MUSICAL INTERACTIONS AMONG
INFANTS/TODDLERS AND EARLY CHILDHOOD TEACHERS:
THE ROLE OF INTERVENTION ON EARLY CHILDHOOD TEACHERS’
SCAFFOLDING OF YOUNG CHILDREN’S MUSIC LEARNING

A Thesis in
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by
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ABSTRACT

This study explored the nature of musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program. Musical interactions in daily activities and the extent to which teachers implement scaffolding in their musical interactions were investigated. Additionally, when music classes were provided, perceived changes in the musical interactions between early childhood teachers and children in daily activities and music classes were observed.

Members of one class—12 children, aged 4 to 33 months, and their 3 teachers participated. Qualitative data included direct observations, participant-observations, interviews, documentation, and archival records collected in three phases: (a) Phase One: prior to a music teacher (the researcher) providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended.

The musical interaction process involved three stages: initiation, continuation, and conclusion. Musical interactions were initiated by early childhood teachers and/or children. During the continuation of the interaction, the teachers’ actions and reactions were comprised of verbalization, non-verbal gesturing, modeling, accommodation, observation, imitation, utilization, and application. Children’s responses contained interactive and non-interactive behaviors. Although teachers and children might complete the interaction, the lack of a formal ending was the most frequent pattern. Teachers’ use of verbal instruction and physical manipulations to involve children decreased during the period when music classes were provided, and teachers’ ways of modeling and use of musical materials increased throughout the study. Teachers also tended to interact with
the children during daily activities in the same manner as the researcher had with the children in music class.

The principles of scaffolding that were present in all three phases included: (a) scaffolding consists of an appropriate structure, (b) scaffolding promotes self-regulation, (c) scaffolding presents a learning model for children, (d) scaffolding includes appropriate tools and signs, (e) scaffolding is temporary instruction, and (f) scaffolding assists groups and individuals. In Phases Two and Three, scaffolding process provides internalization was present. Scaffolding begins from children’s previous experiences was only recognized in Phase Two and scaffolding emphasizes collaboration between adults and children was only observed in Phase Three.
# TABLE OF CONTENTS

List of Tables ............................................................................................................ ix  
List of Figures ............................................................................................................. x  
Acknowledgments ........................................................................................................ xi  

## CHAPTER ONE: INTRODUCTION .................................................................

Background of the Study ......................................................................................... 1  
Purpose Statement ...................................................................................................... 2  
Infants’ and Toddlers’ Musical Development ......................................................... 3  
  The Musical Learning Environment ..................................................................... 5  
  Musical Interaction ............................................................................................... 6  
  Early Childhood Teachers and Children’s Learning ........................................... 8  
  Music in Early Childhood Programs ................................................................ 9  
  The Construct of Adult-Child Interaction ............................................................ 11  
  Roots of Interaction ............................................................................................. 11  
  Background on Scaffolding ................................................................................ 12  
Statement of the Problem ....................................................................................... 13  
Research Questions ................................................................................................. 14  
Significance of the Study ....................................................................................... 15  
Limitations of the Study ......................................................................................... 16  
Definition of Terms ................................................................................................. 16  

## CHAPTER TWO: REVIEW OF RELATED LITERATURE ......................

Theoretical Framework ............................................................................................ 19  
  Principles of Scaffolding ...................................................................................... 20  
  Teacher’s Role in Scaffolding ............................................................................. 23  
  Section Summary ................................................................................................. 25  
Application of Scaffolding in Children’s Learning ............................................. 26  
  Parental Scaffolding ............................................................................................ 26  
  Scaffolding in Early Childhood Classroom ....................................................... 32  
  Scaffolding in Music Education ......................................................................... 41  
  Section Summary ................................................................................................. 46  
Early Musical Experiences for Young Children ................................................. 48  
  Musical Interactions Between Adults and Young Children .............................. 49  
  Music in Early Childhood Education Programs .............................................. 56  
  Section Summary ................................................................................................. 69  
Summary of the Literature .................................................................................... 70  

## CHAPTER THREE: METHODOLOGY ....................................................

Research Questions ................................................................................................. 74  
Design of the Study ................................................................................................. 75
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification and Selection of the Participants.</td>
<td>76</td>
</tr>
<tr>
<td>Setting</td>
<td>76</td>
</tr>
<tr>
<td>Participants</td>
<td>78</td>
</tr>
<tr>
<td>Data Sources</td>
<td>79</td>
</tr>
<tr>
<td>Direct Observations</td>
<td>80</td>
</tr>
<tr>
<td>Participant-observations</td>
<td>82</td>
</tr>
<tr>
<td>Interviews</td>
<td>82</td>
</tr>
<tr>
<td>Documentation</td>
<td>84</td>
</tr>
<tr>
<td>Archival Records</td>
<td>85</td>
</tr>
<tr>
<td>Data Collection Procedures</td>
<td>85</td>
</tr>
<tr>
<td>Phase One</td>
<td>86</td>
</tr>
<tr>
<td>Phase Two</td>
<td>86</td>
</tr>
<tr>
<td>Framework of the Music Classes</td>
<td>86</td>
</tr>
<tr>
<td>Observations and Interviews</td>
<td>90</td>
</tr>
<tr>
<td>Phase Three</td>
<td>90</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>91</td>
</tr>
<tr>
<td>Data Verification</td>
<td>91</td>
</tr>
<tr>
<td>Data Triangulation</td>
<td>91</td>
</tr>
<tr>
<td>Investigator Triangulation</td>
<td>91</td>
</tr>
<tr>
<td>Strong Chain of Evidence</td>
<td>92</td>
</tr>
<tr>
<td>CHAPER FOUR: FINDINGS</td>
<td>93</td>
</tr>
<tr>
<td>Overview of the Methodology</td>
<td>93</td>
</tr>
<tr>
<td>Purpose and Research Questions</td>
<td>93</td>
</tr>
<tr>
<td>Design of the Study</td>
<td>94</td>
</tr>
<tr>
<td>Phase One</td>
<td>94</td>
</tr>
<tr>
<td>Phase Two</td>
<td>94</td>
</tr>
<tr>
<td>Phase Three</td>
<td>96</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>97</td>
</tr>
<tr>
<td>Participants</td>
<td>97</td>
</tr>
<tr>
<td>Selection</td>
<td>97</td>
</tr>
<tr>
<td>Description of the Setting</td>
<td>98</td>
</tr>
<tr>
<td>Description of Participants</td>
<td>99</td>
</tr>
<tr>
<td>Teacher Sarah</td>
<td>99</td>
</tr>
<tr>
<td>Teacher Yvonne</td>
<td>101</td>
</tr>
<tr>
<td>Teacher Brenda</td>
<td>102</td>
</tr>
<tr>
<td>Children’s Profile</td>
<td>103</td>
</tr>
<tr>
<td>Vignette of BabyRock Class Daily Activity</td>
<td>104</td>
</tr>
<tr>
<td>Results</td>
<td>106</td>
</tr>
<tr>
<td>Research Question One: Nature of Musical Interactions</td>
<td>107</td>
</tr>
<tr>
<td>Stage One: Initiation of the Interaction</td>
<td>108</td>
</tr>
<tr>
<td>Teachers’ Initiation of the Musical Interaction</td>
<td>109</td>
</tr>
<tr>
<td>Children’s Initiation of the Musical Interaction</td>
<td>112</td>
</tr>
<tr>
<td>Comparison Among Phases</td>
<td>114</td>
</tr>
<tr>
<td>Stage Two: Continuation of the Interaction</td>
<td>117</td>
</tr>
</tbody>
</table>
Recommendations ........................................................................................................206
For Future Research ...................................................................................................206
For Practice ..................................................................................................................210
Final Thoughts ............................................................................................................213
References ....................................................................................................................217

Appendix A: Observation Protocol .............................................................................228
Appendix B: Interview Protocols and Guiding Questions ...........................................231
Appendix C: Weekly Activities Experiences Plan .......................................................236
Appendix D: Data Collection Calendar and Procedure ...............................................240
Appendix E: Music Class Lesson Plans and Repertoire References .............................244
Appendix F: BabyRock Classroom Setting ..................................................................255
Appendix G: BabayRock Class Daily Schedule .........................................................259
Appendix H: Musical Materials in BabyRock Classroom ............................................261
Appendix I: Preauthorization Letter ..........................................................................263
Appendix J: Early Childhood Teachers’ Consent Form ..............................................265
Appendix K: Cover Letter and Parental Consent Form ..............................................269
LIST OF TABLES

Table 4.1  Children in the *BabyRock* Class......................................................104
Table 4.2  Initiation of the Interactions.................................................................109
Table 4.3  Continuation of the Interaction: Teachers’ Actions and Reactions..........118
Table 4.4  Continuation of the Interaction: Children’s Responses......................131
Table 4.5  Conclusion of the Interaction.................................................................138
Table 4.6  Scaffolding Principles Present in Musical Interactions .....................152
Table 5.1  Musical Interactions Analysis: Early Childhood Teachers..................179
Table 5.2  Musical Interactions Analysis: Children...............................................180
LIST OF FIGURES

Figure 5.1 Musical Interaction Process .................................................. 191
Figure 5.2 Engagement Within the Community of Learners During Music Classes .................................................. 198
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CHAPTER ONE

Introduction

Background of the Study

Music is a part of a child’s daily environment. Children hear music consciously and subconsciously from television, radio, CDs, toys, and instruments throughout the day as well as in various locations such as home, church, restaurants, and stores, and commonly while traveling in the car. For children, music seems to be everywhere and is an integral part of life.

The engagement of children with music in these various environments enhances their musical experiences at an early age (Feierabend, 1996, 2000; Fox, 1989; Gordon, 2003; Lerner & Ciervo, 2002; Suzuki, 1981). Parents and music teachers play an important role in children’s early musical experiences (Cardany, 2004; Levinowitz, 1999; Scott-Kassner, 1999). At home, parents often sing soothing melodies to calm distressed infants, chant rhymes to bond with young children, or rock their children’s bodies to the beat of the music they are hearing (Custodero & Johnson-Green, 2003; Fox, 2000; Rock, Trainor, & Addison, 1999; Suther, 2004). In specific music programs designed for young children, such as First Steps (Feierabend, 2000), Kindermusik (Denney, 2000), Music Play (Valerio, Reynolds, Bolton, Taggart, & Gordon, 1998), Music Together (Levinowitz & Guilmartin, 2000), and Musikgarten (Denton, 2000), music teachers conduct activities to attract children’s interest in music play and act as music models by singing, chanting, or moving for young children (Feierabend, 2000; Fox, 1989; Valerio et al., 1998). Through these musical activities, parents and music teachers enhance and increase young children’s musical experiences.
Importantly, many musical experiences seem to derive from the interactions of parents or music teachers and young children (de Vries, 2005; St. John, 2004). For example, when a parent sings a lullaby to induce an infant’s sleep, the parent may pat the beat on the infant’s back. Singing and patting by parents not only calm infants but also provide a musical experience and an opportunity for a musical interaction between the parent and the infant. In an early childhood music program, musical interactions also occur between the music teacher and the children. For instance, when the music teacher dances with music and serves as a music model in the class, a child may listen to the music, imitate the teacher’s movement, or create his/her own. Such a scenario presents musical involvement that may be seen as a part of musical interaction between music teachers and children. Apparently, it seems that musical interactions with parents and/or music teachers constitute a fundamental part of the musical experience for young children.

Notably, when young children attend childcare centers, their musical experiences may differ from those they experience in daily home care or in specific early childhood music programs. In childcare centers, caregivers may play music recordings at naptime for young children, sing songs to educate them about body awareness, or use finger play to engage them in group activities (Daniels, 1991; Tarnowski & Barrett, 1997). Therefore, musical interactions between the caregiver and the children in childcare centers may differ from those between parents and children at home and between music teachers and children in specific early childhood music programs.

**Purpose Statement**

Since an increasing number of young children are involved in early childhood
daycare programs due to family situations, such as single-parent households, both parents working outside the home, or parents being unable to take care of their young children during the day, more infants and toddlers are being sent to childcare centers (Forum on Child and Family Statistics, n.d.). In 2001, data from the U.S. Census Bureau showed that 61% of children ages 0–6 were in some form of non-parental childcare on a regular basis (U.S. Department of Education, 2001). Moreover, a 2002 survey reported that 24% of children ages 0–4 with an employed mother spent the greatest amount of time in center-based arrangements such as day care, nursery school, preschool, Head Start, or another childhood program (Survey of Income and Program Participation, 1985–2002). Overall, young children spent an average of 28 hours per week in child care; however, this average increased to 35 hours when the parents worked (U.S. Department of Commerce, 2000). As a result, early childhood teachers are the persons who take primary responsibility for caring for many young children. Consequently, early childhood teachers are now considered to be the adults most influential in constructing young children’s musical experiences and are in a position to play an important role in early childhood music education (Bredekamp & Copple, 1997; Nardo, 1996). Therefore, the purpose of this study was to explore the nature of musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program.

*Infants’ and Toddlers’ Musical Development*

The first three years of young children’s life are the period during which they start to develop their physical, intellectual, and social capabilities (Piaget, 1959). Consequently, infants’ and toddlers’ musical development also has been the subject of research. For example, infants are able to recognize, compare, and identify melodies, rhythmic patterns,
and timbres (Fassbender, 1996; Thorpe & Trehub, 1989; Trehub, Bull, & Thorpe, 1984; Trehub, Endman, & Thorpe, 1990; Trehub et al., 1997). Infants develop the capacity for imitating nursery songs or improvising their own melodies at preverbal infancy (Papoušek, 1996). Children can distinguish the human voice, and start to develop the ability to identify consonance and dissonance in infancy (Standley & Madsen, 1990; Wilkin, 1995; Zenter & Kagan, 1998). Toddlers begin to use their singing voice (Suthers, 2001) and kinesthetically respond to music (Surther, 2004). Briefly, these studies support the fact that young children’s musical development emerges in their first few years.

Researchers have postulated the notion that adults should understand the importance of infants’ and toddlers’ early musical development and the necessity of providing opportunities to enhance that development. In 1967, Project Zero was founded at the Harvard Graduate School of Education by Nelson Goodman and Howard Gardner (Gardner, 1989). One of the principal research findings was that children simply improve with age. For instance, a child emerges from music babble at infancy, then experiments with small melodic intervals at two years of age and finally begins to sing songs around age three. Thus, Gardner (1983) asserted that the development of children’s musical intelligence should be explored in their earliest musical experiences, and should be expected and encouraged in every culture at a very young age.

Gordon (2003), in his book, *A Music Learning Theory for Newborn and Young Children*, acknowledged that every child is born with some music aptitude, but “by the time a child reaches approximately age nine, his or her level of music aptitude can no longer be affected by the music environment” (p. 15). He emphasized that “[children’s musical development] should begin to be formed in early childhood, before a child is
eighteen months old and not later than three years of age. . .” (Gordon, 1999, p. 42).
Therefore, the sooner children begin to experience a rich musical environment, the sooner
their musical aptitude will begin to strengthen. In sum, it is important to understand
musical development of infants and toddlers, and value their early musical growth.

The Musical Learning Environment

Studies of children’s early musical experiences have considered the musical
learning environment and the music learning process that adults provide for young
children (Gordon, 2003; Ilari, 2005; Littleton, 1991; Moorhead & Pond, 1942; Sims,
2001, 2005; Temmerman, 1998). In the early 1940s, the Pillsbury Foundation undertook a
study of the music experience of young children (Moorhead & Pond, 1942). Based on
observations of children, the study reported that “[the child] collects a large number of
sensory impressions, sound and movement perception, from the outside world and he
experiments endlessly with his own capacities for sound and movement” (p. 6). Children
demonstrate their musical interest by using the music facilities and listening to music
prepared by adults (Sims, 2001, 2005); they tend to exhibit their curiosity about music
and show musical behaviors in music settings with a diversity of musical instruments and
CDs (Littleton, 1991). During this early stage, they are delighted with musical
experiences and involved in the musical learning environment created by adults.
Importantly, in order to foster young children’s music learning, adults are expected to
create a musical environment for children and understand how children learn music

For children, the early music learning process is similar to that for learning a
language (Gordon, 2003). When children learn a language, they first develop listening
vocabularies by hearing language spoken to them and around them. As they build speaking vocabularies, they begin to babble, imitating the sounds they hear and repeating the sounds others make. After they develop listening and speaking ability, they begin to learn how to read and write. Indeed, this learning process occurs in the typical environment of every child. Adults create an environment full of language for young children and respond to their attempts to use it. Also, adults demonstrate a language model, respond to children’s speech, and engage children in language conversation. The way children learn music is similar to this early language development (Gordon, 2003). Children develop musical vocabularies by hearing music around them; they make babbling sounds, imitate the music that they hear, and converse musically. Afterwards, they begin to read and write music. So to assist young children’s music learning, adults should provide a rich musical environment that allows children to hear a musical vocabulary. Adults should also be a musical model for children, initiate the use of music language, respond to children’s musical babble, and engage children in musical conversation (Gembris & Davidson, 2002). Therefore, adults are expected to create a rich musical learning environment and assist children in the music learning process by engaging with and responding to them.

Musical Interaction

The musical learning environment, and especially the interaction provided by adults, seems to nurture children’s learning (Davidson, Sloboda, & Howe, 1996; de Grätzer, 1999; Papošek, 1996). Parents and music teachers are seen as having important roles in engaging young children in musical interactions that facilitate children’s learning. Studies have shown that parents engage in some form of musical interaction with their
children beginning in infancy and that these activities include singing songs, listening to recordings, or playing instruments (Custodero & Johnson-Green, 2003; Custodero, Britto, & Brooks-Gunn, 2003; Hsee, 2006; Nakata, Shenfield, & Trehub, 2003; Vlismas & Bowes, 1999). Through the interaction process of singing, listening, playing, and moving, parents demonstrate musical sounds, exhibit musical behaviors, express emotions, and model improvisation (Davidson et al., 1996; de Vries, 2005; Standley & Madsen, 1990). Fox (2000), the director of an early childhood music program, identified the phrase, “parent as teacher” (p. 25). During the process of musical interaction, “the parental role was that of model and instructor for the child. Such frequent engagement and demonstration appeared to stimulate the child’s musical responses and explore her musical experiences” (Hsee, 2006, p. 21). Children observe their parents’ models, imitate their parents’ musical behaviors, respond to music stimuli, explore musical creativity, and discover the joys of vocalization (Davidson et al., 1996; Hewitt, 2001; Nakata et al., 2003; Standley & Madsen, 1990). Therefore, it is believed that musical interaction with parents is the foundation of children’s musical learning.

In addition, music teachers can play a role in musical interaction not only in designing music lessons to facilitate children’s learning but also in devoting time to preparing an environment that encourages parents’ participation in musical interaction with their children (Feierabend, 2000; Fox, 1989; Levinowitz & Guilmartin, 2000; Valerio et al., 1998). When children attend specific early childhood music programs such as Kindermusik, Music Together, Music Play, and Musikgarten, music teachers initiate musical interactions with children based on the children’s interests, age, and stage of musical development (Feierabend, 2000; Valerio et al., 1998). Through their interaction
in music activities, children’s language development, cognitive development, social interaction, self-expression, and imagination are promoted (Denney, 2000; Denton, 2000; Levinowitz & Guilmartin, 2000; Valerio et al., 1998). In addition, by arranging a musical environment and acting as musical role models, music teachers offer the opportunity for parents and young children to share a variety of musical experiences. In sum, the specific early childhood music programs that are designed by music teachers enable “parents to involve children in active and expressive modes of music making, which is singing, moving, and playing sound-making objects, including instruments” (Fox, 2000, p. 25). As de Grätzer (1999) stated, when parents and their children participate in music classes together, the musical activities provide parents with an opportunity to interact musically with their children and become aware of their children’s music learning process and music development. Such engagement in music activities is guided by the belief that the interaction between teachers, parents, and young children is a fundamental source of musical experience for children. Therefore, early childhood education has emphasized the significance of these interactions as essential components of childhood learning (Bronfenbrenner, 1979; Piaget, 1959; Vygotsky, 1978).

**Early Childhood Teachers and Children’s Learning**

In addition to the parents’ and music teachers’ contributions to young children’s learning, teachers in early childhood programs play a role and devote time to constructing children’s music learning (Bredekamp & Copple, 1997; Nichols & Honig, 1995; Rogoff & Gardner, 1984). Early childhood teachers are not only responsible for the physical well-being of young children, (e.g., feeding, diaper changing), but also in organizing a learning environment (e.g., selecting educational toys for them). The National
Association for the Education of Young Children (NAEYC) identified the importance of the early childhood teacher’s role in preparing the classroom environment with appropriate, stimulating, and challenging activities in order to facilitate children’s engagement and learning (Bredekamp & Copple, 1997).

Early childhood teachers are also expected to provide a musical environment that will enhance musical experiences for young children. In particular, NAEYC recommends that early childhood teachers frequently sing to infants and sing with toddlers, select music that young children enjoy, and “provide [young children] with an auditory environment that is not over-stimulating or distracting” (Bredekamp & Copple, 1997, p. 74). In sum, early childhood teachers are expected to create a musical environment and provide appropriate music activities for young children. Thus, in addition to the role of parents and music teachers in musical interaction with young children, early childhood teachers are expected to contribute to young children’s musical experiences in a way that is similar to the parent-child musical interaction at home or the music teacher-child interaction in a specific early childhood music program.

Music in Early Childhood Programs

It is noteworthy that the majority of music instruction in early childhood education programs seems to be led by classroom teachers (Nardo, 1996; Nardo, Custodero, Persellin, & Fox, 2006), and it is “the [early childhood] classroom teachers who are largely responsible for conducting music activities, determining the frequency of music involvement, designing and organizing the music activities, and offering instruction in the regular classroom” (Golden, 1992, p. 16). By playing instruments, singing, listening, moving and dancing activities planned by early childhood teachers,
young children have opportunities to hear more music in daily life (Suthers, 2004). In short, early childhood teachers often offer musical experiences for young children in early childhood programs.

In addition, some early childhood programs hire music teachers to offer music classes for young children (Daniels, 1991; Nardo et al., 2006; Tarnowski & Barrett, 1997; Temmerman, 1998). It is believed that “due to the increasing amount of children under the age of five [who attend childcare centers], the music education profession now has the opportunity to have a more positive and direct influence over the musical growth of young children” (Daniels, 1991, p. 30). Music teachers who are trained in early childhood music education value the significance of early musical experiences, comprehend musical content and understand children’s musical behaviors, and are therefore thought to be able to provide an appropriate musical learning environment, including activities design, material selection, and teaching instruction for young children (Daniels, 1991; Levinowitz, 1999; Scott-Kassner, 1999; Temmerman, 1998).

Moreover, de l’Etoile (2001) indicated that music teachers not only provide appropriate musical experiences for young children but also influence early childhood teachers’ musical practice. It has been recognized that early childhood teachers’ observation of music classes, participation in activities, and communication with music teachers enable them to use these experiences in their classroom (de l’Etoile, 2001; Nichols & Honig, 1995; Tarnowski & Barrett, 1997). Thus, 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 with creating a musically-rich environment in which young children can explore musical experiences and enhance their
learning.

The Construct of Adult-Child Interaction

Theoretically, children’s learning experiences are not based on their development alone; rather, it is their interaction with others in the environment that guides children to learning experiences (Bodrova & Leong, 1998; Bruner, 1985; Vygotsky, 1978). Lev Semenovich Vygotsky (1896–1934), a Soviet-era educational psychologist, believed that children’s learning is based on their social activity. The interaction of teachers and young children in an early childhood education program provides an interrelationship of socialization for children. More specifically, children’s learning occurs when adults interact with them through modeling, directing their attention, asking questions and giving encouragement (Bodrova & Leong, 1998; Radziszewska & Rogoff, 1991; Vygotsky, 1978). Similarly, “. . . children must not be left to develop musically on their own . . . [Children] must be guided through music acquisition by more musically knowledgeable caregivers and peers” (Valerio, 2005, p. 106). Therefore, children’s musical learning often occurs when they interact with adults.

Roots of Interaction

The theories of adult-child interactions have been well documented by the sociocultural-historical view of human development, especially by Vygotsky, who offered an important framework for studying the contexts of interaction. Vygotsky (1978) asserted that “human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them” (p. 88). Central to this theory is the idea that children’s participation in activities with the guidance of adults or in collaboration with more capable peers stimulates children’s developmental
processes and fosters learning growth (Shunk, 2004). Indeed, children’s learning occurs in the **zone of proximal development (ZPD)**, which, with the structured interaction of more skilled partners, allows children to internalize the tasks for thinking and problem-solving from the actual developmental level to the potential developmental level (Bruner, 1985; Rogoff & Gardner, 1990). Importantly, the term *scaffolding* is linked to the discussion of structured interaction within the ZPD of the adult-child collaboration in the learning environment, and teachers are expected to be the more skilled partners.

**Background on Scaffolding**

Scaffolding is a process of construct cognition (Sodeman, 2005). “The term ‘scaffolding’ is currently used in education to describe how an expert can facilitate a learner’s transition from assisted to independent performance” (Bodrova & Leong, 1998, p. 3). It refers to the interactional support that adults or more capable peers provide to enable children to perform a skill or master a concept at their current skill level and then proceed to the next level (Bransford, Brown, & Cocking, 2000). As first introduced by Wood, Bruner, and Ross (1976), the metaphor of scaffolding has been applied in adult-child interactions as an important component of tutoring. Stone (1998) noted that Cazden (1979) was the first to make an explicit reference to Vygotsky’s work in connection with the term scaffolding. Moreover, Radziszewska and Rogoff (1991) elaborated on the Vygotskian perspective of scaffolding and concluded that “children learned more from collaboration involving skilled planning, systematical guidance, and participation with adults . . .” (p. 381). Scaffolding applies to the teacher-child interaction in the learning environment and is one way to explain the role of adults in guiding children’s learning and development.
Statement of the Problem

Scaffolding has been implemented widely in many content areas in early childhood education, such as in play, visual art, literacy, reading, language, conceptual understanding, and science. Several studies have investigated various aspects of scaffolding. Some have examined how scaffolding benefits children’s learning (Coltman, Petyaeva, & Anghileri, 2002; McLane, 1981; Pence, 2004). Some studies have observed how parents scaffold children’s understanding (Chin, 1995; Choi, 1992; Moretti, 2001). Other studies have looked at early childhood teachers’ effectiveness in using scaffolding to teach children (Price-Rom, 1999; Tarr, 1992). Among these studies, research on teacher-child interaction, based on Vygotsky’s theory, has focused on the process of how early childhood teachers can scaffold children’s learning and children’s progress (Breig-Allen, 2001; Creech & Bhavnagri, 2002; Tarr, 1992). For example, in a study by Creech and Bhavnagri, teachers applied scaffolding interactions to assist children in developing their capacity for symbolic thought. During the interaction, teachers used the scaffolding processes of reviewing familiar information, structuring the sequence of thinking steps, and discussing the problem. As a result, children expanded their sense of creativity and achieved a higher level of symbolic understanding. In general, through scaffolded interactions with teachers, parents, and other children, children actively develop new cognitive abilities (Jacobs, 2001).

However, it was unclear whether the musical experiences that young children receive from early childhood programs are related to the teacher-child scaffolding of musical interactions. In particular, as an increasing number of young children have become involved in early childhood daycare programs, it is important to determine
whether the musical interactions in which early childhood teachers engage contribute to the scaffolding of young children’s musical experiences. Therefore, the current study depicted musical interactions among early childhood teachers and young children in daily activities; the study also identified the use of the teachers’ principles of scaffolding.

Furthermore, since more music teachers have been providing music classes for young children in early childhood programs, early childhood teachers seem to have benefited from observing music classes and communicating with music teachers (de l’Etoile, 2001; Nichols & Honig, 1995; Tarnowski & Barrett, 1997). In the present study, I served as a music teacher and provided a scaffolded interactional model (Hsee & Rutkowski, 2006) in music classes. Therefore, early childhood teachers’ musical interaction with young children and perceived changes during music classes were observed and recorded as well.

**Research Questions**

Two primary research questions were posed to guide this study:

1. What is the nature of the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

2. What principles of scaffolding are present in the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

These questions were investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended. In addition, changes in the behaviors of early childhood teachers and children and the ways in which they interacted during the music classes
were of interest.

**Significance of the Study**

This study contributes to the field of young children’s musical learning by building on Vygotskian scaffolding principles and providing information on perspectives of musical instruction in an early childhood daycare setting. By investigating the musical interactions that infants/toddlers experience with teachers in an early childhood daycare program, this study enhances educators’ understanding of young children’s early musical experiences as well as provides information about how teacher-child musical interactions can be scaffolded. This study also may support the need for music classes for young children in early childhood daycare programs.

Additionally, music is a crucial component of artistic expression for young children. Gardner (1993) emphasized that having earlier musical experiences not only develops children’s music intelligence but also helps more generally to stimulate children’s curiosity and sensitivity, encourage further aesthetic exploration, and foster the imagination and mind. Through experiences derived from musical interactions with teachers, children may gain positive attitudes toward learning in general and a better understanding of and greater skills in creativity and self-expression. Therefore, the musical scaffolding interaction and interaction status documented in this study can be transferred to other areas in the arts associated with monitoring the development of young children.

In summary, this study supports and clarifies further advances in early childhood music education and the use of scaffolded interactions in the practice of music instruction and young children’s early music learning.
Limitations of the Study

Since this study was conducted at a university-based early childhood daycare program, several limitations can be defined. First, the early childhood daycare center is located on a university campus in Central Pennsylvania; the majority of the parents of the children are university faculty, staff, and graduate students (G. A. Guss, personal communication, August 8, 2006). Thus, the learning environment of this daycare center may not demonstrate typical early childhood class situations, teachers, or children. Accordingly, results from the present study may not be generalizable to all early childhood daycare programs. Second, this study was limited to one class of infants and toddlers led by three early childhood teachers. Assuming the early childhood teachers had different musical backgrounds and training, the quality of their musical ability (e.g., to sing in tune) was not considered as a factor influencing the interaction between teachers and children. The accuracy of the music model is important, but it is not the focus of the study. Consequently, notations of teachers’ and children’s musical responses throughout this document are not necessarily transcribed at the exact pitch level performed. Third, since the study only presents a picture of the participants during the period of time they were being observed, it is not expected that the data fully represent all of the various types of interactions that occur between all teachers and children throughout the day.

Definition of Terms

The following definitions are offered to provide clarification of the terminology used in this study.

Early childhood program—Any group program associated with a center, schools, or other facility that serves children from birth to eight years of age, including daycare
centers, nursery schools, preschools, kindergartens, and primary grade schools
(Bredekamp & Copple, 1997).

Early childhood teacher—An educator who received professional training in early childhood education. He or she takes primary responsibility for a group of young children in an early childhood educational program (Bredekamp & Copple, 1997).

Musical experience—The music knowledge, skill, or practice derived from direct observation of musical sound or participation in musical activities (Merriam-Webster’s Collegiate Dictionary, 1993).

Scaffolding—A metaphor used to illustrate that teachers provide children particular assistance by “joint participation, negotiation, and engagement in an activity, together with the teacher monitoring and maximizing the child’s participation in the activity by carefully modulating the type of assistance given and withdrawing the amount of adult assistance provided” (Winsler, 2003, p. 258) to facilitate children’s level of understanding.

Young children—Children’s learning and development are categorized by their mobility and age range. “The overlap in ages presents the importance of individual differences among young children’s rates of development” (Bredekamp & Copple, 1997, p. 56).

1. Infant—is a child in the earliest period of life between birth and 18 months, who has not yet or has just begun to walk or talk.

1.1. Young infant—is a child between birth and 9 months of age. The child needs security most of the time. In this stage, the child often shows
“pleasure and involvement with adults through looking, joyful smiling and laughing, arm and leg movements and other gestures” (p. 57).

1.2. Mobile infant—is a child between 8 and 18 months of age. The child is often curious and on the move. In this stage, the child develops small-muscle skills as he or she grasps, drops, and pulls, and large muscles as she or he creeps, crawls, and climbs up.

2. Toddler—is a child between the ages of 16 and 36 months. During this period, the child learns how to walk, talk, and develop social and motor skills.
CHAPTER TWO

Review of Related Literature

This review of the literature is organized into four sections. In the first section, the theoretical framework, the Vygotskian-derived principles of scaffolding and teacher’s roles, are presented. The second section contains a review of the literature related to the applications of scaffolding in children’s learning, i.e., parental scaffolding, scaffolding in the early childhood classroom, and scaffolding in music education. The third section is an investigation of the early musical experiences for young children, including musical interactions between adults and children, and music in early childhood programs. A summary is presented for each section. The final section contains an overall summary and review of how the research relates to this study.

*Theoretical Framework*

The conceptual basis for studying scaffolding in the interaction process stems from Vygotsky’s (1971, 1978) view of socio-cultural theory in which children’s learning comes from social interaction. Vygotsky (1978) 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 development level of performance and assists in their movement to the next higher level.

Principles of Scaffolding

Several important principles of scaffolding have been pointed out by researchers (Berk & Winsler, 1995; Bransford at al., 2000; Daniels, 2001; Ellis, Larkin, & Worthington, n.d.; Rogoff, Matusov, & White, 1996; Stone, 1998). These are summarized below.

1. **Scaffolding consists of an appropriate structure.** 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.

2. **Scaffolding is achieved from intersubjectivity.** Newson and Newson (1975) stated 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 (Berk & Winsler, 1995). 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.

3. **Scaffolding promotes self-regulation.** By encouraging children to participate in activities, adults need to relinquish assistance and control as soon as children can work independently (Berk & Winsler, 1995). This means that adults should allow
children to regularly engage in activity and permit them to experiment with questions and problems, only providing assistance when needed.

4. **Scaffolding emphasizes collaboration between adults and children.** “Scaffolding is a process of transformation of participation in which both adults and children contribute support and direction in shared endeavors” (Rogoff et al., 1996, p. 389). 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).

5. **Scaffolding begins from children’s previous experience.** Although children need to engage in challenging tasks that they can successfully complete with appropriate help (Vygotsky, 1971), 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).

6. **Scaffolding presents a learning model for children.** 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. As Mehan (1997) reported in his study, different models show that children learn differently in different situations and in a variety of ways; non-verbal modalities are functional in scaffolded instruction, which is an essential component of modeling.
7. The scaffolding process provides internalization. Vygotsky (1978) stated that “every function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts” (p. 57). Vygotsky believed that children’s learning comes from a variety of interactions with others, such as teachers or siblings. After children receive information from others, they internalize this information, which then becomes their own thoughts. Once children internalize this information, they can use and guide their own actions and accomplish skills on their own (Van der Veer & Valsiner, 1991). Therefore, the internalization process is based on scaffolded interactions with others.

8. Scaffolding includes appropriate tools and signs. 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).

9. Scaffolding is temporary instruction. As children become capable of completing tasks, mastering skills, and internalizing experiences, adults gradually reduce the supports provided (Ellis et al., n.d.).

10. Scaffolding assists groups and individuals. Although in early studies researchers
argued that the application of scaffolding is difficult to implement in the classroom, Stone (1998) suggested that scaffolding can be utilized in individual and group settings depending on the appropriateness of the teacher’s instruction and the sequence of its structure.

In sum, these principles provide the guidelines for scaffolding. Regardless of explicit theoretical orientation, scaffolding presents a learning and teaching process for young children and adults.

Teacher’s Role in Scaffolding

While scaffolding emphasizes how adults’ interaction in general can contribute to children’s learning, the teacher’s role in scaffolding is outlined as an important feature in the teacher-child relationship. Vygotsky (1971, 1978) indicated that scaffolding as a form of adult assistance helps children achieve goals or practice skills that would be beyond their unassisted ability. When implementing scaffolding principles in early childhood activities, teachers play the essential roles of observer, facilitator, and supporter (Yang, 2000). Several main characteristics of the teacher’s role in scaffolding include the following.

1. Guiding the child’s participation in activities. According to Emihovich and Souza Lima (1995), “Because of Vygotsy’s influence, we are now hearing more about such concepts as cognitive apprenticeships. . . the teacher (or more capable adult or peer) plays a critical role in guiding the child’s participation in activities intended to increase his or her understanding of a particular concept” (p. 378). In other words, scaffolding requires teachers to provide an opportunity to engage children’s interest and motivate their learning.
2. Providing leadership. Teachers play a leadership role by helping children focus on the task. Göncü and Rogoff (1998) noted that when adults took the lead, children seemed to be involved in the activity. Although children are discouraged from following the adult’s thinking and instruction, adults still guided the children’s learning and thinking.

3. Conceptualizing the task and new skills. Children’s understanding of a new task and proficiency in acquiring new skills arise through ongoing interaction with teachers (Stone, 1998). In order to guide children in understanding the concept of a task or achieving a goal, teachers provide appropriate strategies in conceptualizing the new skills. Importantly, teachers should be aware of the children’s level of development, which includes cognitional, mental, physical, and social skills.

4. Demonstrating a learning model. Children can learn through a variety of methods, including lecture, manipulation, discussion, and especially observation. 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).

5. Providing an appropriate emotional manner in the interaction. Berk and Winsler (1995) indicated that “children’s engagement with a task and willingness to challenge themselves are maximized when collaboration with the adult is pleasant, warm, and responsive and the adult gives verbal praise and attributes competence to the child, as appropriate” (p. 29). It is necessary for teachers to provide appropriate emotional verbal expression and body gestures, such as smiling, when
interacting with children.

In summary, by engaging children in the scaffolded learning process, adequately monitoring direction, transmitting the appropriate information, modeling successful performance, and interacting with positive manners, teachers create a supported situation in which children extend their current skills and understanding to a higher level of competence and comprehension.

Section Summary

Knowledge of the principles of scaffolding and the teacher’s role in scaffolding support teaching using scaffolding in children’s learning. Outlining the principles of scaffolding gives this study a central framework to guide teaching and learning practice. While scaffolding promotes children’s self-regulation and provides internalization of information, it is important to value the scaffolding process in which a child begins a task with a different understanding and ultimately achieves the same level of understanding with a teacher. In addition, scaffolding can be used in group and individual learning situations. Effective scaffolding principles may include provision of an appropriate structure, selection of useful tools and signs for children, demonstration of a learning model, and collaboration between the teacher and the child during the process. Teachers must recognize that scaffolding is a temporary instructional tool and should establish the scaffolding process as they lead children from past experience to new knowledge and skills. Overall, the principles of scaffolding emphasize the process through which teachers adjust their support to the child’s current developmental level.

While facilitating learning, teachers must be sensitive to children’s developmental levels and needs. Teachers focus on children’s involvement in the scaffolded learning
process by arranging learning activities and structuring appropriate guidance. They also provide appropriate interactions, including modeling and feedback, with an encouraging manner. To summarize, the framework of scaffolding contains principles for adults to use in assisting children to develop higher-level skills.

