately a defined population" (p. 218). Purposeful sampling in order to select a case that may be information-rich with respect to the purpose of this study was important and necessary.

The following criteria were established for the selection of participants: Administrator, early childhood teacher, and early childhood music teacher, all of whom have had at least three years' experience in the same school, as well as parents of 5 and 6 year old students who took music classes. The teachers must have conveyed a willingness to commit to participate in this project.

Based on the above criteria for participation, an administrator recommended three teachers to participate in this study. After agreeing to participate in this project in a telephone conversation, the three subjects received a written description of the project

outlining the specific expected actions. I used Hamersley and Atkinson (1995) as a guide for addressing potential concerns that the gatekeepers might have had about conducting research at the site; informed consent was required on behalf of the participants. I also followed the considerations for data collection as outlined in Howe and Dougherty (1993): including respect for persons and their consent, right to privacy, and anonymity, benefits of research vs. risk to individuals, and justice and equity for participation in the study. Thus, the participants then received official informed consent forms requesting their signature to verify their awareness of the project's expectations (see Appendix B-E). In addition, informed consent forms were given to school administrator who was in charge of the schools involved in this study (see Appendices B, C, & E).

Description of Participants

The three female participants are an administrator, a music teacher, and a classroom teacher. Each participant entered the teaching profession through slightly different routes. The administrator is working towards her master's degree in early childhood education, while the music teacher holds a bachelor's degree in music. The classroom teacher has a bachelor's degree and a teaching certification in early childhood education. Because contextual considerations are necessary and important for qualitative research (Yin, 2003), the following sections provide general descriptions for each teacher in this study.

General Description of the Administrator

The administrator is a female teacher in her mid-sixties who has taught for forty years, more than twenty of which have been in the Sun pre-school. She won the Excellent Senior Teacher Award from the Department of Education in Taiwan and the Early

Childhood Education Superior Award. She said:

I am 64 years old and have been in early childhood education for a long time. I have liked children since I was young, and this made me choose early childhood education. My family supported my decision. In 1986, I came to this pre-school, and I have been here for more than 20 years. Since I arrived at the school, I have begun to develop my own teaching material and make teaching aids. I found that teaching is fun, and I adore teaching. In addition to teaching, I attend workshops. (I-D 12/31 2013)

General Description of the Music Teacher

The music teacher is also a female in her mid-forties with twenty-five years of teaching experience. She has been teaching in this school for eighteen years, and in doing so, she hopes to help the children enjoy, love, and appreciate music. She stated, “In the early childhood stage, the most important thing is to cultivate children’s love of music and help them learn how to appreciate music” (I-MT, 12/31/2013).

General Description of the Classroom Teacher

The classroom teacher is a 34-year-old female who has been teaching in this pre-school for 10–11 years, and loves to care for her students. At her university, she took many courses in early childhood education, as she believed that a teacher needs to develop her knowledge and skills so children can learn as much as possible. In addition to leading the class, she also participates when the music teacher comes into the classroom by singing songs and playing other musical instruments frequently to pre-school children.

The director of this school gave the following description of her:

She is conscientious. Pre-school teaching is rigorous, especially the preparation of teaching curriculum, the environment of instruction, and classroom management. She is skilled in all of these areas, responsible, and capable to do school administration well. (I-CT12/312013)

Her current teaching responsibilities include teaching 5–6 year old classes and

managing the school music resources. As the lead teacher of the class, she believes that singing is an important part of the children's lives. She said:

In our pre-school, we emphasize music singing instruction curriculum activities. Children sing a morning song, children's songs, unit songs, and participate in music and movement as well as singing music or songs from music classes. Every morning and five or ten minutes before school ends, we spend some time singing these songs. In addition, when we walk anywhere in the pre-school we sing children's songs or any song we have taught, like children's songs or our unit songs. (I-CT, 12/31/2013)

In general, with her own background, the classroom teacher feels comfortable singing, playing instruments, and doing movement with children in the class.

Data Collection

A fundamental concern in qualitative research is the degree of researchers' confidence that they can correctly interpret what they have observed. Fraenkel and Wallen (2000) suggested that data collection from different instruments supports the validity of data. There are many important ideas to remember about proper data collection. Writing down the questions asked and the answers received will help researchers make sense of data later (Creswell, 1998; Fraenkel & Wallen, 2000; Patton, 2002). Recording personal thoughts when conducting interviews help researchers recheck responses that seem unusual or incorrect (Creswell, 2003; Fraenkel & Wallen, 2000; Rossman & Rallis, 1998). Interviewing is an important way to check the accuracy of the impressions the researchers have (Creswell, 1998b; Fraenkel & Wallen, 2000), and it also helps a researcher ascertain what people think and how they feel about something the researcher wants to know (Creswell, 2003; Fraenkel & Wallen, 2000; Pattern, 2002; Rossman & Rallis, 1998). Appropriate data collection steps should include setting the boundaries for

the study, establishing protocol for recording information, and collecting information through interviews, documents, and visual materials (Creswell, 2003; Rossman & Rallis, 2003).

Numerous researchers caution that data collected for a qualitative study should consider the following: there should be sufficient data sources to present an in-depth picture of the study (Creswell, 1998; Yin, 2003), adequate and various sources of evidence must be used in case studies to “allow an investigator to address a broader range of historical, attitudinal, and behavioral issues” (Yin, 2003, p. 98), and multiple sources of data to support emerging findings (Creswell, 2003; Gall et al., 2003; Yin, 2003). The advantage of using a variety of sources is to help me identify discoveries and confirm the same fact or phenomenon. Yin (2003) outlined the steps for data collection including direct observations, unstructured conversations with the participants, field notes, recordings, interviews, and the examination of artifacts.

Data Collection for This Study

The data collected for this study included transcripts of the following: fourteen sessions of direct observation of classroom activities, audiotapes of interviews with the teachers and the administrator, questionnaires given to parents, a package of teaching materials from participants, field notes collected by me during the study, and a research journal. The selected participants were early childhood teachers in Taiwan. Therefore, I translated the data collected from Chinese to English.

Direct Observations

The purpose of direct observation is to capture participant behaviors and contextual,

environmental conditions (Yin, 2003). The teachers and children were observed for three weeks in fourteen separate sessions, which took place during both the music class time and general classroom time in the same classroom. For two hours every day, teacher and student interactions were observed.

During these observations, I sat quietly toward the back of the room behind students and took notes using a pencil and notebook, as suggested by research (Silverman, 2004; Strauss & Corbin, 1998; Yin, 2003). The content of the field notes in this study included observations of musical behaviors (such as singing and clapping), musical activities (such as playing instruments, moving to the songs, gesturing, and listening to recordings), and the musical environment (such as the presence of musical equipment, instruments, or CDs). In addition to field notes, I jotted down memos, questions, and reflections immediately at the time of observation.

I conducted non-participant observations using the guidelines outlined by Creswell (2007): taking written field notes, accurately recording quotes, avoiding becoming overwhelmed with information at the site, and learning how to funnel the observations from the broad picture to a narrower one (Creswell, 2003). I used the following guidelines: noting the time of the observation, giving detailed and factual descriptions of the phenomena or activity observed, and writing reflective notes about these phenomena (Merriam, 1998; Yin, 2003).

Researcher's Field Notes

While conducting this study, I kept writing field notes about personal feelings and comments about the study. That data helped me interpret the words of participants.

During observations, I observed participants' interactions to children. After interviewing participants, I transformed my observations into data. An appropriate approach is writing field notes that become the written record of my perceptions in the field (Creswell, 2003; Fraenkel & Wallen, 2000; Patton, 2002). I wrote field notes including two major components: the descriptive data of what I observed and my comments on those data or on the project itself. Writing field notes enables me to capture environment, activities, and interactions among the people in that environment. The field notes also included my emotional reactions to events, questions about meaning, and thoughts for modifying design (Rossman & Rallis, 1998). In short, my field notes included the data about the study, the data about the process of the study, as well as my comments and perspectives about the study. As I analyzed interview transcripts, field notes could be added to interview transcripts to extend and interpret the words of the interviewees. In accordance with Rossman and Rallis's statements, in this study I took raw field notes by hand during observations. I elaborated field notes and added commentary on the same day or the day after. By doing so, I was able to catch vague statements and clarify unfounded assumptions that appeared in the data. In order to gain substantial descriptions and interpretations for the data, writing field notes was necessary and important for me in this study (Denzin, 1984).

Interviews

Teachers were each formally interviewed one time, concerning their attitudes toward and strategies for teaching music, with two to three informal conversations taking place after selected classroom observations. All interviews were scheduled in advance,

considering participants' personal availability. The interview protocol included a semi-structured interview, following the procedure outlined by Fontana and Fey (2000), with predetermined questions written and designed by the researcher (see Appendices F–H). This procedure progressed as follows: “(a) begin by ‘breaking the ice’ with general questions, (b) transition gradually to more specific questions, (c) avoid providing personal opinions in a conversational manner, and (d) observe nonverbal cues, such as proximity, body movement, vocal inflection, pacing, and silence” (p. 649). I used an original paper copy of these questions for each participant interview, allowing space for brief note taking as needed. Questionnaires, designed by the researcher, were given to the classroom teacher who distributed them to participating parents along with the Informed Consent Form and asked each participant after completing the questionnaire to return them to the classroom teacher (see Appendix E & H).

Silverman (2004) stated that “the primary issue of the interview is to gather an authentic insight into participants’ experience” (p. 87), and to document how the participants “actively engaged in constructing meaning” (p. 87). Through the interview, I should be able not only to understand the participants’ thoughts, ideas, and feelings, but also to structure the necessary information and to check the accuracy of impressions that arise (Creswell, 2003; Patton, 2002). The interviews in this study were used to obtain information from the teachers about their musical experiences working with young children.

In this study, one-on-one semi-structured interviews with guide questions were used. Qualitative research relies on responses to open-ended and guiding questions

(Patton, 2002). I used a semi-structured interview protocol, which included guiding questions and was developed (see Appendix F & G) for this study. A conversational-style interview in a comfortable place allows the participant to feel free to share personal information, so it was utilized in this study (Patton, 2002). These interviews were in the preschool, which provided comfortable seats and a quiet talking space. Interviews were conducted face-to-face and lasted for approximately 30 minutes, based on a format from Creswell (1998). Each interview was recorded, transcribed, and archived. All information was kept in the strictest confidence and pseudonyms have been assigned to participants for use in the final report.

Open-ended interview questions included three major topics: (1) questions about participant, (2) questions about feasibility, and (3) questions about general participants' opinion. I recorded information from interviews through both handwritten notes and audiotape recording (Creswell, 2003). All interviews were recorded and transcribed. Interview questions (see Appendix F & G) also reflect the research purposes and research questions, and were designed to explore participants' experiences, strategies, and thoughts on teaching music. I made an audio recording of each interview using a Sony TCM-323 cassette recorder and Maxell UR position Type 1 audiocassette tapes. I transcribed each interview verbatim in Microsoft Word and took notes in my research memos, keeping thorough and accurate records. The selected participants were early childhood teachers in Taiwan, and each interview was translated from Chinese to English by me. I maintained a thorough understanding of how each interview related to the wider scope of the entire research project. Interview data were transcribed within a 48-hour period, using

guidelines for denaturalized transcriptions provided in MacLean, Mechthild, and Estable (2004). Member checks allowed me to assess the quality and accuracy of transcription data. I followed Orcher's suggestion (2005) of creating an audit trail by carefully recording the source of each article of information throughout the data collection process.

Documentation

In a 2003 study, Yin indicated several advantages of collecting documentation sources for the case study. One of these advantages is that documentation provides exact information for the study, such as the participants' names, references, and the details of an event. Another advantage is that this information is stable data that can be reviewed repeatedly, and a broad coverage of the observed classroom context can be shown through letters, communications, written reports, and newsletters in the documents. These documents also provide specific details to corroborate or augment information from other sources. In the present study, documentary data that provides information about the children's learning, the teachers' teaching, or parent-teacher communication were collected. Documentation included the teaching material, teaching activity handbook, and program announcements. By collecting these documents, I gathered information about the children's musical experiences and musical interests, the teachers' musical resources and preparation for musical activities, and the teachers' and children's musical relationships.

Written sources, including descriptions of classroom environments, lesson plans, curricula, program notes, teaching materials, and syllabi were examined to inform the study. This collection of information contributes to a better understanding of the participants' experiences (Glesne, 1999).

Archival Records

Archival records may include a variety of records, such as organizational records, computer files, service records, maps and charts, and blueprints (Yin, 2003). Although these documents may be of only passing relevance to the case study, they can be used in conjunction with other sources of information, such as documentation, observations, and interviews (Yin, 2003). The collection of archival material for this study included the school activity calendar, and teaching materials such as music supplies. These provided additional relevant information related to the teachers' and children's musical responses, behaviors, activities, and interactions.

Research Journal

Throughout the process of seeking participants, collecting data, analyzing data, and preparing the final report, I kept a research journal. In this journal, I recorded my thoughts about participants, the study, and all activities associated with this project. The journal allowed me to be a more involved participant in the data collection process and to reflect on my own involvement with participants (Bloor & Wood, 2006). My journal became another set of data to code, analyze, and add to the final report. The journal served as a tool to establish reliability and expose the author's bias.

Data Analysis

The participants were early childhood teachers in Taiwan. Therefore, I translated the data collected from Chinese to English. Data analyses were performed after the translation to English. I kept the original objective of the research study in mind but, at the same time, remained open to unanticipated results emerging from the data.

The process of data analysis used, following an outline developed by Creswell (2003), included organizing and arranging the data (i.e., transcribing interviews, typing up field notes, and sorting the documents into files), reading through the data to obtain a general sense of the information, encoding all of the data that emerge as “issue-relevant” into categories, identifying themes that show the relationships between categories, presenting and describing in detail of thematic information, and forming direct interpretations based on each of the themes identified in the analysis. My approach to data analysis also followed two methods as outlined by Ryan and Bernard (2000). One method included transcribing data from interviews and observations and typing data from the research journal (Tesch, 1990). The other level of data analysis included coding data by thematic content, sorting according to theme, selecting specific quotes, and summarizing (Ryan & Bernard, 2000).

I searched for patterns and issues in the interview transcripts, classroom observations, field notes, and artifacts. Preliminary data analysis began when the field notes from observations and interviews were transcribed. I provided analytic comments and reflections on them, and I identified certain emerging issues or themes related to the research questions or literature review. This is what formed my findings and interpretations.

Formal data analysis began when the field notes and audiotapes were transcribed by coding and categorizing. Codes were developed when the transcripts had been thoroughly read. Similar codes or concepts were integrated into categories, and continually referred back to the research questions and theoretical framework in the process of data analysis. I

sought out “disconfirming evidence” (Erickson, 1986), such as things said in an interview that were not supported in observations. For instance, if a teacher mentioned that she taught the children to sing an “ABC” song, and it was not observed in the classroom the teacher was later asked about it.

During the writing process, I organized the study around themes and issues to gain an understanding of the information. It was anticipated that certain patterns would emerge in the process of data analysis, and research questions were adjusted accordingly (Graue & Walsh, 1998). To make this type of study as valid as possible, researchers can combine data collected through different protocols, using both data source triangulation and methodological triangulation (Denzin, 1984). For data source triangulation, I looked to see if the findings remained the same through examining the interview transcripts, classroom observations, field notes, and artifacts. Methodological triangulation included the use of interviews, observations, and document review. It also helped me to seek out and present multiple views of activities and issues, which revealed and portrayed the different perspectives of children’s learning and teachers’ teaching.

Coding

Glesne and Peshkin (1992) indicated that coding is “a progressive process of sorting and defining and sorting those scraps of collected data (i.e., observation notes, interview transcripts, memos, documents, and notes from relevant literature)” (p.135). Segments of the transcripts of the interviews were examined for distinct, separate segments (such as ideas or experiences of the participants) and were coded by identifying them and giving each type a name (Orcher, 2005). Interviews and audiotapes were

analyzed for emerging themes in the data record and notes were made when data appeared to be related to research literature.

Documents were analyzed using a system of open coding for comparison of data within and between the interviews, document or content analyses, and field observations (Maxwell, 1996). Through the comparison of these categories, I achieved data saturation (Orcher, 2005), which allowed the final report to be a concise and cogent summary of the research findings.

Strauss and Corbin (1998) noted that researchers often move between the stages of coding during data analysis. Charmaz (2006), whose approach to coding guided this study's analysis, concurred, having noted that the qualitative "research process is fluid, interactive and open-ended" (p. 178). Therefore, initial coding was provisional, allowing for flexibility in subsequent coding sessions. Initial coding resulted from line-by-line analysis of interview transcripts. I focused on coding by looking for common expressions, events, constructs, concepts or themes among the data followed initial coding. Coding was informed by the literature review and researcher expertise.

Coding for this study involved the identification of themes in the data, each of which was assigned a code consisting of 1 to 3 letters. For instance, the letter "P" signified pitch accuracy, and the letter "R" signified rhythm accuracy. I noted codes by hand in the left margin of the transcripts of interviews for ease of reading, organization, and identification. The coded data were then entered into a computer file using Hyper Research software. Two and three letter codes were expanded to be more descriptive taking advantage of the software's capability (e.g., Pitch Accuracy was expanded to

“PA”. Rhythm accuracy was expanded to “RA”). This process allowed me to rethink coding, expand on and more clearly articulate emergent notions, themes, and expressions.

The transcripts of the interviews were reexamined with the purpose of identifying relationships between the categories and themes identified (Orcher, 2005). I looked for underlying relationships among identified expressions, events, constructs, concepts, or themes following axial coding guidelines in Strauss and Corbin (1998) and Charmaz (2006).

I created an audio recording and wrote field notes during interviews. Field notes and interviews were transcribed as close to the interview time as possible. Interviews were transcribed one word to one phrase at a time, repeating the information frequently to verify the transcription. I extracted common themes from transcriptions in order to give expression to the common responses of participants.

Data sources from interviews and observations were cited throughout this document using codes from the data records: “I” for interview and “O” for observation. For example, I-JS 6/11/09 indicated an interview with John Smith, June 11, 2009, and O-9/18/13 indicated an observation on September 18, from the researcher’s transcript of observation. These codes were used in chapter four.

Establishing Reliability

Reliability procedures included writing detailed notes, maintaining a research journal of my own reflections about observations, and jotting memos to document the process of data collection (Creswell, 2009; Bloor & Wood, 2006). Observation notes and the research journal I kept throughout the study allowed “others [to] follow the process in

the form of an audit trail” (Bloor & Wood, 2006, p.148). Although Bloor and Wood stated that researchers cannot duplicate another's process exactly, keeping detailed notes and analytic journals improves reliability by allowing others some way to attempt reproducing a study. Segments from observation notes and the research journal as well as statements indicating research procedures were shared with readers in the final report in the form of quoted and summarized data presented in chapters four and five.

Trustworthiness, Reliability, and Validity

Trustworthiness, also labeled “qualitative validity” by Creswell (2009, p. 190), included all procedures I used to verify the accuracy of study findings and improve the understanding of study participants (Denzin, 1989). Reliability described the accuracy of my procedures used to complete the study (Bloor & Wood, 2006).

Audio recordings of interviews were taken to ensure trustworthiness of the accuracy of the interview transcripts. Trustworthiness procedures included member checking, triangulation, peer debriefing, external auditing of the entire project, and clarification of researcher bias (Creswell, 2009). These procedures are integral to the design of this study because they were conducted throughout the process of data collection, analysis, writing, and revising.

Member Checks

Transcripts were compared to recorded interviews once completed, then e-mailed or printed and delivered to participants within two weeks of the interview for member checks (Creswell, 2009), to validate what was said and what was actually meant (Bloor & Wood, 2006). Participants were given the opportunity to review interview transcripts for

accuracy, interpretation of data, and personal representation. Comments from participants at this point were considered as data corrections or additional research notes to reflect the process, but no comments were given. In this study, adult participants reviewed the transcripts and approved their contents; therefore, no editing was necessary.

For member checks, the participants verified the accuracy of interview transcripts to establish credibility of the data collection instrument. I submitted interview transcripts and vignette summaries to the participants for review to ensure accuracy. Member checking served as one way to assure that my personal bias did not creep in. Member checking provided me with an additional means of confirming the intentionality of participant responses, a measure for identifying erroneous data, and an opportunity for additional data collection (Lincoln & Guba, 1985). In addition, in an effort to verify my conclusions, I engaged in informal conversations with the participants of the study to further my understanding.

Triangulation and Accuracy of the Findings

Through the procedures of triangulation, the validity of data will be enhanced. Participant interviews were tape-recorded in Chinese and then transcribed into English. To improve reliability, field notes were transcribed within 48 hours of each observation. I listened to all interviews several times, comparing them with typed transcripts and correcting transcription errors (Creswell, 2009). I transcribed observation records and the research journal by typing handwritten notes into Microsoft Word and checking for accuracy after entering the data. Data from interviews, observations, questionnaires, and the research journal were all coded and further analyzed, to keep analysis methods

consistent throughout this study.

Triangulation in data collection sources were used to establish some degree of trustworthiness as explained by Gall, Gall, and Borg (2007), and to add depth to understandings of the teaching and learning. The interviews of the director, early childhood classroom teacher, and the music teacher, as well as the questionnaires of the parents were evaluated after coding, and then compared for similar, convergent, and divergent themes. All viewpoints contributed specific perspectives to the study.

