

Two Qualitative Case Studies Examining the Parent-Child Interaction in Home-Based Musical  
Play Experiences  
by

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## ABSTRACT

Two qualitative studies described the effects of parent's participation in the music therapy session on parent-child interaction during home-based musical experiences learned in music therapy session. Home-based musical play was based on two current programs: *Sing & Grow* (Abad & Williams, 2007; Nicolson, 2008 Abad, 2011; Williams, et al; 2012) and *Musical Connection Programme* (Warren & Nugent, 2010). The researcher utilized the core elements of these programs, such as session structures and parenting strategies for improving parent-child interaction during music therapy interventions. Several questions emerged as a result of these case studies as follows 1) does parent's participation affect parent-child interaction during music therapy interventions 2) does musical parenting strategies promote parent-child interaction while practicing musical play at home 3) does parent's interaction increase when they practice parental strategies listed on parent's self-check list.

Music therapy session was provided once per week during an eight week period. The participants were referred by Arizona State University (ASU) music therapy clinic. Sessions took place either in the ASU music therapy treatment room or the participant's home. There were four participants- one diagnosed with Down syndrome and the other with Autism Spectrum Disorder (ASD) and two parents or caregivers (each subject was counted as one participant). The parent/caregiver filled out the parental self-checklist 3-4

times per week and the survey after the end of the program. The case study materials were gathered through with parent/caregiver.

The case studies revealed that all of the parents responded that the parent's participation in music therapy helped to improve their interactions with their child. Furthermore, all parents became more responsive in interacting with their child through musical play, such as sing-a-long and movements. Second, musical parenting strategies encouraged parent-child interaction when practicing musical play at home. Third, the parent's self-checklist was shown to be effective material for increasing positive parent-child interaction. The self-checklist reminded the parents to practice using strategies in order to promote interaction with their child. Overall, it was found that the parent's participation in home-based musical play increased parent-child interaction and the musical parenting strategies enhanced parent-child interaction.

## DEDICATION

This thesis is dedicated to my parents,

You Hwa Choi, Eui Young Jung,

whose sacrifice in their ordinary lives has inspired me,

in gratitude for their prayer, support, and faith in me.

I also want to dedicate this thesis to my husband, Frederick Kim,

who has supported me to complete my study during this journey. I give my deepest expression of love and appreciation for the encouragement that you gave and sacrifices

you made during this graduate program. I love you!

Lastly, I give my thanks to God Almighty who is the reason why I live. His word in Proverb 16:9 that guided me through the journey of completing this work. I praise the

name of his glory!

*“In his heart a man plans his courses, but the Lord determines his steps”*

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## CHAPTER ONE: PURPOSE OF STUDY

### Instruction

General research finds that parent-child interaction from infancy to preschool-age through “attachment” between parents or caregivers and their children is very important (Humphrey, 2001). In the period of early childhood, parents spend some quality time with their children and develop parent-child interaction through “attachment process.” The attachment process begins at birth through social interactions between newborns and caregivers. Humphrey (2001) defines attachment as, “the emotional relationship formed between infants and one of their parents through pleasurable, reciprocal and predictable interaction” (p. 3). This means that the parent and their child interact with an emotional/social response to develop attachment behavior. The child’s attachment behavior is generated with a person in the environment, such as parent or caregiver who can easily approach him/her and be responsive to his/her behavioral cues (Bowlby, 1969). Therefore, special interaction and caregiving styles are needed to meet the particular characteristics of an infant (Baird & Peterson, 1997).

Research studies found that attachment securities in infants were predictable when maternal emotion and personality traits were successful (Izard, et al., 1991). The parents’ behaviors were related to positive interaction with their children (Rosenberg & Robinson, 1985). The parents’ positive characteristics included:

appropriately responding to their infants interests and moods,  
encouraging their infants to initiate interactions and select materials;

eliciting active responses from infants; selecting activities modes of communication that are developmentally appropriate for infants; and providing informative and positive feedback to their infants (Humphrey, 2001, p. 9).

These ideas demonstrate that the parent's positive interaction influences the child's emotional interaction. Conversely, Studies found that mothers with depressed moods had lower positive interaction with their children than non-depressed mothers, and infants with depressed mothers notably showed lower interaction than infants of non-depressed mothers (Izard, et al, 1991).

Other research used similar approaches to promoting parent-child interaction, but through "musical parenting." Custodero and Johnson-Green (2003) used the term, "musical parenting," meaning to increase positive interaction through musical development. This form of parenting includes several parents' behaviors that provide musical enrichment and a stimulating environment for young children. The research states that parents are the first music educators and give a musically rich experience to their children through, "behaviors that are often intuitive and not attended for musical purpose or benefits" of their home and family environment (Gibson, 2009, p.1).

There are two musical behavioral forms of parenting for encouraging child's musical ability. The first, musical behaviors of the parents are the forms of stimulation in tactile, kinesthetic, and vestibular senses that occurs as parents pat their babies' legs, move their feet or hands, or rock them (Dissanayake, 2000; Dissanayake, 2007;

Papousek, 1996). The second musical behavior is intuitive forms of parenting that encourage children's musical ability while they are nurturing linguistic, social, emotional, physical, and cognitive forms of development (Gibson, 2009, p.2). Particularly, the mother's musical behavior encourages a child's development, such as social skills, when parents sing to their children (Papousek, 1996; Trehub & Schellenburg, 1995).

Additionally, Welch (2005) states the importance of a musical home environment in the raising of musical children so as to develop vocal interaction between parents and young children.

As previously stated, parent-child interaction is the integrated behaviors of musical, emotional and social response of both parent and child. Musical parenting is a supportive tool for encouraging the child's musical ability and development through parent's musical behaviors, such as singing, tactile stimulation, and movement. This means that musical experiences can help the parent-child interaction and the child's overall development. From this point of view, music therapy can be a valuable instrument for parent-child interaction through music-based experiences (e.g., singing, playing musical instruments, moving or listening to music, creating, or discussing songs and music).