**Application of Scaffolding in Children’s Learning**

Research on scaffolding in early childhood education has been conducted in various content areas. Three categories of scaffolding in early childhood education have received attention: parental scaffolding, early childhood teachers’ scaffolding, and music teachers’ scaffolding. These studies have acknowledged the use of scaffolding in assisting children to learn in different settings, such as the home, classroom, and laboratory. The paragraphs that follow review the scaffolding strategies that apply to early childhood education and how scaffolding encourages higher levels of learning in children.

**Parental Scaffolding**

Since parents are young children’s first teachers, their role in scaffolding with children and the possible effects of this scaffolding on early childhood education seem important. Researchers have investigated the effects of parental scaffolding by comparing parent-child and child-child pair interactions and categorizing the process and the strategies that were used.

*Choi (1992).* Choi examined the relationship between mothers’ and older siblings’ scaffolding strategies in young children’s play. Choi observed 32 children aged 37 to 48 months in a university laboratory playroom under two conditions: (a) playing with their mothers and (b) playing with an older sibling. Choi found that mothers are more capable of scaffolding children’s play than are older siblings.
According to Choi, the scaffolding strategies that mothers used were more likely to “offer a choice of materials or play topic, to attempt to involve the child in joint decision making about the interaction . . . and to provide steps or a negotiated sequence by which the play might proceed” (p. 116). In addition, mothers tended to use utterance praise and encouragement to maintain children’s interest and engage them in the interaction. In contrast, older siblings lacked the ability to keep their younger sibling interested and engaged in the interaction. Choi concluded that “mothers offer their children necessary guidance; with this special support of mothers, the child performs play which he or she does not yet fully understand” (p. 132).

The study verified assertions made by Vygotsky (1978) in his discussion of the theory of scaffolding. Vygotsky claimed that “more experienced members of the society guide children as they initiate and maintain the activities” (p. 132). According to Choi, two elements were considered as initial components of parental scaffolding: using a variety of strategies to engage children in the interaction and providing the necessary guidance.

McLane (1981). McLane compared the scaffolding process of child-child and mother-child interactions when they played with puzzles. McLane outlined three steps of the scaffolding process used: 1) look at the model puzzle; 2) select and pick up an appropriate piece; and 3) place the piece in the correct location in the copy puzzle. Older children tended to provide direct assistance to younger children; for example, older children gave the correct puzzle piece to younger children or placed a piece in the puzzle for them. In contrast, mothers tended to provide indirect guidance both verbally and non-verbally. For example, one mother said to her child, “What color do we need now?”
or a mother pointed to the puzzle and nodded her head. Younger children were more involved in the three steps of playing with puzzles while interacting with their mothers. McLane suggested that mothers may more fully understand what their child’s needs are and are therefore more capable of providing appropriate indirect guidance.

McLane concluded that when compared to older children (who took too much task responsibility to allow younger children to complete the task), mothers’ verbal and non-verbal indirect guidance not only engaged the children more in the task, but also provided step-by-step instruction to scaffold children’s thinking.

Pence (2004). Pence examined 30 mothers’ use of scaffolding and verbal support to assist infants’ or toddlers’ understanding of the complex concepts of a story. Pence recorded the utterances that these mothers used when reading a storybook to their young children. Pence found that although each individual mother had her own interaction style, the scaffolding interaction patterns could be generalized among mothers. Overall, the most popular strategy that mothers used to scaffold children’s understanding of complex concepts was to relate the concept to experiences familiar to the child. Before mothers introduced new concepts to their children, they tended to talk about or describe an earlier experience that children had. Interestingly, “ask[ing] open-[ended] questions” (p. 64) was the least frequent scaffolding strategy used to guide the children. It seems that mothers do not think that asking questions is an appropriate strategy to use when interacting with infants and toddlers.

Pence’s study provided a scope for verbal guidance in scaffolding. Although this study focused on the utterances used by mothers to scaffold children’s learning, it lent support to the belief that young children’s experience could be scaffolded into complex
concepts.

Moretti (2001). In order to examine what parents do to scaffold their children’s reading development, Moretti surveyed 135 parents of five-year-old children and observed 46 parents’ scaffolding strategies while they read books to their children. The interaction of each parent-child pair were coded into a “Scaffolding Framework” designed by the researcher. According to Moretti, the “Scaffolding Framework” was based on the principles of scaffolding outlined by Vygotsky, which included levels A to G: “ignore, try again, suggestion, hint, specific clue, almost supply, and supply” (p. 80). Moretti reported that although parents may not know if their interactions with children are effective, parents do indeed exhibit the principles of scaffolding during interactions with their children. The results showed that the most frequent parental interaction was at level G (supply), followed by level B (try again). Moreover, when parents followed a hierarchy of scaffolding, the average of children’s successes at each level tended to increase. Moretti concluded that when parental responses were consistent with the principles of scaffolding, parents offered significant support to children’s reading skills.

Moretti provided evidence that although parents may not understand the appropriate level of scaffolding that would help children successfully achieve the goal, parents, in general, included some forms of scaffolding strategies while interacting with their children. It was suggested that parents could be taught how to use different levels of scaffolding to increase children’s learning.

Chin (1995). Based on Vygotsky’s notion of the zone of proximal development and the concept of scaffolding, Chin investigated the pattern of scaffolding-related interactions and strategies used by Taiwanese mothers with their young children during
their play time. Chin observed 30 pairs of mothers and their children aged 2–4 years old in a toy-lending library. She categorized mother-child interactions into five types of “scaffolding-related interaction” (p. 7).

1. **Scaffolding interaction**: An optimal form of play interaction in which the mother adjusts her input by suggesting or demonstrating a level of play activity that is higher than the child’s preceding behavior, and the child responds to maternal input by performing at a higher level of play.

2. **Ineffective scaffold**: A type of play interaction in which a higher level of maternal input fails to elicit a higher level of play behavior from the child.

3. **Non-scaffold**: A play situation in which the mother provides either the same or a lower level of input than that of her child’s preceding play behavior, regardless of the level of child play that is induced.

4. **Untriggering assistance**: The type of play interaction in which the child’s play behavior is not thematically relevant to the preceding maternal input. Hence, the child’s play responses are not triggered by maternal input.

5. **General positive support**: Mothers respond to the child’s play behavior in a general and positive way, such as nodding, smiling, providing positive comments, making contingent responses to the child’s inquiries, or repeating the child’s words (p. 7).

In the first phase of this study, Chin found non-scaffolding interaction most likely to engage mothers and children. Mothers of 4-year old children were more likely to provide the same or a lower level of play input than did mothers of younger children. But when mothers presented scaffolded interaction, children regardless of their ages tended to
move to a higher level of play.

In the second phase, Chin documented the scaffolding strategies that mothers used to interact with their child. In general, direct guidance, demonstration, manipulation, collaboration, and negotiation were the strategies that mothers used to scaffold children’s play. The results showed that as the child’s age increased, mothers were less likely to use direct guidance and modeling. Rather, they incorporated and negotiated children’s ideas. In addition, linking the child’s familiar experiences and skills to the new situation was a common strategy.

According to this study, mother-child interactions were more associated with non-scaffolding; however, if mothers demonstrated scaffolding strategies, children moved to a higher level of learning. In addition, Chin indicated that mothers apply different strategies to scaffold learning depending on the child’s age. Mothers tended to use more indirect strategies to scaffold as the child grew older.

Summary

The results of studies on parent-child and child-child paired interaction provide evidence that parents serve as effective scaffolders to support their children’s learning. Since parents were more able to understand what their children needed, they were capable of using a variety of strategies to scaffold children’s learning and engage them in the task (Choi, 1992; McLane, 1981). When parents applied scaffolding strategies to facilitate children’s learning, the children exhibited a more complex level of content understanding.

In general, the scaffolding strategies that parents used to guide children’s learning included verbal and non-verbal cues (Choi, 1992; McLane, 1981; Pence, 2004). For
verbal guidance, parents were more likely to give utterance praise, explicit direction, and explanations that linked the current activity to the child’s past experience. For non-verbal guidance, parents relied on physical gestures, demonstrations, and manipulation that were linked to the task. In addition, the previous study found that scaffolding can be used at any age, even as young as infancy (Pence, 2004). As shown by Chin (1995) and Pence (2004), parents applied different strategies related to the children’s age, for instance, parents tended to use indirect guidance when interacting with older children.

In sum, scaffolding strategies provide the level of guidance appropriate to the ability of the child. Importantly, the use of scaffolding strategies relies on adults’ understanding of their children’s learning ability. Thus, these studies of parental scaffolding appear to support the theoretical claims made by Vygotsky (1978).

_Scaffolding in Early Childhood Classroom_

Teaching is viewed as an interactive process in which teachers work with the child using various strategies to help the child achieve his or her potential (Berk & Winsler, 1995; Wertsch, 1984). Most of the teaching and learning in early childhood classrooms takes place through interaction. 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. Teachers cannot leave children to discover the world alone in ‘free play’ if this is interpreted to mean nonparticipation in the child’s activities. It is through participating and sharing another’s frame of reference that children learn. Teachers need to have time for interaction and conversation with children in
one-to-one situations and relatively small groups. (p. 56)

Therefore, teachers need to be involved in a dynamic interactive relationship with children through sensitive adjustment to children’s abilities and accessibility in providing scaffolding to extend the children’s level of development. To better understand the benefits of scaffolding in early childhood education, studies of the teachers’ understanding of scaffolding, implementation of scaffolding in classrooms, and use of scaffolding strategies were reviewed.

Price-Rom (1999). Price-Rom surveyed 21 early childhood teachers in Russia to gauge their understanding of Vygotskian child development theory. She also observed their daily interactions with children in order to see how they manifested their understanding of Vygostky’s theories. Through interviews and observations, Price-Rom found that Vygotskian theory forms the core of instructional theory in Russian early childhood education. Vygotsky’s theory is applied in early childhood classroom practice in the following ways.
1. The teachers’ adoption of Vygotsky’s theory into their actual classroom depends on the children’s learning situation.
2. The majority of activities and lessons are directed by the teachers.
3. The teachers’ guidance often follows the children’s interests.
4. Teachers used scaffolding in their teaching to a very high degree.
5. Modeling is the scaffolding instruction that teachers most frequently used.
6. Individualized instruction was considered an important factor while interacting with young children.
7. Teachers are “aware of the importance of varying instruction with children’s
ability level and/or age” (p. 154).

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. Indeed, all of the teachers agreed that scaffolding impacted their teaching method significantly and was the practice they utilized most in their classroom. For these teachers, the value of scaffolding was in the fact that they could pay attention to individual students and provide instruction according to a child’s ability. Price-Rom commented that “[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.

Most early childhood teachers in Russia value Vygotsky’s theory and were able to implement the theory in their classrooms. Importantly, modeling and focusing on individual students were the main scaffolding strategies employed. Although many activities were led by teachers, children’s interests drove the lesson planning process. In addition, in order to create an effective learning environment, it was found that teachers must be acutely observant and aware of what children can do and what they understand.

Coltman, Petyaeva, and Anghileri (2002). In order to determine the effectiveness of scaffolding in early childhood education, Coltman et al. designed a study to compare different teaching strategies. Based on the notion of Vygotsky’s scaffolding and working within the child’s Zone of Proximal Development, Coltman et al. hypothesized that “using wooden blocks with appropriate adult interaction would increase the effectiveness of the learning process and lead to an enhanced development of secure and transferable
concepts related to shape and space” (p. 42). They designed a pretest-posttest experimental study to compare two groups of children aged 4–6 years who were playing with 3D blocks. In the control group no adult interaction was offered to the children, while the experimental group received adult interaction that included feedback, encouragement, reinforcement, and appreciation during the six days of play time. Researchers found no significant improvement in the control group after the intervention. In contrast, the experimental group showed significant improvement in that the majority of children could successfully complete tasks. The study concluded that “the provision of graded levels of adult support (scaffolding) substantially improves the effectiveness of learning. . .” (p. 48). The researchers explained that “children alone cannot reliably ‘discover’ all the important and necessary knowledge and methods of action solely through manipulating the blocks” (p. 48).

Apparently, adult scaffolding led children to transfer their skills and knowledge to new circumstances and thus to achieve a successful solution. This study illustrated an understanding of scaffolding used in the early childhood setting and acknowledged that children learn more effectively through carefully structured interactions with adults.

*Murphy and Messer (2000)*. Murphy and Messer 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—to examine children’s experience in transferring knowledge between subject areas. One-hundred-twenty-two children aged 5–7 were divided into small groups and assigned to one of three strategies. The researchers provided a set of wooden beams and a
fulcrum to each child, and asked him/her to balance the beams on the fulcrum. In the scaffolding group, adults used explicit explanations, modeling, hints, and questions to guide the children. As the session progressed, the explicit became more implicit, as more hints and questions were used. In the group discussion, children and an adult were seated at the table and manipulated the fulcrum. The adult encouraged the children to discuss or explain how they were able to balance the beams. In the work-alone group, children were asked to see if they could balance the beams while making the beams stay level. The finding indicated that scaffolding was the most effective strategy to help children produce transferable knowledge. 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 explicit explanations, modeling, hints, and questions were seen as more effective strategies to scaffold children’s understanding.

Yang (2000). In accordance with Vygotsky’s belief that “human development involves social interactions, and planned instruction can play a major role in the nurturing of children’s mental processes” (Yang, 2000, p. 9), Yang designed an instructional model called the Verbal Plan and Evaluation (VPE) program. The program 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, direct problem statements, and encouragement to facilitate children’s learning. Also considered were the ways in which teachers supported children’s thinking and actions through appropriate language, gesture, listening, and prompting.

Yang postulated that the sequence of scaffolding moves from planning to doing and to evaluating how scaffolding assists children to move from lower to higher levels of verbalization. Early childhood teachers set up the scaffolding situation and adjusted the process based on their evaluation. Although this study focused on language development, the teacher’s plan, teaching process, and evaluation connected regardless of content area. Moreover, 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 problem statements, 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.

*Tarr (1992).* Tarr examined the relationship between the teacher-child interaction and children’s artistic activity. Over two years, she observed and documented 2-year-old children using art materials and how they constructed meaning about making art through
interactions with early childhood teachers in a preschool program. Through field notes and interview transcript analysis, Tarr defined how three major categories of teacher-child interactions contributed to children’s learning: “being there, verbal interactions, and scaffolding” (p. 187).

She defined “being there” as non-verbal behavior which served a variety of purposes such as attracting children’s attention or interest, providing support and encouragement, and demonstrating or modeling actions. In the early childhood setting, “the presence of a teacher [being there] . . . provided support and validity for the activity. It also provided a context for the interaction to occur” (p. 162). Tarr found children were involved more in the art activity when the early childhood teachers were present. Tarr assumed that the actions of early childhood teachers—for example, non-verbal behavior, such as a smile and a hug—led young children to feel more secure and willing to participate. “Verbal interactions” meant teachers use language to monitor children; for example, asking children questions, or giving them direct instructions. Tarr indicated that when an early childhood teacher interacted with young children verbally, children were more likely to imitate the teacher’s words and phrases or reconstruct the teacher’s question. In addition, according to Tarr, scaffolding occurred when the “teacher turns the task over to the child to do” (p. 174) using verbal interaction and non-verbal behavior. During the scaffolding process, young children did not accept the teacher’s guidance all the time; sometimes they ignored the teacher’s instruction, adjusted the teacher’s suggestion, and completed the task in their own way.

This study showed how being there, verbal interaction, and scaffolding contribute to the teacher-child interaction. Apparently, when teachers are with young children,
scaffolding provides a secure feeling for children. In addition, verbal interaction was a valuable strategy for young children. It seems that verbal interaction serves two roles for young children: one to guide the children’s learning and other is to stimulate language development. Also, children’s responses to the teacher’s interactions are an implicit part of the scaffolding process. This study showed that through the acceptance or negotiation process, children responded to the teacher’s scaffolding, and this process helped children construct the meaning of art.

_Breig-Allen (2001)._ Breig-Allen applied Vygotsky’s observation that “children learn together by negotiating, sharing, and collaborating among themselves and with their teachers” (p. 9) to her ethnographic study of young children and early childhood teachers in a family center. For five years she studied the strategies that early childhood teachers used to scaffold children’s learning. By reviewing and reflecting on teacher-child interactions, Breig-Allen noted the process of creating climates for scaffolded learning with children as: “preparing a warm challenging environment, negotiating an emerging curriculum, facilitating specific scaffolding techniques, and grouping purposefully to hold conversations with children and investigate materials in depth” (p. 354). Field notes were coded; that information enabled Breig-Allen to identify the patterns and sequences in the scaffolding strategies early childhood teachers use to interact with young children:

1. **Self-initiated exploration:** Teachers provided time for the children to reflect, construct, and reconstruct meaning from their experience and allow them to pursue their interests.

2. **Teacher-provided materials:** Teachers modified activities to accommodate children’s actions and interests.
3. **Modeling by teacher:** Teachers shared knowledge and demonstrated techniques to encourage children to think.

4. **Modeling by children:** Teachers allowed children to express themselves or give them the opportunity to communicate with others in their own way.

5. **Teacher questioning:** Teachers asked the children questions or gave suggestions to move their thinking closer to the answer, and allowed enough time for the children to think about the questions.

Breig-Allen stated that strategies and scaffolding patterns can be specified. The teacher’s knowledge applied to designing an interactive learning environment and strategies which scaffold children’s learning is what makes it effective. In sum, teachers create the learning environment, provide relevant guidance, elaborate on children’s ideas, engage children in the task, and organize appropriate materials and provide time to explore them. The children, in turn, are active and deliberate in choosing their own activities and expressing their thoughts or ideas in a variety of ways. Breig-Allen suggested several scaffolding techniques for early childhood teachers to facilitate children’s learning: (a) observe and listen to children, (b) guide the participation, (c) balance verbal and non-verbal interaction, (d) set up interesting situations and provoke children’s interests, (e) collaborate with children, and (f) allow children to direct the action.

**Summary**

Early childhood teachers have been found to play multiple roles during the scaffolding process including: observer (Breig-Allen, 2001; Yang, 2000), supporter (Coltman et al., 2002; Yang, 2000), and evaluator (Breig-Allen, 2001; Price-Rom, 1999;
Yang, 2000). In sum, the above studies showed that early childhood teachers’ understanding and use of scaffolding facilitate children’s learning in the sense that they guide children’s learning processes. Generally, while early childhood teachers provide feedback, encouragement, reinforcement, engagement, and appreciation during the scaffolding process (Berig-Allen, 2001; Coltman et al., 2002), the following strategies of early childhood teachers’ scaffolding were identified: verbal interactions which included explanations (Murphy & Messer, 2000; Tarr, 1992), hints (Murphy & Messer, 2000; Tarr, 1992) and questions (Berig-Allen, 2001; Murphy & Messer, 2000); and non-verbal interactions which included being there (Tarr, 1992), modeling (Berig-Allen, 2001; Murphy & Messer, 2000; Price-Rom, 1999), facial expressions (Tarr, 1992), and body gestures (Tarr, 1992).

The importance of the early childhood teacher’s role in scaffolding has found support in these studies. 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). Thus, children’s response in the process of interaction should not be neglected. Through negotiation, sharing, and collaboration (Berig-Allen, 2001; Tarr, 1992), children seem to benefit from scaffolded interactions. Importantly, understanding a child’s responses allows a teacher to provide appropriate guidance and to scaffold at the proper level, which leads the child to move from a lower level towards a higher level of understanding.

Scaffolding in Music Education

Much of the work derived from a Vygotskian perspective has focused on early childhood education; there has been little discussion of scaffolding in the early childhood
music education field. Vygotsky (1978) believed that through scaffolding, more skilled peers and adults can assist children from the elementary level to a higher level of development. Thus, scaffolding is an important concept for early childhood music education scholars to consider. Unfortunately, only a few studies have been conducted to investigate the effectiveness of scaffolding interaction in young children’s music learning. Those are reviewed below.

Adachi (1994). Adachi studied the role of parents in children’s musical learning from the Vygotskian perspective and investigated the significance of the interaction in different roles. Adachi applied Vygotsky’s notion that children’s learning comes from the co-contracted process of adult and child interaction. She observed a 4-year-old child and her parent’s musical interaction at home, analyzed the data presented by Kelly and Sutton-Smith (1987), and re-examined Umezawa’s study (1990). Based on the analysis of these studies, Adachi identified three parental roles in children’s musical learning. First, parents are transmitters. Adachi stated that “through early musical interaction with the adults in the family, a sung pitch was transmitted to the children as a musical sign to be used for singing” (p. 28). Parents transmit the music information to their children. Second, parents are practice partners. Parents assist children in practicing what they have learned during the interaction, which “let [the child] practice informally what she had learned enactively from a previous social process” (p. 30). Third, parents are co-players. As Adachi indicated, during the play and collaboration process, “the mother’s contribution stimulated the child’s exploration of new music-making strategies, thus facilitating her informal music learning through musical play” (p. 32). Among these roles, the parent-child interaction seems to be the fundamental condition for facilitating children’s
musical learning.

Adachi acknowledged that adults can be the transmitter, practice partner, and co-player during musical interaction. Through the appropriate adjustment of the adult’s roles in musical interaction, they can advance children’s musical learning.

de Vries (2005). de Vries observed the vocal development of his 3-year-old son from infancy through 2 years of age. de Vries documented and identified the types of scaffolding strategies used during the process of father-child musical interactions. The study demonstrated some steps of the scaffolding process: first, when the child exhibited vocal babbles, the father mirrored the child’s sound in a manner that led the child to respond back to him. Such a strategy was identified as engaging the child in the interaction. Second, as long as the child was able to imitate his father’s singing, the father gave the utterance praise. Further, he asked the child if he could do something else. de Vries indicated that the encouragement and questions not only kept the child engaged in the interaction but also expanded the child’s musical experience at this stage. Third, after the child began to initiate singing, de Vries no longer had to model singing for the child. Rather, he gave such appropriate comments as “good singing . . . very high” (p. 309). de Vries noted that as the father withdrew assistance and provided feedback, he could help the child master the skills. Additionally, when the child improvised a song, such as by adding new words to a familiar song, the father helped the child extend the idea by adding action to the song.

de Vries concluded that “questing, prompting, praising, confirming, giving feedback, expanding, repeating back, joint problem solving, and modeling” (p. 311) are beneficial in facilitating scaffolding in children’s musical learning. He recommended that
scaffolding interaction could occur informally between parent and child; it may also apply to a more formal setting including early childhood centers and large group music instruction. As he suggested, “[adults] need to be open to pursuing young children’s musical development whenever children wish to pursue their natural love of music-making” (p. 310).

The study illustrated the combinations of scaffolding strategies being used between father and child when interacting in a musical learning experience at home. Through the process of interaction—engaging the child in the musical interaction, praising the child, asking questions to stimulate the child’s thinking, withdrawing assistance, providing explicit feedback and cooperating with the child’s idea—children’s musical learning can be scaffolded. In addition, the father relinquished control and assistance depending on the child’s musical development and allowed the child to move to a higher level of musical understanding.

*St. John (2004).* Supposing that “scaffolding [is] the process of building on prior experience to move beyond modeling and imitation to task competence and, ultimately, task transformation” (St. John, 2004, p. 14), St. John designed a study to investigate the relationship between Csikszentmihalyi’s flow theory and Vygotsky’s scaffolding of children’s music-making experiences. She defined scaffolding strategies in relationship to the flow paradigm. She observed 12 children aged 4–5 years who had been enrolled in Kindermusik classes at a music center. During a 15-week period, she videotaped eight weekly sessions and analyzed the child-child and child-teacher interactions based on the “Revised-Flow in Music Activities Form” (p. 78). St. John reported that three categories of scaffolding strategies could be identified: personal, material, and social. These
strategies offered “multiple alternatives for the child to either get into the flow state or to intensify the experience” (p. 227). She summarized the strategies as follows:

1. Personal Strategies: involved the child’s personal resources, including self-corrective behavior initiated without verbal support from others in the environment, or imitative behavior provided through a peer model or awareness of an adult.

2. Material Strategies: involved the child’s manipulation of the music material, anticipating what came next to make it more challenging or extending it to sustain the experiences.

3. Social Strategies: referred to the influence of others in the learning community and illustrated the different roles adults and peers play in children’s negotiation of skills and challenges. (p. 227)

More specifically, children could “self-scaffold” (p. 228) their learning either through self-corrective or imitative behavior. According to St. John, “the self-corrective behavior is initiated by the child . . . and the imitative behavior relies on another to scaffold the experience” (p. 228). When the child reflects to absorb the task or listens to a recording, it would be considered self-scaffolding. When the child is manipulating musical materials such as playing instruments, these materials provide the child with the opportunity to scaffold his or her learning. In addition, when adults function as imitative models to engage the child in an activity, or challenge his/her music-making, then the child is affected by the social strategies. St. John indicated that the social strategy provides the interactions needed to facilitate children’s learning, and “being with each other is fundamental to young children’s music-making” (p. 228).
This study demonstrated that scaffolding could be generalized into personal, material, and social strategies in the music class. Through the integration of self-, peer-, and adult-scaffold strategies that are identified in the study, teachers can create more effective learning environments for children and help involve them more fully in music-making experiences.

Summary

The findings of the above studies suggest that adults facilitate children’s musical learning in the sense that they guide the children’s learning process by means of various types of roles and strategies. During musical interactions, adults assisted children by transmitting musical information to them, serving as a cohort to help children to construct knowledge of musical skills, and collaborating music play as a team member. Therefore, adults functioned as a transmitter, practice partner, and co-player to co-construct children’s musical learning (Adachi, 1994). In order to provide appropriate strategies to scaffold children’s musical experience, adults might use modeling, engaging, using utterance praise, questing, giving feedback, expanding, repeating back, and collaborating to interact with children (de Vries, 2005). Furthermore, children’s musical learning can be scaffolded by children themselves through the observation or absorption of musical surroundings. Also, using musical materials, and interacting with peers and adults could elaborate children’s musical experiences.

Section Summary

To sum up, although children’s musical learning could be scaffolded by both adults and peers (St. John, 2004), adults were able to scaffold children’s learning more effectively than peers (Choi, 1992; McLane, 1981). Adults’ scaffolding interaction
engaged children in the task and helped them to exhibit a more complex level of understanding and skills (Chin, 1995; Choi, 1992; Coltman et al., 2002; de Vries, 2005; McLane, 1981; St. John, 2004; Yang, 2000). It appears that the evidence supports the theoretical claim by Vygotsky (1978) that children’s learning comes from social activity and, with the assistance of adults, results in the achievement of their potential development.

The previous studies indicate that adults are scaffolders who effectively support children’s learning. In the scaffolding process, adults evaluate children’s level of development, provide appropriate strategies, and support children’s learning. Therefore, adults present various roles in the scaffolding process to enhance children’s learning such as facilitators, observers, supporters (Yang, 2000), collaborator (Breig-Allen, 2001), transmitters, practice partners, and co-players (Adachi, 1994).

Previous studies on scaffolding processes have focused primarily on adult scaffolding strategies. Generally, scaffolding strategies can be categorized as two types: verbal and non-verbal; and direct and indirect. Verbal guidance is provided when adults use language to guide children. The most effective verbal guidance linked children’s previous experiences to a new concept (Chin, 1995; Pence, 2004). On the other hand, non-verbal guidance included demonstrations, manipulations, gestures, and listening (Breig-Allen, 2001; Chin, 1995; Murphy & Messer, 2000). Adults used of more explicit explanations are considered to be direct guidance. In contrast, asking questions or prompting is considered indirect guidance (Chin, 1995; Choi, 1992; Tarr, 1992; Murphy & Messer, 2000). The strategies adults use during the interaction process often depend on the children’s age and developmental level (Chin, 1995; Pence, 2004; Price-Rom, 1999;
Murphy & Messer, 2000). In general, adults tended to use indirect guidance to scaffold older children’s learning; direct guidance was more common used with younger children. Adults exhibited both verbal and non-verbal behaviors with children regardless of their age; however, being there, a non-verbal behavior, was identified as a significant strategy to engage younger children in the learning process (Tarr, 1992).

While adults consider planning, doing, and evaluating as a sequence of the scaffolding process (Yang, 2000), it should be noted that personal, material, and social strategies are related to the scaffolding process in music class (St. John, 2004). Also, in order to provide an accurate evaluation of children’s development, it is important to give individual attention to each child (Price-Rom, 1999). Additionally, the process of scaffolding which consists of observing and listening to children, engaging their participation, providing verbal and non-verbal guidance, preparing an interesting learning environment, extending children’s ideas, providing feedback, and allowing children to direct their own action (Breig-Allen, 2001; de Vries, 2005) may facilitate children’s learning more efficiently.

*Early Musical Experiences for Young Children*

A number of researchers have focused on musical experiences that adults provide for young children. To examine the significance of early musical experiences, researchers have surveyed adults on their musical beliefs and have identified the role of adults in musical interactions and the interaction process with children. Additionally, several studies have investigated music in early childhood programs. These studies provided information on musical experiences that children received in early childhood programs and early childhood teachers used of music in daily activities.
Musical Interactions Between Adults and Young Children

Young children rapidly attain significant milestones in physical, cognitive, language, emotional, and social development before the age of three. Their learning and development across these domains may be enhanced by the provision of appropriate and stimulating learning environments and by interacting with adults who are sensitive and responsive to their needs. (Surther, 2001, p. 21)

Several studies have provided evidence of musical interactions between adults and young children. One of the prominent beliefs concerning musical interaction is that adults, including parents, caregivers, and early childhood teachers, participate in musical interactions with young children. Previous studies have investigated parents’ musical beliefs and music activities that underlie their interaction with their young children.

Mallett (2000). Mallett investigated the relationship between the attitudes of parents or caregivers of preschool children toward music activities and the home musical environment. One-hundred-sixty-one parents or caregivers participated in the study. The attitude survey showed that these parents/caregivers had positive beliefs about children’s early musical experiences and musical interactions but did not have the confidence to provide music instruction for children. In general, two kinds of music attitudes were conveyed by these parents and caregivers. First, those who did not see music as intrinsically important were more likely to view music as a product. For these adults, their musical interactions with children were not important; they thought music should be guided by music teachers or experts. The second group of parents and caregivers believed music is a unique experience for children. They valued their musical interactions with children. These parents believed that musical interactions could enhance children’s
musical experiences and helped children focus on the process of music making. Mallett noted that “although parent/caregiver attitudes are meaningful, it is what adults do and model . . . that contributes in important ways to how children develop musically” (p. 141).

Information derived from this study provided educators with an understanding of parents’ and caregivers’ beliefs regarding early childhood music education. According to Mallett, the real value of the early musical experience is the process of the interaction between adults and children. While parents and caregivers believed that musical interactions with their children are important, some of them had no confidence in providing music instruction for children. Mallett indicated that it is necessary to educate parents and caregivers to help them understand that providing early musical experiences for children is about what they can do with music for their children or how they interact in musical activities with their children; they do not need to be professional musicians or talented performers.

Ilari (2005). Ilari acknowledged mothers’ musical beliefs and their use of music with infants. One hundred mothers of infants aged 7–9 months were interviewed on their musical background, musical preferences, beliefs, and interactions with their infants. Ilari found that the majority of mothers used some music and interacted musically with their children during the day. The mothers’ musical backgrounds and experiences did not greatly affect the use of music and interactions with infants. Ilari categorized four themes of mothers’ use of music with their infants: (a) musical behavior: 92% of mothers reported singing to their children; another 79% reported listening to music with them; (b) musical beliefs: although “most mothers believed in the existence of appropriate music
for babies, there was no real agreement as to what appropriate music is” (p. 653); (c) the best time for musical activities: “more than half of the mothers interviewed used the infant’s mood and state as indicators of when to play music” (p. 654); and (d) infant musical memories: 72% of mothers were able to describe their infant’s musical memories, such as recognizing familiar voices, songs, and musical toys.

According to this study, parents valued and exhibited musical interactions with their infants. Singing for children and listening to music with them were the most frequent activities that provided interaction opportunities. Since these activities seemed to be initiated by the mothers, “singing, musical games and rhymes, free explorations with sounds, manipulation of small instruments, movement and dance” (p. 658) were suggested by the researcher as means to mediate and enhance the music learning and interactions of young children and their parents.

Cardany (2004). Cardany conducted a phenomenological study to document parents’ musical interactions with their young children, and sought parental perspectives concerning music education for their children. She held in-depth interviews with 12 parents whose 2- to 5-year-old children were enrolled in music programs outside of preschool or engaged in music lessons that were provided by the preschools.

Cardany’s findings indicated that parents could interact musically with their children both formally and informally. Singing, dancing, and playing instruments were the most frequent activities that engaged parents and children in musical interactions. While some parents provided musical activities for enhancing interaction opportunities between their children and themselves, some parents reported that they played music as background and for their own enjoyment. For parents who valued musical interactions,
the children’s interest and enjoyment of music were the primary motivations for providing musical experiences for their children. In addition, Cardany pointed out that parents believed music education benefited young children for the following reasons: “(a) emotional benefits, (b) family bonding and socialization, (c) cognitive benefits, (d) building self-esteem, (e) cultural understanding, (f) opening future career opportunities, and (g) physical benefits” (p. 202).

This study showed that the parents’ perceptions of the benefit of music education for children could be shaped through musical interactions. These musical interactions were not limited to such formal situations as participating in music classes with their children and taking them to concerts, but also existed in an informal learning environment, including singing to their children and playing recordings for them.

*Suthers (2001).* Suthers examined a toddler’s response to musical experiences in a daycare center over ten months. Through observation and diary entries, Suthers found that musical activities in the daycare center provided many opportunities for toddlers to use their physical, language, and social skills. Movements and using instruments offered them opportunities for practicing physical skills, and group singing and vocal exploration stimulated their language development. As a child became familiar with songs, games, and dances, the length of time during which he or she participated in a group also grew. Suthers indicated that the interaction process between teachers/caregivers and children in these music activities was the significant factor that helped the children to develop physical, language, and social skills. Suthers commented that through participating in musical activities, which included interacting with materials, adults, and other children, young children demonstrated their enjoyment of music and developed their physical,
language and social skills as well as musical interest.

This study acknowledged music activities in daycare center that teachers/caregivers selected were important, since the interaction process in music activities not only provided the opportunity for children to respond to the music but also offered them the possibility to practice and improve other skills.

*Custodero, Nritto, and Brooks-Gunn (2003)*. In order to understand the musical engagement of parents and young children, Custodero et al. randomly selected parents of children from birth to age 3 from the 1995–1996 Commonwealth Fund Survey. Custodero et al. conducted telephone interviews with 217 parents and asked about their musical interactions with their young children. The report indicated that such musical interactions as singing/playing for their children were fewer than such interactions as playing or hugging and cuddling, but many parents (60%) engaged their child in some form of music activity on a daily basis or at least once a week (90%). A large number of parents reported that singing was the most frequent music activity that engaged them musically with their children. Additionally, musical interaction was related to children’s age, birth order, and parental gender, education, and employee status. The findings showed that parents were more likely to sing/play music daily with their younger child (0–23 months) than with their older child (24–36 months) and they were also more likely to sing/play music daily with their firstborn child rather than a latter-born child. Mothers interacted musically with their children more frequently than did fathers. In addition, parents with more than a high school education and who were not working were more likely to sing/play music for their children.

The significance of this study was that parents’ engagement in music with young
children was influenced by children’s age and birth order. Parents tended to interact more musically with infants and younger toddlers. In other words, musical interactions seemed to happen more when children were young. Besides, since parents tended to interact more musically with their firstborn baby, it may happen that the first child in the family received more musical interaction opportunities with their parents.

Hewitt (2001). The musical environment has been considered a scenario for investigating early childhood teacher and children’s interactions. Hewitt designed a music center that included various kinds of instruments: xylophone, guitar, drums, cymbals, triangles, etc., a conductor’s wand, a conductor’s stand, a microphone, a tape recorder, tapes, a CD player, CD’s, etc. Children could play with them freely. The three phases of data collection were as follows: first, the researcher observed the children’s play behaviors; second, the researcher participated in and modeled musical behavior for children; and third, the researcher observed children’s play at the music center. As encoded from these three phases of data, the teacher’s roles during the musical interaction were identified as modeler, questioner/helper, and observer. The teacher often structured the music activities first, then helped the children decide on an activity and guided them, if needed; after helping children become familiar with the music center, the researcher took a step back and waited for the interactions to occur. The children’s reactions to these roles were different.

1. Children’s reaction to the modeler: The children were interested in what the researcher presented and were eager to see how the activities were carried through, such as how to play the guitar.

2. Children’s reaction to the questioner: The children sometimes responded to the
researcher right away; sometimes they needed more information. On some occasions the children rephrased a question back to the researcher.

3. **Children’s reaction to the observer:** The children actively interacted with the researcher. They would invite the researcher to join their activities.

Hewitt postulated that “There is a definite need for teacher interaction with students” (p. 152). Interactions with teachers in music activities could engage children during the learning process and shape the way they think. Also, these interactions would allow teachers to know children’s interests, provide guidance and assistance, and assess their capabilities. Based on the study, Hewitt suggested that modeling for children and questioning children should be considered part of the interactions.

Therefore, a musical environment provides an opportunity for teachers to facilitate interactions with children. Through the process of interaction, the roles of early childhood teachers were identified sequentially as modeler, questioner/helper, and observer. Also, children’s responses were different depending on the role presented by the teachers.

**Summary**

Most adults, including parents, caregivers, and early childhood teachers, value the significance of musical interactions in children’s early musical experiences (Cardany, 2004; Custodero et al., 2003; Hewitt, 2001; Ilari, 2005; Mallett, 2000). Musical interactions can not only engage children in the learning process but also stimulate their development, including their musical, physical, language, and social skills, as well as build their self-esteem and cultural understanding (Cardany, 2004; Hewitt, 2001; Suthers, 2001). Moreover, during musical interactions, adults could assess children’s development
and provide the appropriate guidance (Hewitt, 2001).

Studies found that the majority of parents often interact musically with their children (Custodero et al., 2003; Hewitt, 2001; Ilari, 2005), and these musical interactions can occur formally or informally (Cardany, 2004). However, parents tended to interact musically with younger children, especially with those children up to 23 months old (Custodero et al., 2003). Singing was the most frequent music activity that provided an opportunity to interact with children (Cardany, 2004; Ilari, 2005). Some parents lacked the confidence to provide music instruction for their children (Mallett, 2000); however, the parents’ musical background and experiences did not influence their musical interactions with children (Ilari, 2005).