Comparing comments, looking for consistency between what participants described, what they wrote in lesson plans, and other teaching materials they developed, all aided in the analyzing of the data. When inconsistencies were found, clarification was sought in subsequent conversations to facilitate accurate and complete interpretation. These data collection methods allowed me to combine a variety of data regarding actual teachers' interaction with children to create a picture of both the insider (teaching and learning) and outsider (parent, and researcher) views of that experience

Peer Review and Peer Debriefing

Dependability was ensured through peer debriefing (Phillips, 2008). Orcher (2005) stated that peer debriefing consists of having a qualified researcher who is not directly involved in the data collection or the analysis of the results consult with the researcher. Therefore, one of the researcher's peers who had been debriefed reviewed the data and asked questions regarding substance, methods of inquiry, and coding (Creswell, 2003). This peer reviewer should consider whether the data are reasonable in light of how the data were collected and the contents of the transcripts of the interviews.

The data collection procedures, emerging analyses, and final stage analyses were shared with colleagues and advisors in the doctoral program at Boston University to cross-check the accuracy and cogency of findings. The researcher discussed with these colleagues the data collection process as well as emergent themes during the coding process to verify the researcher's findings.

External Audit

The researcher performed audit checks through consulting her doctoral committee to determine if the conclusions that her was drawing were influenced by personal bias or faulty procedures in the data collection process. The procedure of having an independent investigator look over many aspects of the project (e.g. accuracy of transcription, the relationship between the research questions and the data, the level of data analysis from the raw data through interpretation) enhances the overall validity of a qualitative study (Creswell, 2003). The role of the external auditor included reviewing the data coding, reading drafts of the manuscript, and crosschecking the accuracy and cogency of my conclusions.

Periodic audit checks were performed to determine if any biases or problematic methods of data collection or analysis have impinged on the report. Audit checks helped to verify that various perspectives were considered, and assisted in the development of new ideas and interpretations.

Researcher Bias

As a part of this process, I listed and accurately described anything that may have affected the objectivity of the study. Potential research biases included my desire for the

study to show that specific curriculum, methods and strategies are used for providing music instructions. In addition, my previous experience in teaching children music and singing, and my enjoyment of teaching music and singing influenced the objectivity of my study and caused me to overlook potential problems with the educators themselves.

I described and reported my own biases in research memos to explain the values and expectations I brought to the study. I wrote memos using guidelines established by Maxwell (2005) except for when it would have distracted the interviewee. Memo writing was particularly important in documenting deviations from the interview questions and was conducted in both self-reflective and analytic modes (Creswell, 2007). Self-reflective memo writing ensured that I remained cognizant of my role in shaping the interview process and of any in-the-moment responses to participant narratives. Analytic memo writing allowed for richer data collection, as I conducted the analysis as ideas or expressions arose.

Thick Description

I employed “thick description”, defined as a “description that creates verisimilitude and procedures for readers the feeling they experience, or perhaps could experience...it evokes emotion, self-feelings” (Creswell, 1998, p. 184) and addressed reporting bias in addition to reporting discrepant themes that emerge during the study. The use of direct quotes often helped me best describe the meaning of the participants during the reporting of interview data. Reporting bias referred to the possibility that I was looking for and desired to report a certain result. In order to counteract this bias, discrepant themes were described. Reporting negative cases or exceptions to established patterns found in the data

compensated for a possible tendency for me to stay closely tied to my assumptions. One of the aims of approaching this research from my own theoretical perspective was to give voices to dissimilar points of view. Regardless of my hypotheses, beliefs other than my own deserve to be reported.

Trustworthiness of the Final Report

Rossmann and Rallis (1998) indicated several characteristics of qualitative inquiry. Qualitative research is fundamentally interpretive and includes reflexivity of the researcher. The data that emerge from the qualitative research of this study were interpreted to find meaning both personally and theoretically. In order to establish trustworthiness in the final report, I conducted observations, interviews, and completed background research, which helped develop a rich and thorough understanding of the site and individuals involved in this study. The multiple data collecting techniques help to create a “confluence of evidence” (Eisner, 1991). Audio recordings of field observations and interviews were taken to ensure trustworthiness of the field notes and accuracy of the interview transcripts.

Interpretation of the setting and the events of the study could be threatened by the imposition of my own perspectives and beliefs (Maxwell, 1996). With this in mind, I was mindful not to infer cause-and-effect relationships or limit the focus of the research, but was receptive to multiple perspectives from participants rather than a single reality (Creswell, 2007).

Participant Confidentiality

Before enrolling participants in this study, I fully explained the nature of the

research and the time commitment and extent of participant involvement. Adult participants were required to sign an informed consent form before the study began (see Appendices B, C, & E). All consent forms were stored in a locked safe at my residence.

In order to protect the identity of the participants, confidentiality ensured that all information had a period of closure, and precautions were taken not to disseminate any identifying information (Creswell, 2003). Therefore, all findings and conclusions were reported using fictitious names. For instance, all participants were called Teachers (e.g. Teacher A and Teacher B) and schools were called Schools (e.g. School A). All audiotape recordings were kept in my office and were destroyed after the interviews and observations. I was the only person who listened to the audiotapes. The participants' names were never connected with any part of the interviews. In the final report of this study no personally identifying information was printed.

Summary

This research is a case study of methods, curricula, and strategies of music instruction in the pre-school. The subsequent chapters are written in narrative style and include the perspectives of the director, the early childhood classroom teacher, the early childhood music teacher, and the parents at the Sun Pre-school. In Chapter 4, I present the five and six year old children's musical activities during the music classes and general classes throughout the observed period. I also describe the director's, early childhood classroom teacher's, and early childhood music teacher's perspectives regarding curricula, methods, and strategies used at the Sun Pre-school as well as their and the parents' attitudes toward music instruction. Lastly, in Chapter 5, I present a discussion,

implications, recommendations, and conclusion of this present study. It is my hope that teachers of pre-school children, teachers' training programs, and the Ministry of Education will consider and implement a fresh perspective of the curricula, methods, and strategies from this on-site case study. In the present study, the early childhood teachers commented that their children benefited from receiving music classes that were guided by a music teacher, a result reported in previous studies (Mallett, 2000; Miranda, 2002; Nardo, 1996). Apparently, the music classes that assisted the children in developing their understanding of music increased their music learning experiences. While participating in music classes, the early childhood teachers seemed to benefit from observing music teacher's interactions with the children; Suthers (2004) also found that adults learned from attending music classes with children. Music classes provide more opportunities for children to experience music and enhance their musical learning. Early childhood teachers are encouraged to participate in music classes because participating may assist them in becoming familiar with more musical activities, understanding the most effective ways to interact musically with children, and presenting a musical model for children.

CHAPTER 4

FINDINGS

Research Question One

The following are the findings associated with Research Question No. 1: What curricula, methods, and strategies are prevalently used for providing music instruction at the Sun pre-school in Taipei City, Taiwan? The Sun pre-school offers music classes taught by one music specialist during one fifty-minute meeting per week, and is required of all students in this pre-school. They are furthermore required to bring their instruments and books to school each Monday and take them back home on each Thursday in order to practice at home. This music class affords students the opportunity to gain further musical knowledge, skills, and performing experience.

Environment

For the sake of confidentiality, the class chosen was identified in this study as “Baby Panda.” The classroom was a comfortable and safe environment for the children divided into several areas, including the cubby area, play area, reading area, as well as music and movement area. There was an uncluttered area large enough to provide ample space for structured movement activities in the pre-school. Additionally, parent or teacher information, weekly activity plans, and reflection journals were displayed in a corner of the classroom for parents to view them during the time they came to pick up their child after school.

The equipment in the classroom consisted of a variety of learning and play materials such as musical instruments (piano, bass drum, snare drum, tambourine, hand

bell, castanets), CDs, a CD player, an overhead projector and computer for lessons, a toy kitchen set, books, chairs, and tables. The children were free to play with toys, instruments, the toy kitchen equipment, or to read books in any area they wished. Classroom facilities have a bass drum, snare drum, and piano. Each child's cabinet has musical instruments including a tambourine, hand bell, and clapper as well as their own melodica and recorder. There are various musical instruments in the preschool's warehouse, and any teacher who needs musical instruments can go there to pick them up for his or her classroom.

Classroom Activities

Baby Panda's daily routine (schedule) for the fall of 2013 included breakfast, free-play, morning activities, story time, P.E. (physical education) class, music class, unit activities, multi-field activities, integration activities, music review (the classroom teacher helped the children practice and review what the music teacher taught in music class, focusing on the recorder and the melodica), P.E. review, a walk around campus, stories/quiet play, lunch, teeth brushing, nap time, a snack, indoor and outdoor play, etc. Any time the teacher took the class outside, he or she put a notice on the front door of the classroom to inform parents or visitors where they had gone.

Materials

Each child had a textbook and CD for music lessons, along with a recorder and melodica. The texts included pictures of a broad range of musical instruments. Additionally, the music classroom was equipped with a record or CD player, a piano, and percussion instruments such as bass drum, snare drum, triangles, tambourine, hand bell,

castanets, block, sleigh bells, double bells, and cymbals.

Teacher Training

Teachers used a synthesized method of teaching that included the Yamaha Music Education System. Solfège, single melody, and keyboard (melodica) as well as Orff approach, another method that uses speech rhythm and percussion instruments.

The Yamaha method emphasizes singing and playing by ear. The basic elements of music are isolated and presented one at a time to the children through the use of “by ear” or “by copy” playing, singing, imitation, clapping, melodic patterns, isolated pitches, and other activities (Yamaha, 1988). In the present study, the music teacher taught children to sing solfège first, then play the melodicas (keyboard) or recorders. The use of melodicas in the preschool’s music class was possibly influenced by the Yamaha method’s introduction of keyboard playing in their curriculum. The music teacher did not expect the children to sight-read the text (Yamaha, 1988). The music teacher taught the children to sing solfège through the fixed-do system by singing one phrase and having the children repeat it (Looney & Kavakov, 1985; Wagner, 1985). When teaching the children to play musical instruments such as melodicas, she played for the children, they listened to the sound, and then they played it. During the time that the children were in the process of mastering the skills of the melodicas, they played their instruments in ensembles together. These methods might also have been from the Yamaha method’s curriculum, which focuses on pitch recognition, rhythm, singing (using “do” solfège techniques), introduction to keyboard playing, and participation in ensembles.

Another important dimension in the Yamaha philosophy is the importance of the

home environment (parental involvement) on the child's musical learning. The Yamaha Music Education System (YMES) teaching materials refer frequently to the "Yamaha Triad," specifically "children, parents, and teacher" (Yamaha, 1986). The parents expend a great deal of attention and effort in the child's musical development. The YMES recommends that parents attend each class with the child to support their child in her musical activities. The support of the parents seems to emphasize them as the most important "teachers" in their child's life, which promotes a more musical home environment for the child.

In the present study, the music teacher provided content on the music class's learning activities for the parents to review each week. Parents were encouraged to help their own child practice his or her musical instruments, singing, as well as music and movement with their child at home.

Saliba (1990) stated that in Orff teaching, rhythm is the primary component of musical expression. In the study, the music teacher first taught the children speech patterns, and then body rhythms (clapping), and finally they used musical instruments to play the rhythm patterns (Landis & Carder, 1990). In the repeated chanting, clapping, and playing of rhythms that were introduced through speech in Orff's teaching sequence, the teacher must be sure that a given rhythm pattern is performed with consistent accuracy. Rhythmic concepts are reinforced by combining speech patterns with body rhythms such as clapping (Landis & Carder 1990). In the present study, after the children played the rhythmic patterns, the music teacher showed the children the rhythmic notation on the white board. In the Orff method, movements such as skipping and jumping are part of

musical development in children. The teacher's role is to encourage these movements in the children so they can relate those movements to music and use them in building musical concepts (Landis & Carder, 1990). When the music teacher from the Sun pre-school taught music appreciation or music and movement, she utilized movements such as jumping to match the music and relate to musical concepts. In her music class, the Sun music teacher taught her students how to play non-pitched percussion instruments, and she played simple patterns on the piano to help them. In addition, the children were taught to play recorders (Landis & Carder 1990).

Vignette of “Baby Panda” Class Music Activity

One example from the observation data demonstrated that in music class, the curriculum content included music and movement, music appreciation, listening, rhythm, singing (solfège and singing with lyrics), and playing instruments. The children were asked to stand up and make a big circle while the music teacher played the music “America Patrol” on the CD player. The music teacher, the classroom teacher, and the children listened to this music as the teacher read the story. The children repeated the speech rhythm as described in the music appreciation section and followed the music teacher in her movements mimicking many of the animals described in the story.

Next, the music teacher asked the children to sit down on the floor while she played the introduction, melody and the piano accompaniment. The children used solfège to sing the song “Mexico Dance.” “Bright Christmas” was the next song played on the CD player, and the children and the music teacher followed along, singing the lyrics and doing the movements. Next, she showed the saxophone picture from her book and played the music

“Saxophone” from the CD player as she introduced the instrument to the children. For the rhythm part in this music class, she asked the children to open their textbooks, point to the rhythm pattern and speak the speech rhythm patterns such as “no smoking, no smoking!” The children were asked to clap to these rhythm patterns. The music teacher demonstrated how to play the two-tone wood block while she spoke the speech rhythm pattern, and the children followed along with her. Towards the end of the music class, she gave instruction on the melodica and recorder.

Music Curriculum Contents

The music and classroom teachers described the music curriculum contents in a similar manner. The prevalent music curriculum includes music and movement, singing, listening, playing recorder, playing a keyboard instrument, such as melodica, and playing musical instruments in ensemble. The school director, however, gave a more focused description of the primary music curriculum taught by classroom teachers. She said, “In the preschool, the prevalent ways of providing music instruction are children’s songs as well as music and movement” (I-D 12/31/2013). Observations in the music class affirmed that the music curriculum contents included learning to sing, solfège (fixed DO), music and movement, music appreciation, listening, rhythm, and playing musical instruments.

Singing and Movement: Storytelling and Imitation

While primarily using a rote method to teach students songs, the teacher would also use stories to help students understand the content represented in its lyrics. A call and response system of imitation was used most effectively (i.e., teacher singing Do, Re, Mi and the students responding).

Based on my observations in music class, the music teacher told a story about a sporting event to go with the song “Active Child.” She asked the children what the phrase “Active Child” meant, and some said it meant that the child really likes sports. She then asked, “What do we do at a sporting event?” They responded with answers such as running, racing, swimming, and basketball. She said, “The Active Child is an excellent runner and plays many sports. We want to do sports with the active child.” She then taught the children to perform sport motions and gestures, such as swimming, running, and playing basketball. Afterwards, the teacher taught them to sing the song phrase by phrase. Once the students had learned the lyrics to the song, the music teacher played the song “Active Child” from the CD player. The music teacher and the children followed along, singing the lyrics together, while the children mirrored the teacher’s body movements, which showed gestures to match the lyrics of the song.

Solfège and Piano Accompaniments

Using a solfège system with ‘fixed’ DO, the music teacher played each phrase on the piano while singing the solfège syllables. In a call and response pattern, the students repeated the teacher’s singing. The fixed-DO system is advocated by most teachers who use the Dalcroze method (Campbell & Scott-Kassner, 1995). In this system, C is the starting note of the scale regardless of the tonic. For example, when the fixed-DO system is used, a G major scale begins on C and contains an F sharp. Children develop absolute pitch as the sense of C is fixed in the ear, the muscles, and the mind. Jaques Dalcroze believed that the interrelationship of the scales would become clear, with children being able to aurally determine the order of tones and semitones constituting each scale

(Campbell & Scott-Kassner, 1995).

Modeling and Demonstration

The music teacher explained that the piano combined with the human voice can help children to sing with pitch accuracy. Her approach suggests that the human voice is superior to the piano when modeling parts of songs that children are learning to sing. Both music and classroom teachers felt that an adult female is the best model to help children sing with pitch accuracy.

Pitch Range and Song Selection

The music teacher believed that her children could comfortably sing from A3 or B3 to C5 (middle C=C4). She also emphasized the importance of classroom teachers singing with accuracy in influencing children's pitch accuracy. In contrast, the classroom teacher thought that children in her school could sing from the low G3 to the high D5. She pointed out, "We choose songs by considering the pitch range. F major is too high, but below D5 is fine. Children can sing in a low pitch range better than in a high pitch. In our school, the lowest pitch is around G3" (I-CT 12/31/2013). According to the textbook, the songs that the children would learn to sing are mostly within the pitch range of G3 to D5. In the present study, my observations were not consistent with Apfelstadt's (1988) study, which claimed that young children's ideal pitch range is from notes C4 or D4 to A4.

Songs Related to Units in the Curriculum

The director mentioned that classroom teachers find a melody and rhythm that fits the curriculum regardless of native or international origin. In the pre-school I studied, singing is pervasive. Both teachers and children sing not only in the classroom but outside

of it as well. They sing while they walk around the school, and every day they sing songs associated with particular times of day or activity. For example, there is a morning song, a lunch song, a snack song, a good-bye song, and other children's songs. The emphasis of singing and practicing various songs likely influenced the children in the Sun pre-school to understand music as integral to school life. In addition, these songs included various styles, such as classical works, Taiwanese folk songs, Chinese children's songs, international children's songs, popular songs, and songs of different styles composed by the teachers.

Teaching Strategies for Boys and Girls

The classroom teacher in the present study stated, "Boys can sing with better pitch accuracy than girls because boys sing more boldly. Boys like to sing" (I-CT 12/31/2013). Nonetheless, the music teacher said, "I use the same way to teach girls and boys" (I-MT 12/31/2013).

Emphasizing Singing throughout the Day

At Sun pre-school, both teachers and children not only sing in the classroom, but also sing in a variety of places and settings. The school places an emphasis on singing instruction and incorporates it in as many activities as possible. The school director emphasizes the ways in which the classroom teachers work with the children to reinforce singing skills. The classroom teachers, indicating that a similar method of instruction is used in the classroom as in the music room, emphasized this collaborative approach.

During my observations, I saw that one teacher played the piano, and the other teacher taught the children to sing. The teacher sang one phrase of the lyrics, and then the

children repeated it. After that, they sang while they walked out of the classroom to do another activity in the preschool. For instance, one teacher played the piano while the other teacher showed the children a large sheet of paper on the wall, with the song lyrics of “Walk Forward” written on it. The teacher pointed to the words of the song, phrase by phrase, to teach the children to sing it. She sang a phrase and then the children echoed it, using their hands to clap the rhythm while singing the lyrics at the same time. The classroom teacher then asked the children to stand in a row as she led them, singing and walking, out of the classroom. On another day, the class sang “Morning Song,” the unit song “Indian’s Children”, and “Snack Song.” The teacher played the introduction to the song an octave higher, and reminded the children that during this part they needed to listen without singing in order to prepare to sing next. After the introduction, she would move back to the middle C position to play the main melody, and at this time, the children sang the lyrics. She started by playing the introduction (typically four measures), and then played the piano accompaniment while the children sang with the accompanying body movements, which matched the song’s textual content.

To summarize, this school places an emphasis on singing instruction. Both teachers and children not only sing in the classroom, but also in a variety of other settings. Every day, in their classroom, they sing a morning song, a lunch song, a snack song, a song for the end of school, as well as children’s songs and unit songs, walking as they sing. One teacher plays the piano, and the other teacher teaches the children to sing.

Rhythmic Training, Physical Coordination, and Movement

The music teacher of Sun Pre-school focused her teaching on rhythmic training and

emotions and perceptions the music elicits in the children. For instance, some songs were happy and robust, while others elicited quiet singing. The children's facial expressions were consistent with what seemed to be their feelings toward the music. For robust songs, the children were excited. For soft songs, the music teacher would discuss how they were different from robust songs using the analogy that like a mother; they were soft. Through this explanation, it took a short time before the children understood the mood of the song.

In contrast to the music teacher, the classroom teacher thought that music instruction should emphasize the development of physical coordination and body movement. She felt that after children did body movement several times, they would explore how they use their bodies to move to the music to match the teacher's movement. The classroom teacher believed that the children need to use the body to feel music.

As an example of a music movement activity, the teacher played two songs on the CD player, "Happy Walk Forward" and "The Song of Love Eyes" while the children responded in corresponding movement. Both teacher and children responded to the recorded music by making actions and gestures. The children sang the lyrics and performed the actions and gestures to match the words of the song.

Other examples elicited imaginative responses. One teacher told the children that she wanted to bring all of them to visit Taipei, and take them to see many fun places. While she told a story, the teacher performed some accompanying dramatic gestures. For example, when she said "in spring, there are beautiful flowers," she made a flower-blooming gesture; she made swimming motions when discussing swimming; when she talked about autumn, she made falling leaf gestures; for the winter, she motioned sleeping

in a hot spring. Other gestures included birds flying, picking tea, and riding a bicycle home. One teacher played music from the CD player, while the other teacher and the children followed this music, making those actions and gestures. In addition, when the musical pitch was high, the children moved using high arm gestures, and when the pitch was low, they used low arm gestures. They also showed musical beat and rhythm through these actions and gestures.

Storytelling, Music and Movement in Helping Musical Understanding

Similar to the previous discussion concerning storytelling and movement, the teachers utilized such methods to broaden the student's understand and appreciation for music. For example, on a particular day, the music teacher asked children to stand up, form a large circle, and act out the actions the animals did in the story, such as when the giraffe and the deer spoke the speech rhythm "left heel, right heel, jump, jump, jump!" She played a recording of "America Patrol" on the CD player. The classroom teacher, the music teacher, and the children listened to this music and repeated the above actions and movements. In addition, when they listened to this music and did these actions, the music teacher repeated the story to help the children connect the music with the story. The children also said the speech rhythm "left heel, right heel, jump, jump, jump!" There were three sections in this music. The first and third sections had the same rhythm pattern and the same body movement, but the second section was different, so they accompanied it with a different body movement. This music movement also showed the musical form. For instance, they did the rabbit dance, the small deer jumps, and the giraffe walking forward in the first section. In the second section, they imitated the bird falling on the

water, and in the last section they repeated the rabbit and deer movements again.