Much music therapy research studies found that children with disabilities in particular have problem in developing interaction skills (Edward, 2011; Oldfield, 2006). They often need a therapeutic approach to address this need. Typically, clients come to music therapy sessions with their parents or caregiver. The parent stays out of the session

room for 50 minutes or until the session is over. Some music therapists briefly talk with the parents for feedback on the session at its conclusion. The music therapists do not have enough time to actually work with the parents outside of the session to teach interaction skills and are not trained in creating a supportive program for the development of these skills because the parent is the primary force in developing the musical/social interactions with the child. The music therapists can provide an opportunity for parent or caregiver to be involved the music therapy session. Current music therapy research found that working with the families is effective for parent-child interaction through musical activities (Allgood, 2005; Edwards 2011; Gibson, 2009; Oldfield, 2009; Oldfield & Flower 2008). Some music therapy programs exist that are designed to help parents through music therapy. These include *Sing & Grow* and *Music Connection Programme*.

### ***Sing and Grow***

*Sing and Grow* began in July 2001 and is an Australian national early intervention music therapy program for parents of infants and young children (0-3 years) at high-risk for inadequate parenting strategies. At-risk family has difficult developing normal parent-child interaction and bonding because of child's disabilities, inexperienced parents, family situation, a single parent, economic pressures, poor parenting role models, stress and so on. This program is a short-term early childhood parenting education program structured around music-based play activities. The treatment is provided for weekly delivery (1 hr/ week) for 8-10 parent-child dyads. It is offered as a 10 week group intervention by "Registered Music Therapists" for families with children aged from birth

to 3 years, and children with a disability aged up to 5 years. The program promotes children's developmental competence by enhancing parental responsiveness and promoting the use of developmentally appropriate parenting skills. It especially seeks to enhance children's behavioral and social communication skills by using music-based activities as a "nonthreatening context" in which to promote quality parent-child interactions (Nicholson, et al., 2008).

*Sign and Grow* is the combination of musical elements, musically focused relationship and behavioral parenting interventions. The elements of intervention promote children's developmental skills: greeting and goodbye songs to encourage social responsiveness; well-known songs to engage participation; action and movement songs to provide practice of fine and gross motor skills and concept comprehension; instrumental play to promote motor skills, following simple instructions, turn-taking and sharing; quiet music to encourage physical touch, closeness and bonding between parent and child (Williams, et al., 2012). Parents are trained in the specific strategies to support development of interaction with their child. These strategies include the use of phrases, positive reinforcement, improving eye contact, smiling, touching, and showing physical affection through non-verbal communication; the use of simple verbal directions; encouraging co-facilitation of gross and fine motor skills; setting the limitations for children; and the use of music and song for engaging or calming children. The program guides parents to practice the musical activities that extend children's developmental behavior and social and communication skills, including positive interaction. It also

shows how repetition of activities and learned responses improve developmental competence (Abad & Williams, 2007). All participants are provided with a CD and song book in order to facilitate the transfer of activities to the home environment.

### ***Music Connection Programme***

The *Music Connection Programme* is another early intervention music therapy program increasing the parents' perceptions of their children's involvement in music therapy. This program was established in 2005 in Dunedin, New Zealand. The parents were asked to complete a questionnaire investigating their perceptions of their child being involved in the program. Twelve participants responded with positive results to the survey, and all parents discovered that the music therapy session helped to extend their child's developmental skills, particularly enhancing their child's interaction and communication (Warren & Nugent, 2012). The program has found that all of the parents experienced that the music therapy sessions improved connection with their child by enhancing the child's communication skills and interactions in both musical and non-musical ways. The music therapy sessions transferred activities to the home setting. The program required that at least one family member or significant caregiver had to participate in each music therapy session. The program lasted 10 weeks and involved a music therapy assessment for setting individual child goals. Four fundamental methods were employed: the use of well-known songs or songs specifically composed for the child; using improvisational techniques, such as vocal work in dyadic or triadic

improvisations; using music and movement; instrumental work; and the use of sensory supports and relaxation techniques (p.16).

*Music Connection Programme* was influenced by *Sing & Grow* in the following ways: session duration, parenting strategies, session environment and session method. However, this program focuses more on parent's perceptions by using musical activities. Parent's perception was measured by evaluation questionnaire of the music therapy program helped their child. This perception becomes an important component of the program, which highlights the importance of parent's involvement during the session. Parents observed the process of music therapy intervention and built up a relationship with the therapist while they are participating in the session. These two programs are similar in approach involving parent-child intervention with musical interactions. Also, both programs enhance parent-child interaction and child's development by parent's involvement.

Because of the importance of parent-child interaction, especially for children with disabilities, music therapy can be an effective tool in helping parents with these skills (Horvat & O'Neill ; 2008; Mahoney & Wiggers, 2007; Oldfield 2008). Additionally, family-based music therapy encourages child's resilience and promotes parental self-efficacy through shared musical experiences (Pasiali, 2010). The music therapist supports the parents or caregiver as a team member or a partner, so as to enhance parent-child interaction and relationship developmental through music therapy intervention. Parents can use the learned strategies at home, thus improving the

relationship with their child. These case studies were designed around an early intervention music therapy program and its effectiveness in parent-child interaction in home based musical play experiences. The music intervention parenting program used were based on the two existing music therapy programs, mentioned particularly *Sing and Grow* (Abad, 2002; Abad & Williams, 2007; Nicholson et al., 2008)) and *Music Connection Programme* (Waren & Nugent, 2010).

### **Research Questions**

Questions emerged from the case studies as follows:

1. How parent's participation have an effect on parent-child interaction during the music therapy interventions?
  - a. How parent become more responsive and more interactive with their child while participating music therapy sessions?
2. How musical parenting strategies increase parent-child interaction when parents practice musical play with their child at home?
3. How parent's perception of positive, effective interaction strategies increase through the use of the parent's self-check list?
4. How home-based musical experiences have positive results on parent-child interaction?

## **Need for this area of investigation**

Few music therapy research studies exist on working with the families or caregivers of children with special needs. Based on the results of the two Australian music therapy programs, this appears to be the potentially important area to be addressed by American music therapy. However, the current parent-child music therapy programs were designed for the Australian at-risk families. The program was studied as quantitative research with 8-10 parent-child dyads, and the process of the program took two years to complete. This program showed parent's high satisfaction regarding of the parent-child interaction. However, it is difficult to apply this program as a music therapy intervention in US because of cultural or environmental differences. These case studies seek information and the uses of these approaches for American families and the potential for the developing such a program in United States for use in music therapy sessions and development of home-based musical activities to continue the development of effective parent-child interaction strategies. A music therapy program was created by the therapist to teach musical parenting strategies to the parents so as to promote parent-child interaction through two distinct practices- week daily the music therapy session and implementation of therapy at home strategies (out of session). The therapist helped the parents as a supporter and instructor during the music therapy program.