**Music in Early Childhood Education Programs**

A number of studies were concerned with children’s early musical experiences in early childhood programs. In these studies, the status of music programs, music curriculum, musical practice, and the teachers’ needs in early childhood programs were investigated (Buescher, 1993; Daniels, 1991; Freedman, 1984; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997; Termmerman, 1998). In some of the aforementioned studies, the relationship between early childhood teachers and music teachers were also discussed (Gawlick, 2003; Miranda, 2002; Suthers, 2004).

**Buescher (1993).** Buescher conducted a survey of community music programs for preschool children that were sponsored by colleges and universities in the United States. The primary sources of information about the music used in such programs were gathered from 1,088 responses to a survey postcard that was designed by the researcher. Buescher found that 11.23% of 1,105 colleges and universities sponsor early childhood music
programs on their campus one or two days per week for 30 or 45 minutes. Fewer than 15
minutes per session were devoted to any one type of musical activity. No consistent
curricular approach and materials appeared to be followed. Buescher reported that
singing, listening, playing instruments, and moving were often included in the program.
More than half of the teachers used singing activities, such as singing games, singing in
large group activities, and singing to the children. Seventy-four percent of the teachers
used recordings, which often were played during movement activities. Ninety-one
percent of the teachers used listening activities; the most popular one was listening to
recordings. Instrument playing appeared to be a group activity; 86.75% of the teachers
utilized creative and spontaneous movements to music, finger plays, and other small
motor movement activities. Buescher also found that music was not always the primary
activity for children. Teachers often used music activities to accompany other activities in
small group or learning center areas; musical development was not their major concern.

Buescher reported that although many colleges and universities in the United
States are interested in providing early childhood programs on their campuses, the
number of music programs for preschool children supported by colleges and universities
still seemed too low. Buescher also indicated that although teachers seemed to provide
different music activities for children, teaching early childhood music is quite different
from teaching music to elementary and middle school children. Colleges and universities
should invite more faculties to support early childhood music programs and assist
teachers in preparing and selecting appropriate music activities that enhance children’s
tonal and rhythmic development. It should be noticed that this study was conducted
fourteen years ago, so the situation may be different today.
Freedman (1984). Freedman surveyed 72 preschools in San Diego County in order to gain an understanding of curricular activities for young children. The directors of these preschools were required to answer questions about the daily learning activities being taught to children in their programs and the time spent on each activity; music was one of eight learning activities in the survey. After the schools returned the questionnaires, researchers conducted telephone interviews with school directors to extract the curricula content area in relationship to the program, the children, and the schools’ goals. Freedman found that a music curriculum was utilized and introduced in 97.15% of schools. Records and tape recordings played during singing, dancing, and listening activities were employed in 92.6% of the schools. Daily music activity averaged 18 minutes. Based on the interviews, Freedman summarized many of the school directors’ beliefs:

Music for young children contributes to the daily activities offering opportunities for listening, singing, rhythmic responses and the playing of instruments. Through these activities the children express pleasure, joy, and creative expression. They develop listening skills and auditory discrimination, gain in physical development, and increase their voice range and flexibility . . . musical expression in the curriculum is the essence of preschool education. (p. 136)

According to Freedman, most of the schools supported the significance of having a music curriculum available for children in San Diego County. The majority of schools included music activities in the curriculum; however, it was recommended that they expand the amount of time spent on daily music activities.

Nardo (1996). In order to understand the music education needs of California
preschools in relation to the community college music curricula offered to early childhood education majors, Nardo investigated 1,000 out of 8,200 infant daycare centers and preschools licensed by the state of California. According to the survey results, 78% of centers used music as a background environment for daily routines, and singing was the most frequent musical activity in the majority of centers. Compared to 80% of children allowed free play time with music materials at least once a week, 68% of classroom teachers designed and led musical activities on an average of four to five times per week. Nardo found that the majority of music activities were led by the early childhood teachers; however, “the variety and scope of musical activities and music instruction are narrow” (p. 144). Thus, it was not surprising that only 45% of early childhood education centers indicated that they would hire a music specialist to train their teachers. However, more than half of early childhood teachers suggested that community colleges should offer an associate degree in music for early childhood education to help them to prepare for early childhood music education.

This study revealed that “music is perceived as having important value and use in early childhood education centers” (p. 143), and children’s early musical experiences indeed came from early childhood teachers. But the preparation of music training for early childhood teachers was not sufficient.

Daniels (1991). Daniels surveyed 143 preschools’ music education programs in four southeastern states of the United States. Sixty-nine percent of schools reported the existence of structured music programs. Preschools with larger enrollments were more likely to have music programs than small- or medium-sized schools. Compared to 44% of preschools that hired a music teacher for their staff, 50.5% of music activities were led by
the classroom teacher. The average amount of time spent on music per week was 68 minutes for 2-year-olds, 77 minutes for 3-year-olds, 80 minutes for 4-year-olds, and 82 minutes for 5-year-olds. Children were most frequently engaged in singing, using movement to music, musical games, playing instruments, and listening. Approximately 60% of schools used background music twice a day at nap time, quiet time, or arrival time. Children’s songs were the most popular style of recording that teachers played. When asked about the value of music for children, 75.5% of the schools reported that music was very important.

According to Daniels, music activities were conducted by the classroom teachers in many schools. Also, “all preschools reporting regular music activities incorporate singing and…the overwhelming majority utilizes movement to music” (p. 28); thus, singing and movement were considered to be the most popular activities in children’s musical experiences. In addition, the average amount of time devoted to music per week increased with the age of the children; the length of time spent on musical experiences was less for younger children than older children.

Golden (1992). Golden developed a questionnaire to investigate the status of music education at licensed Ohio State childcare centers. More than half of the respondents cited enjoyment and recreation as the primary purposes for involving children in music activities. When asked to identify the important aspects associated with quality learning in music, 76% of the respondents indicated that “it was providing a variety of music experiences” (p. 15). Seventy-five percent of the schools provided 15 minutes to two hours of music per week. Singing was the most frequent activity, followed by movement to music, listening to music, and playing instruments. Developing listening
skills (21.2%), social skills (15.6%), and physical coordination (12.6%) were also cited as the purpose of music activities. In more than 75% of the schools, classroom teachers were primarily responsible for providing music experiences and 91.2% of music activities were conducted in the regular classroom.

Golden reported that daycare centers value the importance of early musical experiences for young children. Typically, the classroom teacher was responsible for providing music activities and designing and organizing music activities in the regular classroom. Music activities offered by teachers were diverse, but singing was the most frequent activity used to engage children in music. Regarding the purpose of providing music for children, the development of musical skills was less important than developing any other skills in music activities.

*Tarnowski and Barrett (1997).* Tarnowski and Barrett conducted a study to investigated the current practices and needs of preschool music programs in the state of Wisconsin. Ninety-six percent of the respondents reported the existence of music activities led by music teachers or caregivers. Singing and moving to music (97%) were the most frequent music activities used to engage children, followed by playing instruments (93%), dramatic play with music (49%), and discussion of music (37%). More than half of the programs engaged children in large-group singing and finger play. Many teachers used music to accompany such classroom routines as naps and snacking, and background music was commonly considered a type of music activity. However, 39% of respondents reported that free play with instruments only occurred once a week or not at all. More than half of the responses indicated that no multicultural music was being used, and nearly half reported that multicultural music was being used in frequently.
When asked about the purpose of providing music for young children, respondents indicated that providing enjoyment, establishing self-esteem, and enhancing the learning environment were more important than developing musical skills and understandings. When given the opportunity to comment, many respondents recommended that music education professionals might help caregivers prepare music activities for young children.

Tarnowski and Barrett concluded that early childhood music programs were widely provided by either music teachers or caregivers in the daily routines of preschools in the state of Wisconsin. Compared to such music activities as singing, moving, and playing instruments, the free play of musical instruments was less likely to occur in class. It might be said that most music activities were structured by teachers or caregivers. Therefore, children did not have opportunities to play music freely and explore musical experiences by themselves. In addition, although the variety of music activities was considered to be a quality factor of an excellent or above-average music program, multicultural music was not used frequently.

Temmerman (1998). Temmerman investigated early childhood programs that offer music classes for infants and children to age 5 in Australia. Temmerman sent a three-section questionnaire to 110 early childhood programs. Information was sought about the respondent, curriculum, program, and an assessment of the program and participants. The results showed that most music classes were conducted on a weekly basis. Compared to a length of 30 to 75 minutes for each class for older children, classes for children younger than 3 years old were only 30 minutes in duration. The enjoyment of music was the most frequently reported focus of early childhood music programs,
followed by the involvement of the children in rhythmic games, proficiency in singing, and involvement of children in singing games. Ninety-five percent of classes used untuned percussion instruments; 75%, tuned percussion; and 72.5%, keyboard. Most of the respondents reported that they used a variety of resources, including songbooks, CDs, activity books, and dance kits. Temmerman found that “many teachers enter the field of early childhood music with limited knowledge and understanding of the developmental needs of the 0-5 age group” (p. 32), and “the ‘best’ teachers are those with early childhood education qualifications supplemented by some music expertise” (p. 32). In addition, Temmerman identified music teachers and parents as playing the most important roles in early childhood music education. Music teachers were responsible for designing appropriate musical activities for age-appropriate groups and communicating with parents regarding children’s musical learning. In most programs, parents were encouraged to participate in music activities and expected to share in the making of music with their children. Temmerman stated that:

[All programs] need to educate parents about the learning methods used by teachers and link between these and children’s developmental stages of learning . . . [The programs] also acknowledged that extending parents’ knowledge, skills, and repertoire in music should be an important aim of childhood music education, so that parents could more positively contribute to the child’s overall musical understanding and progress. (p. 33)

Responses in this questionnaire indicated that the average time for music class for children under 3 is 30 minutes and the aim is to provide joy and assist children in developing their rhythmic and singing skills. Teachers used a variety of music resources
to lead the class; however, percussion instruments were the most popular musical material used. Moreover, qualified teachers were expected to receive early childhood education as well as early childhood music education training. Teachers should be able to prepare effective and appropriate music activities to meet program aims and monitor parents’ overall musical knowledge, skills, confidence in music, and understanding of children’s musical development.

*Miranda (2002).* In order to understand the implications of the Developmentally Appropriate Practice (DAP) that were outlined by the National Association for the Education of Young Children (NAEYC) regarding the music field, Miranda (2002) observed music teachers’ relationships with children and early childhood teachers in three early childhood music classrooms for one year. Miranda found that knowing the individual child is the fundamental principle for music teachers in establishing relationships with children. The music teachers’ preparation, material selection, and teaching instruction should be based on each child’s musical responses and behaviors. Additionally, music teachers took on the responsibility to conduct the music class, but in early childhood education “a number of adults who are a part of the larger school environment interacted with the children within the context of the music classroom environment. Occasionally, the classroom teacher took a role in the music classroom” (p. 152). Miranda noted that children enjoyed sharing their musical accomplishments with their classroom teachers; also teacher’s involvement in music class provided the opportunity for the teacher to understand children’s musical experiences and learning situation.

*Miranda posited that in order to provide the most appropriate musical interactions*
and activities for children, music teachers should pay attention to the individual child. Also, many early childhood teachers benefit from their involvement in music classes. Not only do early childhood teachers have the advantage of being aware of children’s musical learning, but children also have an opportunity to share their musical experiences with them. The connection between classroom teachers, children, and music teachers in such a structure seemed positive.

*Suthers (2004).* In a subsequent study of toddlers’ musical experiences, Suthers inspected toddlers’ and caregivers’ musical interactions and studied the implications of the music in their early childhood classroom. Also, the caregivers’ participation in music activities and implementation of music activities in the daily routine were investigated. Suthers analyzed in-class participant observations and interviews with caregivers; she found that music became a part of caregiving routines, play, and sociable music experiences for young children. Through the interaction process of playing instruments, singing, listening, moving, and dancing, children had opportunities to hear more music in daily life, interacted with caregivers, played freely with music, and became involved in group participation. Suthers indicated that “musical experiences provided scope for children’s self-expression, individualized responses and sociable interactions, as well as opportunities for the development of cognitive, physical, social, language and musical skills . . . The diverse music activities provided enjoyable interactions for children and adults to share” (p. 49).

Furthermore, caregivers all benefited from participating in music activities provided by the music teacher. The study showed that, although the caregivers who participated in the study were hesitant about singing, they became confident enough to
sing the songs and exhibited one-to-one musical interactions with the children over the duration of the study. Suthers concluded that “caregivers’ participation and enthusiasm appeared to foster positive attitudes towards singing and music-making in the children” (p. 48). In addition, observing and participating in musical experiences with children provided caregivers with an effective way of simultaneously broadening the repertoires and materials and developing their confidence in singing.

This study demonstrated that musical experience is a part of daily life routine for young children. Music activities provide opportunities for children to interact musically and socially. Since “adult modeling was important for toddlers’ learning, providing appropriate behavior for the children to emulate” (p. 48), adult-directed musical experiences and free music play for young children were necessary. In addition, the caregivers’ participation offered possibilities for the acquisition of new skills and learning. In the study, the caregivers’ involvement in music activities and implementing musical experiences for their young children rather than their musical ability or quality was a key factor affecting children’s musical experiences in early childhood programs.

Gawlick (2003). Gawlick was interested in how the early childhood education setting and home environment affected a preschooler’s musical performance, understanding of music, and developmental music aptitude. She investigated four early childhood programs—two with music specialists and two with none. Through the questionnaires and interviews completed by the program directors and observations conducted during both regular classroom routines and music times, Gawlick found that although music specialists provided a variety of music activities, all of the programs offered limited classroom music experiences. Singing was the most frequent musical
activity led by the classroom teachers. In general, children from the early childhood programs with music specialists received higher aptitude scores. Children who came from family homes where instruments were available and participated in live musical experiences with parents had a better musical understanding. Also, children who came from a rich musical environment both at home and in early childhood programs had better musical performances. Although music performance was not related to children’s aptitude scores, “music instruction may have a greater effect on music achievement than music aptitude” (p. 202).

Based on the results, Gawlick drew some conclusions:

1. The home and school musical environment had a great influence on children’s musical ability.

2. “Children from different communities may need different kinds of music experiences that best serve their musical growth” (p. 231).

3. Classroom teachers agreed on the importance of music in their classroom but most of them lacked music skills, knowledge, and understanding of effective practices.

4. Comprehensive music activities, beyond singing songs in the classroom, were expected by classroom teachers.

5. Courses on early childhood music were absent from the curricula of most early childhood teacher preparation programs.

6. Music specialists offered opportunities for engaging in various music experiences that fostered children’s musical development.

7. Music education programs in colleges should prepare music educators to work
with young children.

The study indicated that the home environment and early music instruction may assist children in their musical development. As the researcher stated, “... music educators and EC (early childhood) professionals would be most beneficial in defining the place of music in the early childhood curriculum and the role of both the classroom teacher and music specialist” (p. 234). It is clear that parental involvement, teacher’s musical training, and music lessons provided may enhance not only children’s musical development but also improve early childhood music education.

Summary

The previous studies showed that many early childhood programs included music in their curricula (Buescher, 1993; Daniels, 1991; Freedman, 1984; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997). In general, the major benefit of providing music for children was enjoyment; musical development was less of a concern than was developing creativity, social, and physical skills (Freedman, 1991; Golden, 1992; Surthers, 2004; Temmerman, 1998). Researchers found that music was used as a daily routine in the classroom (Surthers, 2004; Tarnowski & Barrett, 1997); however, time spent on daily music activity seems short (Freedman, 1984). Also, time spent on music activities in early childhood programs was related to the children’s age (Daniels, 1991; Temmerman, 1998). Children under age 3 tended to receive shorter durations of music time than did older children. In addition, although some early childhood programs had hired music teachers (Daniels, 1991); many music classes were conducted in the regular classroom by classroom teachers (Daniels, 1991; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997).
The types of music activities that were used in the classroom varied—i.e., singing, listening, moving, and playing instruments; singing was the most popular activity that teachers used to engage children in music (Buescher, 1993; Daniels, 1991; Freedman, 1984; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997). In contrast, although Gawlick (2003) showed that singing activity was often found in the classroom, the types of children’s early musical experiences provided by early childhood teachers were limited. In addition, compared to Nardo (1996), who found that free play was often provided in the early childhood class, Tarnowski and Barrett (1997) found that children in their study had fewer opportunities to play music freely.

Early childhood teachers should participate in music classes to not only share the children’s musical experiences and understand their musical learning process, but also to receive musical guidance from music teachers, including the preparation of music activities and selection of music resources (Gawlick, 2003; Miranda, 2002; Tarnowski & Barrett, 1997). Meanwhile, music teachers could acknowledge early childhood teachers’ musical knowledge and skills and help them to establish confidence in conducting music activities for children (Gawlick, 2003; Surthers, 2004). Notably, many of the previous studies of music in early childhood education programs were conducted 10 to 23 years ago. Without subsequent research, it is unknown whether the situation has changed.

Section Summary

Studies of young children’s early musical experiences supported the value of early musical experiences derived from the musical interactions between adults and children (Cardnany, 2004; Ilari, 2005; Mallett, 2000). In the literature, musical interactions between adults and children assisted children’s learning (Hewitt, 2001; Mallett, 2000).
Through musical interactions, children’s cognitive, musical, physical, language, and social skills were improved (Freedman, 1984; Golden, 1992; Suthers, 2001, 2004). However, when early childhood teachers provided musical experiences in the classroom, improving children’s musical development was not the major focus (Golden, 1992).

In the home environment, parents often engaged their children in music and tended to interact musically with children under age 2 years (Custodero et al., 2003). On the contrary, early childhood teachers tended to provide musical experiences for older children in early childhood programs (Daniels, 1991; Temmerman, 1998). A wide variety of music activities were found in the classroom—singing, moving, listening, free play, and playing instruments. Singing provides the opportunity for adults to interact musically with children and engage them in musical interactions (Cardany, 2004; Ilari, 2005), and was the most frequent music activity found in early childhood programs (Daniels, 1991; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997).

In sum, early childhood teachers played an important role in children’s early musical experiences (Miranda, 2002). Not only were many music activities designed or led by early childhood teachers in the early childhood classrooms (Golden, 1992; Nardo, 1996), but when early childhood teachers participated in music classes that provided by a music teacher, they shared these musical experiences with children and learned about their musical development (Gawlick, 2003; Miranda, 2002; Suthers, 2004).

Summary of the Literature

According to Vygotsky (1978), children’s learning occurs in the zone of proximal development (ZPD), which refers to the difference between the current competencies of a child and his potential capacity when assistance is provided. With structured guidance, or
scaffolding, children’s potential level of development can be attained (Vygorsky, 1971, 1978). Based on the work of Vygotsky and subsequent researchers (Berk & Winsler, 1995; Bransford et al., 2000; Daniels, 2001; Ellis et al., n.d.; Rogoff et al., 1996; Stone, 1998), the principles of scaffolding were selected as a framework for the present study. While examining the interactions among teachers and young children in the study, the principles provide the fundamental context for determining whether early childhood teachers use scaffolding principles in their interactions with young children.

Since children’s learning relies on social interaction with others (Rogoff, 1990; Rogoff & Gardner, 1984; Vygotsky, 1978), the teacher, especially in an early childhood program, has been identified as having an important role in scaffolding children’s learning (Berk & Winsler, 1995; Emihovich & Souza Lima, 1995; Göncü & Rogoff, 1998; Jacobs, 2001; Stone, 1998). In this sense, several researchers acknowledged that the roles of adults in children’s learning are interrelated (Adachi, 1994; Hawitt, 2001; Yang, 2002). Yang (2000) identified that during the scaffolding process adults perform the role of facilitator, observer, and supporter. Hewitt (2001) found that the adult is an observer, questioner/helper, and modeler. Adachi (1994) categorized adults as transmitters, practice partners, and co-players in music learning. These categories played a role in this study in determining the function of early childhood teachers in data analysis.

The extensive studies conducted on scaffolding demonstrate how essential scaffolding principles can be in promoting children’s learning. Both parents and teachers have been shown to use a wide variety of strategies including verbal and non-verbal, direct and indirect guidance to guide children’s learning (Breig-Allen, 2001; Chin, 1995; Choi, 1992; Murphy & Messer, 2000; Pence, 2004; Tarr, 1992). In addition, St. John
(2004) identified three scaffolding strategies in the process of music learning: personal, material, and social. Perhaps most interesting, even when parents have not been formally aware of scaffolding principles, they still often use at least some of the strategies. Researchers have noted that teaching parents about scaffolding principles could help them enhance their child’s learning even further (Chin, 1995; Moretti, 2001).

Researchers found that both parents and early childhood teachers believe that musical interaction with young children is important (Buescher, 1993; Cardany, 2004; Daniels, 1991; de Vries, 2005; Freedman, 1984; Gawlick, 2003; Ilari, 2005; Mallett, 2000; Nardo, 1996). Parents typically engage their children in some forms of music activities on a daily basis at home (Custodero & Johnson-Green, 2003; Custodero et al., 2003; Ilari, 2005), and early childhood teachers include music activities in the class (Buescher, 1993; Daniels, 1991; Freedman, 1984; Nardo, 1996; Suthers, 2004; Tarnowski & Barrett, 1997). Numerous studies have documented the fact that music activities provide a musical interaction opportunity among early childhood teachers and young children (Buescher, 1993; Daniels, 1991; Freedman, 1984; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997). However, musical interactions among teachers and young children in music activities and how teachers interact musically with young children have never been investigated. Furthermore, previous studies have not looked at the specific interactions among early childhood teachers and young children to determine if early childhood teachers use scaffolding principles in musical interactions with children.

Early childhood teachers benefit from participating in music classes (Gawlick, 2003; Miranda, 2002; Suthers, 2004; Tarnowski & Barrett, 1997). While participating in music activities with young children, early childhood teachers have opportunities to
observe music teachers’ teaching and receive musical guidance from music teachers that include the preparation of music activities and selecting music resources (Gawlick, 2003; Miranda, 2002; Tarnowski & Barrett, 1997). On the other hand, while providing music classes, music teachers could provide a musical model for early childhood teachers, assist early childhood teachers in developing their musical skills, and help them establish confidence in leading music activities (Gawlick, 2003; Surthers, 2004). But it is unknown whether participating in music classes and communicating with music teachers could facilitate early childhood teachers’ musical interactions with young children.

Musical interaction is important to young children’s music learning. Valuable information can be gained through an understanding of musical interactions among early childhood teachers and young children in early childhood programs. A study to determine if, and to what extent, early childhood teachers use scaffolding is important for several reasons. Not only does it allow researchers to determine the degree to which scaffolding is currently used in the classroom, but it also shows what scaffolding principles could be introduced to early childhood teachers to make their teaching more effective. In the present study, the examination of musical interactions among early childhood teachers and young children answered some questions raised from the review of previous studies.
CHAPTER THREE

Methodology

The purpose of this study was to explore the nature of musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program. More specifically, the study investigated the musical interactions among early childhood teachers and infants/toddlers in their daily activities, and examined whether the teachers implement scaffolding in their musical interactions. Additionally, I participated in the study as a music teacher and provided music classes that were grounded in a scaffolded interactional model (Hsee & Rutkowski, 2006). Throughout the study, perceived changes in the musical interactions between the early childhood teachers and the children in their daily activities and music classes were observed and recorded.

This chapter is organized into the following sections, which present the methodology for the study: (a) research questions, (b) design of the study—identification and selection of the participants, data sources, and data collection procedures, (c) data analysis, and (d) data verification.

Research Questions

Two primary research questions guided this study:

1. What is the nature of the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

2. What principles of scaffolding are present in the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

These questions were investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during
the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended. In addition, changes in the behaviors of early childhood teachers and children and the ways in which they interacted during the music classes were of interest.

Design of the Study

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 the each early childhood teacher and the children in an infant-toddler class were investigated. Second, as Creswell (1998) noted, qualitative research is suitable for inspecting human behaviors and presenting a detailed view of a theory, program, event, or activity, or of individuals. In this study, the early childhood teachers’ and children’s musical interactions in the early childhood program were described. Moreover, this study examined how the early childhood teachers’ and children’s musical interactions changed during and after the music teacher provided music classes. Third, the qualitative approach enables the researcher to participate in the study and present a participant’s perspective (Silverman, 2004; Strauss & Corbin, 1998; Yin, 2003). In this study, since I was the music teacher and participated in music classes with the children and teachers, I had opportunities to observe their interactions. I was able to communicate with teachers who presented a participant’s viewpoint as well.

More specifically, a within-site case study approach guided this study. Creswell (1998) explained that “a case study is an exploration of a ‘bounded system’” (p. 61), and
defined the “within-site study” as one conducted at a single location. In the present study, the investigation was bounded by time and place. The site of the study was restricted to a single location at a university-based childcare center, and bounded by the place—one class at that center. The time boundary was limited to the duration of the study and the amount of time that the early childhood teachers and young children were observed. 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 childcare setting. In sum, a qualitative design was selected because it was appropriate and suitable.

Identification and Selection of the Participants

Setting

The present study was conducted at a university-based childcare center located in Central Pennsylvania. This early childhood program aims to “provide a supportive and nurturing environment by building a sense of community among parents, children, and staff” (College of Health and Human Development, The Pennsylvania State University, 2006). Based on the belief that the program is an extension of the family, “a family-like setting with continuity of care and caregivers for children and families” (College of Health and Human Development, 2006) is offered.

The program provides four infant-toddler classes for children aged 6 weeks to 3 years. In addition, children from 3 to 5 years of age are placed in one of the four preschool classes, and 5-year-old children are registered in one kindergarten class. Teachers in each class design the daily schedule from 9:30 a.m. to 4:15 p.m., Monday through Friday. The daily routine usually includes meals, nap time, and free-play, as well
as indoor and outdoor play. Indoor and outdoor activities usually depend on the weather and the teachers’ plan. The activities in the infant-toddler class often include seasonal events in which parents are encouraged to participate, such as the annual Christmas party, soup night, arts festival, and regular field trips. The operating hours of the early childhood center are from 7:30 a.m. to 6:00 p.m. Parents can drop off or pick up their child during the operating hours. For security reasons, the parents are personally required to sign their child in and out of the classroom. During the period of sign in and out, teachers can have conversations with parents about their children on such topics as health care, behavior, development, and achievement (G. A. Guss, personal communication, August 8, 2006).

Each class in the early childhood program is led by three full-time teachers and aided by two or three teaching assistants. The three teachers include one lead teacher and two other teachers. As the program description indicates, all teachers in the program are certified as early childhood teachers and are “highly skilled and trained in fields such as Human Development and Families Studies, Early Childhood Education, Elementary Education, and Special Education” (College of Health and Human Development, 2006). One of the important responsibilities for teachers is to “develop a curriculum that emerges from the children’s interests. Topics for exploration emerge from the conversations of and with children, through community and family events, and through knowledge of individual children’s particular interests” (College of Health and Human Development, 2006). The teaching assistants are students at the university who are employed as part of their work-study grant. Additionally, the class is often observed or assisted by majors from the university in Early Childhood Education, Educational
Psychology, and Human Development and Families Studies, who are taking practicum courses in their field.

Participants

Purposeful sampling is often used in a qualitative study to select participants because its goal is to select participants who can provide rich information from the research site with respect to the researcher’s purpose (Gall, Gall, & Borg, 2003). Therefore, early childhood teachers who work for the early childhood program just described and who are interested in teacher-child musical interaction were the prospective participants of this study.

Specifically, criterion sampling, a type of purposeful sampling, was used to recruit participants and for quality assurance in this study. According to Creswell (1998), “criterion sampling works well when all individuals studied represent people who have experienced the phenomenon” (p. 118), and individuals are expected to meet all criteria. Therefore, in order to select appropriate and information-rich participants for this study, criteria were established prior to participant selection to identify individuals who:

1. worked in the early childhood program;
2. were certified as early childhood teachers;
3. were caring for young children in the infant-toddler class;
4. were all teachers in the same infant-toddler class;
5. were willing to have the researcher provide music classes for their class;
6. agreed to participate in the music classes; and
7. had not observed music classes provided by the researcher.

Accordingly, early childhood teachers and children from one infant-toddler class
at a university-based childcare center located in Central Pennsylvania were the target for the participants. Since I was interested in investigating the nature of the musical interactions among early childhood teachers and infants/toddlers, any teacher who previously participated in my music classes was excluded. In addition, it was decided that the class with the largest number of teachers willing to participate would be chosen for the study. The individuals selected to participate in the study are described in the next chapter.

Data Sources

Numerous researchers caution that data collected for a qualitative study should consider the following:

1. There should be sufficient data sources to present an in-depth picture of the study (Creswell, 1998; Denzin & Lincoln, 2005; Yin, 2003). Adequate and multiple 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).

2. There must be 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 the researcher identify discoveries and confirm the same fact or phenomenon.

Hence, in order to gather sufficient data to answer the research questions and provide validity to support the findings, the data for this study were collected from a variety of sources including: (a) direct observations, (b) participant-observations, (c) interviews, (d) documentation, and (e) archival records.
Direct Observations

The purpose of direct observation is to capture the participants’ behaviors and environmental conditions, as well as to record what happened in the field (Denzin & Lincoln, 2005; Yin, 2003). In this study, three phases of direct observation were applied. First, prior to providing eight weekly music classes, I conducted one week of daily, two-hour observations of the natural musical interactions among the early childhood teachers and their young children. Second, during the eight weekly 30-minute music class periods, I observed the early childhood teachers’ and young children’s musical interactions in daily activities two hours per visit, two days per week. During the music class time, I also conducted participant-observation, which is discussed in the next section. Third, one month after the eight weeks of music classes, I conducted another week of two-hour daily observations of musical interactions among the early childhood teachers and young children.

The disadvantage of conducting direct observation is that the participants may change their behaviors when they realize that they are being observed by a researcher (Creswell, 1998; Gall et al., 2003). Thus, in order to minimize the participants’ awareness that they were being observed, I made direct observations from a one-way mirror observation room. Since this room is next to the classroom, the observation of the early childhood teachers’ and children’s musical interaction was limited to indoor classroom activities. When the children were playing outdoors during the direct observation time, I left the observation room and came back another time. However, I made the full number of observations each week.

Since taking field notes is an important method for supplementing recordings
through direct observations (Denzin & Lincoln, 2005; Silverman, 2004; Strauss & Corbin, 1998; Yin, 2003), I wrote field notes on the musical interactions among the teachers and young children that I observed during the study. The content of the field notes in this study included observations of music behaviors (such as singing, clapping, and gesturing), musical activity (such as playing instruments, moving to the songs, 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 the observations.

Furthermore, Yin (2003) suggested that “to increase the reliability of observational evidence, a common procedure is to have more than a single observer making an observation—whether of the formal or the casual variety . . . a case study investigation should allow for the use of multiple observers” (p. 93). Therefore, another observer, a research assistant, also made direct observations. Since this early childhood program often has students observe or assist with class, teachers and children are accustomed to having students involved in the classroom. A music education major, who is interested in early childhood music education and has been trained in a research course, conducted direct observations both inside and outside of the classroom, depending on the children’s activities. The research assistant conducted two-hour direct observations, two days per week, from 9:30 a.m. to 11:30 a.m. for nine weeks. Since the research assistant was not available in the last week of the study, I instead set up a digital video camera recorder in the classroom and twice recorded two hours of class activities. During the assistant’s direct observations, each indoor activity that the research assistant observed was video-recorded and field notes were taken. If the direct observation was located
outside of the classroom, only field notes were taken. For the observer’s convenience, and so that the assistant focused on the observation appropriately, I provided an observation protocol (see Appendix A).

*Participant-observations*

When the researcher becomes a participant observer, he or she may have the opportunity to perceive reality from the viewpoint of the participants inside the study (Yin, 2003). Moreover, when the researcher interacts with the participants in the field, not only does that individual develop a better understanding of the phenomenon but also builds trust between the participants and him- or herself (Gall, Gall, & Borg, 1999; Yin, 2003). In the present study, while I was providing eight weeks of 30-minute music classes for the young children, I was able to participate in the field and had the opportunity to observe carefully the early childhood teachers’ and children’s behaviors, conversations, emotions, gestures, and reactions to music activities. Notes for each participant-observation were written in a journal immediately after each music class. In order to review the teacher-child interaction during the music classes and substantiate the accuracy of the journal, all of the music classes were video-recorded. In addition, to gain the trust of the early childhood teachers and the children in the classes, I engaged in friendly and casual conversation with both teachers and children before and after each class.

*Interviews*

Interviews that use guided conversations are the most important data sources for a case study (Patton, 2002; Silverman, 2004; Strauss & Corbin, 1998; Yin, 2003). 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, the researcher is 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 had three purposes. First, they were used to obtain information from the early childhood teachers about their personal musical backgrounds and their musical experiences working with young children. Second, they allowed me to provide musical guidance and to help supplement the early childhood teachers’ musical knowledge. Third, the interviews gave the early childhood teachers sufficient time to talk with me and an opportunity to ask me questions about music activities or music resources.

In this study, one-on-one semi-structured interviews with guided questions were used. Patton (2002) emphasized that qualitative research relies on responses to open-ended questions; however, when the interviewee is too shy to speak and hesitant to share ideas, asking guiding questions may lead the participant to provide the perspective of the respondent. Thus, a semi-structured interview protocol which included guiding questions was developed (see Appendix B). Moreover, conversational-style interviews in a safe and comfortable place also allow the participant to feel free to share personal information (Patton, 2002). Therefore, these interviews were held in the childcare center lounge which provided comfortable seats and a quiet talking space.

Since an early childhood teacher must stay in the classroom with the children, and in order to encourage early childhood teachers to feel free to talk, it was more appropriate
to have individual interviews with me than to conduct group interviews in this study. For that reason, I conducted four 20-minute interviews with each early childhood teacher during the eight weeks when music classes were offered. According to the early childhood teachers’ convenience, all of the interviews were scheduled at the children’s nap time. Additionally, with the aim of reviewing and confirming the accuracy of the interview protocol, each interview was audio-recorded and later transcribed.

**Documentation**

Documentation is an important data source for a qualitative study. Yin (2003) indicated five advantages of collecting documentation sources for the case study. First, documentation provides exact information for the study such as the participants’ names, references, and the details of an event. Second, documents are stable data that can be reviewed repeatedly. Third, documents such as letters, written reports, proposals, and newsletters present broad coverage of evidence. Fourth, documents can provide specific details to corroborate or augment information from other sources. Fifth, documents may include communication among people.

In the present study, ideally, any documentary data that provided information about the children’s learning, the teacher’s teaching, and parent-teacher communication were collected. Documentation included the early childhood teachers’ journals and lesson plans, my music lesson plans, teacher-parent letters and reports, and program announcements. By collecting these documents, I gathered information about the children’s musical experiences and musical interests; the early childhood teachers’ musical activities preparation and musical resources; and the teacher-children’s musical relationships. One of the documents, the “Weekly Activities Experiences Plan”
(Appendix C), shows the types of musical activities that early childhood teachers provided for young children. This information was collected throughout the study.

Archival Records

Archival records may include a variety of computer files and records, such as organization records, service records, maps and charts of the geographical characteristics or layout of a place, lists of names, survey data, and personal records that produce meaningful information (Yin, 2003). Although archival records 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 a list of the children’s names and ages, their attendance records, the school activity calendar, and teaching materials such as music supplies. These archival materials produced additional relevant information related to the teachers’ and children’s musical responses, behaviors, activities, and interactions.

Data Collection Procedures

Creswell (1998) indicated that the “[data collection procedure] is a series of interrelated activities aimed at gathering good information to answer emerging researcher questions” (p. 110). In the present study, the data collection occurred in three phases from October 2006 through January 2007 (see Appendix D). Phase One occurred the first week of the study and focused on the natural musical interactions among the early childhood teachers and the children in their class. Phase Two occurred from weeks two to nine, during the period when I provided weekly music classes and investigated any musical interaction pattern changes. Phase Three occurred in the final week, one month after the
second phase ended, and examined the musical interaction changes over the length of the study. The details of these procedures are described below.

**Phase One**

The first study phase was a one-week direct observation of the natural musical interactions among the early childhood teachers and their young children based on their daily activities. I selected a random two-hour block each day Monday through Friday, and stayed in the one-way mirror observation room to observe the teachers’ and children’s indoor classroom activities; the research assistant conducted two 2-hour direct observations, either inside or outside of the classroom, depending on the day’s activities. The direct observation data that came from the assistant’s and my field notes were recorded in writing during each observation. In addition, the research assistant set up a digital video camera recorder to record each indoor classroom direct observation made.

**Phase Two**

In the second study phase, I provided eight weekly, 30-minute music classes for the children. The early childhood teachers were participating in music classes as well. I also conducted the participant-observations during each music class. Important events from my participant-observation were written in my journal and verified by the video recordings. In order to provide an understanding of the scaffolded music classes that I provided, the framework for the music class is presented as follows:

*Framework of the music classes.* Informal structured music guidance was the teaching strategy that I used in the music classes. Rutkowski (2006) indicated that informal guidance is like play:

. . . adult plays musically with the child . . . [Adult] sings and moves musically for
the children. Child may or may not participate . . . it is important that the child be immersed in a rich musical environment . . . [Adult] should give the child an opportunity to respond by leaving quiet space after each musical event, but should never correct any response from the child nor show frustration if the child does not participate. (p. 12)

As Gordon (2003) postulated, the informal teaching strategy can be divided into two categories: unstructured and structured. “When guidance is unstructured, the parent or teacher exposes the child to the culture naturally, without specific planning” (p. 3); on the other hand, “when guidance is structured, the parent or teacher plans the lesson specifically” (p. 3). In order to guide the children’s music learning and enhance their musical development, I prepared a music lesson plan for each music class (see Appendix E), and led the children in music activities. The children were encouraged to participate in the music activities; however, there was no expectation regarding their participation or specific musical responses.

When designing music lesson plans, the following principles were used to guide each lesson.

1. Variety of music activities. Include different types of activities such as singing, listening, chanting, playing, and moving (Bluestine, 2000; Campbell & Scott-Kassner, 2006; McDonald, 1993; Valerio et al., 1998).

2. Variety of musical components. Include a variety of tonalities, meters, and styles in songs and recordings. Also, singing tonal patterns with neutral syllables such as “bum”, singing songs both with and without words, and chanting rhythm patterns with neutral syllables such as “ba” should be included in each lesson (Gordon,
3. Repetition. Repeat songs and activities from lesson to lesson (Gordon, 2003; Palmer, 1993; Suzuki, 1983).

4. Order of the lesson. Alternate children’s sitting and standing movements as well as their singing, chanting, and moving; “dovetail between activities so only the mode or meter changes from one song/activity to the next” (Hsee & Rutkowski, 2006, p. 114).

5. Group and individual activities. Include music activities that allow music teachers to interact with the group and individuals (Fox, 1989; Sims, 1995; Suzuki, 1983).