Children can show, through movement, elements of music such as style, beat, rhythm, melodic contour, and articulation. In this musical activity, the music teacher first told a story and then had the children perform a movement associated with the music. She used body movements to make the children aware of musical rhythm and form, build musical concepts, explore music experience, and gain an appreciation and understanding of music.

“Children Can Only Focus on One Thing at a Time”

In the present study, the music teacher felt that her children only listened to one sound at a time and were usually unable to listen to several sounds at the same time. She reported, “if the teacher asks the children to listen to several musical instrument sounds at the same time, the children are likely unable to do so.” It can be difficult to distinguish between two instrumental sounds when they are mixed together in a recording. She explained that usually there was a main melody in a piece of music that provided the most clear and loud sound. But, if an instrument, such as a violin, has already been heard before, the next time other musical instrument sounds become mixed together with the sound of the violin, some children might say: “Teacher, there is the violin sound!” In one of the songs the music teacher played, the children heard both the oboe sound and the violin sound because they had already been introduced to that of the violin or had learned the violin because their family members had exposed them to this musical instrument. Then the children might say, “Teacher, my family has this musical instrument!” However, this kind of recognition by a child is uncommon. The music teacher stated, “It’s likely that

only few children will be able to do this. Children can only listen to one sound at a time” (I-MT 12/31/2013). Similarly, the classroom teacher said, “Usually, most children can only listen to and recognize one musical instrument sound. Children might not listen to or recognize two musical instruments sound at the same time. Only a few children can do that. It is rare” (I-CT 12/31/2013).

Introducing Musical Instruments

When the music teacher introduced musical instruments to the children, she showed the children a picture of the musical instrument, had them listen to the sound of the musical instrument (saxophone), and used storytelling to introduce it. Finally, she gestured the playing of the saxophone to the sound of the saxophone music track. In describing her lesson, she reported that for the part of their curriculum that introduced musical instruments, they wanted children to listen to what the musical instruments sounded like. Each child had a textbook and a CD. Only the teacher had the musical instruments book that contained pictures of the instruments for the children to see. Other times, children looked at the musical instrument first and then listened to the music. She reported, “I use storytelling to introduce the identity and timbre of each musical instrument” (I-MT 12/31/2013).

During music class, the music teacher showed the saxophone picture from her musical instrument book. She then played the Saxophone track from the CD and told this story: There was an animal moving on the floor. This animal said, “I am hungry.” The animal saw a big hamburger, so he ate it. Then he saw many grapes, which he also ate. After that he also ate a saxophone! He said, “Now I want to sing, so please listen to my

sound” (O-MT 12/31/2013). At this time, the music teacher gestured the playing of the saxophone to the sound of the saxophone music track. After that, she showed the picture of the saxophone, while introducing this as new vocabulary. The process of listening to music, hearing the story, and gesturing the playing of the instrument was then repeated. Finally, the children referred to their textbooks to see the saxophone picture and the teacher told them which track of the CD included saxophone sounds.

Teaching Rhythm with Game Activities, Percussion Instruments and Speech-Clap Coordination

In one classroom activity, the music teacher spoke a rhythm pattern first and then played percussion instruments to show the rhythm pattern. She stated, “I used musical instruments to show a rhythm pattern” (I-MT 12/31/2013). In general, when learning a rhythm pattern, she used an activity to lead the children the first time, followed by her use of the musical instruments to play the rhythm pattern for them. She used small musical instruments first, and then added others. This school has small musical instruments such as the tambourine, clappers (castanets), triangles, and hand bells.

When learning a rhythm pattern, the music teacher used an activity to lead the children, followed by the use of musical instruments to play the rhythm pattern. As the observation data documented, in this music class, the music teacher showed a picture book to the children and told a story. As the teacher told the story, certain parts were highlighted with different speech rhythm patterns, including “The rabbit is really cute,” “Vegetables are delicious. Vegetables taste good,” and “No smoking, no smoking!” (The first “no smoking” the children said in Chinese, and the second one they said in English.)

After the story, she divided the children into three groups. Each group was assigned their own phrase and had to speak and clap the rhythm pattern while the teacher played the pattern on an instrument. The first group spoke and clapped the rhythm pattern “no smoking, no smoking!” while the teacher played the rhythm on a wooden block. Both the second and third groups did the same thing for their assigned phrases. The second group clapped to “vegetables are delicious, vegetables taste good!” while the music teacher played the castanet; the third group clapped to “The rabbit is really cute,” while the teacher used the bass drum.

In this music class, each time the teacher played an instrument, the children clapped and spoke the associated speech rhythm pattern. The music teacher used game activities to teach rhythm pattern, and the classroom teacher led the children in a train game in the classroom. She was the front of the “train,” with all the children lined up behind her. The music teacher played the melody of the song “The Train” on the piano. When the music teacher stopped playing the piano and switched to the bass drum, the children clapped and spoke the speech rhythm pattern, “The rabbit is really cute.” She repeated this with the castanet and the wood block, and the children clapped their hands and said the associated speech rhythm patterns. The activity was repeated several times at different tempi so that the children would have to move faster or slower.

In the next activity, the music teacher said the speech rhythm pattern “No smoking, no smoking!” One child was asked to go in front of the whiteboard and point to which of the rhythm patterns written on the board matched what she had said. All the children clapped their hands and said the rhythm pattern as the one child pointed. The next speech

rhythm pattern was “The rabbit is really cute,” and the teacher asked another child to come to the whiteboard and point to the pattern she had just said. After that, all the children clapped their hands and said the speech rhythm pattern. The music teacher showed the textbook to the children. The rhythm patterns practiced in speech and clapping activities were in the textbook. She had the children open their textbooks and asked them to say the speech rhythm pattern and point to the printed rhythm pattern at the same time.

In another activity, the children were asked to play percussion instruments while simultaneously speaking a speech rhythm pattern. The music teacher accompanied the students on the piano, while the classroom teacher acted as the conductor. The music teacher divided the children into three groups. The first group of children played the wood block with a certain rhythm pattern. The second group with a second rhythm pattern played the two-tone wood block. The third group played tambourine with a third rhythm pattern. She also asked some children to play the bass drum and snare drum, with a fourth certain rhythm pattern.

In this music class, the teachers reinforced rhythm patterns through imitation, speaking, clapping, and performing. The teaching sequence began with speech, continued with body rhythms such as clapping, and culminated in the playing of instruments. Notation should be introduced together with speech patterns for which rhythmic notation is sufficient. The children learned how to play non-pitched instruments such as drums while the music teacher accompanied the students on the piano. The music teacher provided visual, physical, and aural aids to the students to enhance their musical

understanding and experience.

Recorder

In my observation of the music class, the music teacher showed the children how to hold their recorders. She demonstrated the fingerings and simultaneously sang the solfège for Beethoven's "Ode to Joy" in G Major. Prior to the children playing "Ode to Joy" on their recorders, the teacher played the song on the recorder for the children.

In this musical activity, the music teacher modeled how to play the recorder to the children. As the teacher played the song the children were asked to listen to the sounds. The music and the early childhood classroom teachers held their recorders, showed the fingerings, and sang solfège. The final steps of this activity involved the music teacher playing the introduction, the melody, and the piano accompaniment on the piano while the children played their recorders.

Melodica

In a music activity, the music teacher asked the children to put their hands in the correct position on the keyboard. She showed her fingerings and sang solfège to help them learn how to play. According to the music teacher, "For the melodica part, I hope children can have basic keyboard skills. This will be helpful for the children for playing basic keyboard in the future" (I-MT 12/31/2013). During her class the children learned some of these basic keyboard skills, accurate hand positions on the keyboard, and developed the ability to play music by ear. In my observation of the music class, the music teacher said, "Put the first finger on the FA note on your keyboard, FA SOL LA TI DO. Put your hands in the correct position on the keyboard." She taught them that the

note DO is 1, RE is 2, and MI is 3. The children's keyboards had numbers 1 2 3 4 5 6 7, and they understood DO is 1, RE is 2, etc. She sang solfège of the song "Lovely Children" (in F major) and showed the fingerings, and the children played the melodicas at the same time. When they played the melodica, the classroom teacher reminded them of the positions: first finger on Fa, third finger on La, last finger on Do, and so forth.

Reading

The music teacher reported, "Our class does not emphasize sight-reading very much; we emphasize music appreciation, movement, playing small musical instruments." She explained, "When children play musical instruments, they can watch the teacher's fingers, and children do not have to read written notation" (I-MT 12/31/2013). Sight-reading was not emphasized in the curriculum. The basic elements of music were presented to the children through the use of rote melodic patterns, isolated pitches, and other activities, such as playing, singing, imitation, and clapping. When the children played the musical instruments, they were not expected to sight-read the music. Instead, the students could listen to the teacher's instruction and learn through imitation.

Musical Activities Exhibited Most Frequently by Students

"The children are most engaged when involved in music activities that utilize movement," stated the music teacher (I-MT 12/31/2013). On the other hand, the classroom teacher felt that playing musical instruments in an ensemble engaged students the most. She remarked that in ensembles, students learn how to cooperate. Children have to know that while other children play, they have to rest, listen, and wait, so they know which musical instruments they have to play and when. In addition, children have to

watch the conductor (the teacher) and understand the direction of the conductor.

During the scheduled observation, I noticed that the children were engaged in moving musical activities and playing musical instruments. To encourage moving musical activities the music teacher played a train game to help the children to learn rhythms. They also played musical instruments in an ensemble while the classroom teacher acted as the conductor. From the observation data, in music class, the music teacher divided children into three groups. The first group of children played the sleigh bells with a certain rhythm pattern. Another percussion instrument, the triangle, was played by the second group with a second rhythm pattern. The third group played double bells, with a third rhythm pattern. The teacher also asked one child to play the bass drum and another to play the snare drum, while teaching each group how to play their own rhythm pattern. The music teacher played the piano accompaniment, the introduction, and the main melody on the piano. The classroom teacher conducted the children, and the children watched her as they played their percussion instruments.

Summary of the Findings of Research Question One

In this study, music curriculum contents included singing, music and movement, listening, playing recorder, playing melodica, and playing musical instruments in ensemble. Methods such as rote, storytelling, and call-and-response were used to teach the children the music. A call and response system of imitation was used most effectively, while the children mirrored the teacher's body movements, which showed gestures to match the music and lyrics of the song. The same method was used to teach girls and boys singing. Using a solfège system with a 'fixed' DO, the teacher played each phrase on the

piano while singing the solfège syllables, since that the piano combined with the human voice helped the children to sing with pitch accuracy, and an adult female was the best model to help children sing with pitch accuracy. The children and teachers sang a variety of songs both in and out of the classroom. The music teacher believed that her students could comfortably sing from A3 or B3 to C5, and she also emphasized the importance of classroom teachers singing with accuracy to influence children's pitch accuracy, while the classroom teacher felt that students in her school could sing from the low G3 to the high D5 and that children could sing in a low pitch range better than in a high pitch.

Teachers emphasized rhythm, the development of physical coordination, and body movement. The music teacher reinforced rhythm patterns through speaking, clapping, and performing. The teaching sequence began with speech, continued with body rhythms such as clapping, and culminated in the playing of instruments. After the children played the rhythmic patterns, the music teacher showed them the rhythmic notation on the white board. The music and the early childhood classroom teachers demonstrated how to play the recorder or melodica to the children. The teachers held their recorders or melodicas, showed the fingerings and sang solfège to help the students learn how to play. The music teacher then played the piano accompaniment while the children played their instruments. She helped the children learn basic keyboard skills, know accurate hand positions on the keyboard or recorders, and develop the ability to play music by ear. When the children played musical instruments, they watched the teacher's fingers and did not have to read written notation. New instruments were introduced by showing a visual of the instrument, demonstrating how it was played, and having the children follow along.

Research Question Two

Below are the findings associated with Research Question No. 2, which answer the questions, “What are the attitudes of the early childhood and music teachers in regards to providing music instruction, and what are the attitudes of the parents?”

Early Childhood Curriculum Must Include Music Instruction

According to the director, “Music is important, and should be included in early childhood curriculum” (I-D 12/31/2013). She did not think children have to excel in music, participate in competitions, or do anything of this kind. What is important is that children are exposed to music and singing, as these art forms help children experience emotion and express themselves. She noted, “If music is lost from preschool education, it will be a pity” (I-D, 12/31/2013). The director also believed that a teacher’s attitude toward singing instruction influenced whether or not the children would develop a love of singing. She explained, “Music singing is great. If teachers like singing, children will like singing. If teachers are not singing, children will not sing. If teachers are not singing, it also decreases children’s music learning” (I-D 12/31/2013).

The Sun pre-school director felt that the presence of music teachers in the general classroom to teach music enhanced both the classroom teachers’ musical education and the overall musical education of the students. She said, “I hope the music teacher’s methods allow classroom teachers to help students review and practice their music” (I-D 12/31/2013). Music teachers serve as a musical reference for early childhood teachers. As a result, building a relationship with a music teacher may assist early childhood teachers in creating a musically rich environment in which children can explore musical

experiences and enhance their learning.

Although having a music teacher is a benefit to the students, it is an extra cost for the school. “If there were not enough financial resources to hire a music teacher, preschool teachers would have to teach music by themselves.” remarked the director (I-D 12/31/2013). She expressed that if the classroom teachers were required to teach music, it might be fun for them even though they were not music professionals. They could watch and mirror the methods the music teacher used and learn how to sing the songs. The director reported the difficulty that would likely occur during the first or second years, but the school would push them to pursue it (I-D 12/31/2013).

In sum, the director suggested that if the early childhood classroom teacher attended music class it would enhance their musical ability. The early childhood classroom teacher can learn music-teaching methods from the music teacher. The director emphasized the role of music in her school and believed that music must be included in early childhood curriculum. She felt that if there were not enough financial resources to hire a music teacher, preschool teachers would have to teach music by themselves. In her opinion, general early childhood classroom teachers can watch the music teacher to learn what methods the music teacher uses and incorporate them into their classrooms. In order to perhaps, prepare the general early childhood classroom teachers to teach music in their classrooms in case there was a budget deficit.

“Helping Children Like Music”

The music teacher’s attitude regarding music class was to help children like music. She believed that in the early childhood stage, the most important thing is to cultivate

children's love of music. Further, the director claimed that music education should cultivate children's love of singing and listening to the piano.

Modeling and Scaffolding

While the early childhood teacher and the children walked throughout the pre-school, they practiced or reviewed the finger positions for the melodica or recorder. The teacher believed that this was an important model for students. While demonstrating which finger covers which hole on the instrument, the teacher made sure to tell the children each step clearly so they would understand and remember the position and the name of the notes on the instrument.

Similarly, the early childhood classroom teacher demonstrated singing and playing instruments as well as music and movement to the children. When the children sang, the teacher had to sing as well. When the children participated in music and movement, the teacher also participated. She demonstrated all musical instruments for the children, including the bass drum, snare drum, recorder, melodica, xylophone, triangle, wood block, and the hand bell. Her modeling as a scaffold was a significant technique for enhancing the children's learning. She reported, "The teacher has to demonstrate, and then the children can learn it" (I-CT 12/31/2013).

"Step by Step"

With the teacher's demonstration as a model for students, the early childhood classroom teacher's recommendation is to teach step by step. Teaching step by step can cultivate children's inner tempo, so they do not rush. When children can play it, the next step is easier to accomplish. The teacher does not need to tell them to practice; they will

practice by themselves. When the children are home, they might play their recorder or melodica. Even though they might play incorrectly, the teachers like to encourage them to play anyway. Later on in school, the teacher will further guide their playing and will be able to continue on to the next lesson. At home, they find practice fun and are motivated to continue practicing (I-CT 12/31/2013). The children observe instruction, absorb, retain information, and practice.

The early childhood classroom teacher explained that before the students practiced an entire song on the melodica or the recorder, she first made them go through the song step by step. She paused at each finger position so they could remember where to put their fingers, as well as what the note is called. She watched the children's finger positions, and if they were incorrect, she reviewed the correct finger placement with them individually. She asked the children to practice each note; after that, she taught children to play a basic scale. She said:

If some children cannot play, the real factor might be that the teacher teaches too fast. I make sure and check that the children's hands are put in the correct position, and they practice three times (the first finger put on the SOL note of the keyboard). They start from the basic practice, such as SOL LA TI DO RE, and then they practice the song. I have found that if at the beginning the teacher teaches children how to play the song but not to practice and review the basics of how to play SOL LA TI DO RE, only about half the children will be able to play it. Therefore, when I help children review and practice, I teach children from the hand position and basic scale first. Children have a music performance at the end of the year, and if children do not know how to play, the teacher will suffer in the second semester. We have to try our best to teach each child to play. So, in order to help children play, we have to slow down the steps and make a strong foundation. Each time that we practice or review it, we start from the basics, beginning with the foundation. (I-CT 12/31/2013)

The teacher instructed the children to sing the solfège, and then she showed the keyboard fingering to the children, using her right hand to "play" on the back of her left hand, and

sang solfège FA LA DO... After they sang the first phrase of the solfège, some children seemed unfamiliar with the melody, so the early childhood classroom sang the first phrase, and then the children imitated it.

Next, the teacher asked the children to play each note three times on their melodicas, and she played the notes on the piano first as a demonstration. While they played their melodicas, she reminded them which fingers they should use for each note. She said, “Go upstairs,” and they played an ascending pattern; she said, “Go downstairs,” and they played a descending pattern.

During the following activity while the children were not looking, she would play a particular note and asked them to identify the note and which finger she used to play it. They listened and identified each note and finger usage correctly. The teacher directed the children to say “sing, play, play,” so they would know to sing before they play. The children used solfège to sing the song “Lovely Child,” while she played the introduction and piano accompaniment. After they sang the solfège, she played the introduction again and the main melody, and the children played their melodicas. The children played the song, the teacher repeated the introduction and melody once more and the children matched the melody again. Next, the early childhood classroom teacher and the children held their recorders, she showed the fingering to them, and they imitated it. In this way, she and the children practiced the notes SOL to RE, and RE DO TI LA SOL. She played the recorder, asked the children what note she played, and they answered SOL. The teacher said, “Play each note three times,” and they played SOL SOL SOL. In same way, they played LA, SI, DO, RE. She asked the children to say “Sing play play.” They sang

solfège “Jingle Bells” and showed the fingering.

The teachers demonstrated a musical model in singing, demonstrating rhythm patterns, showing the position of playing the musical instruments, and changing fingerings. At the pre-school, the teachers’ musical modeling guided the children’s imitation, provoked the children’s interest, and engaged the children in participation which positively supported children’s musical learning. The teachers used direct verbal guidance and demonstration to scaffold children’s learning. The early childhood classroom teacher helped the children review and practice after teaching them the hand position and basic scale, step by step.

Another example from my observation showed the early childhood classroom teacher observing, watching, demonstrating fingerings, listening to how the children played their musical instruments, and helping them to learn individually. For instance, she instructed the children to put the first finger of their right hand on the FA of the keyboard. She asked them to play from FA to DO three times. When the children played their melodicas, she showed her fingering to them and said, “For FA, use the first finger. SOL is number 5, LA is number 6, and TI is the black key.” She asked them to show their fingerings to make sure it was the same as hers, and they imitated her fingering while singing the song “Lovely Child” with solfège instead of lyrics.

The teacher asked the children to pick up their melodicas and said, “Because TI is a flat, it is black key.” She walked near them and watched their hand positions. The children played their melodicas, and the teacher showed her fingerings and sang solfège “FA LA DO TI LA LA SOL SOL FA...” After they played this music, she said, “Excellent! Using

my ears, I heard that each note was right, but now I want to see with my eyes. Play it again.” While they played, she reminded them which fingers to use, such as the first finger or the last finger. After the children were asked to imitate the teacher, she told them to “put your left hand at the top. Put your thumb on the back hole, your second finger on the top hole, and your third finger on the second hole” (O-CT 1/16/2014). She showed the fingering and sang SOL LA TI DO RE. The students imitated her, and then played the song “Jingle Bells” twice. While the children played their recorders, the early childhood classroom teacher showed her fingerings to them, reminding them which fingers they should put on each hole, such as the first finger or the third finger.

The early childhood classroom teacher demonstrated playing the recorder to the children and asked them to listen to the sound. She then asked them to play it “beautifully,” and watched each child play and listened to each child’s sound while she held her own recorder, showed fingerings, and sang solfège to help each child play the recorder. When a child did not know how to play a particular note, she used her recorder to demonstrate how to play that particular note to him or her and helped the child to play it, and gave each child appropriate feedback, such as, “Yes, now you’ve got the right position,” or “Your second finger should hold the top hole” (O-CT 1/16/2014). In the present study, the early childhood classroom teacher demonstrated her role as a facilitator to simplify the music skills for the young children and as an observer and a supporter to monitor the children’s learning. Moreover, the teacher and the children worked hard to express musical achievement.

Music Professional Development Workshop

The director conducted a music professional workshop for early childhood classroom teachers that utilized teacher-designed activities on singing, playing instruments, and other related music topics. The workshop was designed to attract early childhood classroom teachers in order to provide skills that would be usable in their classrooms. They contacted outside music center teachers to design activities, which included singing and playing drums, as well as other activities. She pointed out, “Preschool teachers might not have music instruction, but they feel that this workshop is helpful. When they later want to use it in their classroom, they can use it and teach their children” (I-D 12/31/2013).

Parents Help the Children to Practice Instruments at Home

It is expected that parents help their children review and practice musical instruments. During the second week of school, teachers had the responsibility to tell parents what classes their children would attend during the semester, what musical instruments they would use, and what musical instruments the children would play in the graduation ceremony next semester. However, whether or not the children practiced at home (and the classroom teacher believed only about half did), teachers still had to help children review and practice. The teachers felt that for about half of the parents, recorder or keyboard ability was only a distant memory, so although these parents might have played musical instruments when they were in elementary school, they may have forgotten how to play. They thought some parents would try to find information on how to play these instruments via the Internet. The teachers reviewed some basics and taught

the parents that the note DO is 1, RE is 2, and MI is 3 on recorders and keyboards (I-CT 12/31/2013).