## **Outline of research**

This thesis is divided into five chapters with an appendix section. The first chapter provides a brief introduction about the area of parent-child interaction, study questions,

need of study, and limitations. Chapter Two presents a comprehensive review of literature related topics. The third chapter describes the procedures including how cases were selected, the forms of information collection, and how this information was analyzed. Chapter Four presents a narrative description of the 8 week of music therapy sessions and at home activities for each case. The last chapter summarizes the information obtained the implication of this practice in music therapy, possible research, possible efforts on this topic, and the conclusions. There are also an appendices section that includes copies of the songs, parental consent forms by hardcopy, email and phone, children assent forms, a copy of the parent's self-checklist, and the evaluation questionnaires used at the end of the 8 sessions.

## CHAPTER TWO: REVIEW OF RELATED LITURATURE

This investigation focused on parent-child interaction in a music therapy context. There are studies from general research on the importance of parent-child interaction. Music is the medium which connects general research and music therapy study through understanding of parent-child interaction using musical activities. Current music therapy literature found that music therapy interventions are an effective tool to improve parent-child interaction. Furthermore, research has found that working with the family enhances the child's development. Literature generally on parent-child interaction, musical parenting, and music therapy with parents is reviewed.

### *Parent-child interaction*

Parent-child interaction is an important social/emotional response between the parent or significant caregiver and their child. These responses can be explained as attachment relationships between parent and child. Humphrey (2001) described attachment as the main component in understanding the parent-child interactions. In attachment, the parent-infant emotionally connects through enjoyable, predictive, reciprocal interactions (Humphrey, 2001, p. 3). Richters, et al.(1988) states that attachment security is associated with the quality of parent-child's interactive behaviors. The secure attachment is based on the empathy between parents and their infant, so the parent is able to respond and translate their infant's cues and signals through attachment relationship. Attachment security and children's abilities are significantly related to sharing ideas and emotions (Harding, et al, 1995). For example, securely attached infants

present more positive behavior, such as pleasure of physical contacts and are typically better-behaved than insecurely attached infants (Pederson & Moran, 1996). Furthermore, this research found that secure attachment affects success in child's life outcomes, including personal, social, physical, social-emotional areas and affects success in later in life (Thompson, 2008). In other words, the attachment relationship intimately enhances the parent-child interaction and the children's developmental outcomes.

Byrn and Hourigan (2011) found that musical interactions were an “integral part of the mother/infant relationship” (p. 71). *Singing* was the most important communication between mother and infant. Music assisted the mother's develop a musical enrichment experience for child development (p. 74). Nurturing musical interactions developed a strong relationship between parent and child (p. 75). Musical interaction is a significant element to establish the parent-child relationship.

Mother-infant musical interaction can develop with the use of playsongs and lullabies facilitating emotional communication through parental signing (Creighton, 2011, p. 50). In their research, the mothers were taught singing techniques to settle and calm their babies by singing lullabies and then learned how to respond to their babies' cues as well as emotional regulation, because the mothers quickly responded to settle their babies after training (Baker & Mackinlay, 2006). This research suggests that educative music therapy program is able to affect the emotional communication between mother and infant through lullaby singing.

### *Musical parenting*

Gibson (2009) describes parent-child interaction as “musical parenting” through a variety of musical activities. In her study, “singing interactions” were a significant “parenting tool” for the participants (p.175). All parents were required to sing with their children as preparation for sleep. Parental singing with their child supported the improvement of the attachment. Singing interactions were associated with the interactive relationship between the parents and their child. Kern (2008) & Kern, et al. (2009) suggested playing daily routine song activities with the families. The songs allowed the children to learn and develop in the social environment during daily transitions and routines, while music engaged in the “musical parenting” skills developed. These included: 1) “cue an activity or event”, 2) “prompt a sequence of steps”, 3) “stimulate learning in all developmental areas”, 4) “distract from undesired behaviors, 5) “reinforce positive behavior”, and 5) “create a stimulating or relaxing environment” (2008, p.49). Daily life and routine with infants had many opportunities for “teachable moments and interactions” between the mothers and their children (Byrn & Hourigan, 2010, p. 74). Musical activities, therefore, support the parents to learn to promote parent-child interaction.

### *Music therapy with the families*

The broadest writer in this area is Amelia Oldfield. She conducted numerous studies and reviews of research with children and their families using her approach. She published a book to thoroughly describe “interactive music therapy” at the Croft Unit for

Child and Family Psychiatry. Outlined reviews showed her interactive music therapy approach for her clinical practice. She made the following claim about her work in interactive music therapy:

*“I have an interactive, positive approach, which mostly involves improvised music making”* (Oldfield, 2006, p.22).

According to her conclusions of the approach on the Croft Unit, she focused on musical interaction with non-verbal improvised musical exchanges so as to elicit childrens’ and parents’ interest and attention. Oldfield stated that the quality of the relationships between her, the child, and the parent was important, even though only a few sessions may exist between all three parties.

Another research conducted by Oldfield (2008) highlights that the partnership with the parents is necessary to provide an effective music therapy session, because the parent knows the child and the therapist has techniques to offer the treatment. In her clinical practice, the parents developed a partnership with the therapist. Both parents and therapist discussed their role’s aims and approach after each session (p. 35). Oldfield described the role of the partnership between parent and therapist in the following way:

Initially the parent can act as a bridge between the child and the music therapist, the relationship and trust between the child and the parent enabling some form of connection between the child and therapist. The parent is the child’s point of reference. By participating in the session, the child is reassured and knows that nothing bad is going to happen. This will allow the child to start to trust the music therapist and allow himself to practice.

The success of music therapy somehow depends on the partnership between the therapist and the parent. The parent knows the child. The music therapist is a specialist who knows how to use techniques has

seen lots of different children and can draw on her experience. They need each other to provide the best set-up for that particular child: the conjunction of knowledge of the subject and the knowledge of the child. It needs to be a partnership (Oldfield, 2006, p. 60-61)

Oldfield concludes that “the mature warmth and respect” to the parent is the importance aspects of the intimate partnership in music therapy therapeutic work. This work supports the therapist dealing with the client’s needs and those of the parent.