6. Anticipation. Select songs and activities that allow children to “anticipate musical events and have opportunities to prompt a response” (Hsee & Rutkowski, 2006, p. 114).

7. Props. Use a variety of materials such as scarves, balls, stuffed animals, hula-hoops, instruments, etc (Andress & Walker, 1992; Gordon, 2003; Sims, 1995; Valerio et al., 1998).

When leading the music activities, I demonstrated music modeling at all times and barely gave any direct verbal instruction. Some important features of interactions that I used to scaffold the children’s music learning are illustrated below:

1. Leaving a pause. After I sang a song, sang a tonal pattern, or chanted a rhythm pattern, I would pause for a short period of time to allow the children to respond. Such a pause provided the children an opportunity to absorb, think, and respond to the music (Valerio, 2005; Valerio et al., 1998).

2. Taking a deep breath. Before singing a song, singing a tonal pattern, and modeling
a movement, I often took a deep breath. This allowed the children to be aware of
the phrasing of the music and anticipate the beginning of the music (Campbell,
1998; Valerio et al., 1998).

3. Acknowledging the children’s responses. When a child presented musical
responses such as babbling or body movement, I would insert that response into
the music context (Flohr, 2005; Gordon, 2001, 2003). For instance, when a child
babbled a rhythm pattern \( \frac{2}{4} \), I
would use that response as the beginning of a new pattern, such as:

\[
\begin{align*}
\frac{2}{4} & \quad \text{ba} \quad \text{ba} \\
\text{ba} \quad \text{ba} \quad \text{ba} \quad \text{ba} & \quad \text{ba} \quad \text{ba} \quad \text{ba} \quad \text{ba}
\end{align*}
\]

4. Engaging in musical conversations with the children. When a child exhibited a
musical reaction, I would respond by repeating or imitating his/her musical
response, and demonstrate other musical responses for him/her. This is similar to
adults maintaining a conversation with a child. Such engagement assists children
with exploring musical experiences (Levinowitz, 2001).

5. Encouraging children’s participation. Although musical responses were not
expected, the children were encouraged to participate in the music activities by
my non-verbal interactions, such as musical modeling (i.e., singing, chanting,
playing instruments, using movement which included flow, space, weight, and
time components), using facial expressions, eye contact, nodding the head, and
patting the children’s backs. The non-verbal interactions not only facilitated the
children’s music learning but also created a warm environment for the children
Hsee & Rutkowski, 2006).
Briefly, the music classes that I provided for the children were operated in concert with the structured activities. During the music class, I demonstrated music modeling, observed children’s participation and responses, and reacted to the children’s responses.

*Observations and interviews.* During this eight-week music class period, a two-day direct observation took place in order to gather musical interaction information during daily activities. I randomly observed the early childhood teachers and children’s classroom interactions in two-hour visits, two-days per week, from the one-way mirror observation room. The research assistant made the direct observation of the class from 9:30 to 11:30 a.m., two days per week. All the observations were collected and written up as field notes. As in the first phase of observation, each indoor classroom direct observation that the research assistant made was video-recorded. In addition to direct observation, four 20-minute one-on-one, semi-structured interviews with each early childhood teacher were conducted and audio-recorded in the childcare center’s lounge or observation room.

*Phase Three*

The third study phase, carried out one month after the eight weeks of music classes ended, involved another week of direct observation of the early childhood teachers and children’s musical interactions. As before, field notes were written when observing daily activities. As with the first phase, I randomly observed two hours per day, Monday through Friday, from the one-way mirror observation room. Instead of direct observation by the research assistant in this phase, I set up a digital video camera recorder to record two-hour in-classroom activity periods twice. Along with the data collection process, other documentation and archival records were collected frequently.
**Data Analysis**

The data analysis for this study follows the case study research analysis procedures outlined by Creswell (2003). The process of data analysis includes (a) organizing and arranging the data (i.e., transcribing interviews, typing up field notes, and sorting the documents into files); (b) reading through the data to obtain a general sense of the information; (c) encoding all of the data that emerge as “issue-relevant” into categories; (d) identifying themes that show the relationships between categories; (e) presenting and describing in detail of thematic information; and (f) forming direct interpretations based on each of the themes identified in the analysis.

**Data Verification**

In an effort to construct a valid and credible study, the following criteria were utilized to confirm the findings of the data analysis.

**Data Triangulation**

Data triangulation can lessen bias and help in making a truth proposition of phenomenon (Creswell, 2003; Gall et al., 2003; Yin, 2003). Yin (2003) stated that triangulated data indicate that “the events or facts of the case study have been supported by more than a single source of evidence” (p. 99). In the present study, data sources included direct observations, participant-observations, interviews, documentation, and archival records; through the process of corroborating these different sources, I obtained several types of evidence to support the findings and interpretation.

**Investigator Triangulation**

Patton (2002) specified that similar data gathered from different investigators could present more convincing and accurate information. In the present study, two
observers—the research assistant and I—aimed to gather data regarding the interaction of early childhood teachers and children in a childcare center. Compiling the two observers’ field notes not only helped to provide a more holistic picture of the investigation but also assisted to determine agreement between the research assistant’s and my observations of the musical interaction of the early childhood teachers and the children. In addition, substantiation of the transcripts occurred by studying the video-recording of the in-classroom activities and music classes which also assisted to verify the observations.

**Strong Chain of Evidence**

Organizing the chain of data increases the credibility of the study findings. “The researcher can help readers [make their own assessment] by providing clear, meaningful links between the research questions, the raw data, the analysis of these data, and the conclusions drawn from the data” (Gall et al., 1999, p. 304). Yin (2003) also stated that the researcher should maintain a chain of evidence that “allows the readers to follow the derivation of any evidence, ranging from initial research questions to ultimate case study conclusion” (p. 105). He specified that the chain of evidence allows the readers to be able to trace the steps from the research questions to the conclusions, or from the conclusions back to the initial research questions. In this study, the chain of evidence includes the research questions that guided the study, the observation and interview protocol, citations of the information, the database created to store the data sources, and the presentation of the report.
CHAPTER FOUR

Findings

Overview of the Methodology

Purpose and Research Questions

The purpose of this study was to explore the nature of musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program. More specifically, the musical interactions among early childhood teachers and infants/toddlers in their daily activities, and whether the teachers implement scaffolding in their musical interactions were investigated. Additionally, I participated in the study as a music teacher and provided music classes that were grounded in a scaffolded interactional model (Hsee & Rutkowski, 2006). Throughout the study, perceived changes in the musical interactions between the early childhood teachers and the children in their daily activities and music classes were observed and recorded.

Two primary research questions were posed to guide this study:

1. What is the nature of the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

2. What principles of scaffolding are present in the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

These questions were investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended. In addition, changes in the behaviors of early childhood teachers and children and the ways in which they interacted during the music classes
were of interest.

Design of the Study

A within-site case study (Creswell, 1998) design was utilized to accomplish the purpose of the study. One infant-toddler class from an early childhood daycare program at a university in Central Pennsylvania was selected. Twelve young children including five infants and seven toddlers, and three early childhood teachers in the same class were the participants. The data sources included direct observations, participant-observations, interviews, documentation, and archival records. The data collection process was conducted in three phases: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended.

Phase One

Phase One was a one-week period prior to any music classes being offered. During this study phase, the research assistant and I spent a total of 14 hours observing the musical interactions of the early childhood teachers and the children in their daily activities. I randomly selected two-hour blocks of class time and observed the class from a one-way mirror observation room from Monday through Friday. The research assistant conducted two-hour observations twice, inside or outside the classroom depending on the class activities during this phase. Therefore, I was not visible to the children or teachers during the observations; the research assistant was visible.

Phase Two

Phase Two, from weeks 2 to 9, was an eight-week period during which I provided weekly music classes to the participants. This second study phase consisted of three
components:

1. **Music class**: I provided 8 weekly, 30-minute music classes for the children. The early childhood teachers and the children were encouraged to participate in the music classes. In the music classes, I used informal structured guidance to scaffold the children’s music learning. Each music lesson plan included (a) a variety of music activities (Bluestine, 2000; Campbell & Scott-Kassner, 2006; McDonald, 1993; Valerio et al., 1998), (b) a variety of musical components (Gordon, 2003; Taggart, 2000; Valerio, 2005), (c) repeating songs and activities from lesson to lesson (Gordon, 2003; Palmer, 1993; Suzuki, 1983), (d) alternating children’s sitting and standing movements as well as their singing, chanting, and moving (Hsee & Rutkowski, 2006), (e) group and individual activities (Fox, 1989; Sims, 1995; Suzuki, 1983), (f) selecting songs and activities that allowed children to have opportunities to prompt a response (Hsee & Rutkowski, 2006; Valerio, 2005), and (g) using props (Andress & Walker, 1992; Gordon, 2003; Sims, 1995; Valerio et al., 1998).

As to the informal guidance in the music classes, I led every music activity, engaged in limited verbal instruction, and demonstrated as a music model by singing, chanting, moving, and playing in the classes. Some features of interactions that I used to scaffold the children’s music learning in the music classes included: (a) leaving a pause (Valerio, 2005; Valerio et al., 1998), (b) taking a deep breath (Campbell, 1998; Valerio et al., 1998), (c) acknowledging the children’s responses (Flohr, 2005; Gordon, 2001, 2003), (d) engaging in musical conversations with the children (Levinowitz, 2001), and (e) encouraging
children’s participation (Hsee & Rutkowski, 2006). Importantly, children were encouraged to participate in the activities; however, any specific musical response in the music classes was not anticipated.

2. Observations: In addition to my participant-observations during each music class time, the research assistant and I observed the early childhood teachers and the children’s musical interactions in their daily activities. I randomly observed the class for two hours twice a week from the observation room. The research assistant conducted two-hour observations twice every week either inside or outside the classroom. Observations totaled 8 hours each week.

3. Interviews: In order to obtain the early childhood teachers’ personal musical backgrounds, their musical experiences working with young children, and to allow the teachers sufficient time to talk with me, I conducted four 20-minute one-on-one semi-structured interviews with the early childhood teachers in the daycare center lounge.

*Phase Three*

*Phase Three* consisted of one week of observations one month after the end of Phase Two. As with Phase One, I observed the musical interactions of the early childhood teachers and the children in their daily activities. I conducted two-hour observations in the observation room, Monday through Friday. In order to gather additional data, and since the research assistant was not available, two-hour daily activity periods were video-recorded twice. Therefore, 14 hours of observation were completed during Phase Three.

Additionally, all in-classroom observations conducted by the research assistant as
well as the music classes were video-recorded, and the interviews between each early childhood teacher and me were audio-recorded. Along with this data collection process, documents and archival records were also collected. I transcribed the field notes and journals from the research assistant’s and my observations and the interview transcripts into computer files.

To clarify the data sources in the report, abbreviations were used (letter, date): the letter R indicated the source as my (the researcher’s) field notes; RA indicated the source as the research assistant’s field notes; J meant a journal source; and I meant an interview source. At the end of the entry, the date was recorded, for example, 11/02/06. These designations are indicated in this chapter for the presentation of the data analysis. For example, I, 11/02/06, indicates data from an interview source on November 2, 2006. In addition, for privacy and confidentiality, a pseudonym was used for the names of all participants as well as the Center.

Data Analysis

Data were analyzed according to the following steps: (a) organizing and arranging the data (i.e., transcribing interviews, typing up field notes); (b) reading through the data to obtain a general sense of the information; (c) encoding all of the data that emerge as “issue-relevant” into categories; (d) identifying themes that show the relationships between categories; (e) presenting and describing in detail of thematic information; and (f) forming direct interpretations based on each of the themes identified in the analysis.

Participants

Selection

According to the specific criteria for selecting participants identified in Chapter
Three, four infant-toddler classes at the Child Development Center, a university-based early childhood daycare center, were the target classes for the participant selection. Since I had been providing music classes for one of the four infant-toddler classes for the last two and one-half years, the early childhood teachers from this class were not considered as possible participants. Teachers in three of the other infant-toddler classes were considered as possible participants for this study. However, since a teacher from one of the other three infant-toddler classes had previously taught and participated in one of my music classes, this teacher was not selected. More importantly, in order to investigate the musical interactions within one infant-toddler class, all three early childhood teachers in the same class who were interested and agreed to participate in the study were considered first. As a result, the class with three interested teachers was selected rather than the class with two teachers who also indicated interest in participating in the study. The class chosen is identified in this study as BabyRock.

Description of the Setting

The class, BabyRock, is one of the four infant-toddler classes and is located at the end of the East wing of the Child Development Center at the university. The teachers created the setting and the decorations of the classroom, which is a comfortable, cozy, and safe environment for the children. The classroom was divided into several areas, including the cubby area, dramatic play area, reading area, free play area (red carpet), music/movement area (rainbow carpet), infants’ area, diaper-changing area, and sensory development area (see Appendix F). The parents’ sign-in sheet, parent-teacher information, weekly activities plan, and weekly reflections journal were organized and placed on the filing cabinet near the cubby area. The parents were welcome to read any of
these documents. The facilities in the classroom consisted of a variety of learning materials such as toys, music instruments, CDs, a CD player, a toy kitchen set, books, art supplies, a sensory table, costumes, a climber, chairs and tables. The children were free to play with toys, instruments, the toy kitchen equipment, and climber, or to read books in any area they wished.

The BabyRock class daily routine schedule for fall 2006 included breakfast, free-play, music/stories/quiet play, lunch, diapers and potty time, teeth brushing, nap time, snack, indoor and outdoor play (see Appendix G). When the class played outside, the teachers usually hung a sign such as “on the playground”, “at the hockey rink”, “downtown walk”, “around campus walk”, etc., on the front door of the classroom to inform parents or visitors where the class had gone. Although the daily class routine was scheduled, the indoor and outdoor activities usually depended on the weather, the teachers’ plan, and the children’s interest (I, 11/02/06).

Description of Participants

Three early childhood teachers and 12 children, ages 4 to 33 months, from the BabyRock class participated in the study. The teachers’ and children’s profiles are briefly described as follows:

Teacher Sarah

The lead teacher of the class, Ms. Sarah, graduated from the College of Human Development and Families Studies (HDFS) of the university and is certified as an early childhood teacher. She has been working with young children for almost ten years. With much love for caring for young children, she has been teaching the BabyRock class at the Child Development Center for six years.
Ms. Sarah grew up in a musical family in which her father played the cello and her mother the piano and flute. Her parents often sang songs to her when she was little. Ms. Sarah took violin lessons when she was young and as an undergraduate in college. Although she was not taking music lessons or participating in any formal ensembles at the time of this study, she played the violin and sang songs frequently to her own children at home, just as her parents did for her.

Ms. Sarah attended several in-service teacher conferences that have included music sessions for early childhood teachers. However, she did not think that she had benefited from these music sessions. As Ms. Sarah said:

I think I always get [music ideas] out of them (early childhood music educators), but nothing I can use often here at the Center . . . Like I got good tips, but nothing sticks with me . . . maybe it’s because those tips don’t fit into our classroom situation. (I, 11/03/06)

Therefore, Ms. Sarah was interested in finding more music workshops or conferences that would provide appropriate and workable music activities and sources for her classroom setting.

As the lead teacher of the class and believing that children always enjoy music, Ms. Sarah tried to set up music time as part of the classroom routine. However, she said, “I have never been able to find something to keep their interest constantly. So, I’m really excited that you (the researcher) are to come. Because you will be the key, [children] will see you will be the music” (I, 11/03/06).

In general, with her own musical background, Ms. Sarah felt comfortable making music, which included singing, playing instruments, and doing movement with children
in the class. But, Ms. Sarah found it difficult to manage time for music on a regular basis and challenging to keep her children’s attention and interest when providing musical activities. She believed that a music teacher could help children develop their music interest and keep them engaged in musical activities.

*Teacher Yvonne*

Ms. Yvonne started as a teaching assistant at the Child Development Center when she was studying at the university. With an art education degree, Ms. Yvonne worked as a substitute art teacher in a high school after she graduated from college. She was disappointed to not establish a closer relationship with high school students and colleagues; thus, she returned to the Child Development Center. At the Center, Ms. Yvonne has had more opportunities to communicate with parents and colleagues than she did at the high school. She has also been able to witness children’s growth. After receiving two years of early childhood education in-service training, Ms. Yvonne had been teaching the *BabyRock* class for the last nine months.

Ms. Yvonne had been involved in musical learning since she was young. In addition to eight years of piano training, she taught herself guitar and performed with friends. Ms. Yvonne not only enjoyed playing instruments but also singing. She participated in a choir when she was studying at college. In order to keep singing, Ms. Yvonne joined a church choir and practiced singing every week. She specified that singing in the church choir regularly made her feel more confident about singing for the children.

As a novice early childhood teacher, Ms. Yvonne stated that she had never attended any conferences or workshops related to early childhood music training. She
further indicated that she learned about children’s songs, musical activities, and how to engage children musically from other teachers in the classroom. She believed that observing other teachers assists her in providing a variety of music activities for the children. Providing music for children is joyful for Ms. Yvonne. She said:

. . . because I like music and I can play some music, so I could share my music experience with [children]. Although I don’t know too many children’s music activities, I learned from Brenda and Sarah (the other two teachers). Now, I know some songs or music that [the children] like, so I do music more. . . . [Young children] can’t tell if you are good or bad in singing . . . they just like music. . . If they know the song that I’m singing or the activity that I do, they get happy . . .

So I like to sing or do music for them. (I, 11/03/06)

*Teacher Brenda*

This was the fourth year of teaching at the Child Development Center for Ms. Brenda. Before she began her career at the Center, she worked with children in different early childhood programs for seven years. Ms. Brenda liked working with children of every age. She taught a preschool class when she started to work at the Center but then applied to take care of infants and toddlers. Ms. Brenda realized that she enjoyed taking care of young children when she was in high school. She attended the HDFS program at the university and was certified as an early childhood teacher after she graduated.

Ms. Brenda was never involved in musical learning, such as joining a choir, taking music classes, or playing any instrument. However, she believed that “music could help children’s development in every subject . . . and should be introduced at a young age” (I, 11/02/06). Ms. Brenda attended several national and state early childhood
conferences that included early childhood music education sessions. However, she indicated that these music sessions did not meet her needs.

I thought [the music sessions at conferences] wasn’t directed toward us, it’s kind of for parents . . . I don’t want to just sit and listen to someone talking about why music is important. I already knew that, I want more hands on stuff. (I, 11/02/06)

Additionally, Ms. Brenda took her 2-year-old daughter to a group early childhood music program every week. She pointed out that because she saw how the music teacher conducted the music class, she used some of the ideas in her class. Ms. Brenda also considered music as a tool for managing the class. She said, “I think music is important to do . . . it’s a good transition for them . . . Although I am not a good singer or dancer, I often use music to occupy them and kids like it” (I, 11/02/06).

Overall, Ms. Brenda did not have confidence in her musical ability because she lacked music training, but she thought that teachers should assist children in exploring their musical experience at a younger age, and that music could be used as a transition tool for the class.

To summarize, although these three early childhood teachers had different musical backgrounds and may or may not have had the confidence to provide music for young children, they all valued the importance and joyfulness of the music experience for young children. They all indicated that having more hands-on activities would help them provide musical experiences for their class.

Children’s Profile

The BabyRock class included 12 infants and toddlers. As shown in Table 4.1, six girls and six boys aged 4 to 33 months participated in the study. The children’s profile is
organized based on their age at the beginning of the study (October 2006).

Table 4.1  
*Children in the BabyRock Class*

<table>
<thead>
<tr>
<th>Name*</th>
<th>Gender</th>
<th>Age (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger infants (birth–9 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lauren</td>
<td>Girl</td>
<td>4</td>
</tr>
<tr>
<td>Ivan</td>
<td>Boy</td>
<td>6</td>
</tr>
<tr>
<td>Mobile infants (8–18 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeff</td>
<td>Boy</td>
<td>15</td>
</tr>
<tr>
<td>Alyssa</td>
<td>Girl</td>
<td>16</td>
</tr>
<tr>
<td>Jovanna</td>
<td>Girl</td>
<td>16</td>
</tr>
<tr>
<td>Toddlers (16–36 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emma</td>
<td>Girl</td>
<td>22</td>
</tr>
<tr>
<td>Michael</td>
<td>Boy</td>
<td>25</td>
</tr>
<tr>
<td>Chloe</td>
<td>Girl</td>
<td>30</td>
</tr>
<tr>
<td>Noah</td>
<td>Boy</td>
<td>30</td>
</tr>
<tr>
<td>Ashton</td>
<td>Boy</td>
<td>31</td>
</tr>
<tr>
<td>Kayla</td>
<td>Girl</td>
<td>31</td>
</tr>
<tr>
<td>Ryan</td>
<td>Boy</td>
<td>33</td>
</tr>
</tbody>
</table>

* Not the child’s real name

*Vignette of BabyRock Class Daily Activity*

To provide a picture of the early childhood teachers and the children in their daily activity, the following segment is a narrative of their classroom life.

12:35 p.m.-12:42 p.m., Thursday, November 19, 2006

Ms. Brenda sits on the rainbow carpet with the group of nine children. She holds Jovanna in her lap, then opens a book and shows it to the children. She starts singing, and she rolls her arms like running wheels. Alyssa stares at Ms. Brenda curiously. Another child, Jeff, comes over to the group, and then walks away. Ms. Brenda keeps singing. As Ms. Brenda sings
the second verse,

Chloe, Noah, Ryan, and Lauren move their hands right and left as Ms. Brenda does. Ms. Brenda smiles at them. She sings several verses and does the motions as the song indicates. However, Emma, Jovanna, and Ashton look at the book attentively without paying attention to Ms. Brenda’s motion.

Ms. Brenda turns the book to the last page; the picture shows a mother holding a baby. She asks, “What does mommy do on the bus?” “I love you,” Ryan says immediately, with a very loud, excited voice. Ms. Brenda looks at him, nods her head, and says, “I love you.” Then she sings:

```
The wi - pers on the bus go swish swish swish
```

puts her arms across her chest while she is singing “I love” and points to children when she sings “you.” Ryan looks at Ms. Brenda with his mouth open. Soon, Ryan, Alyssa, Chloe, and Noah imitate Ms. Brenda’s motion with some giggling sounds. Ryan also mimics Ms. Brenda singing the phrase “I love you.”

Realizing that Jovanna has turned her head to her, Ms. Brenda holds Jovanna’s hands and shows her how to do the motion when she sings the second phrase “I love you.” All the children are doing the motion cheerfully.

After finishing this verse, Ms. Brenda turns the book to the beginning and sings

```
The mom-my on the bus says I love you I love you I love you
```

and rolls her
arms again. Chloe reads the book and does the motion on her own. She holds her feet and moves forward and backward. Ms. Brenda stops singing and says to Chloe, “The bus does this?” (She also imitates Chloe’s motion.) Chloe smiles and keeps doing her motion. Ms. Brenda starts to sing the song again, this time with Chloe’s motion.

Afterwards, “What does Emma do on the bus?” Ms. Brenda asks Emma. Emma, without a moment’s hesitation, answers, “round and round.” Ms. Brenda says, “round and round again!?!?” Then she starts to sing the song again with the motion of rolling her arms.

After finishing setting up the beds for naptime, Ms. Sarah comes and joins the group. She holds Alyssa in her lap. She sings the song softly with Ms. Brenda. While Ms. Sarah is singing, she sways and pats the melodic rhythm on Alyssa’s leg. Alyssa sits quietly, feels tired, and almost falls asleep on Ms. Sarah’s arm. Brenda looks at the clock, closes the book, and sings:

![Musical notation](image)

While she is singing, many children stand up and go to their bed. After Ms. Brenda finishes singing, Ms. Sarah says to the children, “Good listening.” Then she turns the light off.

Results

The musical interactions among the early childhood teachers and the children in their everyday activities and music classes were identified through three phases of data collection: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended. All of the data were analyzed according to
the following steps: (a) organizing and arranging the data, such as transcribing interviews, typing up field notes, and sorting the documents into files; (b) reading through the data to obtain a general sense of the information; (c) encoding all the data that emerge as “issue-relevant” into categories; (d) identifying themes that show the relationships between categories; (e) presenting and describing in detail of thematic information; and (f) forming direct interpretations based on each of the themes identified in the analysis.

When I designed this study, I had suspected that my observations may influence the nature of early childhood teachers’ musical interaction with children. In other words, the teachers might change their behavior if they knew they were being observed by me. Thus, when I conducted the study, I stayed in the one-way mirror observation room. In this way, I was invisible to the teachers and the children. My research assistant often stayed and set up the camera in the kitchen where she could see the whole classroom environment but not involve or block a space in the classroom. After I compared the researcher’s and my field notes, similar music activities, materials, and interactions between the early childhood teachers and the children were documented in both our observations. When I watched the videotapes that recorded the children’s daily activities, it was much like what I had seen from the observation room. Accordingly, the musical interactions documented between the early childhood teachers and the children seemed unaffected by the investigation of the study.

Research Question One: Nature of Musical Interactions

What is the nature of the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program? The question was investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher
providing music classes; (b) Phase Two: during the period when a music teacher provided
music classes; and (c) Phase Three: one month after music classes ended. In addition,
changes in the behaviors of early childhood teachers and children, and the ways in which
they interacted during the music classes were included.

Although the frequency of music activities and the length of the musical
interactions varied each day, the nature and pattern of the musical interactions among the
early childhood teachers and the children were apparent. According to data analysis, the
process of the musical interaction among the early childhood teachers and the children
occurred in three stages: (a) initiation of the interaction, (b) continuation of the
interaction, and (c) conclusion of the interaction. The specific patterns in each interaction
stage were carefully identified. Analysis of the data for these three stages, changes among
study phases, and musical interactions in music classes are presented in the following
section.

*Stage One: Initiation of the Interaction*

Musical interactions were initiated by either the early childhood teachers or the
children. According to the research assistant’s and my observations, the ways that the
early childhood teachers and children initiated the musical interaction were different and
some types of initiation occurred in only one or two phases of the study (see Table 4.2).
Table 4.2

*Initiation of the Interaction*

<table>
<thead>
<tr>
<th>Teachers’ Initiation of the Interaction</th>
<th>Patterns</th>
<th>Exhibited Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Teachers asked a question</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Teachers selected a song from a CD and played it on a CD player</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Teachers sang a short phrase of a song for the children</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Teachers sang a short tonal pattern with neutral syllables for the children</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Teachers played a short rhythm pattern on an instrument for the children</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Teachers read a storybook to start the musical interaction</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children sang a short phrase of a song with text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children sang a short phrase of a song with neutral syllables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children sang a short tonal pattern with neutral syllables</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children babbled or chanted a rhythm pattern with neutral syllables</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children played a short rhythm pattern on an object</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children pointed to the CD player</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children brought a storybook to the teachers</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Children danced</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

*Teachers’ initiation of the musical interaction.* When initiating the musical interaction, the early childhood teachers used one of the following patterns:

1. **Teachers asked a question.** The early childhood teachers often directed a general question to the group of children, such as “Anybody wants to dance?” or “Shall we read a book or sing a song?” When the teachers asked the question of the whole group of children, however, they did not really expect to receive an answer from the children. In other words, no matter what the children’s response, the teachers always started the music interaction, either by singing a song, playing music, or dancing.
On the other hand, when the early childhood teachers asked a question of an individual child, the response that the child gave would help the teachers decide whether to continue or stop the musical interaction with the child. For example, Ms. Yvonne asks Emma, “Do you want this one (boomwhacker—a plastic percussion tube)?” (She also shows the boomwhacker to the child). “Yeah,” Emma says and grabs the boomwhacker from Ms. Yvonne, who then picks up another boomwhacker and says, “Listen!” (She hits it on the floor) . . . (R, 10/20/06). In a different example, Alyssa is standing in front of the CD player. Ms. Yvonne notices this and asks her, “Alyssa, do you want to dance?” Alyssa picks up her baby doll on the floor and walks away. Ms. Yvonne does not say anything; she keeps cleaning the table (R, 10/19/06).

2. **Teachers selected a song from a CD and played it on a CD player.** The early childhood teachers often played a CD to engage the children together. One example from the observation data demonstrated this: Ms. Brenda is standing in front of the CD player; she takes out several different CDs . . . Finally, Ms. Brenda selects and plays the song “YMCA.” Kayla hears the music, puts her blocks away, and runs to the carpet. Ms. Brenda says, “Come on, friend! Rainbow carpet!” She starts to clap her hands along with the song; Kayla sways her body and claps her hands too . . . (RA, 10/23/06).

3. **Teachers sang a short phrase of a song for the children.** Singing could be heard any time and any place in the infant-toddler class. The early childhood teachers often started a short phrase of a song, either singing the text or humming the tune. The following is an example outside of the classroom: while the teachers and
children are walking to the IM Building (gymnasium), Ms. Yvonne starts to sing,

\[
\begin{align*}
\text{Where is ring-man? Where is ring-man?}
\end{align*}
\]

Jeff points to his finger . . . (RA, 11/10/06).

4. **Teachers sang a short tonal pattern with neutral syllables for the children.**

The early childhood teachers sang a short tonal pattern with neutral syllables, especially while they interacted with individual infants. Sometimes, they made up their own tonal patterns; sometimes they used patterns from a children’s song. They often combined different neutral syllables such as “du” and “bum.” An example documented from diaper-changing time: Emma finishes her lunch; she is playing on the climber. Ms. Sarah goes to her, brings her back to the diaper-changing table. Ms. Sarah gives Emma rubber gloves to play with. When Ms. Sarah changes Emma’s diaper, she hums

\[
\begin{align*}
\text{. . . (R, 10/20/06).}
\end{align*}
\]

5. **Teachers played a short rhythm pattern on an instrument for the children.** If an instrument was around, the early childhood teachers sometimes played a short rhythm pattern on it. The rhythm pattern that the teachers played could be a random pattern or the pattern from a song. For example, Ms. Yvonne walks by the red carpet (many instruments are placed on the red carpet, several children are playing with a ball without paying attention to the instruments), then she pats

\[
\begin{align*}
\text{on a drum. Ashton stops throwing the ball, walks toward the drum and grabs it . . . . (R, 12/08/06).}
\end{align*}
\]
6. **Teachers read a storybook to start the musical interaction.** Some storybooks were also songbooks. These books were placed on the bookshelf in the classroom, for example, “The Farmer in the Dell”, “Wheels on the Bus,” “Baby Belunga”, “Ten Minutes Till Bedtime”, and “Five Little Monkeys Jumping on the Bed”, etc. The early childhood teachers often read the story first and alternated singing the song with telling the story.

Overall, the early childhood teachers utilized a variety of materials including CDs, storybooks, and instruments to begin the musical interaction with the children. The early childhood teachers confirmed that “. . . kids have certain songs they like, for example, they like the song ‘Shake the Sillies Out’ very much lately. So, if I (Ms. Sarah) put that CD on, the kids would all come to the rainbow carpet . . .” (I, 12/01/06). “. . . A lot of stories are songs. Kids like those. Because I (Ms. Yvonne) know what story they like and kids also like ‘repeating’ . . . I often use those storybooks to engage them” (I, 11/10/06).

In addition, asking children questions was a common technique to start the musical interaction. Information from the interviews conveyed the notion that whether the children responded or not to the teacher’s question or singing, the teacher would still play the music or sing along. As Ms. Brenda stated:

> I often bring the children to the rainbow carpet and ask what music they want to sing or dance, but most of time I choose it for them . . . because they can’t tell me exactly what they want, so I just do it . . . (I, 11/30/06)

*Children’s initiation of the musical interaction.* Due to the infants’ and toddlers’ limited language development, they may not fully verbalize their feeling or desire for music and musical interactions. Therefore, very young children often initiated the musical
interaction by using babbling sounds or gestures. If the early childhood teachers noticed
the children’s initiation patterns, the musical interaction continued. Based on the
observations, the children initiated musical interactions in the following ways:

1. **Children sang a short phrase of a song with text.** The children, especially
toddlers, may continue singing that short phrase of a song over and over. The
phrase usually was the identical pattern of the song, for example,

   ![Jingle Bells musical notation]

   *Jingle Bells, jingle Bells, jingle all the way from the song “Jingle Bells.”*

2. **Children sang a short phrase of a song with neutral syllables such as “la” and
   “na.”** Similar to their singing a short phrase of a song with text, the children often
repeated the phrase identically as it occurred in the song but without words.

3. **Children sang a short tonal pattern with neutral syllables.** When the children
exhibited singing behavior, they made up a short tonal pattern by using the neutral
syllables “da,” “wu,” “la,” “na,” and “di.”

4. **Children babbled or chanted a rhythm pattern with neutral syllables.** Both
infants and toddlers babbled or chanted rhythm patterns with neutral syllables
such as “ba,” “da,” “ma,” “ta,” “na,” and “di.” The difference in babbling or
chanting a rhythm pattern between infants and toddlers was the length of the
pattern. While the toddlers tended to chant a longer pattern such

   ![Rhythm pattern notation]

   the infants tended to
babble a shorter pattern, such as:
5. **Children played a short rhythm pattern on an object.** Although the children tended to play rhythm patterns on instruments, they would also randomly tap a pattern on the table or any object.

6. **Children pointed to the CD player.** The infants were too young yet to speak, so they used their body language to communicate with the teachers. Pointing to the CD player was the most frequent gesture that the young children used to ask for music.

7. **Children brought a storybook to the teachers.** Since many storybooks were on the bookshelf in the classroom, the children could look at them as they wished. The children sometimes brought a book to the teachers, asked the teachers to read the story or sang the song for them.

8. **Children danced.** The children moved their body in dance fashion. Their body movements included bouncing, waving, swaying, twisting, and twirling. Notably, the children danced with or without music.

*Comparison among phases.* Initiation of musical interactions was found in the daily activities of both the early childhood teachers and the children. Selecting a song from a CD seemed to be the most popular initiation pattern exhibited by the early childhood teachers in the three phases. Notably, the CDs that the early childhood teachers often used were the same throughout the study. In Phase One, the teachers initiated musical interaction by asking children a question, reading a storybook, singing a song, and singing a tonal pattern with neutral syllables to the children directly. It was recognized that the teachers tended to sing tonal patterns more often to young infants than
to the other children.

In Phase Two, there was less evidence of teachers asking the children a question or using a storybook to begin the musical interaction. However, the frequency of the teachers singing a short tonal pattern with neutral syllables for the children increased. The teachers not only sang with neutral syllables to the young infants but also to the mobile infants and toddlers. A greater variety of songs was sung by the teachers toward the end of the second study phase. Additionally, the teachers began to play a short rhythm pattern on the instruments for the children. Interestingly, although there were many kinds of instruments in the classroom, the teachers tended to use only drums and shakers to play the rhythm patterns.

In Phase Three, the early childhood teachers continued using CDs and storybooks, and sang songs to initiate the musical interaction. The types of instruments that the teachers used were more diverse than those used in Phases One and Two, and included triangles, sand blocks, and a toy piano. Instead of singing short tonal patterns with neutral syllables, however, the teachers tended to sing songs with text. Moreover, the practice of the teachers asking the children a question to begin the musical interaction was not observed in the third study phase. This may imply that the teachers started the interaction directly without asking the children’s interest. From my observations, the early childhood teachers already seemed aware of the children’s music interest, such as whether the child liked to dance or which child would like a certain song. Thus, the teachers initiated the music interaction by themselves and apparently found it unnecessary to verbally ask children what they wanted.

In contrast to the early childhood teachers who often used CDs to initiate a
musical interaction, the children tended to use physical techniques, including bringing a storybook to the teachers, pointing to the CD player, and dancing throughout the study. In Phase One, children would play a rhythm pattern on an object to initiate the musical interaction. Both infants and toddlers exhibited babbling or chanting of a short rhythm pattern with neutral syllables to initiate the musical interaction, but singing a short tonal pattern with neutral syllables was only observed in the toddlers.

In Phase Two, the children exhibited more initiation patterns. The children also started to sing songs to initiate the musical interaction. The songs they sang either with text or with neutral syllables were the songs that the teachers usually sang to them in the class. In addition, vocalization, including singing tonal patterns and babbling/chanting rhythm patterns, were demonstrated more frequently by the children during the second study phase. More often, when the children danced alone, they looked around the room and checked if anyone was watching them. If they noticed that the teachers were watching them, the children would smile and keep dancing. If nobody paid attention to them, the children often left the music area sooner. This meant that the musical interaction had not been initiated because no one had responded to the children.

In Phase Three, although the children used fewer types of patterns to initiate musical interaction than they did in Phase Two, the frequency of the children’s initiating the musical interaction increased. Similar to the early childhood teachers’ initiation patterns in Phase Three, the children tended to sing a song with the text rather than with neutral syllables. However, neutral syllables were used when the children babbled or chanted rhythm patterns. The laying of rhythm patterns on an object and babbling/chanting of rhythm patterns were identified more frequently than in Phases One
Stage Two: Continuation of the Interaction

The continuation of the interaction was the sequence of the procedure that the early childhood teachers used to continue their interaction with the children. According to my observations and interviews, the early childhood teachers’ actions and reactions in the continuation of the interaction, as well as in the children’s responses to the interaction, could be recognized as having numerous patterns. Remarkably, not all of the patterns were present in each continuation of one interaction. Besides, the order of the patterns in the continuation of the interaction did not always follow the same sequence. These patterns were carefully encoded and identified into several themes.

Teachers’ actions and reactions. The early childhood teachers’ actions and reactions were the behaviors and responses they used when engaging the children in musical interactions. The patterns of the teachers’ actions and reactions could be categorized as verbalization, non-verbal gesturing, modeling, accommodation, observation, imitation, collaboration, utilization, and application (see Table 4.3). In the following examples, the initiation of the interaction is often included to set the context for the continuation.
Table 4.3

Continuation of the Interaction: Teachers’ Actions and Reactions

<table>
<thead>
<tr>
<th>Themes/Patterns</th>
<th>Exhibited Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Verbalization</td>
<td></td>
</tr>
<tr>
<td>Teachers asked the children questions</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers used direct verbal guidance</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers used verbal praise</td>
<td>✓</td>
</tr>
<tr>
<td>Non-verbal Gesturing</td>
<td></td>
</tr>
<tr>
<td>Teachers exhibited physical manipulations to involve the children</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers exhibited supportive gesturing</td>
<td>✓</td>
</tr>
<tr>
<td>Modeling</td>
<td></td>
</tr>
<tr>
<td>Teachers demonstrated singing, chanting, playing instruments, and moving</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers’ demonstrations corresponded with verbal instruction</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers followed the directions of the materials (CDs or books) to exhibit musical behaviors</td>
<td>✓</td>
</tr>
<tr>
<td>Accommodation</td>
<td></td>
</tr>
<tr>
<td>Teachers accommodated the children’s musical interest</td>
<td>✓</td>
</tr>
<tr>
<td>Observation</td>
<td></td>
</tr>
<tr>
<td>Teachers observed the children’s responses and then adjusted the instruction or demonstration accordingly</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers paused for the children to respond to the music played</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers observed the group and then interacted with individuals</td>
<td>✓</td>
</tr>
<tr>
<td>Imitation</td>
<td></td>
</tr>
<tr>
<td>Teachers imitated each other’s musical behavior</td>
<td>✓</td>
</tr>
<tr>
<td>Collaboration</td>
<td></td>
</tr>
<tr>
<td>Teachers collaborated with other teachers</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers collaborated with the children</td>
<td></td>
</tr>
<tr>
<td>Utilization</td>
<td></td>
</tr>
<tr>
<td>Teachers used musical materials</td>
<td>✓</td>
</tr>
<tr>
<td>Application</td>
<td></td>
</tr>
<tr>
<td>Teachers transferred the children’s playing to the familiar children’s songs</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers used music to help the children learn</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers created various texts for familiar melodies of the children’s songs</td>
<td>✓</td>
</tr>
<tr>
<td>Teachers transferred the children’s verbal responses to music</td>
<td>✓</td>
</tr>
</tbody>
</table>
1. **Verbalization:** Teachers used words to direct or engage the children in the musical interaction.