Home Environment and Children's Musical Development

The music teacher felt that if a child's home environment had more music exposure, the student would learn faster than those who did not have a musical home environment. The music teacher reported, "A musical home environment is helpful for young children's musical performance" (I-MT 12/31/2013). For instance, when parents take children to places where musical instruments are performed a child may later volunteer: "Teacher, I went somewhere where I have seen this musical instrument and heard this sound." Music class is only one time each week, and if children's parents or families have learned musical instrument or like music, that will likely influence their children. If children's home environments have more music exposure, they will learn faster than those who do not. In addition, children will know what the teacher says more quickly. For instance, when the music teacher introduces a musical instrument, if a child has never seen it before, the teacher's words are novel to this child. But if the child has seen or heard the instrument, he or she might say, "Teacher, I know what that is." This child will make a connection immediately. Therefore, musical environments are helpful for a young child's musical achievement.

Parents' Attitudes toward Early Childhood Music Education

This study included nine parents from the local school. The school director indicated a belief that many parents who are themselves musically inclined (music teachers, symphony members, etc.) will influence their children's musical development,

but that parents who are not musically trained also prefer to bring their children to this particular preschool. Out of the nine parents involved in this study, only four are themselves musicians. All of their children, however, were active musicians on various instruments. Eight of the nine parents had not sung or played in a musical group (such as church, choir, community band, etc.). The remaining parent had sung in choir.

Successful students generally have parents who are involved with their child's music by showing interest and support. In the present study, most of the parents helped their child learn music. Each of the parents bought or downloaded different types of music for their child to listen. Eight of the nine parents had bought children's CDs for their children. There was a range of music that included classical music, symphony CDs, children's songs, mix tapes, and stories. One of the nine parents had not bought music but had instead downloaded English children's songs. The parents varied on how they allowed their children to play the CD player. Six of the nine parents allowed their children to play CDs without having to ask for their permission. Of the other three parents, they either believed the electronics were dangerous and had decided to teach their child how to use a CD player when the child was older, or their child had never used a CD player. When asked if the children had their own CDs, three replied that the children had their own; four said that the children did not; one replied that his or her child had a music game book; and one child's older sister had a recording pen. Moreover, seven of the nine parents helped their child learn music, while two parents left their child to learn music on his or her own.

The parents who helped their children did so in a number of ways. They either (1)

helped by providing accompaniment (on the piano) to practice songs that the school taught, (2) helped their child sing songs taught by the Yamaha Music School, (3) aided with the initial stage of learning musical instruments, (4) sang popular TV songs with their child, (5) taught their child the musical content from the teaching materials of the school, (6) assisted with singing various songs, or (7) guided the child's piano practice. Regarding the practice environment, all the children practiced their instruments or sang songs at home. Five of the nine parents stated that their children played instruments, including keyboard, piano, ukulele, and other instruments that the school taught. Two parents stated that their children played the aforementioned instruments and also sang. The final two parents claimed their children only sang. When the parents were asked if they sang with their child, eight of the nine stated that they did, while one parent claimed that she would only sing sometimes. The types of songs the parents sang were varied, including children's songs, songs the school taught (such as Christmas songs), and Bible songs. One parent even stated that she felt free to sing any type of song. After being asked about singing with their child, parents were further asked if they sang to their child. Eight of the nine parents did, while one stated that she rarely sang to her child. The types of music the parents sang to their children included vocal songs, folk songs, children songs, lullabies, radio songs, and popular songs. Three of the nine parents felt that they could sing to their children any songs they like; they had no preference for the type of song. Finally, the parents were asked whether or not they provided toy musical instruments for their child. Eight of the nine parents said yes, and only one said no. Of the toy instruments, a drum, guitar, electronic keyboard, hand bell, castanets, snare drum, ukulele, piano,

glockenspiel, tambourine, violin, and recorder were included.

Parents were asked to share additional information regarding their child's participation in the pre-school's musical environment. Seven of the nine parents expressed their contentment with the pre-school's musical environment, and some even identified specific instruments that they found especially valuable or interesting to their child, such as the melodica, recorder, hand bell, and tambourine. Two of the nine parents did not answer. The next question asked parents about the things their child shared about his or her experience in the music class at the pre-school. Eight of the nine parents stated that their children listened to "nice" music, learned to dance, and thought that singing allowed children to feel happy and have fun. Their children wanted to show their parents their new repertoire and skills immediately. Of these eight parents, two parents shared that their children spoke of how the teacher praised their child, and one parent noticed that her child enjoyed singing and performing with his or her older brother at home. Only one of the nine parents stated that their child did not have very much to share about the class. Some children also shared their thoughts on their classroom teacher or music teacher with their parents when they were at home. Five of the parents had positive things to say about the teacher, noting that she was likeable and friendly, took care of the children, was willing to understand the children, was helpful to them in learning their instruments, and/or was a model for the children's learning. Two of the parents gave answers irrelevant to the question, and two parents stated their children had nothing to say. All of the parents agreed that music instruction should be included as a part of the curriculum, although some of their reasons differed. What they did agree upon was the

positive impact of music on their child's development. These parents stated that music can help children's attention, cultivate their temperaments, enhance emotional stability, develop potential ability, help self-reflection, cultivate or stimulate interest, stabilize their minds, develop musical instincts, calm the mind when the child is nervous, create rhythm, help children have fun, or introduce them to different types of music and instruments. Furthermore, eight of the nine parents believed and explicitly stated that all children have the potential to learn music, and they were asked to give two reasons to explain why they believed so. Their reasons included the following: Every child is an innate musician; a child's imagination and creativity is unlimited or beyond our imagination; in the school group performance everyone participates; children can create lyrics depending on their mood; music can cultivate temperament; music can make one's mood pleasurable and stable; each child has individual differences; practice can help make something unfamiliar become familiar; the environment can change people and help us understand what a child likes or dislikes; children need the right environment and parents to lead them in learning music; to learn and understand music can further enhance a child's potential musical abilities; and musical performance can help children to develop their potential musical abilities. Only one parent believed that her or his child specifically had potential.

The findings of the present study indicated that all of the parents had positive attitudes toward early childhood music education, and eight of the nine parents agreed that all children have musical potential. Seven of the nine parents helped their children learn music, eight parents sang with their children, six parents allowed their children to play CDs or tapes without their permission, eight parents sang to their children, and eight

parents bought children's CDs for their children. These examples showed positive support for a musical home environment. In addition, in the present study the pre-school provided music instruction. All of the children played musical instruments. Therefore, in addition to the positive attitudes and behaviors of parents toward early childhood music education, they also provided the physical environment and musical resources for their children.

Summary of the Findings of Research Question Two

Most parents helped their children learn music, which made a musical home environment that strengthened their musical abilities. The director and teachers believed that liking music and engaging the students were important, and demonstrated their interaction with the children by modeling movements and having a positive attitude toward singing instruction. The presence of music teachers in the general classroom to teach music enhanced both the classroom teachers' musical education and the overall musical education of the students. The school was able to spread these methods to other music teachers and early childhood educators through workshops.

Research Question Three

Below are the findings associated with Research Question No. 3: "What approaches do educators feel are most effective for providing music instruction?"

"Make the Learning Fun through Gestures"

In an interview with the Sun Pre-school director, she reported that when the pitch was high, the children moved using high arm gestures, and when the pitch was low, they used low arm gestures. Gestures helped the children to sing. Sometimes, the director sang a melody and asked the children to use dog or cat sounds to sing this melody. Gradually,

she led the children to listen to the melody, and then she taught them to sing the lyrics. First, the children sang the first phrase, but during the second phrase, they would just listen to the teacher sing; this pattern was repeated for the entire song (I-D 12/31/2013).

When the music teacher taught singing, she used small group instruction, gestures, and conducting. For instance, in my observation of the music class, the music teacher divided the children into two groups. She said the first group should sing going upstairs (ascending scale), and the second group should sing going downstairs (descending scale). She had each group of children sing the pattern of notes she played on the piano. She said, “For other notes not in those patterns, listen to the teacher sing.” Next, the music teacher encouraged unaccompanied singing and used hand conducting and gestures. Each group sang the solfège syllables together, and then the teacher used hand conducting and gestures with each group to identify different patterns in the scale. She did not use the formal Curwen hand gestures; instead she employed her own hand gestures indicating pitch direction. Next, the music teacher played the music “Stairs” from the CD player. She and the children followed along with “Stairs” and sang the solfège patterns previously established. When they sang this solfège, they used their hands to show direction. As the scale went up (going upstairs), their hand gestures went up. Similarly, when the scale went down (going down stairs), their hand gesture lowered. The music teacher then had the groups switch hand signals so that each group would have an opportunity to demonstrate the different variations represented in the solfège syllable pattern. In this music class, the music teacher used small group instruction, unaccompanied singing, and gestures to help children singing.

Storytelling

Stories can be used to increase children's understanding. The music teacher likes telling stories when she teaches music because she feels children like to listen to them. The context of the story can help children perform the song quickly and/or understand what the teacher wants them to do. The music teacher from Sun Pre-school stated, "We can use stories to lead children into the music world" (I-MT12/31/2013). She often used stories to lead the children into musical activities. For instance, when she taught the children to sing a song, she told them a story first. One story was about a sport meet to go with the song "Active Child." She asked the children what the phrase "active child" meant, and some said it meant the child really likes sports. Another question the teacher asked was, "What do we do at a sports meet?" The children responded with running, racing, swimming, basketball, and so forth. She said, "The active child is an excellent runner and does many sports. We want to do sports with the active child." She taught the children do sports motions and gestures, such as swimming, running, playing and basketball. After that, the music teacher played the song "Active Child" from the CD player. The music teacher and the children followed along, singing the lyrics, doing the body movements, and showing gestures for musical shape and other motions to match the lyrics of the song.

Summary of the Findings of Research Question Three

The Sun Pre-school director believed that teachers make learning fun, and that gestures are effective for providing music instruction. When the music teacher taught singing, she used gestures and conducted. She used stories to lead children into the music

world. The context of the story helped the children perform the song quickly and understand what the teacher wanted them to do.

Research Question Four

The following discussion deals with findings associated with Research Question four: In what ways do teachers assess and measure students' learning progress in achieving musical skills?

The director indicated that no formal assessment exists to measure student learning and progress. Their objective is to simply follow the National Curriculum Standard. The music teacher, however, indicated that assessment can occur through student's reflections. During a music class, the music teacher seemed to use "checked group performance" when assessing singing voice and observation assessment when assessing children's musical learning. The teacher also used individual or small group instruction to increase the students' achievement. For instance, from the researcher's observation in this music class, the music teacher divided the children into two groups. She said the first group should sing "going upstairs." and asked the second group of children to sing, "going downstairs." She played a descending scale (DO TI LA SOL FA MI RE DO), and the children repeated it. The music teacher tested both groups by having the first one sing along with the scale as she played going upstairs and the second one sing along with the scale as she played going downstairs. Each time she played the scale ascending and descending and asked the children "which direction the scale was going?" Each time the children answered correctly. She asked one child to point to the scale (going upstairs) on the whiteboard and then asked the children to sing the scale notes and point to these notes

on the whiteboard at the same time, such as DO RE MI FA SOL LA SI DO.

In the present study, I noticed that the teacher had no written record in a grade book. The early childhood classroom teacher helped the children to practice and review playing instruments, and during the music class the early childhood classroom teacher was consistently observing, watching, and listening to how the children played their musical instruments while demonstrating and helping them to learn individually.

In this music classroom, the music teacher checked group performance when assessing singing voice and observation when assessing children's musical learning. She also used small group instruction to enhance the students' musical ability. Unlike the music teacher, the early childhood classroom teacher believed that the end-of-year concert was a sufficient way of assessing the students' program since they were having it displayed publicly on stage.

As stated in Chapter Two, the different types of assessment used in a music classroom are observation, anecdotal records, rating scales, checklists, and rubrics. Anecdotal records need to be accurate for a complete picture of student achievement to be gleaned from it. However, this type of assessment may not be practical for music educators with a large numbers of students. In the present study, the researcher did not find an anecdotal record. This may be because the teacher did not have much contact time with children because the music class would meet only once a week and there was a large number of children. When assessing standard one (singing), a music teacher may use rating scales to determine how well a student is singing. They provide a common frame of reference for comparing all students for each set criteria.

In the present study, the early childhood classroom teacher had designed a rubric to assess the children's learning. The children's learning objective was to follow the National Curriculum Standard, and the teacher taught in that direction. For instance, by playing percussion instruments, children would be able to reach that learning objective of the National Curriculum Standard. Because the classroom teacher is the one to design the rubrics for the unit curriculum activity, the rubrics include areas such as social, linguistic, physical, aesthetic, and cognitive development.

Summary of the Findings of Research Question Four

Participants reported several different opinions regarding teachers' assessments of students. The director indicated that their objective was to follow the National Curriculum Standard. "Assessment can occur through the students' classroom response," said the music teacher. The classroom teacher reported that the end-of-year concert was a sufficient way of assessing the student's program since they had to perform it publicly on stage.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

Rationale

Educators in Taiwan recognize the importance of early childhood music education, and need to be apprised of current research in this area. To this point, relatively little work has been done to keep Taiwan's kindergarten teachers informed of studies in early childhood music education. Few studies have been conducted in Taiwan on kindergarten teachers' music experience, children's singing (Lee & Yen, 2008; Lee, 2006; Lin & Chen, 2007; Liu, 2007; Wu, 2002; Liao, 2008; Tzai & Lin, 1987; Wu, 1999), however, they did not focus on preschool music instruction holistically. Studies involving the totality of singing, music and movement, listening, playing instruments, educators' and parents' attitudes toward music instruction as well as assessment are greatly needed to be able to examine the impact of music education in early childhood.

This study answered the following questions: What curricula, methods, and strategies are prevalently used for providing music instruction to preschool children at the Sun preschool in Taiwan? What are the attitudes of the early childhood and music teachers in regards to providing music instruction, and what are the attitudes of the parents? What approaches do educators feel are most effective for providing music instruction? In what ways do the teachers at Sun Preschool assess and measure students learning progress in achieving music skills?

Preschool children may be at the most important age level to receive quality music education. Michael (1973) concluded that the ages between three and six are particularly

important to musical development. Studies (Taebel, 1974; Zimmerman, 1982) have indicated that age five to six is the critical period for acquisition of musical concepts and music listening skills. Gordon has also stated that the musical aptitude of a child does not stabilize until after age nine or ten, and that whatever is learned in the early days of a child's life forms the foundation for subsequent educational development (Abeles, Hoffer, & Klotman, 1994). A rich musical environment is therefore crucial during early childhood years. It is important for music educators to be knowledgeable of child development factors that are related to the musical learning of young children, so that they can make curriculum decisions and develop appropriate instructional materials.

This study may help early childhood classroom teachers, administrators, music teachers, and parents to better understand the role of an early childhood music program in helping children achieve musical skills and address their musical needs. With the growing number of children in preschools, music education professionals and early childhood educators have both an opportunity and a responsibility to assess the musical learning of these children for the purpose of developing children's musical potential.

Additionally, this study has implications for the design of teacher preparation programs. The music education profession heavily relies on the quality of music skills and knowledge of the early childhood classroom teachers. This study sheds some light on the status of such skills and knowledge, but also on the relationship between the musical abilities of students and the music qualifications of the teachers and administrators.

Few teacher education programs currently offer elective classes on music in early childhood. There is a great need for effective pre-and in-service teacher training models

in music education. The results from this study expose the areas that require immediate attention through professional development workshops as well as teacher training programs at colleges and universities, such as designing music and music method courses for pre-service teachers in order to help them provide more opportunities to develop children's musical potential.

Gordon's (1990) statement that from birth to age nine is the most important in developing musical aptitude adds another dimension to the topic. This aptitude requires rich and stimulating experiences in order to reach its highest potential. However, this musical potential is often neglected in early childhood curricula, which focus exclusively on other areas of development such as cognitive, social, and physical. Thus, this study brings our attention to the connection between musical potential and early childhood programs. The needs of different student populations must be understood by the parents, teachers, and administrators in order to best cultivate the gift of music in all children.

This study sheds light on the people, places, and actions that play a crucial role in providing a stimulating environment for the musical growth of young children. Most studies explored individual aspects of musical development such as rhythm, pitch, perception, and music cognition. Few studies have attempted to bring this knowledge together to expand the narrow view of music education of children.

However, this holistic study, which covers singing, music movement, listening, music appreciation, playing instruments, and reading, can be a basis for a comprehensive early childhood music curriculum, method, and strategies. The design and findings of this study are an important step towards understanding the unique musical abilities and needs

of children.

Methodology

Case study researchers may focus on a program, event, or activity involving individuals (Stake, 1995). In this study, the teachers' interactions with their children in the preschool were described. More specifically, a within-site approach guided this case study. A case study is an in-depth exploration of a bounded system (e.g., an activity, event, process, or individuals) based on extensive data collection (Creswell, 2007). Creswell (1998) explained that a case study is an exploration of a bounded system, and he defined the within-site study as one conducted at a single location. In this study, the investigation was bounded by time and place. The site of the study was restricted to a single classroom at a preschool. The time limit was the duration of the study and the amount of time that the preschool teachers' interactions with young children were observed. The time boundary of this study was three weeks. By collecting and analyzing the data using a within-site case study design, this study clarified the kind of musical interactions that take place among preschool teachers and children in the preschool setting. This study was a qualitative design based on case study design.

I followed suggestions outlined in Hamersley and Atkinson (1995) for addressing potential concerns that the gatekeepers might have about conducting research at the site; participant names were changed for aliases, and informed consent was required on behalf of the participants. Along with this, I utilized the considerations for data collection as outlined in Howe and Dougherty (1993): respect for persons and their consent, right to privacy, and anonymity, benefits of research vs. risk to individuals, and justice and equity

for participation in the study.

In the selection of the site for this study, I used the following criteria: A preschool-level classroom that includes singing and other music instruction in Taiwan was considered as the site for this study. Through Internet searches and information gathered from conversations with several professional, early childhood specialists in preschools in Taiwan, I contacted the schools directly and finally settled on one preschool to include in the research. Through e-mail and telephone conversations, I introduced myself, presented the research purpose, time constraints, and participant-access considerations, and requested approval to implement the study. I followed up with an informative letter about the study (see Appendix A-G).

Primary participants in this study included an administrator, a music teacher, and an early childhood classroom teacher. The nine students' parents were the secondary participants in this study. According to Creswell (1998), criterion sampling works well when all individual studies represent people who have experienced the phenomenon, and individuals are expected to meet all criteria. The following criteria established for the selection of participants: Teachers and administrators who have at least three years' experience in the same school and parents of five- and six-year-old students who take music classes. Basing the decision on the criteria for participation, I selected one administrator, an early childhood classroom teacher, a music teacher, as well as nine parents to be the participants in this study.

The data collected for this study included transcripts of the following, (1) 14 sessions' classroom observations, (2) interviews with teachers, audiotaped transcripts, as

well as parents' questionnaires, (3) one package of teaching materials from participants, and (4) field notes collected by me during the study. The selected participants were preschool teachers in Taiwan. Therefore, I translated the data collected from Chinese to English.

My approach to data analysis also followed two methods as outlined by Ryan and Bernard (2000). One method included transcribing data from interviews and observations and typing data from the research journal (Tesch, 1990). The second level of data analysis included coding data by thematic content, sorting according to theme, selecting specific quotes, and summarizing (Ryan & Bernard, 2000).

Discussion

The results of the study indicated that music curricula, methods, and strategies are used to help children develop musical skills. Most curricula, methods, and strategies have many studies to support their effectiveness as a way to develop and enhance musical potential.

The music and classroom teachers indicated that music curriculum included music and movement, listening, singing, and playing instruments. In an interview, the school director reported that the children's songs, music and movement were the primary music curriculum in Sun pre-school. These data seem consistent with Kirsteni's (2006) study that singing is the most common form of child music education and listening activities are generally combined with movement. According to Campbell (1998), children can express music most naturally through singing. They can also become engaged in the music through movement, particularly if the music has lyrics. If movement accompanies a song,

more neural pathways are activated (Purwins et al., 2008; Campbell & Scott-Kassner, 1995). Instrument playing is also beneficial for children to learn in the classroom. For example, recorder ensembles provide opportunities for students to develop musical skills (Landis & Carder, 1990), as children strengthen small muscle skills while they play (Dodge, Colker, & Heroman, 2002). The percussion instruments suit the physical development of the child, since they require large muscle movements (Landis & Carder 1990). Wu's (2002) study found that xylophones, recorders, and wood blocks are introduced at the age of five or six. Lee and Yen's (2008) study found that music appreciation is the most frequently applied music activity, followed by singing, eurhythmics, and instrumental play.

Current research findings demonstrate that interactions with music stimulate the whole brain (Purwins et al., 2008; Campbell & Scott-Kassner, 1995). Children who received a combination of music and movement training had more advanced motor abilities than children who only received movement exercises (Sherill & Gench, 1981). Educators of the late 19th early 20th centuries such as Froebel and Dewey emphasized the importance of movement, action songs, rhythmic games, chants, and dancing in early childhood curricula (Campbell, 1991). It is critical for children ages 5–6 to acquire music concepts and music listening skills, because related skills such as movement, hearing, and singing increase during this time (Taebel, 1974; Moog, 1976). Therefore, it is important for children aged 5–6 to learn singing, music and movement, listening, and playing musical instruments, all of which can help children's development and exploration of music.