Bull’s (2008) work with autistic children and their family emphasized that a strong parental relationship with a disabled child leads to “renewed strength and closeness” in the partnership (Havens, 2005). She supported the parent and child managing “music and talking” (p. 85). Musical improvisation enabled the parent and child being together and using a “pre-verbal medium” to revisit playful interaction (p. 76). After music therapy session, the talking time was provided for the mother alone. The mothers shared their lives and other issues independently about their children. This therapeutic process crucially helped the mothers to find the resources to change their responses to their children in a new way (p. 76). Bull states that family music therapy supports the mother-child relationship (p. 77). For effective music therapy, sessions need to be offered to both the parents and their children.

Similarly, Horvat and O’Neill (2008) believed a strong alliance with the parents was the paramount effect on the therapeutic process (p. 89). They concluded that working with the parents was the important consideration in a successful music therapy session. Secondly, building a strong alliance with the parents was the significant therapeutic process in or out of the therapy room. Extra time working with the parents was necessary

after sessions. Lastly, the therapist needed clinical management peer supervision when facing challenges and complexities while working with parents. Overall, the research found common similarity with bonding with the family as the key of therapeutic work for parents with disabilities.

### *Music therapy as parent-child interaction*

Abad and Edward (2004) and Abad and Williams (2005; 2007) were the most prolific experts about the music therapy program, *Sing & Grow*, to develop attachment behaviors between parents and children in at-risk families, including being a single parent, economic disadvantages, parents with a history of domestic violence or abuse, and parents of children with disabilities (Nicholas et, al, 2008, p. 228). Abad and Williams (2007) reported the music therapy programs to support parent musically promoted the attachment between parent and their young child. *Sing & Grow* was a remarkable parent-child interaction program using musical activities to help the parents learn effective strategies. The parent was involved in the music therapy session and learned parental strategies and musical activities supporting the child's development. The result of the program indicated a high level of parent satisfaction during the program and reported a high degree of learned intervention strategies (p. 234).

Drake (2008) also employed *Sing & Grow* to support the parent-child attachment relationship for her music therapy work at Coram, England's oldest children's charity. The attachment relationship and development of social interaction skills were developed while focusing on "interactive music making", such as lap songs, sharing instruments,

movement and dance (p. 38). The *Sing & Grow*, therefore, was the beneficial in parent-child bonding through interactive musical play.

### **Summary**

Parent-child interaction can be developed by musical enrichment relationship through musical activities, including musical improvisations, singing, movements, and instrument works (Abad & Edwards, 2004; Abad & Williams, 2005,2007; Byrn & Hourigan, 2010; Cunningham, 2011). Music therapy has many potentials in supporting the parents of children with disabilities and teaching them musical parenting strategies so as to develop parent-child bonding. Through musical attachment process, the parent becomes more comfortable with the children while participating in the music therapy session. Additionally, the parent becomes more responsive to their children by learning musical parenting, such as daily and life routine activities, playsongs, and lullabies with their children.

From this overview of literature, it was concluded that working with the parent in music therapy is necessary to practice as therapeutic work. Music therapists need to consider helping the parents in effective ways, involving formal/informal talking time, parent's involvement, teaching parenting strategies in their lives. The music therapy program, *Sing & Grow*, is a crucial instrument for enhancing parent-child interaction and teaching parenting strategies using musical activities. Because there were few studies on using music therapy to enhance parent/child interaction in children with disabilities, this research was undertaken.

## CHAPTER THREE: DESIGN OF THE INVESTIGATION

### **Investigation format**

This thesis was based on two case studies of one participant and a parent for each study. A case study is, “an exploration of bounded system of a case or multiple cases over time through detail, in depth collecting of data involving multiple sources of information rich in context” (Creswell, 2003, p. 15). This research involved two case studies employed to investigate the effects of 1) parent’s involvement in the music therapy session and musical activity and 2) parent-child interaction in home-based musical play experiences to increase and improve positive parent-child interaction. Music therapy interventions were applied from two existing programs: *Sing & Grow* (Abad & Williams, 2007; Abad 2011; Abad et al; 2012) and *Music Connection Program* (Warren & Nugent, 2010). The music therapy procedures were based on the major components of these two programs, including session structure, musical interventions and parental strategies for increasing interaction.

*Sing & Grow* was designed for Registered Music Therapists in Australia who work with children at risk for learning and emotional problems whose ages range from birth to three years old. This program enhances parenting skills, parent-child interactions, and social support networks through direct involvement of parents in the music therapy sessions and the home musical experiences (Abad, 2011, p. 5). The program offered opportunities for parents to interact with their children in practical and spontaneous ways that helped to promote positive parent-child relationship and child development (Abad

&Williams, 2007, p.53; Abad, 2011, p.5). *Sing & Grow* provided detailed parenting strategies and session structures.

This investigation involved teaching a number of parenting strategies for fostering parent-child interaction during music therapy interventions and musical play times were presented to the parents at their homes. These strategies included the use of phrases and positive reinforcement to maintain children's social, behavior, and motor skills; the use of eye contact, smiling, touching, physical affection to improve parental non-verbal communication; the use of simple direction and limit setting; the use of hand over hand physical modeling to practice fine and gross motor skills; and the use of music to entertain or calm children (Williams, et al., 2012). These strategies were taught during the music therapy session, and the parents were given instructions to follow the session at home with their child (see appendix C). The parents learned musical play during the sessions and were required to practice musical activities with their child at home.

The principle components of session structure from *Sing & Grow* were utilized throughout the sessions in a manner that improved the child's individual goals as well as parent-child intervention. The sessions were structured in the following manner: 1) hello song/greeting to encourage social awareness; 2) well-known song or child's favorite song for encouraging participation; 3) movement songs to practice physical functioning (fine/motor skills) and concept comprehension; 4) instrumental play to promoting motor skills and follow simple direction and; 5) quiet music to encourage physical touch and bonding the parent-child relationship (Williams, et al. 2012, p. 28).

*Music Connection Program* was based on Sing & Grow with similar components of parental strategies and session structure. However, the *Music Connection Program* includes descriptions of parents' perceptions of their children's development and their closeness to their child while practicing this program (Warren & Nugent, 2010, p.10). The parents were presented with the concept of the importance of their perception of their child during the sessions. Warren and Nugent note the importance of the parent perceiving that their participation in the music therapy session helps to develop and the learning interaction strategies is of great importance. The researcher created a self-checklist for the parents in order to encourage parent's perception of their child and his/her participation during the session (See Appendix E).