1.1 **Teachers asked the children questions.** Asking children questions seemed to be one type of technique to keep the children engaged in the musical conversation. Although the young children may not have been able to answer a question fully, the early childhood teachers posited a question to engage the children in the interaction process. A documented observation from the conversation between a teacher and a mobile infant: (Ms. Brenda and a group of children sit together on the red carpet, the instruments are placed on the floor) Ms. Brenda shakes a bell and says, “Shake, shake, shake! I like the way these bells sound.” Emma, who sits next to her, hits a drum hard. Ms. Brenda says to Emma, “Does this sound (she points to the drum) like bells (she shakes the bell)?” Emma answers, “Yes.” Ms. Brenda keeps asking, “It does? This sounds (she points to the drum again) like this (she shows the bells to Emma)?” Emma nods her head . . . (RA, 11/29/06).

1.2 **Teachers used direct verbal guidance.** Direct verbal guidance meant that the early childhood teachers’ statements provided specific instructions for what they wanted the children to do. Another documented example: Ms. Sarah tries to teach the children the song, “The Hokey Pokey.” She sings the song and does the motion . . . The second time, she sings the song a little more slowly:
(she sings and repeats the motion)” and says “RIGHT HAND! Use your right hand”
Then, she continues to sing:

(she again repeats the motion) and says, “SHAKE! Alyssa, you need to
shake your hand.” Alyssa is doing nothing while Ms. Sarah is singing.
After Alyssa hears Ms Sarah call her name, she twists her waist instead of
shaking . . . (R, 01/25/07).

1.3 Teachers used verbal praise. Giving positive verbal feedback in response
to the children’s musical behavior often occurred during the continuation
of the interaction. As the observation data documented: Noah sings:

along

with the recording on the CD while he is playing with clay on the table.
Ms. Brenda says, “Nice singing, Noah! What a beautiful voice!” Noah
puts the clay down and runs to the rainbow carpet, then dances along with
the music (RA, 10/20/06).

2. Non-verbal gesturing: Teachers used physical gestures or facial expression to
interact with the children.

2.1 Teachers exhibited physical manipulations to involve the children. The
early childhood teachers sometimes used gestures such as holding the
children’s arms, or taking the children’s hands to engage them in the music, especially with young infants. A typical example between the early childhood teachers and the infants: Ms. Sarah and Ivan, face to face, sit together on the floor. Ms. Sarah holds Ivan’s hands and rocks him back and forth while she is singing

\[\text{Row row row your boat gently down the stream} \ldots \] (R, 11/14/06).

2.2 **Teachers exhibited supportive gesturing.** The supportive gestures implied by the early childhood teachers included facial expressions and physical gestures such as smiling, nodding their head, hugging, patting the children’s back, making eye contact, and opening their eyes wide. For example, Alyssa remains on the rainbow carpet, bouncing up and down while the other children are playing in water at the sensory table. Alyssa turns her head to the table. Ms. Yvonne, who is sitting close to the table, smiles at Alyssa. Ms. Yvonne also nods her head with Alyssa’s bouncing. Alyssa smiles at the teacher and continues her dancing . . . (RA, 11/03/06).

3. **Modeling:** Teachers demonstrated musical behaviors for the children in the continuation of the interaction.

3.1 **Teachers demonstrated singing, chanting, playing instruments, and moving.** Although moving and singing were the most frequent kinds of musical modeling demonstrated by the early childhood teachers, chanting and instrument playing could also be found in their daily activities. The
following serves as an example: (The children are preparing for a walk)

While Ms. Yvonne is helping the children put on their coats, Ms. Brenda stands against the door, holding the rope, and chants:

```
\[ \text{\textbf{2/4}} \text{ Forward march, Forward march, Every body Forward march} \]
```

with a vigorous voice. Ryan and Noah watch Ms. Brenda and repeat after her:

```
\[ \text{\textbf{2/4}} \text{ Forward march, Forward march, Every body Forward march} \]
```

They seem excited to go out; they jump up and down while imitating Ms. Brenda’s chanting . . . (RA, 11/17/06).

3.2 Teachers’ demonstrations corresponded with their verbal instruction.

The early childhood teachers’ musical demonstrations such as clapping, moving, or playing instruments were constantly followed by their verbal instruction. For example, (A group of children are dancing along with the CD on the rainbow carpet). Michael is standing next to the climber. Ms. Yvonne asks “Hey, Michael, can you wiggle?” Michael does not respond to her. Ms. Yvonne wiggles her body for him and says, “Like this, you can do this!” (And she wiggles again) Michael twists his body . . . (R, 10/17/06).

3.3 Teachers followed the directions of the materials (CDs or books) to exhibit musical behaviors. While listening to music, the early childhood teachers often showed the movements as indicated by the song. For example, when Ms. Yvonne plays the CD “Animal Zoo”, she pinches her
nose and puts her left arm in front of her nose to pretend that she is an elephant when the song comes to “walk like a heavy elephant”... (R, 10/25/06). On the other hand, the early childhood teachers would sing the song when they read the story book that corresponded to a specific song. An example from the observation data describes: Ms. Brenda beginning to read “The Farmer in the Dell” on the rainbow carpet. She shows the picture to the children and sings,

4. **Accommodation**: Teachers often followed children’s interests or desires.

4.1 **Teachers accommodated the children’s musical interest.** The children had their own interest in musical activity and preference for music. Although younger children did not express their musical interest verbally, the early childhood teachers always tried to understand their interest and follow their requests. From the observation data: (The children are dancing with the song “Freeze.”). Ms. Yvonne comes back from answering the telephone and begins dancing with the children... when the music finishes, some children says, “Again, again.” Jovanna points to the CD player. Ms. Yvonne plays the song again... Jovanna wiggles her body exaggeratedly... (R, 12/05/06).

5. **Observation**: The early childhood teachers observed the children frequently. Although the teachers may or may not have responded to the children’s musical behaviors, many musical interaction patterns used with the children and adjusted
by the teachers were based on their own observations of the children’s behaviors.

5.1 **Teachers observed the children’s responses and then adjusted instruction or demonstration accordingly.** Since the musical interaction among the early childhood teachers and the children often happened in the group setting, the teachers observed both the group and the individual child’s responses and made adjustments to assist the individual’s understanding or accomplishment. An illustration from a movement activity: (Ms. Sarah and a group of children are dancing on the rainbow carpet, Ashton is holding a toy alligator and pretending they are flying) Ms. Sarah is singing the song “The Body Rock” along with the CD . . . Suddenly she stops. Ms. Sarah asks, “Ashton, can you jump?” and she jumps. Ashton follows her jump. Ms. Sarah starts to sing and jump along with the song. Then Ms. Sarah asks the group, “Can you do one foot?” Ms. Sarah starts to sing the song and hop on one foot. But Noah can’t do it. Ms. Sarah realizes this and changes back to jumping . . . (R, 12/01/06).

5.2 **Teachers paused for the children to respond to the music played.** Leaving a pause in the continuation of the interaction was exhibited when the early childhood teachers did not complete the songs by themselves; rather, they allowed a short period of time for the children to respond. The following is an illustration of this sequence in the free-play setting: Chloe uses blocks to make a microphone and shows to it to Ms. Brenda. Ms. Brenda puts her “microphone” close to her mouth and sings:
and then pauses.

Then she looks at Chloe and puts the microphone near Chloe’s mouth.

Then Chloe sings:

![Music notation]

and then pauses. (R, 11/30/06).

5.3 Teachers observed the group and then interacted with individuals.

Even when the early childhood teachers interacted musically with the group of children, they also paid attention to each child and interacted with individuals. An example shows: Ms. Sarah taps the beats on a tambourine and dances along with the music. A group of children imitate her dancing . . . She says, “You guys dance very pretty today” . . . Ms. Sarah gives the tambourine to Chloe. Chloe pats the tambourine as Ms. Sarah had. Ms. Sarah then picks up a triangle and strikes it, and Emma walks toward her. Ms. Sarah hands the triangle to Emma and helps her to hold it . . . (R, 01/23/07).

6. Imitation: Teachers imitated the musical behaviors of others, including children, other early childhood teachers, and the music teacher.

6.1 Teachers imitated each other’s musical behavior. The early childhood teachers imitated the musical behavior of each other, the children, and the music teacher. Movement was the most frequent musical behavior of the children that the early childhood teachers imitated. However, these
teachers also imitated the singing, chanting, and finger play of each other and the music teacher. For example, when the music teacher chants a finger play “Here is a Beehive” with Jeff, Ms. Sarah is also mimicking the chant and imitating the music teacher’s reaction to Noah (J, 10/31/06).

7. **Collaboration**: Teachers joined other’s musical activities to maintain or assist musical interaction.

7.1 **Teachers collaborated with the other teachers.** Since the three early childhood teachers worked in the same class, they shared the teaching responsibilities and worked together. When the teachers joined other teachers’ musical activities, they also presented a musical model for the children. Here is an example: Ms. Yvonne plays the melody of “Twinkle, Twinkle, Little Star” with boomwhackers. Ashton and Michael are sitting next to her. Ashton holds a boomwhacker without playing. Ms. Sarah comes and sings along with the song:

```
Twinkle, twinkle little star, How I wonder what you are.
```

Ashton drops the boomwhacker and joins Ms. Sarah’s singing “How I wonder what you are?” (R, 12/07/06).

7.2 **Teachers collaborated with the children.** When the children played music instruments or exhibited music behaviors such as singing, the early childhood teachers joined the same activity. They shared the music as partners. As the observation data show, Michael is patting a drum on the red carpet, and Jeff is watching him. When Ms. Yvonne comes in and
notices Michael’s playing, she starts to chant:

\[
\begin{align*}
\text{One little monkey jumping on the bed} & \\
\end{align*}
\]

Meanwhile, Jeff claps his hands and Michael pats his drum harder and harder (R, 1/25/07).

8. **Utilization**: Teachers used musical materials including instruments, toys that play music, and scarves to engage children’s attention or facilitate their interest.

8.1 **Teachers used musical materials such as instruments and toys.** In the classroom, musical instruments (see Appendix H) and toys with music were placed on the shelf. The children could play these materials as they wished. The early childhood teachers often used instruments or toys that play music to attract infants’ attention. For example, Lauren is crying in the cradle, so Ms. Sarah picks her up and puts her on the rainbow carpet. Laura is still crying. Ms. Sarah finds a castanet and plays it in front of Laura’s face . . . Laura stops crying and tries to grab the castanet (R, 01/23/07).

9. **Application**: Teachers selected music that was appropriate to the learning environment and used music to create that environment. When the teachers used music in the classroom environment, they demonstrated their musical experience and understanding of how to use music to facilitate the children’s learning. For example, the teachers selected songs to fit the children’s play activities.

9.1 **Teachers transferred the children’s play to familiar children’s songs.**

The early childhood teachers selected songs that coordinated with the
children’s learning situation. For example, the children quietly play at the sensory table with the toy animals including horses, cows, pigs, and roosters. Ms. Sarah is sitting next to them. She looks at the children and

![Music notation]

sings:

Old Mac-Donald had a farm, E-I-E-I-O...

She continues to sing different animals to children (RA, 12/01/06).

9.2 Teachers used music to help the children learn. The early childhood teachers used specific songs to teach children specific things, such as the “ABC Song,” “Head, Shoulders, Knees, and Toes,” “Clean Up Song,” “Today is Monday,” etc. Here is a typical example: Ms. Brenda says, “Come on, friends, let’s play a game” to a group of children sitting around her. She starts to sing:

![Music notation]

and points to these parts of her body. Alyssa stands up. Ms. Brenda keeps singing the song and pointing to Alyssa’s body parts . . . When Ms. Brenda sings the song several times, Alyssa does some motions herself (R, 12/05/06).

9.3 Teachers created various texts for familiar melodies of the children’s songs. The early childhood teachers sometimes made up words to a familiar tune. For example, during one observation, most of the children finish their lunch and play on the red carpet. Ms. Brenda is feeding Noah. Noah is paying attention to Michael who is playing with a toy truck on the
red carpet. Lisa sings:

\[ \begin{array}{c}
& \text{Where is Noah? Where is Noah?} \\
\end{array} \]

to the melody of “Are You Sleeping?” Noah smiles, turns his face, and points to Ms. Brenda. Ms. Brenda puts a hot dog on the fork and then sings:

\[ \begin{array}{c}
& \text{Where is hot dog? Where is hot dog?} \\
\end{array} \]

when she puts the fork to Noah’s mouth . . . (R, 10/17/06).

In addition, the teachers often inserted the child’s name into a children’s song or changed the lyrics to match the children’s play. For instance, when Ms. Sarah saw Kayla was playing with a toy pig, she sang

\[ \begin{array}{c}
& \text{Old Miss Kay-la had a farm, E-I-E-I-O! And on her farm she had a pig, E-I-E-I-O!} \\
\end{array} \]

(RA, 12/01/06).

9.4 **Teachers transferred the children’s verbal responses to the music.** The early childhood teachers seized the opportunity to transfer the children’s words to music. For example, Ms. Brenda asks the children to clean up the room before watching a movie . . . Kayla picks up a toy, puts it back on the shelf, and shouts, “I’m ready, I’m ready.” Ms. Brenda hears Kayla and sings:

\[ \begin{array}{c}
& \text{If you're rea-dy to watch mov-ie clap youhands, if you're rea-dy to watch mov-ie clap youhands} \\
\end{array} \]

. . .
In sum, the patterns that have been identified in the continuation of the interaction demonstrated how the early childhood teachers conducted musical interactions, how they reacted to the children’s responses, and how they used their familiarity with music in daily activities with the children. As Ms. Sarah mentioned:

I don’t plan music for the class, but we have some sort of music activities everyday . . . I don’t really know the specific steps to interact musically with kids, I just do it. I can add some songs or movement into the children’s play. I think it comes from experience . . . Although we do not plan music ahead, we just know that’s the song that goes along with that type of children’s play. We could sing when we are playing . . . and kids love it. They always enjoy music stuff. (I, 11/10/06)

Moreover, Ms. Yvonne indicated:

I tend to do something that I’m familiar with . . . I sing or do something that I’m comfortable with, what I’m used to doing, ‘cause it’s easier that way . . . I would use the music that I know well and the music that kids like . . . I think music for me is singing, dancing, and playing . . . I’ve never thought about how to do them, but I do them to get the kids’ attention and engage them or myself in the music . . . (I, 11/10/06)

Briefly, the patterns that the early childhood teachers exhibited in the continuation of the interaction came from their teaching and music experiences. Although the early childhood teachers did not realize the specific patterns that they revealed in the continuation of the interaction, they tended to use music that they knew, or music that
children liked, in order to engage the children in the musical interaction process. In fact, by using music with which they felt comfortable, the early childhood teachers interacted naturally with the children.

*Children’s responses to the musical interaction.* During the continuation of the interaction, the children’s responses affected the early childhood teachers’ use of the patterns of interaction. According to the data sources, the children’s responses could be categorized into two themes: interactive and non-interactive behaviors (see Table 4.4). Both kinds of behaviors conveyed the children’s actions in the continuation of the interaction.

Table 4.4

<table>
<thead>
<tr>
<th>Children’s Responses</th>
<th>Continuation of the Interaction</th>
<th>Exhibited Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Interactive Responses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children imitated the teachers’ demonstrations</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children followed the teachers’ instructions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children adjusted the teachers’ instructions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children rejected the teachers’ interactions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children exhibited emotional expression in response to the teachers’ interactions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Non-interactive Responses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children ignored the teachers’ interactions</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children observed the teachers’ demonstrations</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Children hesitated in response to the interactions</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

1. **Interactive behavior**: When the children responded to the musical interactions directly by exhibiting a musical response or imitating, they showed interactive behavior. In addition, the children responded to the teachers’ interaction with positive and negative emotional expressions including facial and physical
expressions.

1.1 **Children imitated the teachers’ demonstrations.** The children responded to the teachers by imitating what the teachers demonstrated, including body movement and vocal illustration.

1.2 **Children followed the teachers’ instructions.** The children listened to the teachers and exhibited the same behaviors that the teachers had instructed them to do.

1.3 **Children adjusted the teachers’ instructions.** The children responded to the teachers by following their instructions. However, the behaviors that the children showed did not demonstrate exactly what the teachers modeled or instructed.

1.4 **Children rejected the teachers’ interactions.** Rejection was not commonly found as a response by the children in a musical interaction. Nevertheless, the toddlers sometimes used the word “no” to reject the teachers’ interactions.

1.5 **Children exhibited emotional expression in response to the teachers’ interactions.** The children exhibited happy and excited positive responses to the teachers’ interactions, such as smiling, laughing, giggling, or opening their eyes wide. On the other hand, the children also exhibited negative emotional expression to the teachers’ interactions. For instance, the children sometimes cried, frowned, turned their head away, or struggled.

2. **Non-interactive behavior:** Non-interactive behavior occurred when the children
did not respond to or engage in an interaction. The children gave no response
directly.

2.1 **Children ignored the teachers’ interactions.** The children walked away
or did not pay attention to the teachers. They showed no interest in the
teachers’ interactions and tended to keep focusing on their playing.

2.2 **Children observed the teachers’ demonstrations.** The children watched
or listened to the teacher; however, they did not show any active response.
Oftentimes, they stared or gazed with an open mouth. Such behavior has
been documented by Gordon (2003) as an “audiation stare” (p. 85), which
occurs when the children begin to be aware of the sound or movement in
their environment.

2.3 **Children hesitated in response to the instructions.** The children did not
always respond to the teachers immediately; they delayed their responses.
They appeared to be non-responsive but then a few seconds or minutes
later they exhibited a response.

Generally, the children’s responses might be influenced by their interest in the
music itself or in the patterns that the teachers used to interact with them. Importantly,
children as young as infants responded to the teachers’ interactions in some way.

Comparison among phases. During the continuation of the musical interaction in
the daily activities of the early childhood teachers and the children, observation seemed
to be an important interaction pattern for the early childhood teachers to evaluate the
children’s participation and responses throughout the study. In general, the teachers often
provided direct verbal guidance to instruct the children’s musical learning and verbal
praise to encourage the children’s participation. Also, using physical manipulations to involve the children in musical participation and providing supportive gestures for the children were found to occur frequently. While the teachers demonstrated musical modeling such as singing, moving, and instrument playing, imitation usually became the next interaction pattern of the children. Most of the time, the children imitated the teachers’ modeling, but the teachers would also imitate the children’s musical behavior. When teachers used musical materials, including instruments, storybooks, or scarves to facilitate the interaction, it seemed that both teachers and children felt more excited. In addition, the early childhood teachers at times followed the children’s interest to repeat the music activities or followed the motions that the lyrics indicated. In other words, the early childhood teachers accommodated the children’s requests and used materials to keep the musical interactions proceeding.

In Phase Two, collaboration between the early childhood teachers was revealed. The teachers started to join in with the other teachers’ music activities. They might demonstrate the same musical behavior such as singing along, or clapping along; otherwise they might demonstrate the musical partner relationship, including one singing the song and the other playing an instrument, or one dancing and the other tapping the beat. It seemed that the teachers shared the music with each other as well as enjoyed the music itself. Furthermore, the ways in which early childhood teachers applied music to their classroom situation became more diverse during Phase Two. The teachers created various texts using the children’s familiar songs and improvised on the children’s vocal responses to the music. The children seemed to enjoy the teachers’ improvisation, especially when the teachers inserted the children’s names into the song.
Notably, musical interactions related to the continuation of the interaction among the early childhood teachers and the children changed gradually toward the end of Phase Two. For example, the early childhood teachers’ use of physical manipulations to involve the children in the musical interaction decreased; instead, the teachers increasingly provided a brief pause for the children to respond to them toward the end of the second phase. In addition, instead of exhibiting direct verbal guidance or demonstrations that corresponded with verbal instructions to the children, the teachers tended to use single words such as “Listen!” or “Look!” to get the children’s attention, and then provided a demonstration by singing, playing an instrument, or dancing. In other words, although the teachers still verbalized during the musical interaction, modeling became the main interaction mode rather than verbalization. Nevertheless, it was observed that the teachers asked the children questions during the continuation of the interaction in Phase Two. It seemed that when the teachers asked the children questions, they not only engaged the children in the interaction process but also encouraged their musical thinking rather than just giving directions for them to follow. Additionally, as the teachers indicated in the interviews, in order to meet the children’s needs, the teachers learned to exhibit the pattern of adjusting the instruction or demonstration immediately after they observed the children’s responses. This may indicate that the teachers became more aware of the children’s musical experience and ability.

In Phase Three, not many changes were observed in accommodation, imitation, observation, and providing supportive gesturing, but other interaction patterns exhibited differences to some extent. At the end of the second study phase, although the teachers’ use of verbal instruction had declined, direct verbal guidance to instruct the children’s
music learning increased again in the third study phase. Moreover, the early childhood teachers less frequently used physical manipulations to involve the children in the musical interaction. However, these behaviors were observed when the teachers sang a song for individual infants. When they interacted with the toddlers, the teachers usually provided modeling with verbal instruction.

The most recognizable difference in Phase Three was the teachers’ collaboration with the children during the continuation of the interaction. The early childhood teachers and the children would cooperate with each other when singing or playing instruments. For example, a teacher would be reading a story for a child, and the child would take a drum to accompany the story. Such collaboration between the early childhood teachers and the children was scarcely found in Phases One and Two. Another noteworthy change was that the teachers used a greater variety of musical instruments to interact with the children; the frequency of using the music instruments increased as well. The teachers regularly took the instruments off the shelf and placed them on the floor for the children, and sometimes the teachers borrowed instruments from the preschool class. When the teachers placed the instruments on the floor, the children often came and played them with the teachers. The teachers might model playing the instrument or give it to the children. It seemed that when the teachers were sitting and playing instruments with the children they stayed in the area and explored the instruments longer. Additionally, the teachers would use instruments while dancing along with the music, a behavior not observed in the previous study phases.

The early childhood teachers incorporated various texts into the children’s familiar songs, and transferred the children’s vocal responses to the music—both of
which were exhibited almost every day. However, the teachers were not observed using
music to help children learn or transfer music into their play during Phase Three.

The children’s responses during the continuation of the interaction seemed to
provide the early childhood teachers a basis for presenting the interaction patterns and
keeping the interaction process going. In Phase One, the children might ignore the
teachers, observe, imitate the teachers, or follow the teachers’ instruction. Also, the
children’s positive or negative emotional expressions indicated whether they enjoyed or
did not enjoy the musical interaction with the teachers.

Approaching the end of Phase Two, the children exhibited more response patterns
than in Phase One, such as hesitating in responses, adjusting, and rejecting the interaction.
The toddlers not only demonstrated that they followed the teachers’ instruction but also
that they considered the teachers’ instruction and adjusted her modeling or instructions.
For instance, when the teacher said, “move your hands left and right,” the children might
sway their hips left and right. Moreover, some toddlers exhibited rejection behavior by
saying “No” to the teachers.

In Phase Three, the children often presented interactive responses to the teachers’
musical interaction. The children seldom ignored the teachers’ interaction or hesitated in
the teachers’ musical interaction. In other words, the children often responded to the
teachers right away. This might indicate that the children became accustomed to the
teachers’ musical interaction, so they knew how to respond to them. Another possibility
might be that the teachers’ musical interactions evoked the children’s musical interest;
thus, the children always responded to the teachers. Besides, it could be due to the
children’s maturation; the infants started to exhibit response patterns such as listening to
and following the teachers’ instruction in Phase Three.

**Stage Three: Conclusion of the Interaction**

The interaction process may or may not be completed by the teachers or the children (see Table 4.5). In general, when the early childhood teachers noticed that the children were tired, or the next activity was planned, they finished the musical interaction immediately. Similarly, when the children had no interest in the music, they ended the musical interaction by asking to do something else. However, if the musical interaction was interrupted by the classroom situation, such as teachers going to assist other children, reprimanding children, answering the telephone, talking to parents, etc., the interaction may not have been completed in the usual sense. In other words, lack of any formal ending to the interaction was interpreted as no conclusion.

Table 4.5

**Conclusion of the Interaction**

<table>
<thead>
<tr>
<th>Patterns</th>
<th>Exhibited Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teachers Conclude</strong></td>
<td></td>
</tr>
<tr>
<td>Teachers combined verbal and physical gestures to finish the</td>
<td>✓  ✓</td>
</tr>
<tr>
<td>musical interaction</td>
<td></td>
</tr>
<tr>
<td>Teachers used verbal instruction to signal the end of the interaction</td>
<td>✓  ✓</td>
</tr>
<tr>
<td>Teachers made up songs to direct the children to the next activity</td>
<td></td>
</tr>
<tr>
<td><strong>Children Conclude</strong></td>
<td></td>
</tr>
<tr>
<td>Children combined verbal and physical gestures to finish the</td>
<td></td>
</tr>
<tr>
<td>musical interaction</td>
<td>✓</td>
</tr>
<tr>
<td>Children gave the teacher another object</td>
<td>✓  ✓</td>
</tr>
<tr>
<td>Children brought the teacher to another place</td>
<td></td>
</tr>
<tr>
<td><strong>No Conclusion</strong></td>
<td></td>
</tr>
<tr>
<td>Teachers left the children alone</td>
<td>✓  ✓  ✓</td>
</tr>
<tr>
<td>Children walked away</td>
<td>✓  ✓  ✓</td>
</tr>
</tbody>
</table>

*Teachers conclude the musical interaction.* The following patterns that were
identified through the research assistant’s and my observations demonstrate the closing stages of the early childhood teachers’ interactions as follows:

1. **Teachers combined verbal and physical gestures to finish the musical interaction.** When the music activity, including dancing, singing, or playing an instrument, was finished, the teachers often said, “Yeah,” and clapped their hand to signify that the musical interaction was finished. This gesture may also imply that the teachers were admiring and encouraging the children’s musical demonstrations and participation. In a situation like this, the children always imitated the teachers’ clapping.

2. **Teachers used verbal instruction to signal the end of the interaction.** The early childhood teachers gave verbal feedback to the children’s musical participation and then directed them to the next activity verbally. For example, a group of children are dancing on the rainbow carpet . . . Ms. Brenda comes and says “Good job, Jovanna! Jovanna’s dancing. Now, I want everyone to go wash your hands . . .” (RA, 12/08/06).

3. **Teachers made up songs to direct children to the next activity.** When the early childhood teachers had a specific plan prepared for the children, they made up new words into a children’s song and provided the direction for children to follow. For example, the observation data documented: Ms. Yvonne is reading the book and singing the song “Wheels on the Bus” for the children on the red carpet . . . Ms. Sarah informs Ms. Yvonne that they need to help children to get coats before they take the children for a walk. . Ms. Yvonne nods her head and sings,
The second verse she sings

and she sings the third verse as “If you’re wearing a yellow shirt, go get your coat . . .” After several verses, all the children have their coats on. While Ms. Yvonne is singing, everyone lines up in front of the door and leaves the room (R, 11/02/06).

*Children conclude the musical interaction.* When the music or music activity did not keep the children’s attention, or they were not interested in the music anymore, the children terminated the musical interaction.

1. **Children combined verbal and physical gestures to finish the musical interaction.** This was the same pattern as the teachers’ combining verbal and physical gestures to finish the musical interactions. Especially when a movement activity was finished, the children would say “Yeah” and clap their hands, which indicated that the children copied this pattern from the teachers and wished to conclude the interaction.

2. **Children gave the teacher another object.** Since the infant-toddler classroom is an open environment, the children may be attracted by other toys or books. They brought certain objects to the teachers to conclude the musical interaction.

   However, the children continued to interact with the teachers, but not musically.

3. **Children brought the teacher to another place.** Young children seldom used
words to say that they had no interest in the teachers’ musical interaction.

However, the children held the teacher’s hand and walked to another place. This demonstrated that the children did not want to continue the musical interaction with the teachers but wished to move on to a different activity.

No conclusion. In most situations, the musical interaction lacked a formal ending. In other words, the musical interaction had no conclusion. The various ways in which this was exhibited are detailed below.

1. Teachers left the children alone. Many times the musical interaction was stopped by a different child’s behavior such as when the teacher needed to comfort a crying child or reprimand a child. Also, when parents or visitors came to class, the teachers sometimes needed to have conversations with them; therefore, the musical interaction was finished without any formal ending. In this kind of situation, the children either continued the music activity by themselves or just walked away.

2. Children walked away. In the infant-toddler classroom setting, children were encouraged to play anything they wished. When the children were not interested in an activity, they did not need to stay. In other words, when the children had no interest in the music or music activity, they left the teacher alone and walked away.

In sum, the early childhood teachers may or may not have had an opportunity to complete the musical interaction. Generally, if the early childhood teachers had time, the children had musical interest, or the next activity was already planned, the teachers would stop the musical interaction with a formal ending pattern. If not, the musical interaction
might stop without any conclusion.

Comparison among phases. No conclusion was the most common ending of the interaction between the early childhood teachers and the children in all three phases. Frequently, the musical interaction was ended by the children’s lack of interest in the teachers’ music activities, or the interaction was interrupted by something else. In Phase One, the teachers’ combination of verbal and physical gestures was the only formal conclusion pattern exhibited to end the interaction between the teachers and the children.

The children began to conclude the musical interaction actively in Phase Two. For example, instead of engaging in music interaction, the infants gave a teacher a toy or the toddlers asked a teacher to read a book. This might imply that the children did not want to conclude the interaction, but just wished to change the subject. In such situations, the teachers often stopped the music immediately and accommodated the children’s interest or requests. The teachers began to give verbal direction to indicate the end of the music, particularly when the children played instruments. Notably, it became common for the teachers to make up songs to direct the children to the next activity.

In Phase Three, the use of verbal instruction to direct the children at the end of the interaction was the only pattern found in the teachers’ conclusion of the interaction. The children, on the other hand, actively presented a conclusion pattern such as clapping their hands in movement activity to end the interaction. It seemed that the children were able to conceptualize the ending of the music interaction and demonstrated their joyfulness in dancing. Therefore, the teachers did not need to conclude the interaction as frequently—the children seemed to take more ownership of the length of the interaction. A new conclusion pattern, meaning that the children brought the teachers to another place,
was found in Phase Three. It was commonly observed that the mobile infants or toddlers held the teachers’ hand and walked to a different area, such as the dramatic play area or the sensory table, to end the musical interaction while the teacher was singing or playing an instrument with them.

**Summary**

The natural of musical interactions among the early childhood teachers and the young children included three stages: initiation, continuation, and conclusion. Both the early childhood teachers and the children exhibited equally important roles in the musical interaction. According to the data analysis, the teachers and/or the children initiated the musical interaction. The teachers often used a CD, storybook, asked a question, sang a short tonal pattern with neutral syllables, or sang a short phrase of a song for children to begin the musical interaction. Playing a short rhythm pattern on an instrument to initiate the musical interaction became frequent in Phases Two and Three. Interestingly, possibly due to infants’ and toddlers’ language development, the children tended to use physical gestures such as dancing, pointing to the CD player, bringing a storybook to the teachers, or patting a rhythm pattern throughout the study to initiate the musical interaction more than did the teachers, who were more likely to verbalize. The children sometimes also demonstrated vocal musical behaviors, including singing a short phrase of a song with text or neutral syllables, singing a short tonal pattern with neutral syllables, or babbling or chanting a rhythm pattern. Notably, toward the end of this study the frequency of the children’s initiating the musical interaction in the daily activities was higher than that of the teachers.

In the continuation of the interaction, it seemed that the early childhood teachers
displayed more interaction patterns than the children. The teachers’ action and reaction patterns could be categorized according to several themes: vocalization, non-verbal gesturing, modeling, accommodation, observation, imitation, utilization, collaboration, and application. Although these themes did not all emerge in the continuation of each interaction event, they provided an understanding of the musical interaction among the early childhood teachers and the children. During the continuation of the interaction, the early childhood teachers often observed the children, verbalized instructions, demonstrated physical manipulations to involve the children, provided modeling, imitated the children’s behavior, used musical materials, and followed the children’s music interest. Throughout the study, the teachers used fewer physical manipulations to involve the children in the musical interaction. Instead of using direct verbal guidance in Phase One, teachers tended to use short words such as “Look” or “Listen,” followed with musical modeling to attract the children’s attention and ask the children a question to engage them in Phase Two. However, the teachers used more direct verbal instruction to guide the children in Phase Three, which was similar to the interaction situation in Phase One.

The teachers paused more frequently to give the children an opportunity to respond beginning in Phase Two. Collaboration, such as teachers joining the music activity of other teachers and the children and interacting with each other as partners, became popular in Phases Two and Three. Also, the teachers used instruments more often and they used a greater variety of instruments in the third study phase. In addition to using music to instruct the children, the teachers were more active in creating various texts for familiar songs and singing to the children, and in improving the children’s vocal
responses to music. Such applications were used more frequently in the third study phase than in the second phase.

Based on the children’s interactive or non-interactive responses including imitation, following or adjusting the instructions, emotional expression, observation, ignoring, and hesitation, the teachers reacted to them differently. The children began to exhibit responses, such as rejecting the teachers’ interaction, adjusting the teachers’ instruction, and hesitating to interact in Phase Two. Notably, ignoring an interaction was not identified in Phase Three. In other words, the children always responded to the teachers in some way.

Regarding the conclusion of the interaction, the lack of a conclusion was the most common ending of a musical interaction throughout the study. For instance, the early childhood teachers went to answer the phone or the children walked away. When there was a formal ending pattern, just as in initiation of the musical interaction, the interaction was concluded by either the early childhood teachers or the children themselves. The early childhood teachers were likely to use verbal instruction to signal the end of the interaction in Phase Two and Three or made up songs to direct the children to the next activity in Phase Three. The children presented an active conclusion pattern in Phases Two and Three including giving the teacher another object or taking the teacher to another place to substitute for the musical interaction.

Musical Interactions in Music Classes

According to the data analysis, musical interactions in the music classes changed among the early childhood teachers and the children in certain ways. Interestingly, three early childhood teachers had different participation experiences in the music classes and
presented different changes. Each teacher’s participation and changes during music classes were discussed, as below.

Ms. Sarah was the most engaging teacher in the music classes. She always tried to sing along with me. Even though she did not really know the song, she mimicked the melodies and words with my singing. Ms. Sarah was comfortable echoing my rhythm patterns and imitating my movements such as dancing, swaying, or clapping. She often showed excitement in her facial expressions to the children in the music classes. When she did this, the children always smiled at her or bounced up and down. This implies that children get excited when they see teachers get excited. This type of interaction was not only found in the music classes but also in Ms. Sarah’s daily activities. This teacher’s comment during one interview confirmed this conclusion:

[Children] get excited . . . If one gets excited, other kids kind of follow along, then everybody gets excited. Specially, if they see teachers excited. Even if they don’t know why but they just follow along with those, the whole class. (I, 12/01/06)

Additionally, Ms. Sarah often imitated my movement in the music classes, and some children observed her modeling. In the last two music classes, it became clear that Ms. Sarah imitated me (the music teacher), the children imitated her, and then the children imitated each other. This kind of engagement was also found in the daily activities.

In the first few weeks of music classes, Ms. Sarah tended to use physical manipulations to involve the children. She often took the children’s arms and clapped their hands, or wiggled the children’s bodies. The frequency of such interaction was
reduced as the music classes were conducted. Ms. Sarah said, “I intended to help kids learn. I thought [moving the children’s arms] would show them what to do [what the music teacher modeled]. I realized the kids didn’t appreciate [me moving their arms], because they might not want to do that (I, 12/15/06).

Overall, Ms. Sarah seemed to enjoy the music classes and interacted actively with the children. The most obvious change was in reducing her physical manipulations to involve the children during the interaction. She provided more freedom for the children to decide whether they wanted to participate in the music activity or not.

Ms. Brenda had no enthusiasm for participating in the free movement activities. However, she did join in my singing. When I introduced a new song or activity, Ms. Brenda would listen to my singing and pat or clap the beats with me. If I sang a song that Ms. Brenda knew, she would sing along. In several music classes, Ms. Brenda did not participate in the free movement activity; rather she sat and used scarves to engage the children. She indicated in the interview, “I don’t like movement. I don’t think I dance well. I would rather sing the song than dance . . . but I’ll still do [movement] for the children . . .” (I, 12/14/06).

Ms. Brenda frequently used verbal directions to guide the children’s music learning and to encourage the children’s responses. She always provided verbal instructions to the children while I was modeling. For example, she might say to the children, “Shake two times and stop!” when she saw me demonstrating shakers to the children, or “See, the music is soft. She moves so light”, when she described my movement to the children. She often encouraged the children to respond to me by asking them questions such as, “Could you sing it back?” When the children responded to me,
she would give them a hug or a smile and praise them with “Good job.”

In addition, Ms. Brenda was the one always in charge of the children’s behavior in the music class. For instance, when a child was crying during the music class, she would take the child for a walk or comfort the child. Maybe because she was in charge of the children’s behavior in the class, she paid more attention to their behavior than to their musical responses. Also, she had less opportunity to interact musically with the children since she needed to ascertain that they were all involved in the music class. She declared that:

Because I tried to get the kids engaged in the music class more, I didn’t comprehend, remember the words of songs, or concentrate on the activities . . . I don’t know how much [music the children] know, but I think the kids enjoy the music class. They have fun. (I, 12/14/06)

Notably, although Ms. Brenda did not feel she had made any changes in participating in the music classes, she realized the importance of modeling and used less verbal instruction to guide the children during the last few music classes. She stated:

. . . I think the way I participated in the music classes was the same as the beginning . . . but I know how you lead the activities is different from us, like you don’t talk to kids . . . I think that’s important because you show them [how to play or dance]. (I, 12/14/06)

Indeed, according to my observation, instead of verbalization, Ms. Brenda tended to demonstrate musical modeling, smile at the children, or just observe the children during the last few music classes.