The immediate repetition of a short musical phrase has been a frequently used approach to teaching songs (Andress, 1980; Smith, 1970; NTAEC, 2000). Although direct imitation of a model may be the most efficient means of learning observable psychomotor skills (Landers & Landers, 1973), immediate repetition becomes more complex when the model is an aural one, as in singing. In this study, all teachers indicated that if teachers sing one phrase and then children imitate it, children can improve pitch accuracy. It is possible that when children are unable to sing a phrase, the teacher may sing the phrase and then have the children repeat it, which can enhance the children's ability to sing this phrase well. However, Klinger, Campbell, and Goolsby (1998) believed that children who were taught phrase-by-phrase may not be able to make the cognitive connections between the phrases, so that performing these songs would be difficult. They may not recall certain phrases and may make frequent errors in pitch and text. Klinger, Campbell, and Goolsby suggested the immersion method: learning the whole song's melody and story line at once, in order to enhance children's recall in performance and result in fewer errors in pitch than the phrase-by-phrase method. Therefore, when teachers teach children to sing, they could use the immersion method first. If the children are weak in singing a particular phrase, the teacher can focus just on this phrase. For example, the teacher will sing this phrase and then have children repeat it. Alternatively, the teacher could provide more singing opportunities or different singing methods to help children to sing on pitch.

Atterbury and Silcon (1993 a) believed that there is no difference for improving children's singing abilities between practicing with or without piano accompaniment. However, Jones (1979) found that the keyboard has been successfully employed in

assisting people to sing with greater pitch accuracy. In the present study, the music teacher reported that a keyboard and human voice can help children to sing on pitch more accurately. Perhaps when the teacher teaches the children to sing, it would benefit the children if she sings and plays the keyboard simultaneously. It is also possible that listening to the teacher's voice and imitating her voice is more helpful for children than the sound of the keyboard.

Modeling is important for young children (Green, 1990; Tatem 1990; Tharp, 1993). Although both the music and the early childhood classroom teacher supported Tatem's (1990) study that female singers are the best models, they might have other options left to explore. It may be that the music teacher has not used children to teach children, or she simply believed that female teachers teach children to sing the best, without having first-hand experience. The early childhood classroom teacher, who used to ask a child to teach children in the past, felt that a teacher teaches children to sing better. Perhaps she focused on the whole song and ignored the pitch accuracy. It is possible that if she asked the child to sing one phrase and the other children to repeat, she might find that this method is helpful. On the other hand, when I analyzed the sources, I found that the CD's learning material used child singers. This finding seemed to support Green's (1990) study that a child is the best model. Therefore, teachers should consider different situations, schools, and children require specialized ways to teach their children. For instance, if their children find it difficult to match children's voices, the teacher should try using a female teacher's voice, or recording to help them.

Although most teachers agreed the ideal pitch range in singing is from D to A

(Apfelstadt, 1988; Greenberg, 1979), the music teacher believed that her children could comfortably sing from A3 or B3 to C5. The music teacher's beliefs appear to be consistent with the findings of a previous study (Young, 1971), which found that the vocal ranges of young children vary. It is generally agreed that the maximum range for songs should lie within the octave from middle C4 (middle C=C4) to the C5 above, or slightly lower, beginning on B3 or A3 below middle C. The music teacher also emphasized that classroom teachers should sing with proper pitch, because the teachers' pitch accuracy will influence children's pitch. This statement is consistent with a previous study (Wu, 1999), which reported that most preschool teachers agreed that preschool teachers play an important role in helping children to reach a high level of musical skill.

Alternatively, the classroom teacher indicated that children in her school could sing from the low G3 to the high D5. This statement is supported by Rutkowski's (1986) findings that pre-school children's vocal ranges are lower than expected. The tessitura ranges from the A3 below middle C4 to the A4, an octave above. Later, through instruction, the singing range may be extended to the D5 above the high C5 (Gordon, 1993). A common recommendation is that teachers begin children's initial singing experiences with a limited range repertoire suitably pitched within the students' comfort zones. After children can sing in their comfortable range well, then teachers can expand the children's vocal range through instruction (Young, 1971). Teachers should initially select songs in the children's comfortable pitch ranges to teach them how to sing and gradually select songs with a higher pitch range to help the children expand their vocal

pitch range. In the pre-school I studied, the music teacher taught her children to sing from low pitch to high pitch. In addition, the teachers taught their students to sing various songs within the pitch range G3 to D5. It is possible that if the teacher selected high pitch songs for the children to sing, then the children would be able to sing at a higher pitch range.

Both individual or small group instruction and appropriate instructional time are significant in enhancing musical achievement. In the current study, both the music and the early childhood teachers used individual or small group instruction to enhance the students' musical abilities. Individual or small group instruction resulted in increased achievement (Rutkowski, 1996; Richner, 1976). On the other hand, Flohr (1981) found that a 12-week period of music instruction significantly increased five-year-old children's scores on the PMMA. Taggart claimed that appropriate instruction for children between the ages of three and eight increased tonal and rhythm developmental aptitudes (Burton, Taggart, & MENC, 2011). It is possible that while short-term instruction can increase PMMA scores, it can also have the potential to increase other musical abilities. Therefore, teachers should help children enhance their musical abilities through individual or small group instruction, with appropriate instructional time.

In Sun Pre-School, both teachers and children sing not only in the classroom but outside of it as well. They sing, while they walk around the school, and every day, they sing songs associated with particular times of day or activity. For example, there is a morning song, a lunch song, a snack song, a good-bye song, as well as a variety of other songs. The emphasis of singing and practicing various songs likely influenced the

children in the Sun Pre-School to better understand music as integral to school life. Wu's (2002) study found that teachers conduct situational teaching based on the content of nursery songs in order to nurture self-discipline and moral character in young children.

The director said that they choose songs related to the theme or unit. These songs encompassed various styles, such as folk songs, international children's songs, holiday songs, and classical works. Leung's (2004) study indicated that popular music, traditional (including folk and classical) music, and contemporary music should be included in the curriculum. However, because they just select songs to match their unit, they may not be considering children's musical development. As a result, children may find some songs easier to learn than others. Therefore, when teachers choose music to teach children, they should consider age-appropriate songs and children's musical development (from simple to complex), while putting less emphasis on a particular type of music or their own preferred music. They have to introduce diverse kinds of music equally to the children.

Most survey responses indicated that there is no difference in pitch accuracy between boys and girls (Apfelstadt, 1984; Cooper, 1992; Tatem, 1990; Wassum, 1979). The music teacher reported that she use the same methods to teacher girls and boys to sing. On the other hand, the early childhood classroom teacher thought that because boys like to sing more than girls do, boys are able to sing better than girls. However, other researchers such as Goetze (1986), Stauffer (1985), and Wilson (1971) found that girls sing with more pitch accuracy than boys. Therefore, when the teachers find either girls or boys unable to sing at the same level as the other group in their classroom, they should

observe their children and try to find the reason. Perhaps, for instance, girls may be more willing to sing in a large group, a small group, or individually. In such cases the teacher should provide more opportunities for those children to sing in that environment.

Rhythm is the primary component of musical expression (Saliba, 1990). The music teacher focused her teaching on rhythmic training and emotions/perceptions the music elicits in the children. This statement seems to support Rowen's (1982) claim that young children tend express their excitement through moving their arms. For example, they wave their hands when they have something to say, and they are likely to jump up and laugh when they are happy. Children use their bodies to express different kinds of emotions such as excitement and sadness (Dodge, Colker, & Heroman, 2002). In addition, fear and anger show in their whole bodies, with movement accompanying singing whenever children's emotions are aroused. Different kinds of music evoke different feelings and actions in children.

Furthermore, the classroom teacher suggested that music instruction should emphasize the development of physical coordination and the use of the body to feel the music. Moving to different kinds of music helps children to understand what they can do with their bodies (Maxim, 1989). Through movement activities, children can improve large muscle skills and coordination (Dodge, Colker, & Heroman, 2002).

During my observation of a music and movement activity, the classroom teacher told a story and performed some accompanying dramatic gestures. For example, when she spoke of swimming in the summer, she made swimming motions. One teacher played music from the CD player, while the other teacher and the children followed this music by

making those actions and gestures. They also showed musical pitches, beat, or rhythm through these actions and gestures. In addition, the children and the teacher sang the lyrics together while the children also performed the actions and gestures to match the musical elements or the words of the song.

These data seem consistent with another report found in the literature (McDonald & Simons, 1989), which indicated that in the enactive stage, knowledge is stored primarily in the form of motor responses. Children demonstrate their understanding through active physical involvement, performing music through imitation, and describing what they hear with gestures or dance movements. Gordon (1993) asserted that both large and small muscle movements must be used by the young child in activities such as walking, swinging, or jumping. Children solve problems while engaged in music and movement activities. They use logic and reasoning to demonstrate a scarf “flying like the wind” with an appropriate gesture (Dodge, Colker, & Heroman, 2002). Singing and moving together in a group and action games are enjoyable activities for children that teach cooperation and promote student involvement (Dodge, Colker, & Heroman, 2002).

Music and movement experiences help develop both sides of the brain, because musical operations involve all lobes of the brain and both cortical and sub-cortical structures (Levitin & Tirovolas, 2009). Movement also enhances the formation of cognitive and creative abilities in young children. All aspects of music can be taught through movement, including rhythms and beat awareness (Weikart, 1995). Many general music instruction philosophies, such as those supported by Orff, Dalcroze, and Zoltan Kodály, advocate for movement instruction as a primary step in the process of learning

music (Choksy, Abramson, Gillespie, & Woods, 1986).

The music teacher utilized storytelling as well as music and movement to help her students' musical understanding. Stories may help the children understand what the teacher wants them to learn (Toman, 1992). Wu's (2002) study found that teachers often tell stories to encourage young children to perform, stretch their imagination, inspire creativity, and express various movements with the help of body language. Musical elements such as tempo, dynamic range, and melody have a natural link to movement, and movement activities led to a greater level of musical understanding (Metz, 1986; Sims, 1991; Weikart, 1995; Bebeau, 1982; Choksy, Abramson, Gillespie, & Woods, 1986; Taylor, 1989).

In the present study, while primarily using a rote method to teach students songs, the teacher also used stories to help students understand the content represented in the lyrics. In a call and response pattern, the students repeated the teacher's singing. Once the students had learned the lyrics to the song, the music teacher played the song such as "Active Child" from the CD player. The music teacher and the children followed along, singing the lyrics together, while the children mirrored the teacher's body movements, which showed gestures to match the lyrics of the song. These data seem to support Boardman and Andress's (1981) study. They described several musical behaviors that young children at various levels of intellect may exhibit. Bruner's enactive mode involves the representation of intellectual understanding through action. Children at the enactive stage develop an understanding of music through directly musical, hands-on experiences (Andress, 1998). Hand and body movements can be used to represent melodic contour

(Campbell & Scott-Kasner, 1995). Therefore, in addition to expressing the content of the lyrics through body movement, teachers should also match their body motions appropriately to the pitch, tempo, and dynamic range of the music. Moreover, the children should use their hand and body movements to express musical elements. Furthermore, teachers should make these musical activities fun, so children can feel comfortable expressing their potential musical abilities.

Both the music and the early childhood teacher reported that children can only listen to one sound at a time unless they have already learned or experienced the sound of the other musical instruments. It is rare for children to recognize two musical instruments' sounds at the same time (I-CT, 12/31/2013). According to Piagetian theory, young children tend to concentrate on one element of an object (Flavell, 1977). Similarly, Sims' (1991) study found that children tend to pay attention to only one musical concept at a time. Sims also examined the effect of short-term instruction on pre-school children's ability to apply decentration to musical tasks. Sims' results supported Piaget's theory that young children tend to center on only one aspect of stimulus at a time and that the ability to decenter is acquired through development and experience. Therefore, since children at this period can only focus on one thing, teachers can use this critical idea to cultivate children's attentive abilities. For instance, teachers can ask children to only focus on one melody contour or listen to only one musical instrument at a time. After the children become familiar with either a melody or instrument, then the teacher can instruct them to listen to and focus on other melodies or instruments. By doing this, teachers might help children enhance their attentive abilities.

On the other hand, Piaget's studies in non-Western cultures generally agreed with the notion of invariant sequence in the stage theory, yet members of certain non-Western cultures did not necessarily achieve the various stages at the same average age (Ginsburg & Opper, 1979). One should note that Piaget's research is designed to discover developmental changes in cognitive functions, not to produce developmental scales. Therefore, the chronological ages at which children are expected to develop behavior representations of a particular stage are not fixed. In this study, a few Taiwanese children may have proceeded through the sequence of Piaget's stages of music development earlier than expected. Further investigation on Taiwanese children using Piagetian theory should provide useful information in understanding the application of cognitive development theory to the musical growth of Taiwanese children. In another study, Van Zee (1976) indicated that training kindergarten children in musical discrimination and physical movement hold important roles in developing musical understanding. Sims (1986) reviewed previous research on listening techniques with young children that encouraged the teacher to give children a specific focal point for listening (Abel-Struth, 1981) in addition to using simple body movements while listening (e.g., McDonald & Ramsey, 1978; Van Zee, 1975). Sims found that pre-school children responded best to nonverbal teaching coupled with a hand-movement activity. Therefore, the teacher should give children a specific focal point for listening and use simple body movements during their listening in order to help the children's musical understanding.

When the music teacher introduced musical instruments to the children, she showed the children a picture of the musical instrument, used storytelling to introduce it,

and then gestured the playing of the musical instrument (such as saxophone) to the sound of the (saxophone) music track. Bruner's enactive mode involves representing intellectual understanding through action. The children demonstrated understanding through active physical involvement, performance of music through imitation, and gestures describing what they heard (McDonald & Simons, 1989). After that, the music teacher showed the picture of the saxophone and introduced this as new vocabulary. In Bruner's iconic mode, images that capture or summarize action are used to represent intellectual understanding (McDonald & Simons, 1989). In addition, Andress (1998) found that information gained passively during the iconic stage provides children with developmentally appropriate visual tools.

There are multiple approaches to teaching rhythm to students such as game activities, clapping, speaking, and playing percussion instruments. Using different methods of teaching it may enhance a student's understanding of a rhythm. For example, the movement involved in clapping rhythm serves several purposes. It is used to help children experience rhythms kinetically and aurally, to accompany chanting, and to provide practice in performing rhythms, which develops a skill that is then transferred to the playing of the percussion instruments (Landis & Carder 1990). In addition, instruments are often used as an extension of speech and movement activities. By playing instruments, children can participate in ensembles and begin to understand such musical principles as homophony and polyphony. Andress (1973) stated that age-relative musical behaviors for five-year-old children include using words as cues to increase rhythmic accuracy through chanting and clapping. The music teacher used many of these methods in her own

approach to teaching rhythm. In music class, she used game activities to teach rhythm patterns. She spoke a rhythm pattern first, clapped it, and then played a percussion instrument to show it. These data seem consistent with several previous studies (Frega, 1979; Gilbert, 1981; Rainbow & Owen, 1979; Schleuter & Schleuter, 1985), which reported that children had the highest success in their chanted responses, the least success with stepping, and moderate success with clapping. The music teacher had the children open their textbooks and asked them to say the speech rhythm pattern and point to the printed rhythm pattern at the same time (Landis & Carder, 1990). The students were asked to play percussion instruments while simultaneously speaking a speech rhythm pattern. The music teacher accompanied the students on the piano (Landis & Carder, 1990).

The use of the keyboard in early music classes is critical in a student's musical development. The music teacher said that she hoped the children could learn basic keyboard skills because such skills would be helpful for them in playing basic keyboard in the future (I-MT, 12/31/2013). This statement seems to support Zimmerman's (1971) findings that piano classes for nursery school children stress the development of accurate performing gestures.

The music teacher and the classroom teacher felt that the children were most engaged when involved in music activities that utilized movement and playing musical instruments in an ensemble. In ensembles, the students learned how to cooperate (I-CT, 12/31/2013). Children develop social skills through playing musical games, playing musical instruments with others, or singing in unison, all of which require cooperation (Dodge, Colker, & Heroman, 2002).

According to the music teacher, “In the early childhood stage, the most important thing is to cultivate children’s love of music” (I-MT 12/31/2013). This statement is consistent with a previous study (Campbell & Scott-Kassner, 1995), which reported that most teachers are eager to have their children love music and have an enjoyable experience. The director claimed that music is important and music education should cultivate children’s love of singing (I-D, 12/31/2013). This statement supports Daniels’ (1992) investigation of the status of preschool music education in four states in the southeastern United States. The result showed that 76% of preschool directors indicated that music was very important in a preschool program, while 98% reported that singing was the musical activity most often used in their music instruction. In addition, this statement supports Wu’s (1999) study that kindergarten teachers who participated in the study strongly agreed that music is important in childhood development.

Teachers’ attitudes towards music will influence children’s musical learning. The preschool director reported that if teachers like singing, children will like singing (I-D 12/31/2013). This statement is supported by Wu’s (1999) study, which reported that pre-school teachers play an important role in helping children to reach a high level of musical skill. It is important for kindergarten teachers to sing for young children (Greata, 2006). Perhaps that is because pre-school teachers interact with the children more frequently than the music teacher.

Lee and Yen’s (2008) study found the influencing factors in music teaching to be the following: (1) the various music courses the kindergarten teachers have taken, (2) the teachers’ ability to use a keyboard, and (3) the teacher’s personal music learning

experience. Other factors included the teaching attitude, teachers' music teaching ability, school music equipment, and preservice training.

Wu's (1999) study found that teachers believe that music is important in childhood development, classroom management, and development of music skills (most teachers agreed that music motivates children's learning in other subjects as well). The teachers in Kaohsiung and Pingtung regions exhibited high confidence in their music teaching ability and enjoy music with their students.

Jeanneret's (1997) research showed a significant change in the degree of the pre-service teachers' confidence before and after taking a music fundamentals course. The instructor of the music fundamentals course played a significant role in the development of their confidence. Additionally, confidence in music education was further increased by teachers' knowledge about the subject they were teaching (Calderhead, 1996). Therefore, teacher training programs at colleges or universities should help pre-service early childhood educators have positive experiences with music. Perhaps, this would produce a high level of confidence, enhance teachers' singing confidence, and increase teachers' knowledge about the subject they are teaching. In addition, teacher training programs at colleges or universities could provide various music courses for preservice teachers in order to enhance their music teaching ability.

Musical interactions between early childhood classroom teachers and children can happen at any place and at any time. For example, during walks to other activities in the preschool, the children might imitate a tune sung by the teacher. The teacher's frequent musical interaction with the children is imperative to the children's musical development.

Therefore, school directors and teacher training programs at colleges or universities could help in-service and pre-service early childhood educators recognize that teachers' attitudes towards music influences children, and teachers' enthusiasm in singing will increase children's desire to sing as well.

The director believed that enhancing an early childhood classroom teacher's music abilities by requiring her to observe a music teacher and participate in the music class improves children's music learning (I-D 12/31/2013). Music teachers not only provide musical experiences for children but also influence early childhood teachers' musical instruction (de l'Etoile, 2001). Early childhood classroom teachers seem to have benefited from observing music classes and communicating with music teachers (de l'Etoile, 2001; Nichols & Honig, 1995; Tarnowski & Barrett, 1997). Similarly, the director reported that children benefit from receiving music classes that are guided by a music teacher, a result reported in a previous study (Mallett, 2000). During the music classes, the music teacher assists the children in their understanding of music and increasing their music vocabulary. The music classes offer early childhood classroom teachers ideas for hands-on music activities to use in their own classrooms and ways to interact with the children.

The Sun pre-school director claimed, "Music is fundamental" (I-D 12/31/2013). She emphasized the importance of the music curriculum. Although their early childhood classroom teachers are not trained as music professionals, it might be fun for them to teach music as well (I-D 12/31/2013). Kassner (2003) stated that some teachers neglect incorporating a music component into their early childhood curriculum because they feel inadequate as musicians or music teachers. However, in the present study, I did not find

that the observed early childhood educators failed to incorporate a music component into their early childhood curriculum. On the contrary, they try their best and want to learn to teach music without the aid of a music specialist.

The director conducted a music professional workshop for early childhood classroom teachers that utilized teacher-designed activities on singing, playing instruments, and other related music topics. The workshop attracted early childhood teachers. They felt that this workshop was helpful, and when they later wanted to use it in their classroom, they could use it to teach their children (I-D 12/31/2013).

Diane Persellin (as cited in Ponick, 1999) recommends that early childhood music educators volunteer to do workshops for local early childhood classroom educators to help them with ideas on how use music in their classrooms, which can include (1) how to create music centers (workstations) with picture books that inspire singing and movement, (2) instruments that can be created and played, and (3) how to use a variety of music recordings for children's movement and singing activities. Additionally, music education majors in colleges and universities would also benefit from such courses, in that it will expose them to a variety of models of early childhood music programs. In the end, these workshops may produce programs that offer high quality music experiences.

As several researchers have found, many adults and parents believed that providing early musical experiences for young children is important (Buescher, 1993; Gawlick, 2003; Mallett, 2000). The teachers in the present study voiced positive beliefs about young children's early musical experiences and value the significance of providing musical experiences for children (I-D 12/31/2013).

The school director indicated a belief that many parents who were themselves musically inclined (music teachers, symphony members, etc.) would influence their children's musical development, but parents who were not musically trained also preferred to bring their children to this particular pre-school. Out of the nine parents involved in this study, only four were themselves musicians. All of the children of the nine parents, however, were active musicians on various instruments. Eight of the nine parents had not sung or played in a musical group (such as church, choir, community band, etc.), and only one parent had sung in choir. It is important for parents to understand that the early learning period is the most crucial time for children's developing brains. In addition, music is known as a powerful tool to help children learn many other subjects such as language and mathematics (Feierabend, 1990; Palmer & Sims, 1993). The first six years of a child's life are also the most important in his or her physical, emotional, and social development (Turner, 1999). Many studies have found that musical experiences are an essential part of these very important developments in the early years (Katz, 1986). Moreover, musical experiences are creative in nature and will develop a child's cognitive abilities (Walker, 1980; Orsmond & Miller, 1999). All these researchers indicated that the early years of life are a key time for musical growth (Turner, 1999).