The music therapy interventions for these case studies were designed for parents who have children with disabilities to enhance parent-child interaction through home-based musical activities and for supporting current music therapists who work with the families. The case studies involved two children ages three years, 6 months to four years old who have disabilities. One family member or significant caregiver was required to be involved in the music therapy session during the eight weeks of the research.

The music therapy intervention was offered weekly in a 1:1 intervention during an eight week period at Arizona State University (ASU) Music Therapy Clinic or at the client home. All songs were provided to the parents on a CD. The parents learned musical play from the therapist while participating in music therapy the sessions.

## **Participants**

The procedures and participant selection process was approved by the Arizona State University Internal Review Board on November 26, 2012 (See Appendix A). One parent or caregiver of each child was approached about their participation in the parent-child interaction program using music therapy techniques to influence interaction with the child. One child was diagnosed with Down syndrome and the other with Autism Spectrum Disorder (ASD). The children's ages ranged from 3, years 6 months to 4 years with an average age of three, years eight months. There were a total of four participants: two children and two parents or caregivers. Subjects were labeled as client A and B for confidentiality.

### *Background Information*

#### Client A

Client A, four years-old, is a child diagnosed with Down syndrome, Atrial Septal Defect (ASD) and Ventricular Septal Defect (VSD). Both diseases are common congenital heart defects caused by opening partition between the two upper chambers of the heart, and isolated cardiac malformation (Penny & Vick III, 2011; Zeller et al., 2006). The client had a medical history of heart surgery at the age of five months. Client A had received physical, speech, and occupational therapy once per week over the past three years. She also went to daycare and attended YAMAHA music school, and was cared for by the babysitter while her mother worked full-time. As a result, she mostly spent time with the babysitter. She lives with her mother and visits her father's house three or four

times per week. Client A is very shy and is not comfortable with strangers. Her mother said that Client A does not talk much at her daycare center or school. Her mother worries about her behavior and asked the researcher to help client A's social interaction.

Additionally, Client A is unable to walk straight due to weak muscle tone resulting from her diagnosis.

Individual music therapy sessions were provided at the client's home once per week for 30 to 50 minutes. The client usually stayed with the babysitter even though the client's mother was at home. Her mother chatted with the therapist through the session area during the session. The therapist invited her mother to participate in activities when she had a moment because it encouraged/engaged the client's participation. Usually, the babysitter was sitting around the client and helping her to participate in activities.

#### *Client B*

Client B is a 3 ½ year old girl who was diagnosed with Autism Spectrum Disorder (ASD). Client B lives at home with her mother, father, and brother. Her brother is diagnosed with ASD and participates in music therapy sessions at the ASU Music Therapy Clinic. Client B was referred to ASU Music Therapy Clinic by Higher Octave Healing, Inc. and has been attending session for the past two years. According to Client B's therapeutic progress report prepared by the professional music therapist working with her, Client B has been receiving an individual music therapy session one hour per week in a treatment room. Client B struggles with speech and language processing delays. Music therapy services sought to improve her overall expressive language

communication as well as cognitive skills. Client B enjoyed music and was greatly motivated by Disney and children's songs.

This author and Client B's current therapist had prior discussions before each session regarding the program prepared for Client B. The music therapy sessions for this investigation were required maintaining the client's individual goals for the ongoing current program because client B's outcomes had to meet ISP (Individualized Service Plans), IFSP (Individualized Family Service Plans), and the Person-Centered Plan in order for the author to be well-informed about the current therapeutic process.

This study was designed using a qualitative research case study format. Information was collected by the investigation author, using live observations and informal interviews with the parent, audio/video taping of each session with analysis, and a weekly parental survey after the musical activities at home. Client was referred through the ASU Music Therapy Clinic. All parents were given a parental letter of permission as well as consent forms. The parents agreed to participate in music therapy interventions for an 8-week period or longer and signed the consent form giving permission (see Appendix B). The children, almost 4 years old, also verbally agreed using child assent form (see Appendix B).

The investigator conducted an interview with the parents to introduce them to the program. Participants met with the researcher once a week for 30 minutes to 50 minutes per session, including informal discussion and feedback after each session. Audio/video

taping recorded each session. The participants' progress was monitored through parental surveys and parent self-checklist after the program (See Appendix D, E).

## **Setting**

### *The clinical setting*

Music therapy interventions were provided for client B at ASU Music Therapy Clinic and for client A at her home with the parent and babysitter. The clinical setting at the clinic was a medium sized room with the piano, guitar, drums, and hand percussion available as needed. There were big windows in the middle of the room. The curtains always had to be closed because the client was easily distracted by the windows and outside activities. The therapist and participants sat on the floor in order to encourage participation during music therapy sessions. There was an observation room placed beside the treatment room. The video equipment was monitored in the observation room with the video camera positioned close to the ceiling of the treatment room.

A variety of musical instruments were prepared for the individual sessions, such as a large drum for the taking-turn game, Orff xylophone for improvisation, small hand percussions for sing-a-long or instrumental playing, and piano or guitar for quiet music or accompaniment. The parents were provided a CD and visual flash cards to learn the musical activities.

### *The home setting*

Client A's mother asked the music therapist about home sessions for her daughter. The investigator decided to provide music therapy interventions at the client's home.

Sessions took place in the living room, which also served as a playroom with a protective play mat designed for child safety and many of the client's toys. Sessions were administered while sitting down on the child's play mat. The client became easily distracted by the presence of roommates as the client was familiar with them and would call their name during the session. The therapist changed the schedule to avoid the presence of roommates. Various instruments were used including castanets, maraca, hand drum, bells, and xylophone. The therapist used the keyboard for improvisation and accompaniment because the client enjoyed playing and watching the piano. Additionally, visual flash cards and CD were prepared for the parents to learn activities.

Before the session started, the researcher briefly explained the program to the mother and babysitter so that the parent became well-acquainted with the program.

### **Music therapy intervention**

A variety of music therapy methods and interventions were utilized according to the needs for developing the parent-child interaction. Music therapy interventions provided two distinct practices; 1) those used during the music therapy session and 2) those used at home.

#### Intervention used within sessions

During the music therapy sessions, parents participated and learned the musical play activities and practiced them for use at home. Music therapy sessions were conducted using the following structure established by *Sing & Grow*: 1) hello/greeting song; 2) well-known song; 3) movement or action songs; 4) instrumental works; and 5)

quiet music. Session began with one of two hello songs. The first hello song ended with the words, Hello \_\_\_\_\_. A second hello song was “Hello, Hello, How Are You” composed by the investigator (See Appendix F). The client was encouraged to say his/her name and verbalize her feeling during the song. The hello song facilitated to obtain the participant’s involvement.