Ms. Yvonne was the one who was observed utilizing music activities from the
music class in the children’s daily activity. Throughout the eight weekly music classes, Ms. Yvonne often sat quietly; she did not participate in every music activity. She commonly observed me and the children. When the children were not engaged in the music activity, she would use short words to evoke their attention, such as “Listen!” and point to her ears to show the children, or say, “Look” and point me out to the children. If the children did not respond to her words, Ms. Yvonne often imitated my singing or movement and showed the children how to respond.

Although it seems that Ms. Yvonne did not often participate in the music class, she did include some music activities that she observed in the music class in her interactions with the children in the regular classroom. The research assistant documented that when the teachers and children went for a walk, Ms. Yvonne was the teacher who sang the songs they had learned in music classes. According to the observation data, the ways Ms. Yvonne modeled the music and interacted with the children appeared to be exactly the same as mine. Ms. Yvonne said,

The first couple of times, you (music teacher) chose the same routine, same songs [and the children] learned it, I learned it too. Then you switched a little bit every week which was good, because I could learn more songs . . . I tried some songs with them, but I can’t remember the whole thing. So, every time when you (music teacher) come, I always try to memorize your music or lyrics. (I, 12/15/06)

In addition, Ms. Yvonne asked me about the sequence of the music lesson plans and the teaching instructions. She recognized that I presented each music activity with certain structures. In other words, Ms. Yvonne apparently understood how I interacted with the children using specific principles. Ms. Yvonne indicated:
I noticed in each [music] class, you have a variety of activities. Each activity you have a different way to engage the kids. I don’t know exactly about your planning, but I feel it’s kind of following some flow . . . Sometimes you sing with words, sometimes you don’t. I like that, because babies can hear your music and older kids can hear the words . . . Every time when I see you do ‘ba-ba-ba’ (rhythm patterns) stuff, you’ll wait for kids . . . I will do more like that . . . (I, 12/15/06).

Since Ms. Yvonne often observed me rather than interacting with the children in the music classes, the changes that Ms. Yvonne exhibited were in incorporating the music activities that she observed from the class into the children’s daily activities and imitating my interactions with the children.

**Summary**

While participating in the music classes, the early childhood teachers often observed and imitated my music modeling such as singing, movement, and interaction with the children. Significantly, when the early childhood teachers imitated the music teachers, the children sometimes observed and imitated the early childhood teachers as well. The children also observed and imitated each other. Such engagement seemed to have evolved among the music teacher, the early childhood teachers, and the children in this study.

In general, the early childhood teachers appeared more comfortable when participating in echoing rhythm patterns, patting beats, swaying their bodies, and clapping rhythms than participating in the free movement activities. During a free movement activity, the teachers often imitated my demonstration rather than explore their own movements. During the music classes, the early childhood teachers often provided
verbal instruction to direct the children’s music learning, asked the children questions or used physical manipulations to involve the children in the activity, and gave them physical support or verbal praise. In addition, when the teachers showed the children exaggerated facial expressions, the children reflected excited expressions and were willing to be involved in the music activity.

During the last few music classes, the early childhood teachers minimized their use of physical manipulations to involve the children and used less verbal direction to instruct the children’s music learning. It was noticeable that when the teachers applied what they had observed from the music classes in their classroom setting, they tended to interact with the children in the same manner as I had with the children in the music class. It was also evident that while participating in the music classes, the musical interactions of the early childhood teachers and the children were often interrupted by the children’s behavior, such as crying. Since the teachers needed to manage the class, they had difficulty focusing on the music activities and paying enough attention to interact musically with the children.

Research Question Two: Use of Scaffolding

What principles of scaffolding are present in the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program? This question was investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended.

Vygotsky (1978) indicated that children’s learning occurs in the zone of proximal
development (ZPD), when adults or more skilled peers provide structured interactions that help children to advance to a higher level of their development, including their intellectual understanding, thinking, and physical skills. Linked to the structured interaction is scaffolding. The principles of scaffolding that are used as a fundamental context in this study were described in the review of the related literature in Chapter Two.

Examining the musical interactions exhibited among the early childhood teachers and the young children in the three study phases, some principles of scaffolding were recognized (see Table 4.6). The discussion and interpretation of each scaffolding principle demonstrated in its musical interaction is described below. Principles of scaffolding that were present in all three phases are described first, followed by the principles that were only present in one or two phases.

Table 4.6
Scaffolding Principles Present in Musical Interactions

<table>
<thead>
<tr>
<th>Principles of Scaffolding</th>
<th>Musical Interaction Present</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Scaffolding consists of an appropriate structure</td>
<td>✓</td>
</tr>
<tr>
<td>Scaffolding is achieved from intersubjectivity</td>
<td></td>
</tr>
<tr>
<td>Scaffolding promotes self-regulation</td>
<td>✓</td>
</tr>
<tr>
<td>Scaffolding emphasizes collaboration between adults and children</td>
<td></td>
</tr>
<tr>
<td>Scaffolding begins from children’s previous experiences</td>
<td></td>
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<tr>
<td>Scaffolding presents a learning model for children</td>
<td>✓</td>
</tr>
<tr>
<td>The scaffolding process provides internalization</td>
<td></td>
</tr>
<tr>
<td>Scaffolding includes appropriate tools and signs</td>
<td>✓</td>
</tr>
<tr>
<td>Scaffolding is temporary instruction</td>
<td>✓</td>
</tr>
<tr>
<td>Scaffolding assists groups and individuals</td>
<td>✓</td>
</tr>
</tbody>
</table>
Principles Present in All Phases

The following principles of scaffolding were present among the early childhood teachers’ and the children’s musical interaction in all three study phases.

Scaffolding principle: Scaffolding consists of an appropriate structure. In this study, musical interactions consisted of certain structures to scaffold children’s music learning. Even though the early childhood teachers’ actions, the children’s responses, and the teachers’ reactions had variations, a certain structure was identified. From carefully examining the data, it could be seen that the structure that the early childhood teachers used to interact with the group and the individual children was different.

In general, when the early childhood teachers interacted with the group, the interaction appeared to be longer, and the interaction structure seemed to be based on the theme of observation and verbalization. The following is a typical interaction process in the movement activity: The teacher selected a song from a CD and played it and, following the lyrics indicated on the CD, the teacher modeled the movement; the teacher observed the children; the teacher demonstrated with verbal instruction; the teacher observed the children; the teacher gave verbal directions; the teacher observed the children; the teacher gave verbal praise, and then used verbal and physical gestures to conclude the interaction. During the musical interaction, the teacher always exhibited supportive gestures and the children might ignore, observe or imitate the teacher’s modeling or instruction.

Significantly, the data revealed that the interaction structure among the early childhood teachers and the children was scaffolded based on the teachers’ ongoing observations. The early childhood teachers often displayed the next interaction pattern
after they observed the children’s behaviors or responses. It appeared that the teachers could not apply a specific interaction process unless the children joined the interaction. One of the early childhood teachers confirmed this:

I’ve never spent time to prepare music activity, or planned how to [respond to kids], I just kind of go with the flow. But when I start to sing or dance with the kids, I always watch them. I try to grab their attention, show them, or tell them how to do it . . . it’s important for me to know if they get it, enjoy it, or don’t like it . . . Once I know they are getting it, I will do something different . . . . (I, 11/09/06)

After the early childhood teachers observed the children’s musical involvement, a great deal of verbalization was utilized. Direct verbal instruction or demonstration with verbal instruction occurred several times. This may indicate that verbalization was the main interaction technique used by the early childhood teachers to structure the interaction. Interestingly, if the children ignored the teachers’ instruction or modeling, the teachers often provided verbal instruction to promote the children’s learning. Consequently, the specific structure of the musical interaction among the early childhood teachers and the children was scaffolded by the teachers’ observation of the children and followed by their verbalization.

The musical interaction structure between the early childhood teachers and individual children was simple and shorter. When the early childhood teachers interacted with individual children in a singing activity, the interaction structure became the following: the teacher sang a short phrase of a song for the child; the teacher used physical manipulations to involve the child; the teacher observed the child; the teacher
kept singing and using physical manipulations to involve the child, and the teacher finished the interaction without a conclusion. During this process, the teachers always exhibited supportive gesturing with the child, and the child often exhibited observation response. In this type of individual interaction structure, modeling and physical manipulations were the interaction techniques used to scaffold the children’s learning. This may also imply that the interaction with individual child could give the early childhood teachers an opportunity to focus on presenting the music. One of the teachers indicated:

I enjoy one-on-one more than group. It’s more relaxing. Because when you do [music activity] with the whole group, you need to manage the whole group. It’s not just the music, but managing all the kids. When you play with an individual, you can concentrate on him, and really ‘do music’ for him. (I, 12/01/06)

Importantly, the application of this principle to the musical interaction among the early childhood teachers and the children in Phases One and Two was different. In both phases, the teachers often used physical manipulations and modeling to structure their musical interactions, particularly with individual children. However, in the first study phase, when the early childhood teachers interacted with a group of children, they commonly structured the interaction by observing and giving specific verbal instructions that allowed or suggested that the children follow. In Phase Two of the study, instead of giving verbal guidance, the teachers were likely to observe the children and ask them questions several times in each continuation of the interaction segment. Therefore, it seemed that although the early childhood teachers still used a verbal technique to structure the interaction in Phase Two, when they kept asking the children questions, they
provided opportunities for them to think and engage them in the music activity. Such a structure may have been viewed as effective learning guidance by the early childhood teachers. In the interview, the early childhood teachers confirmed their belief that by asking the children questions to engage them in the music, they could also stimulate the children’s thinking. One of the teachers stated:

Sometimes I asked [children] questions, although I really didn’t want to ask questions, but when I wanted to get their attention or involve them, I asked questions . . . for older kids, they usually responded to me. There wasn’t a right or wrong answer or response, because that’s their thinking, I respect that . . . . (I, 12/15/06)

Scaffolding principle: *Scaffolding promotes self-regulation*. When the early childhood teachers interacted with the young children, they provided an opportunity for self-regulation. After the early childhood teachers observed the children’s responses, the teachers might discontinue their instruction, modeling, or involvement. They left some time for the children to dance or play independently. Nevertheless, the children seemed to rely on the teachers’ modeling when the teachers were there. When the teachers were not present, the children would exhibit their own music behavior. The early childhood teachers realized that when they moved away from the children in the musical interaction, the children might have the opportunity to regulate their music learning. The interviews documented the early childhood teachers’ perceptions:

I’ll play [music] with children . . . when I am in the group, I’ll engage them together . . . I don’t want them to lose the interest [in my music activity] or feel bored, so I always keep moving, but if I know they could stay [in music area]
without me, or they are really involved [in the activity], I’ll leave them there, because I think they don’t need me . . . and it’s good to see them doing [music] alone. (I, 11/10/06)

Scaffolding principle: Scaffolding presents a learning model for children.

Likewise, during the interaction, the early childhood teachers often presented musical modeling to promote the children’s music learning. When the teachers demonstrated movement, they showed the children how to use their bodies. When they sang or chanted to the children, they presented tonal and rhythm patterns, and vocal exploration. When playing an instrument, the teachers became an improvisatory model for the children. Therefore, modeling was a means for the early childhood teachers to scaffold children’s learning. As one teacher mentioned, “My role is to help [children] to explore the sound in music and in different variations. Not just typical music they might hear at home, but different music” (I, 11/30/06). The other teacher also indicated:

. . . I have to be a model, it’s part of my job. I need to introduce music for [children]. I need to show them what they can do, what the sounds are like . . . I’m not the greatest, but I need to be their model, to make sure they hear it, play it, experience it . . . . (I, 12/01/06)

Scaffolding principle: Scaffolding includes appropriate tools and signs. According to the Vygotskian definition, tools and signs include useful learning materials and language. In the music field, materials often refer to musical instruments or repertoire. The early childhood teachers often used musical materials to facilitate musical interaction and to attract the children’s attention. Musical materials used in the infant-toddler class had variety. Toy musical instruments were stored in a bin and placed on a shelf where the
children could reach them. The children could play them anytime. Interestingly, mobile infants and toddlers were more eager than teachers to take out the instruments and play. They often explored the instruments in different ways and were interested in playing toys that play music. In the classroom, the early childhood teachers prepared a basket of small toys for young infants. All of these toys had some sound such as a bear with bells in its ears, a toy pig that could “oink”, etc. When the teachers put the young infants on the red carpet, they always placed the toy instrument basket next to the infants. Sometimes the teachers would bring out music-making toys from the storage room. When this happened, all of the children would engage together, play with the toy, listen to the music, or sing with the musical sounds the toys made. Hence, the materials were an important facility in the infant-toddler classroom and enhanced the young children’s music involvement.

Notably, scaffolding emphasizes that teachers use language to enhance children’s learning. In music learning, neutral syllables such as “bum,” “ba,” and “da” are considered musical language—musical babbling sounds for young children (Gordon, 2003). In other words, neutral syllables applied to rhythm or tonal patterns and songs provide a musical language for young children that scaffold their music learning. While infants and toddlers have not fully developed their language ability yet, they sometimes make babbling sounds. When the children in the study exhibited babbling sounds, the early childhood teachers might or might not respond to them. If the teacher responded to the children’s babbling, the children often smiled and kept making more babbling sounds. In contrast, if the teachers did not respond to the children, the children often stopped babbling. Obviously, if the teachers responded to the children by using children’s language, they engaged the children in a musical interaction and might even engage the
children in a musical conversation. Markedly, the teachers sometimes sang a song with
neutral syllables for the children, especially while soothing a young infant to sleep.
However, the teachers were less likely to chant rhythm patterns with neutral syllables
than to sing with neutral syllables for the children. It seemed that singing with neutral
syllables was more comfortable and an easier musical behavior for the early childhood
teachers when interacting with the infants. As an early childhood teacher confirmed:

\[
\ldots \text{Singing is more natural for me} \ldots \text{maybe it’s because I grew up like that way, my parents sang to me} \ldots \text{I could sing the songs with words or without words to kids; it depends on their age. I tend to sing words to older kids, because they speak. For the infants, I might just hum the song, without singing the words} \ldots
\]

Chanting? Did you mean rhyme? Umm, yeah, I used them but not often, because I remember songs more than rhymes. (I, 11/30/06)

Scaffolding principle: *Scaffolding is temporary instruction.* Musical interaction can be seen as a temporary instruction in scaffolding children’s music learning.

Frequently, the early childhood teacher initiated the musical interaction, continued the interaction, and left without completing the interaction. The children sometimes kept listening to the music and danced after the teacher left. Under such circumstances, the musical interaction became an impermanent instruction, since the teachers only provided brief musical instruction for the children. The children may or may not continue to engage with the music without the teacher.

As an example of a common situation in which musical interaction was a temporary instruction, the children sang songs or played along with an instrument. When the early childhood teachers noticed it, they might imitate the children’s singing or
playing, give verbal praise, provide verbal instruction, model, and then leave. The children would keep their music going by following the teachers’ previous instruction or imitating the teachers’ previous modeling. This indicated that such a short and brief musical interaction offered musical learning instruction for the children. The interviews confirmed that the early childhood teachers believed that “interaction is not only to interact with children but it gives children some directions to follow or practice” (I, 11/10/06).

Scaffolding principle: Scaffolding assists groups and individuals. During the musical interaction, the early childhood teachers interacted with the group and individuals to scaffold their music learning. Scaffolding theory emphasizes working more efficiently with individuals. Similarly, when the early childhood teachers interacted with the group, they might not have been able to respond to every child or accomplish every child’s needs or interests. In contrast, when the teachers interacted with individual children, they provided what the children were interested in. The early childhood teachers agreed that interacting with individuals helped them to establish a close relationship with the child and notice each child’s development. In addition, the teachers could deliver more musical experiences to the children as individuals. The following is a narrative by two different early childhood teachers about a child named Jeff, which may support the notion of individual attention:

If you have Jeff in the group, you would have stress . . . he won’t follow you or get involved in the group. When it happens, you can’t pay attention to the group. But if you have Jeff by himself and you play a ball or dance with him, you wouldn’t have stress, because you only play with him. He’ll be happy, and he’ll
respond to you . . . and you can do more [music activities] with him. Usually, if I only play with him, I’ll change the activity if he doesn’t like it. (I, 12/01/06)

If you interact only with Jeff, he gets excited. When you sing a song for him, he will clap, jump up and down, and wave his arms. If you put him in the group, he won’t interact like that. So, I like to interact with him alone, and I feel we attach to each other . . . I know him more when there are only two of us. (I, 11/10/06)

Principles Present in Second and/or Third Phases

In addition to the principles of scaffolding that were present in all three phases as discussed just above, some principles of scaffolding were observed as occurring only during the second or third study phase. These are described below.

Scaffolding principle: **Scaffolding begins from children’s previous experience.**

During the musical interaction process in Phase Two, the early childhood teachers scaffolded the children’s music learning based on their experiences. In other words, the teachers would give instructions based on the children’s previous knowledge. In Phase Two, an episode from a music game demonstrated this concept:

Ms. Brenda puts some small mats that have different shapes and colors on the floor around the room. She says, “Everyone listen, everyone go find a circle mat. If you find a circle, you clap your hands (she demonstrated).” Since Emma couldn’t find one, Ms. Brenda picks up a circle mat and shows it to her. Emma looks around the room and finds another one. Ms. Brenda also looks at each child and checks if each child is clapping his/her hands. Then, Ms. Brenda says, “Good. Now, find a star, stand and twist your body (she demonstrated).” When she looks around at the children, she finds that Ryan doesn’t twist his body, Ms. Brenda says “Ryan, look!” and she twists her body.
Ryan imitates her. Ms. Brenda says, “OK, let’s start. I’m going to play the music!” She puts the music on and says “March!” She marches along with the music, and observes the children. Then she stops the music and says, “Go find a circle. If you find a circle, clap your hands.” “Good, Kayla, you found a circle. What color is your circle?” Kayla does not answer. “Red! Kayla, it’s red,” Ms. Brenda says. “Now, everyone twist your body on your circle.” She looks around the room and then plays the music again. She says to the children, “Now, I want you to listen to the music carefully. When I stop the music, you go find a triangle and hop on it just like a bunny.” The game keeps going . . . (R, 12/05/06).

In this episode, the point was not only how the early childhood teacher instructed to the children’s general knowledge, such as recognizing color and shape, and activity of listening to music, but also how the teacher established her instruction based on the children’s previous learning experiences. The early childhood teacher gave verbal guidance and modeled an activity first, and confirmed that every child had the same experience and understanding before she asked the children to respond to the music. Along with the game, the teacher added more knowledge or challenging skills. For example, the teacher requested the child to identify when the music was stopped, and asked children to hop after the children had listened to music and experienced body movement. This process demonstrated that the early childhood teachers scaffolded the children’s learning based on their previous experiences and learning situation.

However, it was noted that no data sources supported the use of this principle among the early childhood teachers and the children in Phase Three. According to the data, the teachers would use the music activity that the children were already familiar with to interact with the children. Further, when the teachers interacted with the children,
they did not demonstrate more challenging or advanced modeling/instruction for them. This might imply that the musical activities or songs had been repeated as routine, and thus the teachers and the children’s musical interaction produced no further alterations.

Scaffolding principle: *The scaffolding process provides internalization.* In Phases Two and Three, the early childhood teachers sometimes left a short interval for children to internalize their music learning. Providing such a pause for the children to think, absorb, and respond to the music was similar to what I modeled in the music classes for the children. According to the research assistant’s and my observations, and the early childhood teachers’ interviews, after the early childhood teachers gave verbal instructions, they would provide a short period of time for the children to practice the music or respond to the instruction. Even when the teachers modeled the music, they would pause and wait for the children’s responses. Sometimes the children responded to the teachers’ interaction immediately. However, some children hesitated and did not follow the teachers’ instruction or modeling. If the teachers moved to the next interaction pattern, these children did not have time to process the teachers’ instruction or modeling. In this scenario, the children were not given time to internalize the music learning. In the interviews, the early childhood teachers stated their perspective about pausing for the children to respond as giving them time to try and practice. A teacher said, “. . . I realized I need to give them time to try. I found if I wait and they know that I’m waiting [for their responses], they might give me [some response]” (I, 12/15/06). And again:

Practice! I’m sure all children need practice, especially music. They need time for practicing no matter if they are singing, playing, or dancing. So, I’d like to wait a bit and let them practice. Even though I believe dance is part of children’s nature,
and they might get [music skill] when they [are] older, but if they practice more, they might get it earlier. (I, 12/14/06)

Scaffolding principle: Scaffolding emphasizes collaboration between adults and children. Scaffolding emphasizes that when teachers and children contribute to the task, children’s learning is enhanced. Teacher-teacher collaboration was observed in Phase Two; however, this study did not focus on their interaction. Rather, teacher-children collaboration was found in Phase Three. In the third phase, when the teachers joined the children’s music making, the children often seemed to exhibit the musical behavior longer and demonstrated positive emotional expression, such as smiles and excited feelings. Importantly, when the teachers and children shared the same music, the teachers could simplify the music or make it more challenging for the children. One of the observations provided evidence of the latter:

Ms. Sarah and Chloe sit on the red carpet; Ms. Sarah takes a shaker and pretends it is a microphone. She sings:

\[
\begin{align*}
\text{Old Mac - Don - ald had a farm,} \\
\text{(then she puts the shaker in front of Chloe’s mouth)}
\end{align*}
\]

Chloe sings: \(\text{E - I - E - I - O!}\) (Ms. Sarah moves the shaker back to herself)

Ms. Sarah sings:

\[
\begin{align*}
\text{And on his farm he had a cow} \\
\text{(then Chloe gets the shaker)}
\end{align*}
\]
Chloe continues to sing:

Right after her, Ms. Sarah sings:

(Ms. Sarah gives the shaker to Chloe)

Chloe sings out aloud:

Ms. Sarah follows Chloe’s singing:

Chloe looks at Ms. Sarah and sings:

Ms. Sarah smiles at her and keeps singing:

While Ms. Sarah is singing, Chloe joins her. They sing:

Chloe seems excited and begins to nod her head when she is singing.

At the second verse, Ms. Sarah sings:
Ms. Sarah does not sing the name of any animal; she leaves a pause for Chloe.

Chloe thinks a moment and finally continues to sing:

\[\text{Old MacDonald had a farm, E-I-E-I-O! And on his farm he had a ??}\]


Accordingly, as the song went on, the early childhood teacher and the child enjoyed sharing the singing. During the collaboration process, the teacher observed the child’s responses and scaffolded her thinking.

*Principle not Observed*

Notably, the scaffolding principle—*scaffolding is achieved from intersubjectivity*—was not identified in the musical interactions between the early childhood teachers and the children in any of the three phases of the study. Berk and Winsler (1995) stated that the interaction process allows a teacher and children to share the same goal and achieve it by compromising and making adjustments to each other. Nevertheless, working together toward the same goal was not easy to identify among the teachers’ and children’s musical interactions. This may imply that the early childhood teachers did not have any specific music objectives for the children to achieve when they interacted with them. It also appeared that although children may adjust teachers’ instruction during the musical interaction, it is difficult to know whether children as young as infants and toddlers have developed their skills to compromise and make adjustments when playing music with others.
Summary

Examining the musical interactions among the early childhood teachers and the young children, some scaffolding principles were present in all three study phases, and most of them showed no distinguishable changes from phase to phase. These principles were as follows: (a) **Scaffolding consists of an appropriate structure.** The structure of group musical interaction was based on the early childhood teachers’ observation and verbalization, while the individual musical interaction was founded on the teachers’ musical modeling and use of physical gestures to scaffold the children’s music learning. However, instead of using verbal direct instruction to guide the children in group music activity, the teachers tended to observe children and ask questions to structure the children’s music learning in the second study phase. (b) **Scaffolding promotes self-regulation.** In order to provide an opportunity for the children to self-regulate their learning, teachers might cease to model or instruct in the musical interaction process. (c) **Scaffolding presents a learning model for children.** When teachers sang, danced, or played an instrument, they demonstrated a music model that enhanced the children’s musical experience. (d) **Scaffolding includes appropriate tools and signs.** Tools and signs in music may refer to instruments and neutral syllables. During the interaction, teachers used music instruments to attract the children’s attention and evoke the children’s interest. Also, teachers sang or chanted with neutral syllables to communicate with the young children’s musical babbling. (e) **Scaffolding is temporary instruction.** Musical interaction may be seen as a temporary instruction for children. Before the early childhood teachers removed themselves from the interaction process, they might have provided modeling or direction for the children to follow or practice. Such guidance was considered temporary
instruction. (f) **Scaffolding assists groups and individuals.** During the musical interaction, teachers not only interacted with the group but also with individuals. While interacting with either the group or the individual, the teachers appeared to try to meet the children’s needs and guide their learning.

In Phases Two and Three, **Scaffolding process provides internalization** was present. After the early childhood teachers presented verbal instruction or demonstration, they allowed a pause for the children to try or practice their response, which assisted the children in internalizing the music into their own action or skill. **Scaffolding begins from children’s previous experiences** was acknowledged in Phase Two but not in Phase Three. While interacting musically with the children, the early childhood teachers established their interactions based on the children’s previous learning experiences and evaluated the children’s understanding before they provided advanced knowledge. In the third study phase, the teachers applied the music that was used in the first and second study phases; therefore, the teachers did not seem to provide new musical experiences based on the children’s previous musical experiences. In Phase Three, the principle, **scaffolding emphasizes collaboration between adults and children,** was recognized. When the teachers joined the children’s music making, the teachers and children contributed to the interaction, and the teachers simplified or made the learning a challenge, so the children’s learning would be enhanced.

The scaffolding principle—**scaffolding is achieved from intersubjectivity**—was not identified in the musical interactions between the early childhood teachers and the children in any of the three phases. It seemed that the early childhood teachers did not have any specific music objectives for the children to achieve, or these were apparent in
the data. Also, it was difficult to know if the infants and toddlers had developed their capacities sufficiently to compromise and make adjustments when playing music with the teachers.
CHAPTER FIVE
Summary, Discussion, and Recommendations

Summary

Background of the Study

Music surrounds children in their environment. Children, from the very earliest age, already live in a musical world where music can be heard through their parents or siblings singing or through the media in many locations such as at home, in the car, in stores and in restaurants. Apparently music is integrated into young children’s lives.

A basic concept of young children’s music learning is that children learn from the musical experiences that adults provide for them in their environment (Cardany, 2004; Flohr, 2005; Levinowitz, 1999; Scott-Kassner, 1999; Suther, 2004). Most notably, many young children’s early musical experiences are derived from interactions with their parents or music teachers (de Vries, 2005; St. John, 2004). At home, parents interact musically with their children by singing songs, rocking their children, chanting rhymes, or doing finger play with them (Custodero & Johnson-Green, 2003; Feierabend, 1996; Fox, 2000; Lerner & Ciervo, 2002; Suther, 2004). In early childhood music programs, music teachers present music activities and prepare materials to engage young children in music play. They also demonstrate music models for children and use strategies to encourage children’s musical participation (Denney, 2000; Denton, 2000; Feierabend, 2000; Levinowitz & Guilmartin, 2000). It is during the musical interaction process with adults that children first participate in music activities (Fox, 2000; Valerio et al., 1998), collect musical impressions, sounds, and movement perceptions (Moorhead & Pond, 1942), and foster their musical interest (Littleton, 1991; Sims, 2001, 2005). Therefore,
providing a rich musical environment and musically interacting with young children seems critical to their musical growth. These interactions provide opportunities to engage children in a variety of musical experiences and enhance their music learning.

*Purpose Statement*

An increasing number of infants and toddlers are being sent to early childhood daycare centers due to family situations, such as parents being unable to take care of their young children during the day (Forum on Child and Family Statistics, n.d.). Accordingly, early childhood teachers in these early childhood programs are the persons who take primary responsibility for caring for young children. Therefore, instead of parents and music teachers providing musical interactions at home or in early childhood music programs, early childhood teachers are now considered to be the adults who are the most influential in constructing young children’s musical experiences.

Importantly, children develop their physical, intellectual, and social capabilities in infancy and toddler-hood (Piaget, 1959). During this young age, children also begin to develop their musical intelligence (Gardner, 1983), music aptitude (Gordon, 1999, 2001, 2003), and musical capacities such as auditory sense (Fassbender, 1996; Standley & Madsen, 1990; Trehub & Thorpe, 1989; Zenter & Kagan, 1998), vocalization (Papoušek, 1996; Trehub et al., 1990), and kinesthetic response (Suthers, 2001). Accordingly, it is essential to value infants’ and toddlers’ musical development and ensure that adults provide opportunities to facilitate their musical growth. Therefore, the purpose of this study was to explore the nature of musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program.
Statement of the Problem

Lev Semenovich Vygotsky, a Soviet psychologist and sociologist, offered an important framework for studying the contexts of interaction through his socio-cultural theory. He believed children’s learning is based on social activity and that the structured interaction of adults or more skilled partners allows children to internalize their learning (Vygotsky, 1978). The term scaffolding is linked to his theory of structured interaction.

Scaffolding has been found to benefit children’s learning in many content areas in early childhood education, including play (Chin, 1995; McLane, 1981), visual art (Tarr, 1992), literacy (Moretti, 2001; Pence, 2004), language (Yang, 2000), and conceptual understanding (Coltman et al., 2002). However, it is unclear whether the musical experiences that young children receive from early childhood programs reflect teacher-child scaffolding of musical interactions. Particularly, as an increasing number of young children become involved in early childhood programs, it is important to determine whether the musical interactions of early childhood teachers and children in daily activities contribute to the scaffolding of young children’s musical experiences.

Additionally, since more music teachers have been providing music classes for young children in early childhood programs, early childhood teachers seem to have benefited by observing music classes and communicating with music teachers (de l’Etoile, 2001; Nichols & Honig, 1995; Tarnowski & Barrett, 1997). As part of this study, I served as the music teacher and provided music classes for the participants. My goal was to determine if music classes provided for young children by a music teacher facilitates the early childhood teachers’ musical interaction with them.

To summarize, this study investigated the nature of musical interactions among
early childhood teachers and young children in their daily activities, and the extent to which teachers implement scaffolding in their musical interactions. Furthermore, throughout the study when music classes were provided, any changes in the interactions between early childhood teachers and young children were examined.

**Research Questions**

Two primary research questions were posed to guide this study:

1. What is the nature of the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?
2. What principles of scaffolding are present in the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program?

These questions were investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; (c) Phase Three: one month after music classes ended. In addition, changes in the behaviors of early childhood teachers and children and the ways in which they interacted during the music classes were also of interest.

**Methodology**

**Design of the Study**

This study utilized a qualitative research method, a within-site case study (Creswell, 1998), to document the musical interactions between early childhood teachers and young children. The site of the study was restricted to a single infant-toddler class at a university-based childcare center in Central Pennsylvania, and was limited to the duration and time that the early childhood teachers and young children were observed.
Participants

Criterion sampling (Creswell, 1998) was used to recruit the participants. Criteria were established prior to participant selection to identify individuals who (a) worked in the early childhood program, (b) were certified as early childhood teachers, (c) were caring for young children in the infant-toddler class, (d) were all teachers in the same infant-toddler class (e) were willing to have the researcher provide music classes for their class, (f) agreed to participate in the music classes, and (g) had not previously observed music classes provided by the researcher. Based on these criteria, the members of one infant-toddler class, which included 12 young children ages 4 to 33 months, and their three early childhood teachers, were selected as the participants.

Data Sources

With the aim of gathering sufficient data to answer the research questions and provide validity to support the findings, the data for this study were collected from a variety of sources: (a) direct observations, (b) participant-observations, (c) interviews, (d) documentation, and (e) archival records (Creswell, 1998, 2003; Denzin & Lincoln, 2005; Patton, 2002; Yin, 2003).

Data Collection Procedures


Phase One: The first phase occurred the first week of the study and focused on the natural musical interactions among the early childhood teachers and their children in daily activities. I selected a random two-hour block each day, Monday through Friday, and stayed in a one-way mirror observation room to observe the teacher’s and children’s indoor classroom activities; my research assistant conducted two 2-hour direct
observations, either inside or outside of the classroom, depending on the day’s activities.

Phase Two: The second study phase covered an eight-week period during which I provided weekly music classes for participants. It occurred during weeks 2–9 of the data collection procedure and included three components:

1. Music classes: During the eight-week period, I provided weekly, 30-minute music classes for the children. The early childhood teachers and the children were encouraged to participate in the music classes. I used informal structured guidance to scaffold the children’s music learning. The music lesson plan for each class was based on the following planning principles: (a) a variety of music activities (Bluestine, 2000; Campbell & Scott-Kassner, 2006; McDonald, 1993; Valerio et al., 1998), (b) a variety of musical components (Gordon, 2003; Taggart, 2000; Valerio, 2005), (c) repetition of songs and activities from lesson to lesson (Gordon, 2003; Palmer, 1993; Suzuki, 1983), (d) alternation of children’s sitting and standing movements as well as their singing, chanting, and moving (Hsee & Rutkowski, 2006), (e) group and individual activities (Fox, 1989; Sims, 1995; Suzuki, 1983), (f) song selection and activities that allowed children to have opportunities to prompt a response (Hsee & Rutkowski, 2006; Valerio, 2005), and (g) the use of props (Andress & Walker, 1992; Gordon, 2003; Sims, 1995; Valerio et al., 1998).

Informal guidance was the primary mode of instruction: I led the music activities by modeling but did not use direct verbal instruction to guide the children. In such a learning environment, the children could choose to participate, respond, or observe. During the music classes, I often interacted with the children
in the following ways to scaffold their music learning: (a) After I sang a song, a
tonal pattern, or chanted a rhythm pattern, I often paused for the children to
absorb, think, and respond to the music. (b) Before I sang a song, a tonal pattern,
or modeled a movement, I would often take a deep breath, which allowed the
children to be aware of the phrasing of the music and to anticipate when it would
begin. (c) If a child gave a musical response, such as babbling or body movement,
I often incorporated that reaction into the musical context. This acknowledged the
children’s music responses. (d) When a child presented a musical response, I
would respond in turn by repeating or imitating his/her musical response and then
demonstrate other musical responses for him/her. This would engage the child in
the musical conversation. (e) I used non-verbal interactions such as musical
modeling, facial expressions, eye contact, nodding of the head, and patting the
children’s back to encourage their participation.

2. Observations: In addition to the participant-observations that I conducted in each
music class, I observed the classroom interactions of the early childhood teachers
and the children in two-hour visits, two days per week, from the one-way mirror
observation room. My research assistant made two 2-hour direct observations
inside or outside of the classroom every week.

3. Interviews: Four 20-minute one-on-one, semi-structured interviews with each
early childhood teacher were conducted and audio-recorded in the daycare center
lounge or observation room.

Phase Three: The third phase occurred one month after the second phase ended. I
conducted another week of direct observations of the musical interactions of the early
childhood teachers and the children in their daily activities. As in the first phase, I randomly observed the interactions two hours per day, Monday through Friday, from the one-way mirror observation room. Instead of direct observation by the research assistant in this phase, I set up a digital video camera to record two-hour in-classroom activity periods twice, in addition to my regular daily 2-hour observations.

Data Analysis

Each direct observation of the indoor classroom that the research assistant made and the music classes that I conducted was video-recorded. In addition, I transcribed the field notes and journals from the research assistant’s and my observations as well as the interview transcripts into computer files. Along with the data collection process, documentation and archival records were collected frequently.

Results

Research Question One

What is the nature of the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program? This research question was investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended. In addition, changes in the behaviors of early childhood teachers and children and the ways in which they interacted during the music classes were also investigated.

Based on the data analysis, I found that the process of musical interaction among the early childhood teachers and the children occurred in three stages: (a) initiation of the interaction, (b) continuation of the interaction, and (c) conclusion of the interaction. Each
stage included different interaction patterns and some of them could be categorized into specific thematic information. Notably, while the musical interaction process of the early childhood teachers and the children in their daily activities remained the same, some of their interaction patterns seemed to gradually change over time. The following tables summarize the musical interactions of the early childhood teachers (see Table 5.1) and of the children (see Table 5.2).

*Initiation of the interaction.* Both the early childhood teachers and the children initiated musical interactions. Generally, the early childhood teachers often used a CD, storybook, or verbal/vocal techniques, including asking the children a question, singing a song, and singing a tonal pattern with neutral syllables to prompt the children to engage in a musical interaction. Throughout the study, singing a song and playing a rhythm pattern for the children became more common. Alternatively, asking the children a question and singing a short tonal pattern with neutral syllables to begin a musical interaction occurred less frequently as the study progressed.