The music teacher provided content on the music class's learning activities for the parents to review each week. The classroom teacher also encouraged parents to help their own child practice his or her musical instruments at home. The teachers felt that for the parents, recorder and keyboard ability was only a distant memory, but the teachers taught the parents how to play the instruments regardless. These data also seem to support

Temmerman's (1998) findings that most of the parents felt it was difficult to play two roles (i.e., parents and teachers). Many parents felt inadequate about their own musical abilities.

In the current study, the music teacher stated that if a child's home environment had more music exposure, the student would learn faster than those who did not have a musical home environment. A musical home environment is helpful for children's musical performance (Moog, 1976; Persellin, 2006; Moore, 1974, 1982; I-MT 12/31/2013). When materials and sound sources are provided, children prefer spontaneous musical play over nonmusical activities (Littleton, 1991). According to the interview with the music teacher, these data appear to be consistent with findings of previous studies (Gawlick, 2003; Persellin, 2006) that a home's musical environment may have had a stronger influence on the child's music skills than the preschool musical environment. In addition, a strong positive correlation was found between student achievement and amount of parental involvement (Brokaw, 1982). Moreover, various studies indicated that the combination of a musical home environment and parental involvement produced greater success in student achievement (Moog, 1976; Silverman, 1992; Bonifati, 1997; Doan, 1973; Cutietta, 2001; Peery & Peery, 1986; Gordon, 1993; Buckton, 1983; Brokaw, 1982; Jenkins, 1976). In summary, a musical home environment is helpful for young children's musical achievement. Parents need to create a musical environment for their children and be actively involved in early musical learning (Atterbury & Silcox, 1993 b; Gordon, 1995; Bonifati, 1997; Mallett, 2000; Ponick, 1999). Therefore, teachers and parents need to provide children musical environments.

Parents should realize that preschool children have the potential to develop such skills as matching pitch, expressing the beat of the music, clapping rhythmic patterns through imitation, and singing short portions of songs accurately within a limited range (Van Rysselberghe, 1993). Parents should be involved in playing with their children and spend time singing and dancing with them so that their children will learn such skills early in their lives.

The findings of this study indicated that all of the parents had positive attitudes toward early childhood music education, and eight of the nine parents agreed with many earlier studies that all children have musical potential (Gordon, 1989; Sims, 1991; Ponick, 1999). For the present research, seven of the nine parents helped children learn music, eight of the nine parents sang to and with their children and bought CDs for them, and six of the nine parents allowed their children to play CDs or tapes without their permission. These findings showed positive support for a musical home environment (Silverman, 1992; Bonifati, 1997; Mallett, 2000; Van Rysselberghe, 1993; Peery & Peery, 1986; Gordon, 1993). Buescher's (1993) study found that many parents of preschool children do not know how to provide an appropriate musical setting. However, in the present study, the pre-school provided music instruction and gave all children the opportunity to play musical instruments. Most parents mentioned that they sang with children, provided CDs or tapes for them, and helped their children to learn music. These data did not appear to be consistent with findings of Buescher. However, these data support a previous study by Doxey and Wright (1990), which stated that parents' attitudes and behavior influence the development of music behaviors in children; the physical environment (such as musical

instruments, tapes or CDs, musical older siblings, and pre-school music instruction) that the parents provide for their children is also important in developing music aptitude.

Brand (1985) stated that parents can provide a musical environment at home by providing CDs, tapes, instruments, positive attitudes toward musical involvement with their child, attendance of concerts, and playing an instrument themselves. Parents who do these things allow their children to explore music while observing adults who also enjoy music. On the other hand, Mitchell's (1985) study found that the development of a child's tonal memory is not heavily dependent upon the presence of instruments in the home, having musical parents, or engaging in formal or informal musical learning; however, the presence of older musical siblings appears to be most influential for the tonal memory of younger siblings. Therefore, apart from parents providing all the necessary resources and environments to foster their child's musical abilities, they should also realize the impact of other influences on their child's development, such as older siblings. In this study, one parent even said, "My child likes to perform, practice singing, or sing with his older brother." This statement seems to support Mitchell's study. Gordon (1997) stated that parents who can sing with good intonation and move their bodies with free flowing movement and enjoy doing so, even though they do not play a musical instrument, meet the basic requirements for guiding and instructing their children in music. Therefore, the parents should provide a musical environment at home even if they do not play instruments themselves because they can still help in their children's development and exploration of music. When parents provide this type of environment, their children are more likely to capitalize on their potential musical ability and accept music as an integral

part of their lives.

The director at Sun Pre-school remarked that gestures could help children to sing a range of pitches. Musical behaviors for five-year-old children included the association of visual clues with high and low pitches (Andress, 1973). Likewise, the music teacher of the school used unaccompanied singing, hand signs, and gestures while she taught singing. This exercise in a cappella singing supports Froehlich's (1977) observation that teacher-encouraged a cappella singing and hand signs were effective strategies for higher levels of singing achievement. Many researchers believed that providing a rich learning modality has a positive effect in aiding pitch perception and developing accurate singing (Apfelstadt, 1984; Mueller, 1993; Wis, 1993). For instance, many music educators suggest using the hand to represent pitch as a beneficial strategy to reinforce pitch perception (Mueller, 1993). In addition, Liao (2008) indicated that children use their own gestures to help them sing on pitch, while Kramer (1985) and NTAEC (2000) stated that the use of aural and direct kinesthetic imagery can affect patterns of learning and comprehension. If teachers make high or low hand gestures that correspond with their high or low voice pitch, then children may be better able to recognize the high or low pitch positions. Any human's voice may be added to aid a child's own gestures in order to achieve pitch accuracy. Therefore, it is suggested when teachers teach children to sing pitch, they should use their voice to aid a child's own gestures.

Modeling was observed to be an important interaction between the music teacher, the early childhood classroom teacher, and the children. Both the music teacher and the early childhood classroom teacher demonstrated a musical model for the children by

frequently singing, moving, and playing instruments. The Sun pre-school study supports the fact that modeling is a significant technique for scaffolding children's learning (Murphy & Messer, 2000; Price-Rom, 1999; Jacobs, 2001). By observing teacher models, children develop skills by hearing the music that surrounds them and imitating those sounds (Gordon, 2003).

Both teachers applied verbal and non-verbal techniques to guide the children's musical learning. The teachers' verbal guidance (i.e. encouragement) as well as non-verbal guidance (i.e., gestures, listening, and prompting) were considered to be supportive strategies during the scaffolding process (Chin, 1995). In this study, the most common interaction techniques were direct verbal and non-verbal guidance, including demonstration and gesturing, that the teachers used to scaffold children's music learning.

The early childhood classroom teacher's musical interactions play a role in scaffolding the children's music learning. She guided the children's participation in musical activities, provided leadership, demonstrated a learning model, conceptualized the task and the new skills, and provided emotional expression during musical interaction. Similar to Yang's (2000) results, the early childhood teacher demonstrated her role as an assistant by simplifying the musical skills for the young children, as well as an observer and supporter by monitoring the children's learning. Although Vygotsky emphasized language as a tool to mediate relations between persons, other tools and signs can make adult-child interactions more capable and competent (Berk & Winsler, 1995; Vygotsky, 1971). Explanations, demonstrations, and manipulations are considered to be among the significant interaction tools that scaffold children's learning and enhance their formative

potential (Daniels, 2001).

During my observation in the classroom, it was apparent that both the early childhood teacher and the children worked hard to improve their musical abilities, such as playing instruments to share their knowledge and contribution to the task (Rogoff & Gardner, 1984; Wertsch, 1984). Therefore, even though the director and early childhood classroom teacher had previously stated that they do not use assessments for the children, this classroom study showed that the early childhood classroom teacher helps the children develop their own musical potential and observes, assists, and supports the children in achieving musical learning.

Evidence of scaffolding in teaching was observable in the Taiwanese classroom. For example, the music teacher asked, “Is the scale going upstairs or downstairs?” when teaching the students about ascending and descending major scales. When she played an ascending major scale on the piano, the children accurately answered that the scale was going “upstairs.” They responded correctly for the descending scale, as well. Then, the teacher used the whiteboard as a visual for children to sing the scale notes while pointing to the notes as they were singing. The music teacher’s method demonstrated that creating smaller, more specific learning objectives and scaffolding help children understand more complex concepts.

This example seems consistent with the findings of a study by Andress (1973) that five-year-old children can recognize musical behaviors, including classifying or ordering the direction of musical sounds in terms of ascending or descending pitch contour. This skill can be assessed through direct observation, which provides the only means we have

for evaluating some aspects of learning (Gronlund, 1976). However, an assessment of individual students is required for it to be meaningful, since informal group assessment is not sufficient (Hoffer, 2008). All students must be observed individually and often and the observations must be documented to be credible (Hart, 1994). Documentation includes a written record of the observations on a seating chart, in a grade book, or on a computer. In the present study, I found that the music teacher observed and asked the children to sing and to point to the notes on the whiteboard, but there was not a written record on a seating chart or in a grade book.

I observed the early childhood classroom teacher as she watched and listened to how the children played their musical instruments, while she also assisted individual students as needed. For example, during the rehearsal, the early childhood classroom teacher first demonstrated how to play the recorder to the children. She then asked each child to play his or her recorder, watched him or her play, and listened to each child's sound. The teacher then held her own recorder, showed fingerings, and sang solfège to help each child play the recorder. I found that while the teacher and the children engaged in music making, she also assisted their learning by simplifying the music and breaking the music learning into small steps. For example, when a child did not know how to play a particular note, she used her recorder to demonstrate how to play that particular note to him or her and helped the child to play it. The early childhood classroom teacher in the present study demonstrated her role as an observer and a facilitator to monitor the children's learning. She contributes to the scaffolding process by simplifying the task, providing information, and engaging children in activities (Rogoff, 1990; Rogoff & Morelli, 1989; Yang, 1999).

Moreover, the early childhood classroom teacher was observed using Skinner's theory when giving feedback to the children such as, "Yes, you played beautifully, your each fingers go in the right position." When the teacher positively reinforces a child's behavior, the behavior will be maintained or increased (Campbell & Scott-Kassner 1995).

As previously mentioned, no written records were found from the teacher during this study, which may have to do with the teacher's limited contact time with the individual children. However, since the early childhood classroom teacher attends the music class, she could document the children's behaviors by writing in a notebook or by taking pictures. After recording an individual child's behavior with the date recorded, she could place it in the child's portfolio. This can serve to help teachers and students observe their progress and better understand areas of strength and weakness. Another possible means of documenting and assessing projects are rating scales. Rating scales are the best tool for evaluating musical performances (Whybrew, 1971; Saunders & Holahan, 1997). In the present study, teachers could use descriptive rating scales to assess singing in tune or singing with expression.

Checklists are valuable for evaluating performance skills (Gronlund, 1976) and can be used to assess a large group of students (Kotora, 2001). In 2005, Talley found that teachers who did assess used self-designed measures including rubrics. Rubrics can be especially valuable for evaluating performance-based activities such as singing or playing instruments. In the present study, the early childhood classroom teacher had designed a rubric to assess the children's learning. She designs the rubric for her unit curriculum activity and includes all subjects such as language, social, aesthetic, cognitive, and

physical studies. For example, the rubric includes curricula that use voice, percussion instruments and body movement to create pieces of music or compositions. This enables exploration of various musical media, expression of imagination, and enjoyment of self-expression. However, music class has not integrated into unit curriculum activities. The classroom teacher's rubric is only for unit curriculum; therefore, the music teacher can design her own rubric to evaluate children's musical skills such singing and playing musical instruments in order to assess children's musical learning in music class. On the other hand, it is possible to integrate the music class into the unit curriculum if the music teacher and the early childhood classroom teacher agree and discuss combining their separate rubrics into one unit curriculum rubric.

Another possible assessment tool is keeping portfolios. Portfolios are collections of student's work assembled over a period of time that document the student. Brummett (1993) concluded that the use of process folios was a valuable assessment strategy for the music teachers. In the present study, when watching a videotape of a concert performance, the teacher could use checklists, rubrics, or rating scales to assess each student's performance. These written documents could be combined with performance videotapes in the children's portfolios.

Although teachers can use informal observations to adjust instruction, formal assessments should gather information regarding individual musical achievement (MENC, 2001). In order for the assessments to be effective, the observations must be documented (Hart, 1994). Therefore, teachers could design seating charts, grade books, rubrics, and checklists in order to gather and report objective information regarding individual musical

achievement. In addition, teachers could meet individually with each child, observe her or his singing, instrument playing, and individual movement to accurately assess each child's learning achievement.

Anderson-Nickel (1997) found that the more experienced teachers used seating charts or attendance rolls to document student participation and achievement. However, less experienced teachers relied on observation and memory to track student achievement. A study by Wise, Lukin, and Ross's (1991) stated that 47% of the 397 participants did not believe their measurement training was adequate. In accordance with Kotora's (2001) study, 66% of the music teacher participants did not believe undergraduate college courses prepared them at all in the area of assessment, and 53% of the participants with graduate degrees shared similar findings. On the other hand, Peppers' (2010) survey demonstrated that assessment was a valuable tool in their classrooms. It was used to communicate music learning to parents and to inform report card grades. Most respondents in Peppers' study felt that their undergraduate studies adequately prepared them to assess music learning.

Liu's (2007) study found most parents received information about their child's "learning condition at school," "strengths," and "progress" from both written and oral assessment reports. Parents expressed the need for more information than they currently receive from their child's teacher. Among the findings of the survey, the information parents most wanted answered was "where my child needs assistance." Consequently, almost all parents expressed that they will use information from the assessment reports to compare their "child's performance now and in the past," understand their "child's progress," "regard it as a reference for understanding" their child, and to "keep helping"

their child “learn at home.” Parents that were born in Taiwan and had lower education backgrounds showed the highest expectations of teachers to give them oral communication on their child’s progress. However, parents with higher education backgrounds wished to have more information about “comparing my child with other children” from both written and oral reports than parents with lower education backgrounds (pp.159–164). Liu’s study found that parents with higher education were more sensitive to information added by the researcher in the written reports. Furthermore, Lee’s (2006) study found that kindergarten teachers need more concrete and practical assistance in implementing assessments in their classrooms.

In the present study, the director indicated that no assessment exists to measure student learning and progress. This school’s objective is to simply follow the National Curriculum Standard. On the other hand, the music teacher claimed that assessments can occur through the use of the students’ reflections, while the early childhood teacher believed that the end-of-year concert was a sufficient way of assessing student progress, since they performed publicly on stage. I noticed that both the music teacher and the classroom teacher primarily used observation and live performances to assess the children, which aligns with Livingston’s (2000) findings. However, assessment plays a significant role in the instructional process in music education because it provides feedback to guide instruction, determines student achievement of curriculum objectives, evaluates teacher effectiveness, and reports student progress towards achieving the curriculum goals, thus demonstrating the value of the music program (Nye, Nye, Martin, & Van Rysselberghe, 1992). For these reasons, I believe that better assessment tools could

help improve the educational progress in classrooms. Therefore, teacher training colleges or universities should provide assessment courses and workshops for pre-service and in-service teachers. If teacher assessments are to be a meaningful part of future instruction, teachers require specific training so they can assess the children more effectively.

Additionally, teachers could understand and consider what parents need most, such as helping parents understand “where their child needs assistance.” Moreover, teachers could provide parents both written and oral reports in order to help them better understand their child’s progress and assist their child’s learning at home.

The early childhood classroom teacher reported that the preschool did not need to assess students because they have a graduation concert each year in June, at which time everyone can see the children’s performance. The concert is recorded, and children, parents, and teachers have the opportunity to watch the video. While they watch the video, they can observe children’s singing, playing of musical instruments, and body music movements. The recorded performance could be further used to help students and teachers reflect more deeply on their performance after it has occurred. Students and teachers could use this recording to perform self-assessments, complete checklists, and to more critically observe their performance. They also can observe the children’s expression of musical elements such as high-low pitches, soft-loud sounds, and fast-slow tempi. While they watch their video, they can do observational and documented assessments. In a study done by Gronlund (1976), results suggested that students can also watch a video and answer questions regarding different aspects of their performance. This type of assessment will help the teacher gather information regarding the students’ thoughts. After that, the teacher

can put information such as the rating scale, rubric, video, or checklist into the child's own portfolios. Portfolios are a common type of authentic assessment. They are collections of student work assembled over a period of time that document student progress. A number of authors have written about the benefits of portfolio use in general education (Hart, 1994; Brophy, 2000; Taylor, 2003). Some traditional types of assessment such as rubrics and checklists may be used in conjunction with authentic assessments to evaluate student achievement. For example, the teacher might use a checklist or a rubric to assess each student's performance or that of the whole ensemble.

The findings of this study identify aspects of the music curriculum, methods, and strategies used by music teachers and early childhood teachers for enhancing children's singing abilities and music learning. The strategies were then compared with those suggested in the research literature. Some observed practices align with the suggestions from the literature while others disagree. The differences are dependent upon the teachers' perspective, the lesson objectives, and the children's skill level. An important factor in observing the classroom was the unique learning style of each child. Teachers should observe their children and use appropriate methods to teach them. For instance, according to this research, teachers believe that a female model is the best, though some previous studies believe a child model is the best. Therefore, teachers should observe if their students are unable to sing well by a female model and try a child model. In other words, teachers should use various methods to observe which ones help their children achieve their greatest musical potential.

Implications

The results of this study have several implications regarding improvement of early childhood instruction in music. This study can help early childhood classroom teachers, administrators, music teachers, and parents design appropriate curricula to develop the children's potential, as well as better understand preschool music teaching methods and children's learning experiences. Members of the music education profession can use it in a broader context. Further research is needed in areas of early childhood music education to better prepare music educators and early childhood classroom teachers.

Preschools must promote healthy music curricula, methods, and strategies for teaching children to be able to maximize the benefits of music education on child development. The school directors need to allocate sufficient educational funds to provide teaching equipment such as musical instruments, appropriate technologies, and classroom space adequate for movement activities. They also must encourage teachers to attend workshops and associate with teacher training programs at colleges and universities. The goal is to provide children with opportunities to sing, play instruments, listen to music, and participate in movement activities. Preschool instructors from teacher training programs must be prepared to learn music teaching methods, lead singing activities, design music curricula, develop songs, create body movements, build listening repertoire, evaluate the musical environment, and play musical instruments. These competencies cannot be developed in only one course.

The home environment is important in the musical development of preschoolers. Thus, it is appropriate for colleges and universities who sponsor a community music

program for preschoolers to consider inviting parents to attend and participate in the music sessions with their children so that these sessions can be replicated at home. In addition, during the music sessions, a sponsor could help parents understand that parental involvement a child's musical learning influences the child's musical achievement. Successful students generally have parents who are involved with their child's music and show interest and support in the child's progress.

Professional organizations for music education such as those promoting Dalcroze, Kodály, and Orff-Schulwerk methodologies and approaches should cooperate with preschools to improve music education in Taiwan. For instance, these professional organizations could provide professional development workshops in preschools for early childhood educators.

Advocacy

The Ministry of Education might want to encourage teachers to organize an early childhood music education association, attend professional development conferences and workshops frequently, and invite established practitioners of early childhood music techniques from overseas to share approaches and methods. Teachers should be encouraged to participate in discussions about the merits of various techniques.

Additionally, the Ministry could focus music education in children's critical learning period (Gordon, 1997). They might select a committee chair who understands the impact of early childhood music education. All parents and teachers from this study agreed that music should be included as part of the curriculum. Furthermore, most of the parents agreed that all children have a potential for learning music in the early years. The

Ministry in Taiwan can improve the standards for music instruction taught in preschools, evaluate and improve the early childhood teachers' training workshops, provide credit for attending the seminars, evaluate teaching qualifications, and increase early childhood educational funds, including for early childhood educators' salaries and benefits. Music instruction courses to pre-service teachers should be a requirement in teacher training programs at colleges. If teachers are provided the proper training at the university level, they will be able to effectively provide children with the opportunity to learn music and develop their musical potential.

Limitations of the Study

Since this study was conducted as a case study, there are a number of limitations that can be defined. The study was limited to a preschool in Taipei City, Taiwan; the participants in the study were a preschool director, 5-6 year- old preschool classroom teacher, music teacher, and nine parents. Similarly, interviews and questionnaires were limited to the teaching experiences, perspectives, and perceptions of the participants. As such, results from the present study may not be generalized to all preschool programs throughout Taiwan. Gall, Gall, and Borg (2007) explained that case studies allow readers to compare the cases presented with their own situations, however, case studies findings are difficult to generalize to other situations. In addition, case studies may lead to potential ethical problems if the identity of the organization or case study subjects cannot be shielded. Additionally, Guba and Lincoln (1981) stated a limitation of case studies is that they tend to oversimplify a situation. They warn that readers may assume case studies are whole and all encompassing, while in fact they are "but a part – a slice of

life.”(p.377) Since the current study only presents a picture of the participants during the period of time that they were observed, it is not expected that the data fully represents all the various interactions that occur between the teachers and children throughout the day.

Recommendations

Recommendations for Practice

Parents need to understand the early childhood years as a crucial time for a child’s developing brain and consider the value of music instruction. Moreover, it is important for Taiwanese school directors to promote age-appropriate music instruction as part of the curriculum.

If teacher assessments are to be a meaningful part of future instruction, teachers require specific training in order to assess the children effectively. When the role of music is questioned, it is vital for music educators to articulate the value of music to students and the community at large. Assessment provides documentation of student growth and is necessary for program accountability. If music educators fail to assess and report student progress to parents, the public may have the impression that music is not a core subject (Regelski, 2004).