The second interventions involved singing well-known songs for children such as “Wheels on the Bus,” “Five Little Monkeys Jump on the Bed,” “Itsy Bitsy Spider,” “ABCs,” “Twinkle, Twinkle Little Star,” “Old McDonald Had a Farm” and “Bingo.” During the session, the parent learned these songs from the therapist with the movements or visual cards and utilized parental strategies, such as making eye contact, smiling, physical affection, and so on.

The third intervention was movement to music activity done to a variety of recorded songs, such as “Silly Pizza Song,” “I’m Gonna Catch You,” “Slippery Fish,” “Bear Hunt,” “Jump,” “Shake and Move” and “The Chicken Dance.” The therapist taught movements to the parent so as to practice at home with their child. Each movement used the movement charts or the visual cards to learn easily. The parent employed positive reinforcement with the child after finishing his/her tasks. Some examples of positive reinforcement were to praise the client with words such as, “Good job!”, “You made it”, “Nice work”...etc.

Instrumental playing used recorded music from children song books, such as “Hit the Drum” composed by Korean children song composer, Lee (1922) (See Appendix H).

The therapist used the tune of “Hit the Big Drum” translated to English for American children. The client followed verbal/musical prompts during the song. When the therapist sang the song or played the drum like, “Big drum! Big drum”, the therapist would hit the drum with a mallet so the Client could imitate. Xylophone, drum, and piano improvisation were also used for the taking-turn activity. During instrumental work, the parent was encouraged to use more eye contact and reinforcement so as to enhance parent-child interaction.

The quiet music portion was administered with “Twinkle, Twinkle, Little Star” by vocal, recorded music or with guitar/piano accompaniment. The parent touched their child’s body during the song for closeness. The therapist supported the participants to enhance physical/emotional intimacy by providing music or giving directions when needed.

During the session, the parent was involved in each activity and was taught musical activities from the researcher. The researcher taught the parent using recommended strategies while playing musical activities with their child and how to practice musical play with their child at home. All songs were burned to a CD (See Appendix I), while all teaching material was provided to the parent in order make practice at home easier.

#### Intervention used at home

After each session, the parent practiced musical play 10-15 minutes every day with their child at home with at least one of the musical activities with the recorded

music. In order to increase parent-child interaction, specific parenting strategies were required for their CD practice while doing the musical play during home sessions. These strategies of the parent included 1) using positive phrases and words while trying to avoid negative words 2) increasing eye contact with their child pleasant experiences while singing, listening, and playing 3) use of positive reinforcement and of phrases to encourage their child when he/she completes the task, 4) smiling to offer their child support during musical play, and 5) Physical affection by giving him/her a big hug completing his/her tasks (Abad & Williams, 2007, p. 53; Abad, 2012; Warren & Nugent, 2011, p. 16; Williams, et, al, 2012, p. 29). The parent was asked to fill out a parent self-checklist 3-4 times per week to evaluate the use and effectiveness of the parenting strategies.

### **Evaluation**

Evaluation of sessions and home experience was conducted of the client during session observation, the parental self-checklist, and the survey results. Additionally, audio/video tapings were reviewed and notes taken with regard to the aims being addressed and the investigator's participation. After each session, the parents were asked to fill out the parental self-checklist at least 3-4 times per week for evaluation of their daily musical play at home during the 8 weeks of session. This parental checklist was divided into three categories including, 1) musical play (MP), 2) parenting strategies and 3) evaluation. Musical Play asked the parents to count the number of days they engaged in musical play at home with their child per week. Counting days encouraged the parents

to practice musical play at home. Parenting strategies were used while practicing specific parenting skills during musical play. Evaluation of their parenting skills asked the parent to rate their strength/improvement in areas of these skills for that week.

At the end of program, the parents filled out the overall evaluation form for the parent-child music therapy intervention. This form had three different categories. These categories included, 1) “in session” (during the session), 2) “out of the session” (home-based musical play), and 3) “evaluation.” In session asked about the effectiveness of parent’s participation and interaction with their child during music therapy intervention. Out of session was to evaluate their musical parenting using musical play, and parental strategies, and was evaluated by parent’s response on the self-checklist. Also, this evaluation was presented to identify parent-child interactions through musical play at home and how musical parenting helped parent’s interaction with their child. The last evaluation asked parents to comment about learning the entire program, such as positive interaction through the music therapy sessions, future recommendation for future programs, and additional comments about the program.

## CHAPTEHR FOUR: PRESENTATION OF THE CASE STUDIES

The purpose of this study was to gather information about the effect of parent participation in music therapy interventions and through parent-child interactions in a home-based musical play situation. Interventions included sing along, movement to music, instrument playing, and improvisation. Four investigations emerged from the information gathered:

1. How parent's participation have an effect on parent-child interaction during the music therapy interventions?
  - a. How parent become more responsive and more interactive with their child while participating music therapy sessions?
2. How musical parenting strategies increase parent-child interaction when parents practice musical play with their child at home?
3. How parent's perception of positive, effective interaction strategies increase through the use of the parent's self-check list?
4. How home-based musical experiences have positive results on parent-child interaction?

The information was gained by the researcher analyzing parental responses to the survey, observations by the researcher of live sessions, audio/video taping of sessions with later review and informal discussions with the parent after each session.

Responses were analyzed based on survey questions to about this approach to increase and improve parent-child interaction. The investigator identified specific events

and incidents from session observations, informal discussions, and parent surveys during the program to determine the type and level of parent interaction.

In this point, each participant is described, including background, session vignettes, and result of parental surveys. The researcher performed comparative analysis in descriptions of each session vignettes through the parent self-check list and evaluation form.

### **Case Study One: the home setting**

#### *Vignette*

Session vignettes describe parent-child interactions when both parties participated in the music therapy interventions. The session structures were based on the current parent-child music therapy programs. These programs modified situational purpose for this study (pp. 9).

#### **Client A**

Client A and her mother participated in music therapy sessions 6 times in an eight week period. Client A was an introverted child. She gradually responded to the therapist in small increments at each session while the researcher encouraged the client to participate in session. The client imitated her mother's actions. The researcher had several conversations with the client's mother after each session and understood the perception of the parent. The parent's participation helped the client feel more comfortable and enhance the client's progress.