The children tended to initiate the interaction by using physical gestures such as dancing, pointing to the CD player, playing a rhythm pattern on an object, or bringing a storybook to the teachers. More vocal initiation patterns were exhibited in Phase Two, such as singing a short phrase of a song with text, singing a short phrase of a song with neutral syllables, singing a tonal pattern, and babbling/chanting in a rhythm pattern. The children limited their initiation of the interaction patterns to two types of vocalization in Phase Three—singing a short phrase of a song with text and babbling/chanting with neutral syllables. However, the musical interaction was initiated more frequently by the children than by the teachers in Phase Three.
<table>
<thead>
<tr>
<th>Stages of the Interaction</th>
<th>Themes</th>
<th>Interaction Patterns</th>
<th>Exhibited Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation of Interaction</td>
<td>Asked a question</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Selected a song from a CD and played it on a CD player</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Sang a short phrase of a song for the children</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Sang a short tonal pattern with neutral syllables for the children</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Played a short rhythm pattern on an instrument for the children</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Read a storybook to start the musical interaction</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Verbalization</td>
<td>Asked the children question</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Used direct verbal guidance</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Used verbal praise</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Non-verbal Gesturing</td>
<td>Exhibited physical manipulations to involve the children</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Exhibited supportive gesturing</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Modeling</td>
<td>Demonstrated singing, chanting, playing instruments, moving</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Teachers’ demonstration corresponded with vernal instruction</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Followed the directions of the materials to exhibit musical behaviors</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Accommodated the children’s musical interest</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Observation</td>
<td>Observed the children’s responses and then adjusted the instruction or demonstration accordingly</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Paused for the children to respond to the music played</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Observed the group and then interact with individuals</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Imitation</td>
<td>Imitated each other’s musical behavior</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Collaborated with the other teachers</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Collaborated with the children</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Utilization</td>
<td>Used musical materials</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td>Application</td>
<td>Transferred the children’s playing to children’s song</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Used music to help the children learn</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Created texts for familiar melodies of the children’s song</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Transferred the children’s verbal responses to music</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>Conclusion of Interaction</td>
<td>No conclusion: Left the children alone</td>
<td></td>
<td>✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Combined verbal and physical gestures to finish the interaction</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Used verbal instruction to signal the end of the interaction</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Made up songs to direct the children to the next activity</td>
<td></td>
<td>✓ ✓</td>
</tr>
</tbody>
</table>
Table 5.2

**Musical Interactions Analysis: Children**

<table>
<thead>
<tr>
<th>Stages</th>
<th>Interaction Patterns</th>
<th>Exhibited Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Initiation of Interaction</td>
<td>Sang a short phase of a song with text</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Sang a short phase of a song with neutral syllables</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Sang a short tonal pattern with neutral syllables</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Babbled or chanted a rhythm pattern with neutral syllables</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Pointed to the CD player</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Brought a storybook to the teachers</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Danced</td>
<td>✔</td>
</tr>
<tr>
<td>Interactive Continuation of the Interaction</td>
<td>Imitated the teachers’ demonstrations</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Followed the teachers’ instructions</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Adjusted the teachers’ instructions</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Rejected the teachers’ interactions</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Exhibited emotional expression in response to the teachers’ interaction</td>
<td>✔</td>
</tr>
<tr>
<td>Non-interactive Continuation of the Interaction</td>
<td>Ignored the teachers’ interactions</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Observed the teachers’ demonstrations</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Hesitated in response to the interactions</td>
<td>✔</td>
</tr>
<tr>
<td>Conclusion of the Interaction</td>
<td>No conclusion: Walked away</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Combined verbal and physical gestures to finish the interactions</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Gave the teacher another object</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Brought the teacher to another place</td>
<td>✔</td>
</tr>
</tbody>
</table>

*Continuation of the interaction.* During the continuation of the interaction, the musical interaction patterns of the early childhood teachers and the children could be distinguished into teachers’ actions and reactions, and children’s responses. Most of the time, the teachers’ musical actions and reactions and the children’s responses were interrelated. The early childhood teachers’ interaction patterns in the interaction
continuation stage could be categorized into the following themes: verbalization, non-verbal gesturing, modeling, accommodation, observation, imitation, collaboration, utilization, and application. The teachers often used direct verbal guidance, demonstrated musical modeling, demonstrated modeling with corresponding verbal instruction, and utilized musical materials to guide interactions with the children. They also used physical manipulations to involve the children, observed and imitated the children’s musical behaviors, accommodated the children’s musical interest, and applied music to the children’s play or used music to help the children learn. Moreover, the teachers often provided verbal praise or exhibited supportive gesturing during the continuation of the interaction.

In Phase Two, after the teachers initiated the interaction, they tended to use short commands, such as “Look!,” to evoke the children’s attention before they provided a further musical model. Furthermore, the teachers asked the children questions rather than giving them direct verbal guidance. The teachers used fewer physical manipulations to involve the children in musical interactions. Also, the teachers more frequently left pauses to give the children an opportunity to respond and adjusted their instruction or demonstration after they had observed the children’s responses. In addition, the teachers started to collaborate with other early childhood teachers in the continuation of the interaction. They sometimes joined each other’s music activity and sang or played a song together. The teachers, after singing a familiar song with children, continued the interaction by creating different texts for the song and improvising on the children’s responses to the music.

Throughout the study, few changes were observed in accommodation, imitation,
observation, and provision of supportive gesturing during the continuation of the interaction, although some differences were found. While the teachers’ verbal instructions seemed to diminish by the end of the second study phase, the frequency of such instructions increased in Phase Three. In addition, in the third phase the teachers used a wider variety of musical instruments to model or to attract the children’s interest, and the teachers began to collaborate in the children’s singing or music play, behaviors not exhibited in the previous study phases.

The children’s responses included interactive and non-interactive behaviors. In general, the children exhibited interactive responses including imitating a teacher’s demonstrations, following instructions, and showing emotional expression. On the other hand, the non-interactive responses exhibited by a child included observing the teachers’ demonstrations. Whereas the children often ignored the teacher’s interactions in Phase One, they exhibited more adjustment to the teachers’ instruction, or rejected the teachers’ interaction, in Phases Two and Three.

**Conclusion of the interaction.** The musical interaction among early childhood teachers and the children was often not completed. Most frequently, either the teachers left the children alone or the children walked away. When the interactions were conducted, common conclusions in Phases One and Two included the teachers making up songs to direct the children to the next activity, or combining verbal and physical gestures to indicate the close of the interaction. The use of verbal instruction to signal the end of an interaction was frequently found in Phases Two and Three.

The children began to present an active conclusion pattern in Phase Two that consisted of either giving the teacher another object to substitute for the music activity or
initiating a different sort of interaction. More conclusion patterns were exhibited by the
children in Phase Three, including combining verbal and physical gestures to end a
musical interaction and holding the teachers’ hand and walking to a different area.

Musical interactions in music classes. During music classes, the early childhood
teachers often observed and imitated my singing, movement, and interaction with the
children. When the early childhood teachers imitated me, the children sometimes
observed and imitated the early childhood teacher, too. Notably, the children sometimes
imitated each other.

The early childhood teachers participated differently from each other during the
music classes. One teacher was very engaged in the music classes and interacted actively
with the children. One teacher often observed my modeling, while another teacher
participated in singing activities but not in free movement activity. During music classes,
the teachers often provided verbal instructions to direct the children’s music learning, and
asked the children questions or used physical manipulations to involve the children in
activities. When the children responded to me or participated in the music activities, the
teachers sometimes gave them physical support or verbal praise. Throughout the eight
weekly music classes, the early childhood teachers minimized their use of physical
manipulations to involve the children and used less verbal direction to instruct the
children’s music learning. In addition, when the teachers applied what they had observed
from the music class in their classroom setting, the teachers tended to interact with the
children the same way I had with the children in the music class.

While participating in the music classes, the musical interactions of the early
childhood teachers and the children were often interrupted by the children’s behavior,
such as their crying. Since the teachers exhibited a need to manage the class, they had reflected that they had difficulty focusing on the musical activities and paying close enough attention to interact musically with the children.

_Research Question Two_

What principles of scaffolding are present in the musical interactions among early childhood teachers and infants/toddlers in an early childhood daycare program? This question also was investigated in three phases in the context of daily activities: (a) Phase One: prior to a music teacher providing music classes; (b) Phase Two: during the period when a music teacher provided music classes; and (c) Phase Three: one month after music classes ended.

The musical interactions among the early childhood teachers and the children demonstrated some of the principles of scaffolding, which were introduced in Chapter Two and discussed in Chapter Four. The following scaffolding principles were present in their interactions in all phases.

1. _Scaffolding consists of an appropriate structure:_ When the early childhood teachers interacted musically with a group of children, the interaction contained an appropriate structure which seemed to be based on the teachers’ observation of the children’s responses. While the early childhood teachers interacted with individual children, the teachers provided the interaction structure, including modeling and gestures to scaffold the children’s learning.

2. _Scaffolding promotes self-regulation:_ In order to encourage the self-regulation of the children’s learning, the early childhood teachers sometimes removed their modeling, instruction, or involvement in the musical interaction process.
3. **Scaffolding presents a learning model for children:** In the musical interactions, the early childhood teachers often demonstrated musical modeling for the children such as singing, dancing, and playing instruments.

4. **Scaffolding includes appropriate tools and signs:** The early childhood teachers often used musical materials as tools to engage the children in the interaction and to facilitate their music learning. The young children’s musical language was primarily babbling; the teachers used neutral syllables to sing or chant for the children.

5. **Scaffolding is temporary instruction:** The early childhood teachers’ musical interactions with the children were brief and impermanent. After they confirmed that the children could dance, sing or play alone, the teachers might stop the interaction, or remove themselves from involvement in the interaction.

6. **Scaffolding assists groups and individuals:** The early childhood teachers interacted both with the children individually and in a group. When interacting with individual children, they adjusted the interaction according to the child’s needs and interest.

In Phases Two and Three, during the period when I provided music classes to the children, some additional scaffolding principles emerged in the musical interactions of the early childhood teachers with the children:

1. **Scaffolding begins from children’s previous experiences.** In Phase Two, as indicated in the teachers’ interviews, when the teachers interacted musically with the children, they established interactions based on the children’s prior instruction to increase their knowledge. For example, before the early childhood teacher
provided a variety of instruments to accompany the song that she played on the CD, she first showed the children the songbook, played the song on the CD, and sang along with it. Afterwards, she played the song again, provided instruments for the children, and instructed them to listen to the song while they were playing. However, this principle was not revealed in the third study phase.

2. **Scaffolding provides internalization.** During the musical interaction process, the early childhood teachers allowed time and opportunities for the children to absorb or respond to the teachers’ interaction, permitting the children to internalize the teachers’ modeling or instruction and enhance their own skills.

3. **Scaffolding emphasizes collaboration between adults and children.** While teacher-teacher collaborations were observed in the second study phase, teachers and children shared the same music activities and everyone participated as equal partners in Phase Three.

   Notably, *scaffolding is achieved from intersubjectivity* was not recognized in the musical interactions between the early childhood teachers and the children in any of the three phases of the study. Based on the data collected, it seemed that the early childhood teachers did not have any specific music goals for the children to achieve. Besides, it was difficult to ascertain whether the infants and toddlers had sufficiently developed capacities to compromise and make adjustments when interacting musically with the teachers.

   In short, the principles of scaffolding were investigated in the musical interactions of early childhood teachers’ and children. While some principles were present in all three study phases, others were recognized in only one or two phases.
Summary of the Results

Musical Interactions in Daily Activities

Overall, the musical interactions among the early childhood teachers and the children occurred in three stages: initiation of the interaction, continuation of the interaction, and the conclusion of the interaction. Both the early childhood teachers and the children initiated musical interactions. The children tended to use vocalization or physical gestures to initiate the musical interaction, while the early childhood teachers used materials, sang a song or tonal pattern, or asked the children a question to begin the interaction. Notably, the frequency with which the children initiated musical interaction exceeded that of the teachers toward the end of the study.

During the continuation of the interaction stage, the early childhood teachers’ actions and reactions were often based on the children’s responses. The teachers used verbal instruction, physical manipulations, modeling, reactions to the children’s interests, observation, imitation, collaboration with other teachers or children, materials, and application of music to the children’s play. The children responded to the interaction by presenting interactive and non-interactive responses such as imitation, following, adjusting, or rejecting the teacher’s instruction, ignoring, observing, and hesitating. Interactive responses including imitation, following, and adjusting teachers’ modeling and instruction were more frequently demonstrated in Phase Three.

Several notable changes in the continuation stage were observed throughout the study: (a) The frequency with which the early childhood teachers verbalized their instruction during the continuation of the interaction was gradually reduced in Phase Two, when the music classes were provided. However, the teachers’ direct verbal instruction
was observed frequently again in Phase Three. (b) The teachers used less physical
manipulation to involve the children in interactions in Phases Two and Three. (c) The
teachers began to leave a brief of time for children to respond to them in Phases Two and
Three. (d) The teachers collaborated with other teachers in music activity and with the
children’s singing or musical play during the second and third study phases. (e) The
teachers used more variety of musical instruments to model an activity or to attract the
children’s interest in Phase Three. (f) The teachers created various texts for familiar
melodies of the children’s songs and transferred the children’s verbal responses to music
frequently. The children, rather than ignoring the teachers’ instruction, always responded
to their musical interaction in some way. In addition, they exhibited more musical
interactive responses.

Musical interaction between the early childhood teachers and the children may or
may not have been completed. There often seemed to be no conclusion; for instance, the
teachers went to answer the phone or the children walked away. However, the teachers
and the children were observed to conclude the musical interaction in some way. Both the
teachers and the children would combine verbal and physical gestures to finish the
musical interaction. While the children would give the teacher another object or bring her
to another place, the teachers tended to use verbal instruction to signal the end of the
interaction, as well as to make up songs to direct the children to the next activity. In
general, the children actively concluded the musical interactions more frequently in Phase
Three than in Phases One and Two.

Musical Interactions in Music Classes

When I provided music classes for the children, the early childhood teachers often
observed and imitated my modeling such as my singing, movement, and other kinds of interaction with the children. Significantly, when the early childhood teachers imitated my modeling, the children sometimes observed and imitated the early childhood teacher as well. In addition, the children sometimes imitated each other. Accordingly, an engagement seems to have evolved among the music teacher, the early childhood teachers, and the children in this study.

During the music classes, the early childhood teachers often provided verbal instruction to direct the children’s music learning, and asked the children questions or used physical manipulations to involve them in an activity. When the children responded to the music teacher or participated in music activities, the early childhood teachers would give them physical support or verbal praise. When the teachers showed exaggerated facial expressions, the children exhibited excited expressions and were willing to be involved in the music activity.

After a few music classes were provided, the following changes occurred: (a) the early childhood teachers minimized their use of physical manipulations to involve the children, (b) the teachers used less verbal direction to instruct the children’s music learning, and (c) when the teachers applied what they had observed from the music classes in their classroom setting, they tended to interact with the children in the same manner as I had with the children in the music class, such as leaving a pause for the children to think or respond or showing hand motions that I demonstrated.

While participating in the music classes, the early childhood teachers’ and children’s musical interactions were often interrupted by the children’s behavior, such as crying. Since the teachers felt a need to manage the class, they had difficulty focusing on
the music activities while paying sufficient attention to interact musically with the children.

**Principles of Scaffolding in Musical Interactions**

The principles of scaffolding were evident among the musical interactions of the early childhood teachers and the children. Although some principles were continually present throughout the study, others were present only in some study phases. The principles that were present in all three study phases included: (a) *scaffolding consists of an appropriate structure*, (b) *scaffolding promotes self-regulation*, (c) *scaffolding presents a learning model for children*, (d) *scaffolding includes appropriate tools and signs*, (e) *scaffolding is temporary instruction*, and (f) *scaffolding assists groups and individuals*. In Phases Two and Three, *scaffolding process provides internalization* was present. *Scaffolding begins from children’s previous experiences* was identified only in Phase Two, and *scaffolding emphasizes collaboration between adults and children* was observed only in Phase Three.

**Conclusion and Discussion**

*Musical Interactions Among Early Childhood Teachers and Young Children*

Throughout the study, the musical interactions among the early childhood teachers and the infants/toddlers in an early childhood daycare program were investigated. The results of the study show that the early childhood teachers interacted musically with the children in their daily activities. Although the length of the interaction and the interaction patterns varied, the teachers and children consistently exhibited three stages of interaction: (a) stage one—initiation of the interaction, (b) stage two—continuation of the interaction, and (c) stage three—conclusion of the interaction (see Figure 5.1). Their
musical interaction followed a linear process: when musical interaction was exhibited, it progressed from stage one through stage three.

The musical interaction needed to be initiated by either early childhood teachers or the children. Both used a variety of initiation patterns to begin the musical interaction. Notably, children as young as infants were observed exhibiting musical behaviors to initiate a musical interaction. However, toddlers revealed more initiation patterns than infants. Therefore, as young children mature, their initiation patterns seem to change.

Importantly, if early childhood teachers initiate musical interactions often, children will have more opportunities to experience music and learn how to initiate their own musical
interactions.

The study found that musical interactions need both early childhood teachers’ actions and reactions, and children’s responses, to continue. In general, teachers used several interaction patterns that could be categorized into the themes of: verbalization, non-verbal gesturing, observation, imitation, modeling, collaboration, accommodation, utilization, and application to interact with the children. On the other hand, the children exhibited interactive and non-interactive behaviors to respond to the teachers. Their interactive responses included imitation, following, and adjusting to the teachers’ modeling or instruction; and non-interactive responses included observation, ignoring, and hesitation. During the continuation of the interaction process, if teachers did not demonstrate musical actions or teachers/children did not respond to each other, the interaction would often stop.

The musical interaction may or may not have been completed. In the infant-toddler class, musical interactions were sometimes interrupted by the classroom situation, for instance, children crying or parents visiting. Therefore, no conclusion was commonly found in their musical interactions. However, as in the initiation stage of the interaction, both early childhood teachers and children would conclude the musical interaction. The teachers often used verbal instruction to signal the end of the interaction or the children brought the teacher to another place.

As many researchers have found, adults, including parents and caregivers, believe that providing early musical experiences for young children is important (Buescher, 1993; Cardany, 2004; Cusodero, Nritto, & Brooks-Gunn, 2003; de Vries, 2005; Gawlick, 2003; Hewitt, 2001; Hsee, 2006; Ilari, 2005; Mallett, 2000). The early childhood 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. They believe that music can bring a joyful experience to the children and help their development, such as their physical and language skills, similar to Suthers’s findings (2001, 2004). As was the case in previous studies (Buescher, 1993; Cardany, 2004; Golden, 1992; Tarnowski & Barrett, 1997), the children’s musical development was not the major concern of the early childhood teachers in this study; rather the children’s interest in and enjoyment of music were the primary motivations for the teachers to provide musical experiences for the children.

The present study supports the fact that children’s early musical experiences are often provided by early childhood teachers (Cardany, 2004; Golden, 1992; Hewitt, 2001; Suthers, 2001). But that these teachers might not feel confident in providing music instruction or leading music activities for children (Mallett, 2000). Interestingly, in the current study the early childhood teachers stated in the interviews that they felt confident leading a variety of music activities, singing and moving with their children. When I observed the classes, I had the impression that the early childhood teachers were often interacting musically with the children and feeling confident in singing, playing, and dancing with them. However, when parents or visitors were around, the teachers often finished the musical interaction or activity and changed to another activity such as painting or reading. I was not certain whether the teachers lacked confidence in singing or dancing in front of guests or if they just decided to demonstrate a different activity with the children for the guests.

Singing, dancing/movement, and playing instruments were the most frequent
activities that engaged parents, caregivers, early childhood teachers, and young children in musical interaction (Buescher, 1993; Cardany, 2004; Daniels, 1991; Freeman, 1984; Golden, 1992; Nardo, 1996; Tarnowski & Barrett, 1997). Some studies have indicated that in early childhood programs, most of these music activities are led by early childhood teachers rather than music teachers (Nardo, 1996; Nardo et al., 2006). In the current study, the early childhood teachers led music activities on a daily basis and used different interaction patterns to engage or respond to the children during the activity. Notably, although dancing was frequently found in their daily activities, free movement was the least comfortable music activity for the early childhood teachers to participate in and interact with the children during the music classes. I suspect that the early childhood teachers danced with the children because the songs that they selected always had lyrics that indicated movement. When I used music without lyrics, the early childhood teachers had a hard time moving freely. Therefore, the early childhood teachers may not know how to respond to musical components through movement and interact musically with children in this way when not prompted by lyrics.

In addition, in their interviews the early childhood teachers indicated that they enjoyed interacting with their children during music activities. However, the early childhood teachers thought that playing music on the CD player as background music or offering instruments and letting the children play alone were also ways to provide musical experiences for the children. It is true that providing such musical opportunities could support the children in exploring musical experiences. Nevertheless, I found that the children engaged in music play longer if the early childhood teachers stayed with them. As Tarr (1992) claimed, adults “being there” with young children contributed to the
children’s learning. Also, Murphy and Messer (2000) and Yang (2000) found that adults’ involvement in learning activities impacted children’s learning. In my observations, when the children noticed that the early childhood teachers were watching them, the children often continued their playing or dancing. If the early childhood teachers joined the children’s dancing or playing, and provided emotional support such as a smile, a hug, or exaggerated facial expressions in the musical interactions, the children often felt excited and would dance or play enthusiastically. Therefore, music materials such as CDs and instruments can be seen as a means to facilitate musical interactions, but teacher-child interactions should occur, since the children might engage longer in the musical activity if supported by an adult.

Moreover, earlier study indicated that adults interact musically more often with younger children (0–23 months) than with older children (24–36 months) (Custodero et al., 2003). In the present study, the early childhood teachers did not exhibit that their interactions with infants were more frequent than with toddlers in the group setting. However, when interacting with individual children, it was observed that they exhibited musical interactions with younger infants more often than with toddlers. Interviews with the early childhood teacher confirmed that because the infants are more attached to the teachers than are the older children, teachers have more opportunities to musically interact individually with infants.

Music Classes in the Study

During music classes, the early childhood teachers participated in the classes with the children. Notably, the musical interactions among the early childhood teachers and the children changed over the weeks of music classes provided. Their participation in
these classes also seemed to impact their musical interaction with children in daily activities. In the music classes, the early childhood teachers reduced their verbalization, including giving children verbal instruction to follow and asking children questions. The teachers also limited their use of physical manipulations to involve the children. As I modeled in the music classes, the teachers began to leave a pause for children to respond to them in their daily activities. They also reduced the frequency of their use of physical manipulations to involve the children not only in the music classes but also in daily activities. Noticeably, the use of verbal instruction to guide the children’s music learning diminished during the period when I provided the music classes. However, it increased again after the music classes ended. It was observed that there was a higher frequency of interactions between the early childhood teachers and the children, as well as a greater number of interaction patterns, during the period when I provided music classes.

In the present study, the early childhood teachers commented that their children benefit from receiving music classes that are guided by a music teacher, a result reported in previous studies (Mallett, 2000; Miranda, 2002; Nardo, 1996). During the eight weeks of music classes provided during this study, my observations documented not only an increased frequency in the children’s music responses and participation in the music activities, but also more rhythmic patterns in their chanting, as pointed out by the early childhood teachers. Some children would initiate chanting rhythm patterns and the children would then echo each other. During their free-play time, the children hummed a tune that I sang for them and took scarves to play the music game that I had played with them in the music class. Apparently, the music classes that assisted the children in developing their understanding of music increased their music vocabulary and provided
learning experiences for them.

After a few music classes were provided, most of the children would pat the beat or sway their body; and the toddlers could sing along or mouth the words with my singing or chanting, which may demonstrate their internalization of the beats and engagement in the music. Also, when I interacted with individuals, they often smiled and showed pleasure with the music playing. I also noticed that the children were excited when I arrived. They would clean up their toys faster when the teachers told them it was music time and walk up to me to have a hug. During the last few music classes, the children would sit on the floor and start patting the beat on their own before I started the class. In general, over the eight weeks of music classes, the children absorbed the music, imitated my music modeling, started to initiate musical interaction, and respond to music independently.

In the music class, the early childhood teachers and the children played musically together and responded to each other. For example, when the early childhood teacher rolled a ball to a child, the child often smiled at the teacher and rolled the ball back to her. While participating in music classes, the early childhood teachers seemed to benefit from observing my interactions with the children; Suthers (2004) also found that adults learned from attending music classes with children. Although I was uncertain whether observing my teaching and interaction with the children would help the early childhood teachers develop their confidence in offering music activities and interacting musically with young children, the results showed that the teachers utilized the music activities that they observed in the music class in their daily activities. In addition, they also interacted with children in the same way as I demonstrated in the music classes.
This study revealed that a community of learners developed during music classes. The engagement among members of this community (children, early childhood teachers, and a music teacher) occurred as follows: the music teacher demonstrated music modeling for the early childhood teachers and the children, and the music teacher interacted with the children; the early childhood teachers often observed and imitated the music teacher’s modeling, and observed and interacted with the children; the children observed and imitated either the early childhood teachers or the music teachers, and interacted with them. It was also documented that the children sometimes observed, imitated, and interacted with each other (see Figure 5.2).

Figure 5.2. Engagement within the community of learners during music classes.

It should be noted that all members of the community shared roles in the music
classes. While the early childhood teachers participated in the activities, they served as a music model for the children. The children not only observed and/or imitated the music teacher, but also observed and imitated the early childhood teachers’ demonstrations. Thus, the early childhood teachers’ participation in the music classes with the young children was a significant component of the musical interactions during music class. A review of the videotapes of the music classes showed that if the early childhood teachers were engaged and showed their enthusiasm in the music classes, children often felt excited and participated more fully in the class. If the early childhood teachers did not engage in the music activities, the children’s participation decreased.

Furthermore, this engagement within the community of learners demonstrated that children sometimes observed, imitated, and interacted with each other. Although children and children’s musical interaction was not the main focus of the present study, my observation journals documented many examples of children’s musical interactions with each other in the music classes. For example, when I chanted a finger play entitled “Here is a Beehive,” I often demonstrated and interacted with an individual child. Meanwhile, other children might imitate my hand motions and share these with each other.

Overall, the music classes that I provided demonstrated musical and interaction modeling for early childhood teachers and impacted the ways they interacted with the children. In addition, children not only received more musical experiences because music classes were offered, but also had opportunities to interact musically with early childhood teachers and each other. It appears a true community of learners emerged.

**Scaffolding in Musical Interactions**

Throughout the study, the principles of scaffolding were identified in the early
childhood teachers’ interactions with the young children. The following principles were present in all three study phases: (a) **scaffolding consists of an appropriate structure**, (b) **scaffolding promotes self-regulation**, (c) **scaffolding presents a learning model for children**, (d) **scaffolding includes appropriate tools and signs**, (e) **scaffolding is temporary instruction**, and (f) **scaffolding assists groups and individuals**. In Phases Two and Three, **scaffolding process provides internalization** was present. **Scaffolding begins from children’s previous experiences** was only recognized in Phase Two and **scaffolding emphasizes collaboration between adults and children** was only observed in Phase Three. Although not all of these principles were present over the entire period of observation, many were continually demonstrated in the musical interactions between the early childhood teachers and the children.

Similar to Moretti’s (2001) and Chin’s (1995) findings, the early childhood teachers in this study may not have known whether their interactions with the children were effective or if they were using scaffolding principles. In the present study, since the early childhood teachers indicated in their interviews that they used no specific strategies to interact with children, the principles of scaffolding seem to have been used unconsciously by both the teachers and the young children in their musical interactions. The early childhood teachers mentioned that they did not recognize that they had applied the principles of scaffolding; however, the study results show that scaffolding was present during their musical interactions with the children.

Among the principles of scaffolding examined in the study, modeling seemed to be the major interaction pattern evident between the early childhood teachers and the children. The teachers demonstrated a musical model in singing and moving frequently.
According to previous literature, modeling is a significant technique for scaffolding children’s learning (Breig-Allen, 2001; Murphy & Messer, 2000; Price-Rom, 1999). In the daily activities and music classes, the early childhood teachers supported the notion that their musical modeling guided the children’s imitation, provoked the children’s interest, and engaged the children in participation which positively scaffolded children’s music learning. As Bredekamp and Copple (1997) stated, imitation is part of the natural learning process for infants and toddlers. Young children develop their musical vocabulary by hearing the music that surrounds them and imitating those sounds (Gordon, 2003). Therefore, early childhood teachers are important musical models for this age group. This study supports the position that early childhood teachers present a musical model for young children in an early childhood daycare program.

The findings on scaffolding from the current study reflect existing literature on the use of scaffolding strategies. I found that the early childhood teachers applied direct and indirect and verbal and non-verbal techniques, and utilized materials to guide the children’s music learning, which is similar to the findings of previous early childhood studies (Chin, 1995; Choi, 1992; McLane, 1981; Pence, 2004; St. John, 2004). In general, direct verbal guidance and non-verbal guidance, including demonstration and gesturing, were the most common interaction techniques that early childhood teachers used to scaffold children’s music learning in this study. The early childhood teachers tended to give direct verbal instructions to guide the children in a musical interaction and these direct instructions also gave children information to follow.

Previous studies (Chin, 1995; Choi, 1992; McLane, 1981) postulated the importance of giving verbal instruction to guide children’s learning. However, I found
that children as young as infants may have their own musical ideas and so occasionally
do not conceptualize the teachers’ verbal instructions. Thus, sometimes the children
ignored the early childhood teachers’ verbal instructions and just walked away. From my
observations, I found that if the early childhood teachers demonstrated non-verbal music
modeling, the children aspired to imitate the teachers’ demonstrations more often than
when the teachers gave direct verbal instructions. Accordingly, it seems the teachers
could scaffold the children’s learning more effectively by demonstrating than by
providing verbal instruction.

The early childhood teachers in this study also used some non-verbal
gestures—typically physical manipulations, such as taking the child’s hands and helping
him/her clap, to involve or teach the children. Sometimes the children smiled or giggled
at the early childhood teachers, which implied that the children appreciated such
engagement, but sometimes the children frowned at the teachers or turned their faces
away. Guilbault (2005) indicated that “children should never be forced or coerced to
participate in music activities but allowed and encouraged to explore and absorb all that
they are capable of exploring or absorbing in the way that is most comfortable for them”
(p. 72). Also, “free exploration” (Flohr, 2005) is important in young children’s music
learning, providing the opportunities required for them to experiment with music
following their own paths and desires. It seems that using physical manipulations may not
be necessary for interacting with young children in musical activities. However,
throughout the study, the early childhood teachers began to realize that rather than forcing
children to exhibit music behavior, they should rather allow the children to explore
musical experiences, participate in music activities, and engage in musical interactions
when the children feel comfortable or when they are ready.

In addition, Chin (1995) found that adults often used direct verbal guidance, demonstration, and collaboration and negotiation to scaffold children’s learning. Chin also found that as the child’s age increased, the adults were less likely to use direct guidance and modeling; instead, they incorporated and negotiated the children’s ideas to scaffold their learning. However, negotiation was not clearly present in the musical interactions between the early childhood teachers’ and the children in the current study. I suppose that due to the age of the children, infants and toddlers may not have been capable of negotiating with the teachers in their musical interactions. The children in the present study usually responded to the teachers by ignoring, observing, following, or rejecting the teachers’ musical interaction. This suggests that the early childhood teachers had less opportunity to adjust their instructions or interactions due to lack of negotiation by the children.

The early childhood teachers’ musical interactions played a role in scaffolding the children’s music learning. The early childhood teachers in this study verified that they guided the children’s participation in music activities, provided leadership, demonstrated a learning model, conceptualized the task and the new skills, and always provided emotional expression in the musical interaction. These same behaviors have been observed by others (Berk & Windler, 1995; Emihovich & Lima, 1995; Göncü & Rogoff, 1998; Jacobs, 2001; Stone, 1998). Similar to Yang’s (2000) results, the early childhood teachers in the present study demonstrated their role as facilitators to simplify the music skills for the young children, and as observers and supporters to monitor the children’s learning. In addition, the early childhood teachers served as collaborators in the musical
interaction, a role also observed by Breig-Allen (2001), when they joined the children’s music making. This collaboration put the teachers in the roles of partner and co-player, as defined by Adachi (1994). Toward the end of this study, the musical collaboration between the early childhood teachers and the children became more noticeable. The children seemed to enjoy engaging in music play with the teachers. On the other hand, not only were the early childhood teachers and the children sharing the music, but the teachers were also assisting the children’s learning by simplifying the music, breaking the music learning into small steps, and then making the music play more challenging for the children.

Also in regard to scaffolding, de Vries (2005) documented his interactions with his 3-year-old son from infancy through the age of 2. He identified specific scaffolding strategies to guide young children’s music learning, including questioning, prompting, praising, confirming, giving feedback, expanding, repeating back, joint problem-solving, and modeling. However, confirming, expanding, and joint problem-solving were not identified as scaffolding strategies in the present study. The total time for observing the early childhood teachers’ interactions with the children in this study was shorter than that of de Vries’ two-year study. Or, since 12 children were involved in the same class, the early childhood teachers had difficulty focusing on and responding to individual children, whereas de Vries was only responding to his own child.

Recognizably, the principle scaffolding is achieved from intersubjectivity was not observed in the musical interactions between the early childhood teachers and the children at any point in the study. This principle emphasizes the adults’ need to establish specific goals and help the children achieve those goals. Ultimately, by sharing a purpose
and making adjustments to each other, adults and children should arrive at a shared understanding (Berk & Winsler, 1995; Newson & Newson, 1975; Vygotsky, 1978). In the interviews, the early childhood teachers verified that they did not either plan their music activities ahead of time or select any musical objective for children to accomplish. Their purpose for providing musical experiences for children was to allow the children to explore and enjoy music. Thus, it is difficult to believe that the teachers set any overt specific music learning goals for the children to achieve, which may be the reason that this principle was not been identified in early childhood teachers and children’s musical interactions. However, the early childhood teachers may be aware already that establishing specific music goals for infants and toddlers is not necessary and may not be appropriate. Providing a rich musical environment that allows infants and toddlers to experience music in early childhood programs is likely more important than “teaching” children music or “requiring” children to accomplish musical objectives at certain time. As de Vries (2005) states “adults need to be open to pursuing young children’s musical development whenever children wish to pursue their natural love of music-making, whether this occurs in scheduled periods devoted to music or not” (p. 310). Moreover, adults should provide opportunities for children to explore activities rather than asking them to follow requirements for a specific product (Bredekamp & Copple, 1997, p. 85).

In brief, principles of scaffolding are present in the musical interactions between early childhood teachers and young children. This finding was similar to those in other fields which have determined that children benefit from adults’ scaffolded interactions with them.
Recommendations

For Future Research

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

1. This study uncovered much about child-to-child musical interaction. Throughout the study, children as young as infants sometimes interacted with other children musically. For instance, a child might respond to another child’s musical babbling by imitating it, or toddlers might lead a music activity by giving a verbal direction to mobile infants when the early childhood teacher was not present. Therefore, more detail on how children interact musically with other children may provide parents, music teachers, and early childhood educators with a more in-depth understanding of young children’s early musical learning.

   Further, since older siblings and more skilled peers are able to scaffold younger children’s learning (Choi, 1992; McLance, 1981), additional research is needed to clarify whether older children can scaffold younger children’s music learning in early childhood programs. Since a child’s chorological age is not necessary equal to his/her musical age (Gordon, 2001, 2003), older children may not be the more skilled peers. Therefore, regardless of the children’s age, knowing how they scaffold each other’s music learning and what principles they apply in musical interactions may provide more understanding of scaffolding in early childhood music education.

2. Parents valued, and were curious about, their young children’s musical experiences in the early childhood program in this study. When the music classes
were provided, the early childhood teachers posted pictures of the music class on the program’s weekly reflection board. Many parents looked at the pictures attentively. Some parents were surprised that music classes were offered for these young children; other parents asked their child if they had enjoyed the music classes. Some parents waited for me in the observation room and asked my opinion about taking their child to an early childhood music program. One mother asked me for the music materials that I used in the music classes. Her son tried to chant a finger play that he learned from the music classes at home, but he could not finish the chant, so the mother wanted to know the chant and join his son’s music making. It is evident that the music classes attracted the parents’ attention and in some cases served as a catalyst for them to provide musical experiences for their young children. The parents seemed to value their children’s joyfulness in attending music classes as a part of the early childhood program and desired to engage their children in more music learning. Therefore, future research on how music classes embedded in an early childhood program influence parents’ impressions of young children’s early musical experiences, how the parents interact musically with their children after they go home, and what music learning opportunities the parents offer their children outside of the early childhood program may provide a description of young children’s early musical life and extend the explanation of the importance of music classes for young children in early childhood programs.

3. The present study does not address the quality of musical models that early childhood teachers provided for young children. However, since early childhood
teachers musically interact with children in daily activities as well as in music
classes, children often observe and imitate these teachers’ musical demonstration
in both settings. Therefore, the quality of early childhood teachers’ musical
modeling should be a concern.

4. While I was conducting the study, it seemed that the experienced teachers were
more capable of providing various interaction patterns in their daily musical
activities, and often incorporated music into the children’s play. On the other hand,
the novice teachers were limited in certain musical interaction patterns and did not
use many music activities to support the children’s learning. However, the novice
teachers were observant in the music classes and adopted new music ideas into
their daily activities more often than did the experienced teachers. Although Ilari
(2005) found that parents’ musical backgrounds and experiences did not influence
their musical interaction with children, the early childhood teachers’ teaching
experiences did seem to be related to their musical interaction with the young
children and their participation in the music classes. Future studies should
investigate experienced and novice early childhood teachers’ use of musical
interactions in their daily music activities in the classroom, as well as their
perspectives on participating in music classes and the use of music activities that
they learn from the music classes. The findings of future research may offer early
childhood educators and music educators more information about early childhood
teachers’ teaching experiences and their function in providing early musical
experiences for young children.

5. Early childhood teachers’ musical backgrounds may influence how they scaffold
children’s music learning. From my observations during the study, the early childhood teachers who had formal musical training seemed to apply more principles of scaffolding in their musical interactions with children. Accordingly, further research is needed into how early childhood teachers’ musical background, knowledge, and training impact the ways they scaffold children’s music learning. Furthermore, do the music classes that are provided by a music teacher encourage early childhood teachers who have a music background to scaffold children’s music learning more effectively than those who do not? Therefore, future research may provide an understanding of how early childhood teachers’ musical backgrounds affect the way they enhance young children’s music learning. Also, future studies may illustrate the needs of early childhood teachers in regard to music preparation.

6. The gender of early childhood teachers may play a role in their musical interactions with young children and their ability to scaffold children’s music learning. In the study, all three early childhood teachers were female. It is unknown whether their gender influenced the way they interacted musically with the children and applied the principles of scaffolding in their musical interactions. Few previous studies were found that investigated the role of early childhood teacher’s gender in interactions with young children in early childhood programs. A paucity of research exists in the areas of musical interaction and scaffolding in learning as well. Therefore, future research on the role of gender in musical interactions and scaffolding in children’s music learning should be pursued.

7. The design and data collection process used in this study should be expanded
because the first and third study phases were shorter than the second phase. In other words, the study phases prior to and after the music classes did not provide the same number of observations of the early childhood teachers and their children as were included in Phase Two. Therefore, more data may have been gathered from the second study phase than from the other two phases. Thus, it is recommended that the first and third study phases be extended to a longer period when a similar study is conducted.

*For Practice*

Based on the findings and discussions of this study, the following recommendations may be relevant for teaching in early childhood daycare programs.

1. Musical interactions among early childhood teachers and young children should be encouraged. The musical environment in the early childhood program is not only expected to offer musical activities and materials but should also encourage early childhood teachers to interact musically with young children. Importantly, when early childhood teachers provide supportive musical interaction such as modeling, smiling, and accommodating children’s interests, children may engage more in music play. Such musical interaction may also increase children’s musical experiences.

2. In order to scaffold young children’s music learning, early childhood teachers need to understand children’s musical responses and behaviors. Early childhood teachers need to pay attention to children’s play, respond to the children when their musical behavior emerges, and initiate those behaviors into the musical interaction. Indeed, teachers ought to have a sense of when to start or end the
interaction at the appropriate time and give children opportunities to internalize their music learning.