The study indicates that Taiwanese preschool teachers and parents have positive attitudes toward early childhood music education and that most of the parents agree with studies that all children have musical potential (Gordon, 1989; Sims, 1991). When early childhood classroom teachers participate in music classes, they have opportunities to observe the music teacher’s activities, modeling, and interaction with children. In addition, since young children observe and imitate classroom teachers’ actions in music classes,

these teachers serve as models for children during class, and their modeling of music and movement serves as critical reinforcement for the students' learning. It is recommended that teacher training programs at colleges and universities provide music and music methods courses for all pre-service early childhood teachers in order to help children develop their musical potential.

Recommendations for Future Studies

While conducting this study, several insights were gained that may lead to future studies about early childhood music learning.

I found that Bruner's theory of enactive and iconic modes of representation played an important role in singing, music and movement, and listening in the class. I noticed that children responded by moving on their own to sound or silence, fast or slow tempo, and high or low pitch. However, they did not seem to respond to differences between loud and soft music. Therefore, educators of music curricula for young children might consider assessing what enactive representations children exhibit in response to specific musical qualities. As an enactive representation, body technique is important in achieving music-related movement responses. Further research in early childhood music is recommended to determine what particular aspects of body technique are useful in representing musical qualities, and if the selection of music increases enactive music-related responses.

This research only compiles the questionnaire of these specific Taiwanese parents who have preschool children ages five to six. It does not include observations from parents performing music activities in their homes. Therefore, a subsequent study is recommended that focuses on the actual musical involvement of parents during music

activities, including interviews in which parents give their views on early childhood music education.

In order to obtain a more complete picture of the teachers' experiences, and so that early childhood programs can understand which strategies and /or components are most valuable, effective, or missing altogether, future research should create additional study populations from other preschools and ask them the same questions. Comparing the experiences, strategies, and perceptions of teachers from various preschools with each other could provide further insight. Moreover, preschool administrators, early childhood teachers, and music teachers could learn from each other's strengths and weaknesses.

The use of objects as an iconic representation of musical qualities is an important part of this study. Objects relating to some specific quality of movement in the music are found to elicit music-related movements from the children when they listen to music. Emphasis is placed on the object's visual representation of a movement idea, not on a symbol of a musical concept, such as a clef sign or a staff. Future studies might determine what objects are best for visual representation of a movement-music concept for a preschool child.

This study indicates that modeling by teachers is more effective in producing music-related responses when it is accompanied by questions that encourage the children to describe and respond to their music-related movements. Instructional materials for preschool music programs should incorporate the simultaneous use of several methods of interaction, including modeling, description, and suggestion, by which teachers can reinforce children's responses to music. Training programs for prospective preschool

teachers should incorporate guiding musical experiences with preschool children as part of music methods courses.

Future studies should investigate the differences in the use of musical interaction with children between veteran music teachers and novice classroom teachers during music class, as well as the differences in how veteran classroom teachers and new classroom teachers use the methods provided by the music teacher in their own classrooms. The present study only focuses on one veteran music teacher and one veteran early childhood classroom teacher. Teaching experience might influence a teacher's thought, attitude and perception. The findings of future research may offer more information about early childhood classroom teachers' teaching experiences and their role in providing early musical experiences for young children.

While the current study only covers three weeks and is limited to five-to-six-year-old children in a school in Taiwan, longer classroom observations with different age classes are recommended for future studies. Since this study only investigates the music methods, curricula, and strategies in the selected school in Taipei City, it is recommended to repeat the current study in the rural areas of Taiwan. It can expand its scope to compare different preschools' music curricula, methods, and strategies between preschool directors, early childhood classroom teachers, music teachers, and parents in the city and rural areas. Further research could involve replicating this study throughout Taiwan and internationally.

Further investigation is recommended regarding the various planning practices and processes among preschool music and early childhood classroom teachers from different

schools who use music instruction, as well as performance differences between children from preschools who provide music instruction for children and those from schools who do not. For further research of music methods, curricula, and strategies, it would be useful to randomly sample a larger number of teachers from different locations, not just in Taipei, Taiwan. Sampling could possibly take place in different cities or countries, such as Taichung, in the center of Taiwan, or at different age levels such as four-to-five-year-olds, elementary, or high school. Sampling could further request information on techniques teachers use to present a greater diversity of teaching methods.

Conclusion

This study contributes to the understanding and importance of teaching methods, curricula, and strategies for music instruction, including singing, music and movement, listening, and playing instruments, which help preschool children experience and develop their musical abilities. The purpose of this study is to describe the extent to which the common practice among these preschool teachers is compatible with recent research regarding music instruction among five-to-six-year-olds. Music and early childhood educators might benefit by consulting those who have studied the effectiveness of these approaches to music and singing instruction. The research helps Taiwanese music educators gain a deeper understanding of the musical development and ability of young children, as well as helping teachers to design music materials and instruction appropriate for children's development. In addition, it provides information for Taiwan's school administrators and teachers' training programs in order to help them determine how much preparation preschool teachers need to effectively implement music education in

classrooms.

APPENDIX A: LETTER TO PRINCIPAL (Administrator)

Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
T 617-353-3350 F 617-353-5331
www.bu.edu/cfa



Dear Administrator,

My name is Yu-Chun Lai and I am a doctoral student at Boston University. I am also a certified early childhood teacher and a certified music teacher from the Ministry of Education in Taiwan.

I am preparing to conduct a study, to be reported as a doctoral dissertation, and I would like your consent to study students in your school. This study will implement interviews and observations to better understand students with diverse needs. I will observe one classroom 3–15 separate times. I will interview early childhood classroom teachers and parents. The classroom observations will be selectively video-recorded. The interviews will be tape-recorded for the purpose of transcription and analyzes. The entire study will take place over a period of three weeks.

I will take precautions to protect the privacy of your students by substituting fictitious names in the final report. All information obtained for this study will be held in strict confidence and may not be disclosed unless required by law or regulation. Interview data will be treated confidentially and may not be disclosed, unless required by law or regulation. Interview data and recordings will be stored in a locked safe in my home and destroyed at the end of the research. No special provision will be made for compensation or for payment for treatment solely because of participation in this study.

This paragraph is a statement of Boston University's policy and does not waive any legal rights. Participation is voluntary. Refusal to participate will involve no penalty or loss of benefits to which the participant is otherwise entitled and you may discontinue participation at any time without penalty or loss of benefits to which you may otherwise be entitled.

If you have any questions regarding the research or your participation in it, either now

or at any time in the future, please feel free to ask them. The researcher, Yu-Chun Lai, who may be reached at 857-250-5527, will be happy to answer any questions you may have. Thank you for considering granting your permission for me to conduct this study at your school site.

Cordially,

Yu-Chun Lai,

Boston University doctoral student

邀請參與者 (行政人員)

Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
T 617-353-3350 F 617-353-5331
www.bu.edu/cfa



親愛的行政人員，

我是賴侑君是美國波士頓大學博士班的學生，我也取得台灣教育部合格幼兒園教師證書和音樂教師證書。我準備一個論文研究案，我希望您同意貴校能參與。這個研究案包含訪談和觀察能較了解學生在各方面的需求。我也將訪談學校的大班老師一次，音樂老師一次，和家長(或填寫問卷)並觀摩教師 3-15 次上課。因為要將您的訪談紀錄下來，所以會錄音。研究的時間為三星期。

研究者將保護資料的機密。資料將保持機密，最後的報告不會出現參與者的真實姓名。這論文報告也將會保有老師學生的機密。我的研究資料所有錄音帶子將存放在我的家中，我將在訪談結束後銷毀這些帶子。參與這研究將無酬勞。

參與者是自願參與。沒有參與或終止參與在任何時間將不會有任何處罰或失去利益。

如果您有任何問題關於這個研究案請聯繫我 857-250-5527。我將樂意回答您的問題。感謝您同意貴校參與這個研究案。

誠摯地

賴侑君
波士頓大學
博士生

APPENDIX B: INFORMED CONSENT FORM, ADMINISTRATOR

Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
T 617-353-3350 F 617-353-5331
www.bu.edu/cfa



INFORMED CONSENT FORM

Title of Project: Practitioners' strategies for enhancing early childhood music education in Taiwan

Principal Investigator: Yu-Chun Lai

Purpose

I am a Boston University student in the Doctor of Music Arts program in Music Education. I am also a certified early childhood teacher and a certified music teacher from the Ministry of Education in Taiwan. I would like permission to enroll you as a participant in a research study as part of my dissertation work. You are being asked to participate because you have indicated informally that you are willing to participate in this study. This study will include an interview with you, an interview with early childhood classroom teachers, music teacher, an interview (or questionnaire) with your student's parent, and observations of classes. The purpose of this study is to describe practices among a sample of preschool practitioners and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing among the five-to-six-year-old population.

Procedure

After you agree to participate in this study, I will ask you participate in an interview. The total time to complete the overall interview with you will take about 30 minutes. The interview will take place at a mutually agreed upon location. This interview will be recorded so it can be transcribed afterward. Sometime later, you will receive a typed copy of the interview by e-mail and will be able to review it for accuracy. I will also interview the teachers and parents (or questionnaire). Furthermore, I will observe teachers teaching in classrooms. The researcher will sit quietly toward the back of the room behind students and take notes, and will not disturb educational proceedings.

Risks and Discomforts

Participation in this study does not hold any foreseeable risks or discomfort. You are always free to skip a question and/or take a break. Observations and interviews will be scheduled in advance at participants' convenience. Data will be recorded without participants' names to protect privacy and the final report will be published with fictitious names.

Benefits

Throughout this study, teachers will have opportunities to reflect on his or her teaching practices thinking about his or her own teaching and student activities. Through this reflection teachers will be able to adjust their curriculum and instructional planning, modify their lesson plans, and select appropriate teaching materials as well as strategies. This study will assist teachers in becoming better teachers. This study may help early childhood classroom teachers, administrators, music teachers, and parents to better understand preschool music method, curriculum, and experiences on teachers' teaching and children's learning of music including singing and to help children in achieving musical skills and developing their potential.

Alternatives

Your alternative is to not participate in this study.

Compensation

You will not receive any compensation for participating in this study.

Confidentiality

Identifiable data will be collected from you, but only the investigators will know who you are. The investigator will take appropriate care to protect the confidentiality of your private information. The signed consent forms will be kept separate from the research data in a locked safe. Data will be stored in locked files only accessible to Yu-Chun Lai, the Principal Researcher, and will be destroyed one year after the interviews.

Voluntary Participation

Your participation is voluntary and you may stop your participation at any time.

Contacts

I look forward to a positive response in the near future. If you have questions regarding this research, either now or at any time in the future, please contact Yu-Chun Lai, the Principal Investigator at 857-250-5527. I will be happy to answer any questions you may

have. If you have further questions about this research project you may contact Dr. Richard Bunbury at Boston University 617-358-5156. You may obtain further information about your rights as a research subject by contacting the Boston University Institutional Review Board for Human Subjects Research at 617-358-6115 or irb@bu.edu.

Agreement to Participate

I have read this consent form. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study. I will be given a copy of the consent form to keep if I wish.

Name of Subject _____

Signature of Subject _____ Date _____

Printed name of person obtaining consent _____

Signature of Person Obtaining Consent _____ Date _____

Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
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www.bu.edu/cfa



學校專題研究同意書

專題研究題目: 實施者的策略在增進音樂教與學

研究者: 賴侑君

親愛的園長:

我是美國波士頓大學音樂教育博士班學生, 我也取得台灣教育部合格幼兒園教師證書和合格音樂教師證書。

我很感謝您能參與這論文研究案。這個研究案包含訪談關於您從事教育的經驗。我也將訪談學校的大班老師一次, 音樂老師一次, 和家長(或填寫問卷)並觀摩教師上課。這研究案目的是描述幼兒園教師對 5-6 歲幼兒音樂和歌唱教學的實施與研究的發現。

您參與這研究案我將邀請您參與一次訪談, 這個訪談大約 30 分鐘, 地點彼此同意即可。因為要將您的訪談紀錄下來, 所以會錄音。訪談紀錄完成後, 會請您查閱真實性。我也將訪談學校的大班老師, 音樂老師, 和家長(或填寫問卷)並觀摩教師上課。我將坐在教室後面不會打擾上課。

參與這研究無任何危險或造成不適, 您可以自在的休息。觀摩教學和訪談會事先和參與者安排時間。資料將保持機密, 最後的報告不會出現參與者的真實姓名。

我期盼這個研究案將協助老師有機會和經驗思考自己的教學和學生活動, 經由這個思考與經驗, 老師能調節自己的課程, 教學計畫, 教學素材和策略, 幫助他們教學成為更好。這個研究案可以幫助教室老師, 行政人員, 音樂教師和家長, 了解幼兒園音樂課程方法和教師教學學生學習音樂和歌唱經驗, 和幫助幼兒成就音樂技巧和發展幼兒潛能。研究者將保護資料的機密。這論文報告也將會保有老師學生的機密。只有我知道您是誰。我的研究資料所有錄音帶子將存放在我的家中, 僅供我個人研究, 無外人可使用。我將在訪談結束後一年銷毀這些帶子。參與者是自願參與。這研究案也核准於美國波士頓大學人類研究委員會。

我請求您的支持及核准這個研究案。我期待您肯定的贊同。如果您有任何問題關於這個研究請聯絡研究者電話 857-250-5527。假使您有研究案的問題也可以聯絡

我的指導教授波士頓大學 Richard. R. Bunbury 博士 617-358-5156。假使您有任何問題有關人權請電話美國波士頓大學研究中心 617-358-6115 or irb@bu.edu。

園長同意書

我瞭解您提供的資訊，且獲得答覆關於這個研究案。我同意賴侑君在我的學校執行專題研究。我同意參與 30 分鐘的訪談。這是一個美國波士頓大學教育研究核准的專案。

請正楷書寫園長姓名_____

園長簽名_____日期_____

研究者姓名_____

研究者簽名_____日期_____

APPENDIX C: INFORMED CONSENT FORM, TEACHER INTERVIEW

Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
T 617-353-3350 F 617-353-5331
www.bu.edu/cfa

**INFORMED CONSENT FORM**

Title of Project: Practitioners' strategies for enhancing early childhood music education in Taiwan

Principal Investigator: Yu-Chun Lai

Purpose

I am a Boston University student in the Doctor of Music Arts program in Music Education. I also earned both an early childhood teacher certificate and a music teacher certificate from Education Department of the Taiwan Government. I am a certified early childhood teacher and a certified music teacher from the Ministry of Education in Taiwan. I would like permission to enroll you as a participant in a research study, as part of my dissertation work. You are being asked to participate because your perspective will be helpful in our learning about your students' experiences in classroom at school. This study will investigate the ways to help children learn music including singing. The purpose of this study is to describe practices among a sample of preschool practitioners and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing among the five-to-six-year-old population.

Procedure

After you agree to participate in this study, I will ask you to participate in an interview. Your total time commitment will be approximately 30 minutes for an interview. The interview will take place at a mutually agreed upon location. This interview will be recorded so it can be transcribed afterward. Sometime later, you will receive a typed copy of the interview by e-mail and will be able to review it for accuracy. Next, you will be contacted to arrange a schedule for classroom observations. Your teaching will be observed in class on 3–15 different sessions within a three-week period. The researcher will sit quietly toward the back of the room behind students and take notes, and will not disturb educational proceedings.

Risks and Discomforts

Participation in this study does not hold any foreseeable risks or discomfort. You are always free to skip a question and/or take a break, or stop the interview. Observations and interviews will be scheduled in advance at participants' convenience. Data will be recorded without participants' names to protect privacy and the final report will be published with fictitious names.

Benefits

Throughout this study, teachers will have opportunities to reflect on his or her teaching practices thinking about his or her own teaching and student activities. Through this reflection teachers will be able to adjust their curriculum and instructional planning, modify their lesson plans, and select appropriate teaching materials as well as strategies. I anticipate that this study will assist teachers in becoming better teachers. This study may help early childhood classroom teachers, administrators, music teachers, and parents to better understand preschool music method, curriculum, and experiences on teachers' teaching and children's learning of music including singing and to help children in achieving musical skills and developing their potential.

Alternatives

Your alternative is to not participate in this study.

Compensation

You will not receive any compensation for participating in this study.

Confidentiality

Identifiable data will be collected from you, but only the investigators will know who you are. The investigator will take appropriate care to protect the confidentiality of your private information. The signed consent forms will be kept separate from the research data in a locked safe. Data will be stored in locked files only accessible to Yu-Chun Lai, the Principal Investigator, and will be destroyed within one year of the completion of my final report.

Voluntary Participation

All participation in this research is voluntary and you may stop your participation at any time.

Contacts

I look forward to a positive response in the near future. If you have questions regarding this research, either now or at any time in the future, please contact Yu-Chun Lai, the

Principal Investigator at 857-250-5527. I will be happy to answer any questions you may have. If you have further questions about this research project you may contact Dr. Richard Bunbury at Boston University 617-358-5156. You may obtain further information about your rights as a research subject by contacting the Boston University Institutional Review Board for Human Subjects Research at 617-358-6115 or irb@bu.edu.

Agreement to Participate

I have read this consent form. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study. I will be given a copy of the consent form to keep if I wish.

Name of Subject _____

Signature of Subject _____ Date _____

Printed name of person obtaining consent _____

Signature of Person Obtaining Consent _____ Date _____

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855 Commonwealth Avenue
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T 617-353-3350 F 617-353-5331
www.bu.edu/cfa



教師同意書

專題研究題目: 實施者的策略在增進音樂教與學

研究者: 賴侑君

親愛的老師

我是美國波士頓大學音樂教育博士班學生，我也取得台灣教育部合格幼兒園教師證書和合格音樂教師證書。

我很感謝您能參與這論文研究案。這個研究案包含訪談關於您從事教育的經驗，因為您的觀點將幫助我們學習您的學生在教室的經驗。我也將訪談學校的大班老師一次，音樂老師一次，和家長(或填寫問卷)並觀摩教師上課。這研究案目的是描述幼兒園教師對 5-6 歲幼兒音樂和歌唱教學的實施與研究的發現。

您參與這研究案我將邀請您參與一次訪談，這個訪談大約 30 分鐘，地點彼此同意即可。因為要將您的訪談紀錄下來，所以會錄音。訪談紀錄完成後，會請您查閱真實性。接著我將會和您聯繫教室觀摩日期時間。教室觀摩三星期。我將坐在教室後面不會打擾上課。

參與這研究無任何危險或造成不適，您可以自在的休息。觀摩教學和訪談會事先和您安排時間。資料將保持機密，最後的報告不會出現您的真實姓名。我期盼這個研究案將協助老師有機會和經驗思考自己的教學和學生的活動，經由這個思考與經驗，老師能調節自己的課程，教學計畫，教學素材和策略，幫助他們教學成為更好。這個研究案可以幫助教室老師，行政人員，音樂教師和家長，了解幼兒園音樂課程方法和教師教學學生學習音樂和歌唱經驗，和幫助幼兒成就音樂技巧和發展幼兒潛能。

我是唯一可以翻閱這些資料，只有我知道您是誰，我將保護這些資料的機密。同意書將和研究資料分開存放在安全上鎖的家裡。您提供的資料將存放在我的家裡，僅供我個人研究，無外人可使用。在訪談結束後一年，我將銷毀這些資料帶子。

您的參與是自願，我期待您肯定的贊同。假使您有任何問題關於這個研究請聯

絡研究者賴侑君 857-250-5527 我樂於回答您的任何問題，或波士頓大學 Richard Bunbury 博士 617-358-5161。假使您有任何問題關於人權請電話查詢美國波士頓大學研究保護中心 617-358-6115, irb@bu.edu。

教師同意書

我瞭解您提供的資訊，且獲得答覆關於這個研究案。我同意參與這個研究案。這是一個美國波士頓大學教育研究核准的專案。

請正楷書寫教師姓名_____

教師簽名_____日期_____

研究者姓名_____

研究者簽名_____日期_____

APPENDIX D: PARTICIPANT RECRUITING FORM (Parent)

**Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
T 617-353-3350 F 617-353-5331
www.bu.edu/cfa**



Dear Parent,

I am studying music methods, curriculum, and strategies at Sun preschool. The purpose of this study is to describe practices among a sample of preschool practitioners and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing among the five-to-six-year-old population. The study will involve interviews with the early childhood classroom teachers, observations of the classroom, and one short telephone interview (or questionnaire) with you.

Printed results of this research will not include personal information about you, teacher, school, or city. This study will inform early childhood classroom teachers and researchers about practitioners' strategies for improving kindergarten students' music skills, potentially improving music teaching and learning.

Please contact me if you have any questions related to this study
857-250-5527. Thank you,

Yu-Chun Lai

Boston University
Doctoral Student

邀請參與者(家長)

Boston University College of Fine Arts
855 Commonwealth Avenue
Boston, Massachusetts 02215
T 617-353-3350 F 617-353-5331
www.bu.edu/cfa



親愛的家長,

我目前在研究音樂方法，課程，策略在幼兒園。研究目的描寫實施者在幼兒園於 5-6 歲幼兒的音樂和歌唱教學和研究發現。這研究包括教師訪談教室觀摩和家長訪談或問卷。最後報告的資料將不會包括個人的真實名字。這研究將通告教師與研究者關於實施者的策略在增進幼兒園學生音樂技術潛能和音樂的教與學。

若您有任何問題關於這研究請與我聯繫
857-250-5527。

謝謝

賴侑君

波士頓大學
博士班學生

APPENDIX E: INFORMED CONSENT FORM PARENT QUESTIONNAIRE

**Boston University College of Fine Arts
School of Music
855 Commonwealth Avenue
Boston, Massachusetts 02215
Ph. 1.617.353.6888
www.bu.edu/cfa**



INFORMED CONSENT FORM/Questionnaire for parent

Title of Project: Practitioners' strategies for enhancing early childhood music education in Taiwan

Principal Investigator: Yu-Chun Lai

Purpose

I am a Boston University student in the Doctor of Music Arts program in Music Education. I also earned both an early childhood teacher certificate and a music teacher certificate from Education Department of the Taiwan Government. I am a certified early childhood teacher and a certified music teacher from Ministry of Education in Taiwan. I would like permission to enroll you as a participant in a research study, as part of my dissertation work. You are being asked to participate because you have a child who is attending this preschool. The director of the school has also agreed to participate in this study. Your participation will add to our understanding, which will ultimately make a valuable impact on early childhood music education. This study will investigate the ways to help children learn music including singing. The purpose of this study is to describe practices among a sample of preschool practitioners and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing among the five-to-six-year-old population.