### *Week 1*

When the researcher first entered client A's home, the client immediately hid behind her mother and would only glance at the therapist. This author tried to say "Hi" to client A. The client stared at her and called to her mother. Her mother indicated that her daughter was shy and uncomfortable with strangers. The therapist started singing the "Hello Song" and asked what her name was when the music prompted for the client's name. However, client A did not respond and would search for her mother. The researcher invited her mother to stay with client A and to participate in the activities together with the client. Her mother helped the client to participate in singing along to the "Hello Song" and sang the client's name when prompted. The researcher asked her mother to name the client's favorite songs. She responded the client's favorite songs to be "Twinkle Twinkle Little Star" and the "ABC Song." Additionally, the mother indicated that the client enjoyed playing the piano. When the researcher played, "Twinkle Twinkle Little Star" on the piano, the client looked at the researcher and the client's mother. The mother was encouraged to touch the client's back and head to increase feelings of intimacy. The client responded by making more eye contact with her mother until the song was finished.

### **Parent self-checklist**

The parent did not respond to parent self-checklist.

## ***Week 2***

The researcher started the session with the “Hello Song” and then cued her mother to say client A’s name. After this, the researcher cued client A to say her name. The client did not respond. Client A was encouraged to strum the guitar while singing “Twinkle, Twinkle, Litter Star”. Client A would respond by staring at the researcher. The mother was asked to help her strum the guitar. The client seemed interested in the guitar as she would watch her hands while strumming. After this activity, the client appeared tired as her eyelids were heavy. An attempt to move on to the next activity was not successful because she would start falling asleep. So, the researcher asked the mother to practice musical activity for this week, “Twinkle, Twinkle, Little Star” with her child. The researcher provided recorded music for the parent to allow her and the client to practice musical activities at home.

### **Parent self-checklist**

The parent did not fill out the checklist after this session. No data was provided from the survey.

## ***Week 3***

Client A missed the music therapy session due to sickness.

### **Phase Two: more challenges week 4 to 7**

Client B’s mother notified the researcher that she was confused about the program and the role of the parent and parent self-checklist. The researcher responded by rewriting the ‘parent’s instruction’ section of the parent self-checklist more clearly so as to support

the understanding from both parties. The new self-check list and parent’s instruction were given to the parents. The researcher also explained the new instructions to the participants.

***Week 4***

The researcher introduced a new activity with the visual cards, “Slippery Fish.” The researcher taught the parent how to play with her child at home. The mother modeled the researcher and practiced the activities during the session. The mother was encouraged to use the parenting strategies while playing, “Slippery Fish,” with client A. The mother made eye contact with the child and smiled at the client when prompted. The client A and her mother became used to looking at each other during the activity. Client A held her mother’s hand until the end of the song.

**Parent self-checklist**

The parent practiced musical play (MP) four times this week with her child at home. The parent responded to the question of strength area: use of phrases. She did not answer the question that asked to state an area of improvement for the following week. The Table 1 below shows the strategies used by parent as reported on the self-checklist.

Table 1:

*Parent Self-Checklist Week 4*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	7	7	4	4	1

### ***Week 5***

This session was different because the mother could not participate in the session. The caregiver took the place of the mother for this week only. Client A displayed the same type of behavior as in week 1. The caregiver learned the movement of “Five Little Monkeys” and used parent strategies while practicing with the researcher. The five monkey pictures were utilized to encourage movement. The caregiver helped client A to tap the drum during the song. Client A followed verbal prompts when asked, “One Fell Out.”

Researcher: (singing) “*Five little monkeys jumping on the bed, one fell off*  
(the researcher prompted client A with eye contact).”

Client A: (she took down one monkey when the researcher sang, “one fell off”).

Researcher: Good job, <client A’s name>! Give me high five!

Client A: (she slight touched the researcher’s right hand).

The researcher encouraged the caregiver to practice this activity during Week 5.

### **Parent self-checklist**

MP was accomplished three times this week. The number of positive reinforcements decreased from four to three compared to the prior week. Similarly, the number of smiles also decreased from four to three (Table. 2). No data was available for the question of strength and improvement area.

Table 2:

*Parent Self-Checklist Week 5*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	7	7	3	3	1

**Week 6**

Client A cancelled the session. The researcher contacted her mother to practice MP with her child for this week.

**Parent self-check list**

MP was completed three times this week. In response to the question of improvement area, the mother reported that she would display more affection to client A by hugging the client (Table 3). The mother stated that the client had been irritable due to client A's sickness.

Table 3:

*Parent Self-Checklist Week 6*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	7	7	4	4	1

**Week 7**

A new activity, "Shake", was taught to the mother and client A. Recorded music was provided for this activity. Client A and her mother followed verbal prompts when

given by the music. The researcher taught the mother to give directions to client A. The researcher encouraged the mother to use smiles and make eye contact with the client while playing with the egg shaker with the client. After client A finished her task, the mother was directed to give positive reinforcement by hugging the client A. she did not respond to verbal directions from her mother during activities. However, client A kept looking at her mother while appearing to take pleasure in a given activity. The researcher directed the mother to practice the musical activity, “Shaker,” during that week.

**Parent self-checklist**

The mother practiced MP four times this week with her child. The number of physical affection increased from one to four (Table 4). The mother did not respond to the questions of strength/improvement area.

Table 4:

*Parent Self-Checklist Week 7*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	7	7	4	4	4

**Week 8**

The researcher started playing, “Slippery Fish.” The mother helped client A to follow a set of movements when the researcher was playing. Client A turned the pages when verbal prompts were given during “Slippery Fish.” The mother used more positive reinforcement to client A, such as saying “good job,” “give me high five,” and “great

work.” Client A frequently made eye contact with her mother after receiving positive reinforcement and she became more interactive with her mom. By observation, the researcher encouraged the mother to practice more positive reinforcement for this week.

### **Parent self-checklist**

MP was completed four times this week. The number of positive reinforcement increased from four to seven. The mother reported that she improved strategies of using phrases and positive reinforcement. The mother wrote the following in the question pertaining to areas of improvement:

*“I would like give more touching affection like a big hug or a warm kiss”*

*-Client A’ mother –*

### **Result of evaluation of surveys**

Client A’s mother responded that her participation was helpful in encouraging her daughter to get involved in sessions. The mother became more responsive in interacting with her child through playing musical games. The mother responded that it was much easier for the client to participate in session while practicing parenting strategies that included the use of phrases, positive reinforcement, and physical affection. The mother also answered that sing-a-long and movement were useful activities for parent-child interaction. The mother reported that the parent self-checklist was an effective tool for helping her play with the client.