3. Rather than establishing specific music goals for infants and toddlers, early childhood teachers should understand infants’ and toddlers’ musical development. The principle Scaffoldings is achieved from intersubjectivity has been highlighted in the field of children’s learning and could assist in developing children’s knowledge and skills to the next higher level. However, this process was not observed in the study. The reason proffered by the early childhood teachers in interviews with them was they provided musical experiences for the children to explore and enjoy. According to the results of the study, the children seem engaged in a rich musical environment with early childhood teachers and no music goal was needed. In addition, establishing specific music goals for infants/toddlers to accomplish may not be appropriate for them since young children’s music learning come from experiences in their musical environment. Therefore, in order to provide appropriate music learning experiences in early childhood programs, early childhood teachers are suggested to be aware of young children’s musical development including young children’s music learning process, music capacity, music intelligence, and aptitude.

4. Since music classes provide more opportunities for infants and toddlers to experience music and enhance their music learning, music classes led by an early childhood music specialist, are recommended. In addition, the results of this study revealed that musical interactions in daily activities between early childhood teachers and children were more frequently demonstrated during the period when
music classes were provided. Therefore, it is recommended that this early childhood program continue providing weekly music classes for children, year-round if possible.

5. Early childhood teachers are encouraged to participate in music classes. Essentially, since young children observe and imitate early childhood teachers’ participation in music classes, early childhood teachers also serve as music models for children during those classes. In addition, when early childhood teachers participate in music classes, they have opportunities to observe the music teacher’s music activities, modeling, and interaction with children. Hence, participating in music classes may assist early childhood teachers to become familiar with more music activities, understand the most effective ways to interact musically with children, and present a music model for children.

6. Music teachers are encouraged to have informal conversations with early childhood teachers before or after music classes and to spend some time in the regular classroom or at least observing. This allows the music teachers to acknowledge the early childhood teachers’ musical guidance as well as enhance their understanding of the children’s musical development in their daily activities. For example, although it is necessary for early childhood teachers to use verbal instructions to interact with children in some musical interaction situations, early childhood teachers need to understand that it is usually preferable to “provide a model for the students rather than give[ing] an explanation” (Rutkowski, 2006, p. 240). Likewise, it is more effective to use physical gestures in lieu of forceful manipulations to engage children in musical interactions: “[children’s] learning is
most meaningful when it is self-directed and that children should not be forced to participate” (Etopio & Cissoko, 2005, p. 61). Notions such as “do music rather than talk about music” (Flohr, 2005, p. 61) and “children should never be forced to learn . . . but should instead be allowed and encouraged to explore and to absorb [music]” (Gordon, 2003, p.39) could be conveyed during informal conversations between music teachers and early childhood teachers. In addition, since most music teachers are not involved on a daily basis with children in the classroom, they could be brought up to date on children’s musical development and learning environments in periodic conversations with early childhood teachers before or after music classes and when they visit or observe regular classroom.

**Final Thoughts**

Throughout this investigation of musical interactions among early childhood teachers and infants/toddlers in a university’s early childhood daycare program, it became clear that musical interactions between early childhood teachers and children can happen at any place and at any time. For example, when the children were playing with toy animals at the sensory table, the children’s song “Old MacDonald Had a Farm” was initiated and sung by the early childhood teacher, and the children joined her in singing. This showed that musical interaction was integrated into their daily life. Therefore, in the infant-toddler classroom environment, the musical interactions between early childhood teachers and children could be found without restriction at any specific area or time. This is indicative of the important role that early childhood teachers play in young children’s music learning. If the teachers frequently interact musically with them, the children will
receive rich musical experiences.

During the music classes, I saw children’s smiles, I heard their giggling, I noticed their music responses, and I witnessed their participation. I knew I had established a “musical friendship” with them. After the music classes were ended, some children who saw me at the Center, rather than calling me “Miss Yun-Fei” or “Music Teacher”, called me “Singer” and “Our Music Friend.” I realized that the music classes provided the children opportunities to explore musical activities, left them with the memory that I was part of their musical experiences, and contributed to their musical growth.

In addition, the music classes offered the early childhood teachers some hands-on music activities and ways to interact and scaffold. During the first week that I provided music classes, I also interviewed the early childhood teachers. Two of them mentioned that they often expected to receive some hands-on music activities or music resources to use in their classroom when they attended early childhood conferences. So, when I planned the music lessons, I always tried to select repertoire and activities that were appropriate for the children and easy for early childhood teachers to learn to use. Also, I used the musical material that existed in the classroom, such as drums and scarves, as often as possible. Toward the end of the period when I provided music classes, I found the early childhood teachers sang or conducted the music activities that I demonstrated in the music classes with the children during daily activities. Although they might just sing half of the song or do some part of the music activities that they observed in the music classes, I recognized that they incorporated the music activities into their practice and musically interacted with the children. Through the study, I was delighted to realize that I delivered my music knowledge to them and contributed to their professional development
in the music field.

Significantly, a particular type of engagement emerged within the community of learners during music classes and these roles of engagement were shared. In music classes, a music teacher, early childhood teachers, and children all engaged in music classes. The relationships among them were interrelated. Everyone had opportunities to observe, imitate, and interact with each other musically. Specially, early childhood teachers participated in every music classes with children. I, as a music teacher, always demonstrated music models and interacted musically with children; early childhood teachers presented a similar role for children during music classes. When early childhood teachers were involved in music classes, their participation not only provided a musical demonstration for children but also encouraged children’s involvement. In addition to interacting with music teachers or early childhood teachers, children seem to enjoy sharing musical experience in music classes with other children too. They sometimes responded to each other’s musical babbling or smiled at other’s music play. Therefore, the engagement of music teachers, early childhood teachers, and children in music classes is of substantial value in providing music classes in early childhood programs; everyone becomes involve in a musical environment and shares in each other’s musical experiences.

In conclusion, musical interactions occur naturally among early childhood teachers and children in their daily activities. By identifying and interpreting the use of principles of scaffolding in the musical interactions between early childhood teachers and children, this study supports the concept that young children’s music learning can be enhanced by early childhood teachers during daily activities as well as from music
classes provided by a music teacher. Therefore, a musically rich environment in an early childhood program can be supported by the musical interactions among early childhood teachers and the children with whom they spend most of their day, along with regular music classes that are provided by a qualified music teacher. Everyone—children, early childhood teachers, and the music teacher—shares roles in the community of musical learners that emerges.


Hsee, Y. F. (2006, April). *An investigation of the interactions between parent and toddler during informal unstructured music activities*. Poster session presented at the National Association for Music Education (MENC) Biennial Conference, Salt Lake City, UT.


Survey of Income and Program Participation. Primary child care arrangements for children aged 0-4 with employed mothers, selected years 1985-2002 [Data file], Available from the U.S. Census Bureau Web Site, [http://www.sipp.census.gov/sipp](http://www.sipp.census.gov/sipp)


Vlismas, W, & Bowes, J. (1999). First-time mothers’ use of music and movement with


APPENDIX A

Observation Protocol
**BabyRock Teacher’s-Children’s Observation**

Observer _________________ Place ________________ Date _____________ Week _________ Time Period ____________________

Early childhood teachers:  Ms. Sarah    Ms. Yvonne    Ms. Brenda

Children:  Jovanna, Alyssa, Ashton, Emma, Kayla, Lauren, Michael, Jeff, Noah, Chloe, Ryan, Ivan

*Teachers’ and children’s music behaviors (ex. singing, clapping, and gesturing), interaction, responses, and reaction
*Musical activity (ex. playing instruments, moving to the songs, listening to the recordings …)
*Musical material (ex. musical equipment, instruments, or CDs, books …)

<table>
<thead>
<tr>
<th>When</th>
<th>Where</th>
<th>What</th>
<th>Who</th>
<th>How</th>
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<tbody>
<tr>
<td>Time</td>
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<td>Activity</td>
<td>People</td>
<td>Interaction</td>
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Comments:
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<th>Where</th>
<th>What</th>
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<tbody>
<tr>
<td>Time</td>
<td>Place</td>
<td>Activity</td>
<td>People</td>
<td>Interaction</td>
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</table>

Comments:
APPENDIX B

Interview Protocols and Guiding Questions
Interview #1 Protocol

Project: Musical Interactions among Young Children and Early Childhood Teachers: The Role of Interaction of Scaffolding of Young Children’s Music Learning

Time of interview:

Date:

Place: Lounge

Interviewer: Yun-Fei Hsee

Interviewee:

Position of Interviewee: Early childhood teacher of BabyRock class

Topic One: Educational and Musical Background

Guiding Questions:

1. How many years have you been working at the Child Development Center?
2. How long have you been teaching in this BabyRock class?
3. Can you tell me a little bit about yourself? What brought you to the early childhood field?
4. What is your professional background in early childhood education?
5. Please tell me about your musical background. (Formal musical experiences: Did you sing in a school choir? church choir? Did you play or learn any instrument? Did you take any dance class? etc.) (Informal experiences: Did you sing in the car? sing in the shower? sing to your children? etc.)
6. What courses or professional development workshops on early childhood music education have you taken?
7. Do those courses or workshops help you in using music in the classroom?
8. How do you feel about your musical background and musical knowledge in playing musically with children?
9. How comfortable are you playing musically with children?
Interview #2 Protocol

Project: Musical Interactions among Young Children and Early Childhood Teachers: The Role of Interaction of Scaffolding of Young Children’s Music Learning

Time of interview:

Date:

Place: Observation room

Interviewer: Yun-Fei Hsee

Interviewee:

Position of Interviewee: Early childhood teacher of BabyRock class

Topic Two: Musical Experiences With the Children and Music Activity Planning

Guiding Questions:

1. I have seen you use a variety of music activities with the children. . . Do you use music in the class as a part of daily routine? (If not, how frequently do you use music in the class?)
2. Could you share a bit about your experience providing music for the children in this class?
3. How do the children respond to the musical experiences that they have in the class?
4. What musical experiences do you think are interesting for the children?
5. What types of music activities do you usually use in the classroom?
6. Do you spend time outside of the class preparing music activities for the children?
7. How do you feel about preparing music activities to the children? (Do you feel confident preparing music activities, selecting activities, or identifying resources?)
8. What concerns do you have when you select (or prepare) music activities for the children?
9. What concerns do you have when you use (or provide) music in the class?
10. Is there anything you feel uncomfortable with when using (or preparing) music in the class?
Interview #3 Protocol

Project: Musical Interactions among Young Children and Early Childhood Teachers: The Role of Interaction of Scaffolding of Young Children’s Music Learning

Time of interview:

Date:

Place: Lounge

Interviewer: Yun-Fei Hsee

Interviewee:

Position of Interviewee: Early childhood teacher of BabyRock class

**Topic Three:** Interaction

Guiding Questions:

1. (It is very interesting to see how you interact with XXX.) Do you often sing the song (chant, move, or play music) to the individual child?

2. What is the best part (or most interesting part) about singing (playing music, or interacting musically . . . etc.) with/for children?

3. Do you sing (chant, move, or play music) to the children as a whole group? When?

4. Do you sing (chant, move, or play music) to individual children? When?

5. From your experience, do you provide more music activities for the children as a whole class or individuals?

6. What are children’s reactions or responses when you interact with them as a group?

7. How do children react or respond when you interact with them individually?

8. What difference (or advantage, disadvantage, difficulty) do you find when you provide music to the whole class compared to individual children?

9. What do you think your role is in music activities?
Interview #4 Protocol

Project: Musical Interactions among Young Children and Early Childhood Teachers: The Role of Interaction of Scaffolding of Young Children’s Music Learning

Time of interview:

Date:

Place: Lounge

Interviewer: Yun-Fei Hsee

Interviewee:

Position of Interviewee: Early childhood teacher of BabyRock class

Topic Four: Music Classes and Changing Patterns

Guiding Questions
1. How do the music classes differ from your previous experiences?
2. How do the music classes differ from your expectations?
3. What is your general reflection on participating in the music classes?
4. What benefits do you anticipate from participating in the music classes?
5. Do you think you have changed in any ways?
6. Has any change occurred in your participation in the music classes? Musically or non-musically?
7. Have you noticed changes in the children’s participation in the music classes? Musically or non-musically?
8. Have you noticed changes in the children’s musical responses in daily activities?
9. What questions or suggestions about the music classes do you have for me?
APPENDIX C

Weekly Activities Experiences Plan
<table>
<thead>
<tr>
<th>Nov.</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td></td>
<td>Magna-tiles</td>
<td>Magna-tiles</td>
<td>Different papers in sensory table</td>
<td>Puppets in sensory table</td>
<td>Water &amp; foam animals</td>
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<tr>
<td></td>
<td>Bingo</td>
<td>Music class</td>
<td>&quot;Going to the Zoo&quot;</td>
<td>If we're going to the zoo</td>
<td>Kid Action CD</td>
</tr>
<tr>
<td>Art and Exploration Activities</td>
<td>Playdough</td>
<td>Fingers paint on scrap paper</td>
<td>Spin art paper/felt in table</td>
<td>Ice in sensory table</td>
<td>Backpack paint &amp; wash</td>
</tr>
<tr>
<td>Imaginative Play</td>
<td>Wrapping up boys' veggies in brown bag</td>
<td>Kitchen - Making dinner</td>
<td>Doctor</td>
<td>Cooking in little kitchen</td>
<td></td>
</tr>
<tr>
<td>Gross Motor Indoor and Outdoor Play</td>
<td>Playground</td>
<td>Hockey - Paint on white wall</td>
<td>Marching on colored lines</td>
<td>Walking to playground</td>
<td></td>
</tr>
<tr>
<td>Fine Motor and Self-Help Skills</td>
<td>Magna-tiles</td>
<td>Painting on paper</td>
<td>Spinning salad spinner</td>
<td>Stringing buttons</td>
<td></td>
</tr>
<tr>
<td>Thinking and Social/Emotional Development</td>
<td>Our family</td>
<td>Doctor - How to take care of yourself</td>
<td>Why is the rain coming in the window?</td>
<td>Play dough</td>
<td>Play dough</td>
</tr>
<tr>
<td>Afternoon Table Activities</td>
<td>Markers and paper</td>
<td>Glue</td>
<td>Ice &amp; paper animals</td>
<td>Playdough &amp; Play dough</td>
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<td></td>
<td>Monday (1)</td>
<td>Tuesday (2)</td>
<td>Wednesday (3)</td>
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<tr>
<td><strong>Arrival Activities</strong></td>
<td>Raincoats, pom poms, wall, etc.</td>
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<td>Connecting colored fish</td>
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<tr>
<td>(Table, sensory bins)</td>
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<tr>
<td><strong>Music or Movement</strong></td>
<td>Dancing with scarves and ribbons to playtime</td>
<td>Shake Your Sillies Out</td>
<td>Gymnastics with paper</td>
<td>Share Your Sillies Out</td>
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<tr>
<td>Activities</td>
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<tr>
<td><strong>Art and Exploration</strong></td>
<td>Colored pencils on big yellow paper</td>
<td></td>
<td>Colored pencils on big yellow paper</td>
<td>Fingerprinting</td>
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<tr>
<td>Activities</td>
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<td>Sand in sensory table</td>
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<tr>
<td><strong>Imaginative Play</strong></td>
<td>Playing with Surprise and Daddy crocodiles</td>
<td>Firetruck and pretend play</td>
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<td>dress-up</td>
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<tr>
<td><strong>Gross Motor</strong></td>
<td>Dancing (too cold to go out)</td>
<td>Soft gym equipment and ball pool</td>
<td>Climbing steps</td>
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<td>Dec 11-15, 2006</td>
<td>Sand &amp; Shovels, Shells &amp; Buckets</td>
<td>Music class, Little Mouse Felt Story/Chart</td>
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<td>(Table, sensory bins)</td>
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<td><strong>Art and Exploration Activities</strong></td>
<td>Clay w/ hammer &amp; nails</td>
<td>Puffy paint on clear laminate paper</td>
<td>Watercolors, Little paint, brushes on paper, stars</td>
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<td><strong>Imaginative Play</strong></td>
<td>K's pictured to be the teacher when reading books</td>
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<td><strong>Gross Motor Indoor and Outdoor Play</strong></td>
<td>Played on the playground, some children rode down the hill while others ran</td>
<td>Played at the grocery store - climbed up and down stairs</td>
<td>Ride the bus downtown; Paced walls</td>
<td>Walked to playground - jumped legs on strong, jumped over cars</td>
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<td><strong>Fine Motor and Self-Help Skills</strong></td>
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<td>What are Mommy &amp; Daddy? What is their workout?</td>
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APPENDIX D

Data Collection Calendar and Procedure
# Data Collection Calendar

R: researcher  RA: research assistant  
Teacher S: Ms. Sarah; Y: Ms. Yvonne; B: Ms. Brenda

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Data Collection Procedure

R: Researcher
RA: Research assistant

Phase One

Week 1
* R Observation (2 hrs. per day)
* RA Observation (2 hrs. 2 days)

Phase Two

Week 2~9
* Music Class #1~8
* Interviews with teachers
* R Observation (2 hrs. 2 days; 30 minutes music class time)
* RA Observation (2 hrs. 2 days)
* Document, archival record collection

Phase Three
(One month after Phase Two)

Week 10
* R Observation (2 hrs. per day)
* Video record (2 hrs. 2 days)
APPENDIX E

Music Class Lesson Plans and Repertoire References
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<th>Props</th>
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<td>Soon It Will Be Halloween Rhythm Patterns</td>
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<td>-Chant several duple patterns, deep breath before each pattern</td>
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<td>Roll the Ball Like This</td>
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<td>-Encourage the child roll it back</td>
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<td>Hickety Pickety Bumble Bee</td>
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<td>-Add different body parts, eye contact</td>
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<td>Hand Drum</td>
<td>-Sing and pat on tempo beat -Add child’s name</td>
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<td>Tonal Patterns</td>
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<td>-Encourage the child pat along -Sing minor pattern to individuals</td>
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<td>Free Movement: “Syncopated Clock”</td>
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<td>Scarves</td>
<td>-Model different movements-- flow, space, time, weight</td>
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<td>Hide and Seek</td>
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<td>U</td>
<td>Scarves</td>
<td>-Sing “where is ‘child’s name’”” to individuals</td>
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<td>Here is the Bee-Hive</td>
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<td>Hay, Good Bye</td>
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* F/U: Familiar/Unfamiliar    *NS: Neutral syllables    *RT: Resting tone    *Mix:
Mixolydian
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* F/U: Familiar/Unfamiliar  *NS: Neutral syllables  *RT: Resting tone  *Mix:
Mixolydian
## Music Lesson Plan

**Class 3 of 8: November 7, 2006**

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# Music Lesson Plan

**Class 4 of 8: November 14, 2006**

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## Music Lesson Plan
### Class 5 of 8: November 21, 2006

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* F/U: Familiar/Unfamiliar
*NS: Neutral syllables
*RT: Resting tone
*Mix: Mixolydian
# Music Lesson Plan

**Class 6 of 8: November 28, 2006**

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* F/U: Familiar/Unfamiliar  
*NS: Neutral syllables  
*RT: Resting tone  
*Mix: Mixolydian  
* Phry: Phrygian  
* Unus: Unusual
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## Music Lesson Plan

**Class 8 of 8: December 12, 2006**

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<tr>
<td><strong>Music Time</strong></td>
<td>Major</td>
<td>Duple</td>
<td>F</td>
<td></td>
<td>-Sing to individuals</td>
</tr>
<tr>
<td>2-1 Tap the Cymbals</td>
<td>Minor</td>
<td>Duple</td>
<td>F</td>
<td></td>
<td>-Sing in *NS</td>
</tr>
<tr>
<td>2-2 Rhythm Patterns</td>
<td>Duple</td>
<td></td>
<td></td>
<td></td>
<td>-Chant several duple patterns, deep breath before each pattern</td>
</tr>
<tr>
<td>2-3 Tap the Cymbals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Leave a pause after each pattern</td>
</tr>
<tr>
<td>2-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Sing with text</td>
</tr>
<tr>
<td>2-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Sing *RT at the end</td>
</tr>
<tr>
<td>3-1 Two Little Birds</td>
<td>Major</td>
<td>Duple</td>
<td>F</td>
<td>Stuffed Bird</td>
<td>-Use prop model tempo beats -Sing major pattern to individuals</td>
</tr>
<tr>
<td>3-2 Tonal Patterns</td>
<td>Major</td>
<td></td>
<td></td>
<td></td>
<td>-Leave a pause after each pattern</td>
</tr>
<tr>
<td>3-3 Two Little Birds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Jumping</td>
<td>Dorian</td>
<td>Triple</td>
<td>F</td>
<td>Shakers</td>
<td>-Model and leave a pause at the end</td>
</tr>
<tr>
<td>5 Roll the Ball Like This</td>
<td>Minor</td>
<td>Triple</td>
<td>F</td>
<td>Ball</td>
<td>-Roll the ball to individuals</td>
</tr>
<tr>
<td>6 Stirring Soup</td>
<td></td>
<td></td>
<td></td>
<td>Sticks</td>
<td>-Encourage the child roll it back</td>
</tr>
<tr>
<td>7 Free Movement:</td>
<td>Minor</td>
<td>Triple</td>
<td>F</td>
<td>Scarves</td>
<td>-Model different movements-- flow, space, time, weight</td>
</tr>
<tr>
<td>“Grosse Femme”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ardail &amp; Dupére, 1998, track 10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Hide and Seek</td>
<td>Minor</td>
<td></td>
<td></td>
<td>Scarves</td>
<td>-Sing “where is ‘child’s name’” to individuals</td>
</tr>
<tr>
<td>9 Hickety Picket Bumble Bee</td>
<td>Chant</td>
<td>Triple</td>
<td>F</td>
<td></td>
<td>-Add different body parts, eye contact</td>
</tr>
<tr>
<td>10 Wiggle Song</td>
<td>Dorian</td>
<td>Duple</td>
<td>F</td>
<td></td>
<td>-Add body parts and model the motions</td>
</tr>
<tr>
<td>11 Jeremiah Blow the Fire</td>
<td>Major</td>
<td>Duple</td>
<td>F</td>
<td>Scarf</td>
<td>-Put scarf on child's head, let him blow scarf.</td>
</tr>
<tr>
<td>12-1 Round and Around Rhythm</td>
<td>Major</td>
<td>Triple</td>
<td>F</td>
<td></td>
<td>-Sing in *NS</td>
</tr>
<tr>
<td>12-2 Patterns</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Chant several triple patterns, deep breath before each pattern</td>
</tr>
<tr>
<td>12-3 Round and Around</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Leave a pause after each pattern</td>
</tr>
<tr>
<td>13 Hay, Good Bye</td>
<td>*Mix</td>
<td>Duple</td>
<td>F</td>
<td></td>
<td>-Sing to individuals</td>
</tr>
</tbody>
</table>

* F/U: Familiar/Unfamiliar
* NS: Neutral syllables
* RT: Resting tone
* Mix: Mixolydian
* Phry: Phrygian  * Unus: Unusual

Repertoire References


Here is the beehive. (1998). In W. H. Valerio, A. M. Reynolds, B. M. Bolton, C. C. Taggart, & E. E. Gordon (Eds.), Music play (p. 120). Chicago: GIA.


Mister turkey. (1998). In Course pack, Songs for children (pp. 44). The Pennsylvania State University. (Available from the ProCopy, 434 West Aaron Drive, State College, PA 16803)


Rutkowski, J. (1998). Soon it will be Halloween. In Course pack, Songs for children (pp. 64). The Pennsylvania State University. (Available from the ProCopy, 434 West Aaron Drive, State College, PA 16803)

Tap the cymbals. (1998). In Course pack, Songs for children (p. 71). The Pennsylvania State University. (Available from the ProCopy, 434 West Aaron Drive, State College, PA 16803)

Two little birds. (1998). In Course pack, Songs for children (p. 78). The Pennsylvania State University. (Available from the ProCopy, 434 West Aaron Drive, State College, PA 16803)


Who’s a-knocking. (1998). In Course pack, Songs for children (p. 84). The Pennsylvania State University. (Available from the ProCopy, 434 West Aaron Drive, State College, PA 16803)


APPENDIX F

_BabyRock_ Classroom Setting
BabyRock Classroom Layout

- Door
- Cubby
- Cubby
- Infant Area
- One-way Mirror Observation Room
- Toy Shelf
- Toy Shelf
- Red Carpet
- Toy Shelf
- Kitchen
- Fine motor shelf
- Reading Area
- Bookshelf
- Dramatic Play Area
- Dramatic Play Area
- Music Cabinet
- Rainbow Carpet
- Tables/Chairs
- Changing Table
- Sensory Table
- Climber
- Diaper-Changing Area
- Sink
- Sink
- Sink
Music/Movement Area (Rainbow Carpet)
APPENDIX G

BabayRock Class Daily Schedule
BabyRock Class
Daily Schedule

7:30–10:00 Children arrive, families are greeted (children free-play)

8:30–9:15 Breakfast is served

9:00 Children’s diapers are changed and children are asked to use the potty.

9:30 Free-play and art/sensory time

9:50 Clean-up time

10:00 Outside time (in the playground or for a walk)

11:30 Return from outside (water is offered, stories are read)

11:45 Lunch is served

12:20 Diapers and potty time

Music, stories, and quiet play

12:30 Teeth brushing

12:50–3:00 Naptime

3:30 Snack and diapering/potty time

4:15 Free-play inside or on the playground

5:45 Children leave and teacher close room
APPENDIX H

Musical Materials in BabyRock Classroom
Music Instruments and Placed Shelf in the Classroom
APPENDIX I

Preauthorization Letter
October 5, 2006

Dear Dr. Dolores W. Maney,

This is to verify that Yun-Fei Hsee has permission to conduct research and access participants at the Bennett Family Center. Her objective is to observe the musical interactions that occur during the classroom activities and music classes among early childhood teachers and young children. She has obtained IRB# 23978 approval.

If you have any further questions please do not hesitate to call 865-4057 or e-mail at wjw8@psu.edu.

Sincerely,

Wendy Whitesell

Wendy Whitesell, Director
The Bennett Family Center
The Pennsylvania State University
123 Bennett Family Center
University Park, PA 16802
APPENDIX J

Early Childhood Teachers’ Consent Form
Title of Project: Musical Interactions among Young Children and Early Childhood Teachers: The Role of Intervention on Scaffolding of Young Children’s Music Learning

Principal Investigator: Yun-Fei Hsee
Email: yuh101@psu.edu
Address: 250 Music Building I, University Park, PA. 16802
Phone Number: 814-863-0824

Advisor: Dr. Joanne Rutkowski
Email: rvi@psu.edu
Address: 206 Music Building I, University Park, PA. 16802
Phone Number: 814-863-0419

1. Purpose of the Study: The purpose of this study is to investigate the musical interactions that occur in the daily activities and music classes in the early childhood program.

2. Procedures to be followed:
   You will participate in the study for a total of 10 weeks.
   Phase I: The first week- Your classroom activities will be randomly observed by the researcher and the research assistant. The observation hours will be 2 to 4 hours per day.
   Phase II: Weeks two through nine will include three parts:
   (1) Music class: You will participate in 8 weekly 30-minute music classes provided and led by the researcher with your class of children.
   (2) Observation: Classroom activities will be randomly observed by the researcher and the research assistant. These observations will total 6 hours per week.
   (3) Interview: You will be asked to interview with the researcher. These 8 weekly 20-minute one-on-one interviews with the researcher will provide you sufficient time to ask questions, share your personal music background and musical experiences working with young children. For your convenience, the interviews will be scheduled one week in advance. In order to review and confirm the accuracy of the interview protocol, each interview will be audio recorded. The audiotapes will be destroyed by December 2007, six months after the data is analyzed.
   Phase III: One month after the end of the music classes classroom activities will again be randomly observed by the researcher twice for 2 hours each.
   In addition, any documentation and archival records related to children’s music learning such as your lesson plans, children’s progress reports, teacher-parent letters, teacher-parent reports, and program announcements will be collected from you.
   In order to assist with observations, the following will be videorecorded: music classes, the time when the research assistant observes in the classroom, and two 2-hour blocks of classroom activities in the last week. The video-recordings will be retained by the researcher.
in her office on campus; no one else will have access to them. If you would prefer not being video-recorded, the researcher will keep you out of the range of the camera. In addition, these video-recordings may be used for the educational and teaching purpose. However, if you would prefer the researcher not share the recordings with others, they will be destroyed by December, 2007, six months after the data is analyzed. You can indicate your preference on the enclosed consent form.

3. **Discomforts and Risks:** This study does not require any testing or change in your teaching or interaction with children. Therefore, there are no foreseeable risks to the children or you. However, some of you may feel uncomfortable being observed. In order to minimize your uncomfortable feelings, the researcher will conduct the observations in the observation room. Since your class often has students observe or assist the classes, the research assistant who is a music education major and has been trained in a research course will assist with observation in the classroom.

4. **Benefits:** As a result of participating in the music classes and talking with the researcher during interviews, you may gain a greater understanding of young children’s early musical experiences and ways to nurture children’s musical development. This study could serve as an example of the need for similar studies in early childhood programs in order to implement more musical experiences and interactions for early childhood teachers and young children. Also, it will hopefully encourage early childhood programs to provide more musical experiences for young children.

5. **Duration/Time:** The study will require 10 weeks participation. In the first and the last week, you do not need to do anything. The participation in the weekly 30-minute music class with children and 20-minute interview with the researcher are only required from the second to ninth week.

6. **Statement of Confidentiality:** Your participation in this research will remain confidential. Your real name will not be used in the report of the study. Only the researcher will know your identity. The list of pseudonyms and all recordings will be stored and secured in a locked filing cabinet in 250 Music Building I. The researcher and advisor will be the only persons with access to data records. The researcher will maintain the recordings for educational purpose. However, if you request, these recordings will be destroyed by December 2007, or approximately six months after the data is analyzed. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. The following may review and copy records related to this research: The Office of Human Research Protections in the U.S. Department of Health and Human Services, Penn State University's Social Science Institutional Review Board, and Penn State University’s Office for Research Protections.

7. **Right to Ask Questions:** You can ask any question about this research. Please contact the researcher, Yun-Fei Hsee at (814) 863-0824 with any questions. You can also call this number if you have complaints or concerns about this research. If you have questions about your rights as a research participant, or you have concerns or general questions about the research, contact Penn State University’s Office for Research Protections at (814) 865-1775. You may also call this number if you cannot reach the research team or wish to talk to someone else.

8. **Payment for participation:** None

9. **Voluntary Participation:** Your decision to participate in this project is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer.
to take part in or withdrawing from this study will involve no penalty or loss of benefits you would otherwise receive.

You must be 18 years of age or older to consent to take part in this research study. If you agree to take part in this research study and the information outlined above, please indicate your options, sign your name and indicate the date below.

You will be given a copy of this signed and dated consent form for your records.

**Options for Recording:**

________ I give my permission to be included in the video recordings.

________ I do not give my permission to be included in video recordings.

________ I give my permission to be audio taped during the interviews with the researcher.

________ I do not give my permission to be audio taped during the interviews with the researcher.

**Options for Photo Release:**

________ I agree that segments of the video recordings made of my participation in this research may be used for conference presentations.

________ I do not want segments of the video recordings made of my participation in this research to be used for conference presentations.

________ I agree that segments of the video recordings made of my participation in this research may be used for education and training of future researchers/practitioners.

________ I do not want segments of the video recordings made of my participation in this research to be used for education and training of future researchers/practitioners.

_________________________________________________________________

Participant Signature         Date

*The informed consent procedures have been followed*

_________________________________________________________________

Person Obtaining Consent        Date
APPENDIX K

Cover Letter and Parental Consent Form
October 5, 2006

Dear Parents:

My name is Yun-Fei Hsee and I am a doctoral student in Music Education at Penn State specializing in early childhood music education. I am writing this letter to request your permission to allow your child participate in a research project that I will be conducting at the Bennett Family Center. This study will take place during regular class hours, and your child will not be asked to do anything special or to answer any questions that normally would not occur during the school day.

Since 2004, I have been teaching music classes for an infants and toddlers class at the Bennett Center. This year, I am conducting a study to investigate musical interactions that occur in the daily activities and music classes in the early childhood program. In the paragraph below I have described what your child’s participation would entail.

**Participation and the Duration/Time:** Your child will participate in the study for a total of 10 weeks.

**Phase I:** The first week- Your child’s participation in the classroom daily activities will be randomly observed by my research assistant and me. The observation hours will be 2 to 4 hours per day.

**Phase II:** Weeks 2 to 9 will include two parts: (a) Music class: Your child will be encouraged to participate in 8 weekly, 30-minute music classes provided by me. (b) Observation: Your child’s participation in the daily activities and music classes will be observed by my research assistant and me. The total hours for the observation will be 6 hours per week.

**Phase III:** One month after the end of the music classes, as in the first week, your child’s participation in the daily activities will be randomly observed by me again. The observations will total 2 to 4 hours per day.

I will also collect documentation and archival records related to your child’s music learning such as teacher’s journal, musical progress reports, teacher-parent letters, if there are any.

**Video-recording:** In order to assist with our observations, the following will be video-recorded: music classes, the time when the research assistant observes in the classroom, and two 2-hour blocks of classroom activities in the last week. The video-recordings will be retained by me in my office on campus; no one else will have access to them. If you would prefer I not video-record your child, I will keep your child out of the range of the camera when we record. In addition, I would like to use these videos for educational and teacher training purpose. However, if you would prefer I not use the videos with educators, I certainly understand. You can indicate your preference on the enclosed consent form.

**Discomforts and Risks:** This study does not require any testing or change in the child's music education or daily activities at the Bennett Center. Therefore, there are no foreseeable risks to your child. In order to minimize any uncomfortable feelings your child may have of being observed, I will conduct the observation in the observation room. A research assistant who is a music education major and has been trained in a research course will assist with observation in the classroom. Since your child’s class often has students observe or assist the class, having this person in your child’s classroom should not be a different experience for him/her.
Statement of Confidentiality: Your child’s participation in this research would remain confidential. Your child’s real name will not be linked to his or her behavior or individual responses. Only I and my advisor will know your child’s identity. The list of pseudonyms and the video records from the observations will be stored and secured in a locked filing cabinet in 250 Music Building I. I will be the only one who will access to them. If you would prefer I not share these videos, they will be destroyed by December, 2007, or approximately six months after the data is analyzed. The following may review and copy records related to this research: The Office of Human Research Protections in the U.S. Department of Health and Human Services, Penn State University’s Social Science Institutional Review Board, and Penn State University’s Office for Research Protections.

Voluntary Participation: Your decision to allow your child to participate in this research is voluntary. You can stop at any time. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits that your child would receive otherwise or are entitled.

As you can see, this project does not require any unusual testing or changes in your child's music education. The children's names will not be used at any time in the report of the study. Participation in this project will give your child the opportunity to participate in music activities and give us an opportunity to learn from your child by observation. Results from this study will provide educators with a better understanding of musical interactions between teachers and young children. With that in mind, I sincerely hope you will allow your child to join his/her classmates as a part of this study. It is also important to understand that your child is under no obligation to participate and you should feel free to withdraw from this study at any time.

If you have any questions or would like any additional information about this study, please feel free to contact me or my advisor, Dr. Rutkowski at (814) 863-0417, rvi@psu.edu. If you have questions about your rights as a research participant, or you have concerns or general questions about the research, contact Penn State University’s Office for Research Protections at (814) 865-1775. You may also call this number if you cannot reach the research team or wish to talk to someone else.

If you agree to allow your child to participate in the study, please complete the attached consent form and return it in a sealed envelop to a box located in the front room at your child’s school. The box will be marked Hsee Research Project Please return the signed form by October 17, 2006.

Thank you for your time and consideration in our efforts to provide a better music education for young children.

Yours Sincerely,

Yun-Fei Hsee (Ph. D. Candidate in Music Education)
250 Music Building I
The Pennsylvania University
University Park, PA. 16802
(814) 863-0824
yuh101@psu.edu
Parental Consent Form

This is to certify that I, _______________________________________, hereby give
(Please print your name above)
permission for my child ____________________________ to participate in the music project to be conducted at the Bennett Family Center offered by Penn State between the months of October 2006 through January 2007 as an authorized part of the educational and research program of The Pennsylvania State University. An explanation of the project and have been given to me and the opportunity to ask questions regarding the project were made available. It is clear that my child will be observed during the class time and music classes. Each observation time will take 30 minutes to 2 hours. It also is clear that any data will remain confidential with regard to my child’s identity and that I am free to withdraw my consent and terminate participation at any time. Please note your preferences for the following use of audio and video equipment during the research project.

Options for Recording:

_____ I give my permission for my child to be included in the video recordings.

_____ I do not give my permission for my child to be included in video recordings.

Options for Photo Release:

_____ I agree that segments of the recordings made of my child’s participation in this research may be used for conference presentations.

_____ I do not want segments of the recordings made of my child’s participation in this research to be used for conference presentations.

_____ I agree that segments of the recordings made of my child’s participation in this research may be used for education and training of future researchers/practitioners.

_____ I do not want segments of the recordings made of my child’s participation in this research to be used for education and training of future researchers/practitioners.

Parent/Guardian Signature        Date

Signature of Person Obtaining Consent        Date

Please complete the attached consent form and return it in a sealed envelop to the box located in the front room at your child’s school. The box will be marked Hsee Research Project. Please return the signed form by October 17, 2006
VITA
Yun-Fei Hsee

Academic Preparation

2007  Doctor of Philosophy in Music Education
      The Pennsylvania State University, University Park, PA
1998  Certification of Secondary Teacher Education in Music Education
      National Changhua University of Education, Changhua, Taiwan
1994  Master of Music in Music Education
      Duquesne University, Pittsburgh, PA
1991  Bachelor of Arts in Chinese Traditional Music
      Chinese Culture University, Taipei, Taiwan

Professional Experience

2000–present  Instructor, Department of Early Childhood Care and Education
(2003–07 on study leave) Shu-Zen College of Medicine and Management, Taiwan
1997–2003  Instructor, General Education, Feng-Chia University, Taiwan
1995–1998  Music Teacher, Ming-Tai High School, Taiwan
1994–1995  Substitute Music Teacher, St. Charles School, VA

Scholarly Presentations and In-Service Presentations

2007, May  Mountain Lake Colloquium for Teachers of General Music Methods,
            Mountain Lake, VA
2007, April  Pennsylvania Music Educators Association (PMEA) Annual In-Service
            Conference, Hershey, PA
2006, July  International Society for Music Education (ISME)—Early Childhood
            Music Education Commission Seminar, Taipei, Taiwan
2005, July  Children and Youth in Emerging and Transforming Societies, International
            Conference, Oslo, Norway
2005, August  New York State School Music Association (NYSSMA) Summer Early
              Childhood Conference, Buffalo, NY

Awards and Honors

2006  Institute of Arts and Humanities (IAH) Graduate Student Summer Residency Program, The Pennsylvania State University
2006  Creative Achievement Awards, College of Arts and Architecture, The Pennsylvania State University