Procedures

If you chose to volunteer for this study, I will ask you to complete a questionnaire. After you have completed that questionnaire, your participation in this study will be finished.

Risks and Discomforts

Participation in this study does not hold any foreseeable risks or discomfort. You are always free to skip a question, take a break, or stop the questionnaire. Data will be recorded without participants' names to protect privacy and the final report will be

published with fictitious names.

Benefits

Through this study, teachers will have opportunities to reflect on his or her teaching practices and think about student activities. Through this reflection teachers will be able to adjust their curriculum and instructional planning, modify their lesson plans, and select appropriate teaching materials as well as strategies. This study can help early childhood classroom teachers, administrators, music teachers, and parents to better understand preschool music method, curriculum, and teachers' teaching experiences and children's learning of music including singing and to help children in achieving musical skills and developing their potential. This study may become a unique contribution to the literature regarding music teaching and learning; this may lead members of the broader music education profession who read this report to pursue additional learning opportunities to better understand the perceptions of preschool music method, curriculum, and teachers' experiences on teaching and learning of music including singing and to help children developing musical potential; and it may be determined that more research is needed in areas of early childhood music education to better prepare music educators and early childhood classroom teachers.

Compensation

You will not receive any compensation for participating in this study.

Confidentiality

The questionnaire data will be treated confidentially. The investigator will take appropriate care to protect the confidentiality of your private information. The signed consent forms will be kept separate from the research data in a locked safe. Data will be stored in locked files only accessible to the Principal Investigator and will be destroyed within one year of the completion of my final report.

Voluntary Participation

Your participation is voluntary and you may stop your participation at any time.

Contacts

I look forward to a positive response in the near future. If you have questions regarding this research, either now or at any time in the future, please contact Yu-Chun Lai, the Principal Investigator at 857-250-5527. I will be happy to answer any questions you may have. If you have further questions about this research project you may contact Dr. Richard Bunbury at Boston University 617-358-5161. You may obtain further information about your rights as a research subject by contacting the Boston University

Institutional Review Board for Human Subjects Research at 617-358-6115 or irb@bu.edu.

Agreement to Participate

I have read this consent form. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study. I will be given a copy of the consent form to keep if I wish.

Name of Subject _____

Signature of Subject _____ Date _____

Printed name of person obtaining consent _____

Signature of Person Obtaining Consent _____ Date _____

Questionnaire for Parent 家長問卷調查

**Boston University College of Fine Arts
School of Music
855 Commonwealth Avenue
Boston, Massachusetts 02215
Ph. 1.617.353.6888
www.bu.edu/cfa**



專題研究題目: 實施者的策略在增進音樂教與學

研究者: 賴侑君

敬愛的家長:

我是美國波士頓大學音樂教育博士班學生，我也取得台灣教育部合格幼兒園教師證書和合格音樂教師證書。我很感謝您能參與這論文研究案。您被邀請參與，因為您有一位孩子就讀這個幼兒園，園長同意參與這個專題研究。您的參與將提供我們對幼兒音樂教育進一步的認識。這專題研究將描述 5-6 歲幼兒學習音樂及幼兒園教師對音樂和歌唱教學的實施。

您參與這個研究案，我將請您完成問卷。完成問卷後，您就完成您的參與。參與這研究無任何危險或造成不適，您可以自在的休息。所有的資料文件將保持機密性。最後報告不會出現您的真實姓名。期待這個研究案將協助老師有機會和經驗思考自己的教學和學生的活動，經由這個思考與經驗，老師能反思自己的課程，教學計畫，教學素材和策略，幫助他們教學成為更好。這個研究案可以幫助教室老師，行政人員，音樂教師，和家長了解幼兒園音樂課程方法，和教師教學，學生學習音樂和歌唱經驗，和幫助幼兒成就音樂技巧和發展幼兒潛能。這個研究案可以成為獨特的文獻貢獻關於音樂的教與學。這可以引導廣泛的幼兒教育和音樂教育專業閱讀這個報告追求學習的機會了解幼兒園音樂方法課程和教師的經驗在音樂與歌唱教學。和幫助幼兒發展潛能。

研究資料將不會有參與者的姓名，只有我知道您是誰，研究者將保護資料機密，我是唯一可以翻閱這些資料，我將保護這些資料的機密。您提供的資料將存放在我的家裡，僅供我個人研究，無外人可使用。同意書將和研究資料分開存放在安全上鎖的家裡。在研究結束後一年，我將銷毀這些資料。

您是自願參與這個研究。我期待您肯定的贊同。假使您有任何問題關於這個研究請聯絡研究者賴侑君 857-250-5527, 我樂於回答您的任何問題，或波士頓大學

Richard Bunbury 博士 617-358-5161。假使您有任何問題關於人權請電話查詢美國波士頓大學研究保護中心 617-358-6115, irb@bu.edu。

家長同意書

我瞭解您提供的資訊，且獲得答覆關於這個研究案。我同意參與這個研究案。這是一個美國波士頓大學教育研究核准的專案。

請正楷書寫家長姓名_____

家長簽名_____日期_____

研究者姓名_____

研究者簽名_____日期_____

APPENDIX F: Administrator Interview Protocol

Project: Practitioners' strategies for enhancing early childhood music education in Taiwan

Principal Investigator: Yu-Chun Lai

Time of Interview:

Location of interview (describe context and details):

Interviewer:

Interviewee:

Position of Interviewee:

Justification for selection of this participant for interview:

Tasks

1. Thank interviewee for willingness to participate in the study and to make time to meet for the interview
2. Remind interviewee that all data will be recorded and kept in strict confidence and that the final report will make use of aliases.
3. Remind interviewee of the focus of the study and allow for any question concerning the nature of the questioning.

Questions:

1. Could you please tell me how long you have been in the position of preschool administrator?
2. What is the average number of children in your preschool classrooms?
3. What is the ratio of boys and girls in preschool classes?
4. What is the teacher to child ratio in your preschool?
5. What curriculum is prevalently used for providing music instructions, including singing to preschool children in the preschool?
6. What methods and strategies are prevalently used for providing music instructions? Including singing, to preschool children in the preschool?
7. Does your preschool have formulated music objectives?
8. What curriculum, method, and strategies you feel is most effective for providing music instructions, including singing?
9. In what ways do early childhood classroom teachers assess and measure students learning progress in achieving musical skills?
10. What are your attitudes in regard to providing music instructions, including singing?

11. Does your budget support music related purchases of materials, equipment, instruments, tapes, books and or music events etc.

行政人員訪談

題目：實施者的策略在增進音樂教與學

研究者：賴侑君

訪談時間：

訪談地點：

訪問者：

訪談者：

訪談者職位：

訪談參與者的理由：

任務

- 1 感謝訪談者願意參與這個研究案
- 2 提醒訪談者所有的資料將記錄保持機密最後報告會用匿名
- 3 著重在研究提醒訪談者允許任何問題

問題

- 1 請您告訴我您從事幼兒園行政工作幾年？
- 2 幼兒園孩子的人數？
- 3 男女生人數？
- 4 幼兒園師生比例？
- 5 幼兒園普遍提供幼兒哪些音樂教學和歌唱教學活動課程？
- 6 甚麼方法，策略普遍用在幼兒園音樂及歌唱教學（如何實施這些活動）？
- 7 幼兒園有規畫音樂目標？
- 8 您覺得甚麼課程，方法，和策略最有效在提供音樂與歌唱教學？
- 9 老師用甚麼方式評量學生進步實現音樂目標或技術？
- 10 甚麼是您的態度關於音樂和歌唱教學？
- 11 您的預算支持音樂相關素材的購買，設備，樂器，錄音帶，書，和音樂事件？

APPENDIX G: Teacher Interview Protocol

Project: Practitioners' strategies for enhancing early childhood music education in Taiwan

Principal Investigator: Yu-Chun Lai

Time of Interview:

Location of interview (describe context and details):

Interviewer:

Interviewee:

Position of Interviewee:

Justification for selection of this participant for interview:

Tasks

1. Thank interviewee for willingness to participate in the study and making time to meet for the interview
2. Remind interviewee that all data will be recorded and kept in strict confidence and that the final report will make use of aliases.
3. Remind interviewee of the focus of the study and allow for any questions concerning the nature of the questioning.

Questions

1. Please describe in detail your background experience with class teaching or music instruction? How many years have you been teaching music to preschool children?
2. How have your experiences in music affected your attitudes concerning teaching music including singing? Please explain.
3. What curriculum is prevalently used for providing music instructions, including singing, to preschool children in the preschool?
4. What methods and strategies are prevalently used for providing music instructions, including singing, to preschool children in the preschool?
5. What curriculum, method, and strategies you feel is most effective for providing music instructions, including singing?
6. Do you assess and measure students learning progress in achieving musical skills? In what ways?
7. What are your attitudes in regard to providing music instructions, including singing?
8. What are your current practices in teaching singing?
9. How do you teach children to sing a song? Please explain. How do you choose

songs to teach children to sing? What, if any, do you consider an ideal pitch range? In your experience, what pitch range are children able to sing most comfortably or easily?

What pitch range is difficult for them to sing? Please explain. If children are unable to sing on pitch, what do you do?

10. Gender

In general, do you think that either boys or girls sing on pitch more consistently, or are both genders equal? Do you have different strategies with girls and boys?

11. Accompaniment

When you teach children to sing, do you use a musical instrument? What kind of musical instrument do you use?

What kind of musical instrument could help children to sing on pitch more accurately?

12. Vocal Model

In your opinion, which type of voice will serve as the best model for pitch accuracy: female, male, or child?

Do you use a recording while you teach singing? Is it helpful? What is the gender and age of the model on the recording?

13. Words or neutral syllables

If the children learn a song with both the melody and the words, and then the song is played without the words, can the children still recognize the song?

If the children learn a song with both melody and words and then you ask them to sing the song by using the syllable “la” in place of the words, can they sing the song on pitch?

When you teach children to sing a new song, which do you think children are able to sing more consistently on pitch: words or neutral syllable, such as “lo”?

14. Gestures

Do you use any gestures when teaching students to sing? What gestures do you use when teaching?

What gestures could help children to sing on pitch more accurately? Who makes the gestures?

15. Indicate the primary focus of your teaching curriculum:

- a. development of social skills
- b. enjoyment and recreation
- c. development of physical coordination
- d. development of listening and language skills
- e. development of music skills

- f. for the purpose of learning numbers, letters, etc.
 g. other (specify) _____
16. What is the most important to you when teaching preschool students music?
 a. vocal development b. rhythmic development c. moving to music
 d. creating music e. listening
 f. instrument identification g. musical concepts (tempo, higher-lower, loud-soft, same-different, rhythm, etc.)
 h. musical memory i. other (specify) _____
17. What musical activities do your students engage in the most?
 a . singing
 b . playing instruments c . listening to music d .creating music
 e . moving to music
 f. rhythmic chanting and finger plays
 g. other (specify) _____
18. Do you sing in your classroom?
 a. No
 b. Yes. If yes, specify
 when and how often _____
 and for what purposes _____
19. Do you play an instrument for the children?
 a. no
 b. yes. If yes, which one(s) _____
20. Opinions, recommendations
 What are your comments regarding teaching music including singing?

教師訪談

題目：實施者的策略在增進音樂教與學

研究者：賴侑君

訪談時間：

訪談地點：

訪問者：

訪談者：

訪談者職位：

任務

- 1 感謝訪談者願意參與這個研究案
- 2 提醒訪談者所有的資料將記錄保持機密最後報告會用匿名
- 3 著重在研究提醒訪談者允許任何問題

問題

- 1 請介紹您自己，描述您的教室教學或音樂教學背景經驗？您在幼兒園教幾年？
- 2 您的音樂學習經驗有影響到您的態度關於音樂和歌唱教學？請說明
- 3 幼兒園普遍提供幼兒哪些音樂和歌唱教學課程？
- 4 甚麼方法，策略，普遍用在幼兒園音樂及歌唱教學，(如何實施或教這些活動)？
- 5 您覺得甚麼課程，方法，和策略，最有效提供音樂與歌唱教學？
- 6 您有評量學生進步實現音樂目標或技術？用甚麼方式？
- 7 甚麼是您的態度關於音樂和歌唱教學
- 8 甚麼是您目前教唱的實施方式？
- 9 您如何教學生唱一首歌？
 - 您如何選歌教幼兒唱？幼兒在幼兒園唱哪些歌？可以告訴我多一些嗎？
 - 您有考慮歌曲的理想音域嗎？
 - 您認為哪個音域幼兒唱起來最舒服且較容易？
 - 幼兒唱歌，甚麼音域是困難的？
 - 如果幼兒無法唱準音高您怎麼做？
- 10 您認為男生或女生唱歌音準較準確或一樣？您在指導時有不同的策略嗎？
- 11 當您教唱您有用樂器嗎？您用哪一種樂器？哪一種樂器能幫助幼兒唱準音高？
- 12 以您的觀點，哪一型態的聲音是最好的示範能幫助幼兒唱準音高？成人女聲，成人男聲，小孩？

- 您有用錄音機教唱嗎？對歌唱或唱準音高有幫助嗎？錄音帶裡的範唱者是男性或女性？年紀呢？
- 13 幼兒學習歌曲有旋律和歌詞若歌曲只有旋律沒歌詞他們能辨別是哪一首歌曲嗎？
- 當您教幼兒唱一首歌，您認為她們唱歌詞或唱母音例如 la 音準較準？
- 14 當您教唱您有用任何手勢嗎？甚麼手勢？甚手勢可幫助幼兒唱音準較準確？誰做這些手勢？
- 15 您的教學課程主要著重在哪一方面？
 - a 發展社會技巧
 - b 樂趣與娛樂
 - c 發展身體協調
 - d 發展聽和語言技巧
 - e 發展音樂技巧
 - f 學習數字字母等等
 - g 其他請說明
- 16 對老師來說哪些音樂活動最有價值最重要？為甚麼？
 - a 聲音發展 b 節奏發展 c 音樂律動 d 創作音樂 e 聽音
 - f 樂器識別 g 音樂概念 (高低音大小聲速度)
 - h 音樂記憶 I 其他 請說明
- 17 什麼音樂活動幼兒最專注？
 - a 歌唱 b 演奏樂器 c 聽音樂 d 音樂創作 e 音樂律動
 - f 節奏吟誦，手指謠，手指彈奏 g 其他。
- 18 您在教室有唱歌嗎？
 - a 沒有
 - b 有。時常嗎？何時？甚麼目的？
- 19 您有為孩子演奏樂器嗎？
 - a 沒有
 - b 有。若有，哪些？
- 20 您有任何建議關於音樂與歌唱教學？

APPENDIX H: Questionnaire for Parent

**Boston University College of Fine Arts
School of Music
855 Commonwealth Avenue
Boston, Massachusetts 02215
Ph. 1.617.353.6888
www.bu.edu/cfa**



Dear parent,

You are invited to participate in a Boston University doctoral student dissertation regarding early childhood music education. I am also a certified early childhood teacher and a certified music teacher from Ministry of Education in Taiwan. The purpose of this study is to describe practices among a sample of preschool practitioners and to investigate the extent to which these practices are in line with recent research findings on music instruction including singing among the five-to-six-year-old population.

You were chosen to participate because you have a child who is attending this preschool. The director of your school has also agreed to participate in this study. It is important for researchers to have input from parents and their preschool. Your participation will add to our understanding, which will ultimately make a valuable impact on early childhood music education. Your cooperation is greatly appreciated. There are no “wrong” or “right” answers. Please consider each question carefully and answer it as honestly as possible. Confidentiality will be strictly enforced and your answers will be used as a reference for improving the music education system in Taiwan.

If you have any questions about the questionnaire or want more information please call 857-250-5527. Thank you for your time and assistance with this research. Please complete and return this questionnaire to your early childhood classroom teacher as soon as possible.

1. Do you play a musical instrument? If so, what kind of instrument(s) do you play?
2. Does your child play a musical instrument? If so, what kind of musical instrument(s)?
3. Have you bought children’s records for your child? What records have you bought for them?
4. Is your child allowed to play CD records or tapes without your permission?
5. Does your child have his or her own CD record or tape player?
6. Have you sung or played in a musical group (such as Church or choir or

community band)?

7. Is there anything else you can share with me, or that you would like to share with me, about your {son/daughter}'s participation in the musical environment in the preschool?

8. What kinds of things does [child's name] say about music class when [he or she] is at home?

9. Have you helped your child learn songs? What songs?

10. Does [he or she] practice the instrument or sing songs at home? Tell me a little more...

11. What, in your opinion, does your child think of [his or her] early childhood classroom teacher or music teacher?

12. Do you have sung with your child? What songs?

13. Do you have sung to your child? What songs?

14. Do you have provided toy musical instruments? What kind?

15. Do you have provided toys that make sounds or music? What kind of the sounds or music?

16. Do you think music instruction should be included as a part of early childhood education? Please give at least two reason(s) for your answer.

17. Do you think all children have the potential to learn music? Please give at least two reason(s) for your answers.

家長問卷調查

Boston University College of Fine Arts
School of Music
855 Commonwealth Avenue
Boston, Massachusetts 02215
Ph. 1.617.353.6888
www.bu.edu/cfa



專題研究題目：實施者的策略在增進音樂教與學

敬愛的家長：

邀請您參與美國波士頓大學音樂教育系博士班學生的論文研究。我是合格的幼兒園和合格音樂教師。這份研究的目的是調查台灣幼兒園對 5-6 歲幼兒音樂課程，方法，策略，邀請您參與，因您有孩子參與在這所幼兒園。園長有同意參與這個研究案。

家長和幼兒園的投入是重要的。您的參與增加我們的了解，將對幼兒音樂教育增進價值。感謝您的參與。所有的答案都沒有對與錯。請仔細考慮問題，無保留的回答。您所提供的資料將嚴格被保密，僅做為提升台灣幼兒音樂教育的依據參考。如果您有任何問題關於問卷，請打電話 857-250-5527。請完成此問卷後儘快交給班級老師。

- 1 您有彈奏樂器嗎？如果有，哪種樂器？
- 2 您的孩子有彈奏樂器嗎？如果有，哪種樂器？
- 3 您有買錄音帶給您的孩子嗎？甚麼錄音帶？
- 4 您允許您的孩子撥放音樂沒有您的許可嗎？
- 5 您的孩子有自己的錄放音機嗎？
- 6 您有參與音樂性社團活動嗎例如合唱團或樂團？
- 7 您有任何想和我分享關於您的孩子參與在幼兒園音樂的環境？
- 8 在家中您的孩子會說甚麼事關於他的音樂課？
- 9 您有幫助您的孩子學習歌曲嗎？甚麼歌曲？
- 10 您的孩子在家有練習樂器或唱歌嗎？可以告訴我多一點嗎？
- 11 以您的見解，甚麼是您孩子的想法關於他的教室老師或音樂老師？
- 12 您有和您的孩子一起唱歌嗎？哪些歌曲？
- 13 您有唱歌給您的孩子聽嗎？哪些歌曲？
- 14 您有提供過玩具樂器給您的孩子嗎？哪一種？

- 15 您有提供過會製造聲音或音樂的玩具給您的孩子嗎？哪一些？
- 16 您認為音樂教學應該包括在幼兒教育的一部分嗎？請您提供至少兩個理由
- 17 您認為所有的孩子都有潛能學習音樂嗎？請給予至少兩個理由。

APPENDIX I: Member Check Letter

**Boston University College of Fine Arts
School of Music
855 Commonwealth Avenue
Boston, Massachusetts 02215
Ph. 1.617.353.6888
www.bu.edu/cfa**



I _____ check and verify the information I provided and the reports of the study “Music methods, curriculum and strategy in Taiwanese preschool by Yu-Chun Lai. I understand my verification is to support the validity of the data collected by Yu-Chun Lai.

Participant’s Signature _____
Researcher _____

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VITA

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The winner of the South District KHS Yamaha Music Competition and an award winner at the Taiwan National Music Competition, she is certified by the Taiwanese Ministry of Education as both an Early Childhood Education teacher and a Music Education teacher.

Ms. Lai has worked in private and public schools, instructing preschool, kindergarten, elementary school, middle school, and high school students, teaching general music, choir, piano, and instrumental. She also served as a music lecturer at KHS Yamaha Music Company. During her teaching career, she had the pleasure of directing her students in many performances and concerts. Additionally, she trained many students who attended local, regional, and national music competitions. Her students won various awards. Ms. Lai has also received excellence in teaching awards from the Taiwanese Department of Education.

In addition to teaching music, Ms. Lai also conducted a research study regarding a Taiwanese music educator and esteemed composer, Yen Lu. Her digitalization data and research thesis and analysis are available at the National Music Archive and the Taiwan Music Center of the National Center for Traditional Arts and at the Council for Cultural Affairs, Republic of China -National Repository of Cultural Heritage, Taiwan.