The parent responded that music therapy helped parent-child interaction while engaging musical play. She was highly satisfied with the music therapy session with her child. She wrote the following in the 'comments' section,

*"I think my daughter enjoys doing the musical play after therapy sessions. I believe musical play built my interaction with my daughter!"*

*- Client A's mother -*

Overall, the mother was satisfied with the parent-child music therapy program and was convinced the parent strategies and musical play increased parent-child interaction

### **Case Two: the clinical setting**

#### *Vignette*

#### ***Week 1***

The researcher and client B's ongoing music therapist provided a co-led the session for client B and her mother. Client B's therapist indicated the need for a transition session between current music therapist and this therapist. The mother observed this session and participated in a few activities when asked. The researcher taught client B and her mother to sing the "Hello Song." Both were encouraged to say their name when verbal prompts were given by the researcher. The current therapist led client B's favorite activity, "I'm Gonna Catch You," with recorded music. Client B moved around the drum and followed the musical and verbal directions while participating this activity. The mother enjoyed playing the activity with her child, as evidence by attempting to get involved the session. During xylophone improvisation, client B and her mother

alternately improvised a simple melody. Both the mother and her daughter interactively made eye contact without verbal prompts.

### **Parent self-checklist**

No data was provided until week 3, because the mother had been confused about the program (see pp. 31).

### ***Week 2***

Client B's father came to the clinic with his daughter instead of her mother. Client B was whining and kept saying, "I wanna go home." The therapist asked the father to sing along to the "Hello song." Client B wandered around the room and played with the xylophone. The researcher advised the father to go to the xylophone while the therapist led them in the taking-turns game. Both father and client B enjoyed improvising on the xylophone as evidenced by smiling and making eye contact. During "The Wheels On the Bus," the father was encouraged to make eye contact with client while singing along with her. After the session, all songs were provided and CD recording so that the parent could practice at home.

### ***Week 3***

Client B was smiling when she came into the room with her mother. The therapist taught an alphabet game using the tune of "B-i-n-g-o" and changed the words from "Bingo" to the client's name. During this song game, the mother helped to find client B's name when prompted by the therapist and sang along together. Client B enjoyed playing "Five Little Monkeys" with the pictures. This song was taught using parenting strategies

such as eye contact, smiling, and positive verbal and physical reinforcement. Client B became more involved in activity when her mother was reinforcing encouragement.

#### ***Week 4***

The therapist taught new activities to both mother and client B. Client B exhibited fear while playing “Bear Hunt” because of the dynamic tempo with the volume. When the volume went up with the fast tempo, the client hunched her shoulders and back and grasped her ears. The mother hugged and soothed her daughter. The therapist moved on to the next activity, “Slippery Fish,” the client showed an interest in the visual cards and said, “I like fish.” The mother learned how to use the visual cards in effective ways using parenting strategies. The therapist indicated that the mother used eye contact when cueing her child. The mother was also encouraged to practice this activity for this following week.

#### **Parent self-checklist**

The mother practiced musical play four times this week. The number of positive reinforcements was recorded as zero (Table 5). In response to the question of strength area, the mother responded that she would sing together with her child. There was no response to the question of improvement area.

Table 5:

*Parent Self-Checklist Week 4*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	4	4	0	4	2

### *Week 5*

Client B arrived to the session with her father. The father did not participate in this session, but the individual session was provided anyway. The therapist asked the client to practice musical play with her mother at home. Client B said, “Yes” and sang along with a few lines while playing “Slippery Fish” with the researcher. The client increased eye contact during the activity compared to prior weeks. The client was taught the “Silly Pizza” and was encouraged to use sign languages during this activity, such as “apple,” “ice cream” and “candy.” The visual material was not only provided to encourage participation in the activity easily, but also to increase the learning effect for the client. After the session, the therapist notified the father on how to practice musical activities with his child at home. All material for musical activities, including CD and visual cards were provided for this next week.

### **Parent self-checklist**

Musical play was completed four times this week. The number of phrase use decreased from four to three (Table 6). Physical affection increased from two to three.

Table 6:

*Parent Self-Checklist Week 5*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	3	4	0	4	3

In response to the question of strength area, the mother reported that musical play helped her parenting at home.

*“Singing Twinkle-Star at night for fun helps her wind down”*

- *Client B’s mother, Mar 19, 2013-*

Client B’s mother also responded that she would like to improve playing “Silly Pizza Song” for next week.

### **Week 6**

The therapist taught the mother to play the “Chicken Dance” with her daughter. The mother was encouraged to use parenting strategies with her child during this song, such as smiling and touching for improving intimacy. The researcher suggested using more positive reinforcement to encourage the client. The client displayed smiles and responded by turning around and holding the mother’s hand. During “Twinkle, Twinkle, Little Star,” the mother gently patted client B’s body while singing quietly. Client B seemed relaxed and made eye contact at the end of song. After this activity, the researcher led the activity, “Hit the Drum.” Client B and her mother were encouraged to play the “Taking-turns game” with musical prompts. During this game, both parties made more eye contact and expressed enjoyment. The mother provided positive reinforcement with such phrases as, “Great,” “Nice,” and “Good job.”

### **Parent self-checklist**

Musical play was practiced four times this week. The number of phrases used increased from three to four (Table 7). However, the number of eye contacts and smiling

decreased from four to two and four to three respectively. In the question of strength area, the mother responded that she and her child enjoyed practicing musical play together this week. In response to the question of improvement, the mother reported that she needed to use sing-along more often.

Table 7:

*Parent Self-Checklist Week 6*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	4	2	0	3	3

***Week 7***

The session was opened with a review of songs and activities. The mother was encouraged to play along with her daughter. During “Slippery Fish,” both parties sang along without flash cards. The mother and her child became more interactive during this activity through using parenting strategies, such as smiling, eye contact, and physical affection. While playing “Silly Pizza Song,” the mother used sign language with her child and attempted giving positive reinforcement, such as “high-five.”

**Parent self-checklist**

The mother accomplished musical play four times in this week. The number of instances of smiling and physical affection decreased from three to two. The mother responded to the question of strength area by including her family was pleased to play the “pizza song” for this week. No data was available for the question of improvement area.

Table 8:

*Parent Self-Checklist Week 7*

Strategies	Use of phrases	Eye Contact	Positive Reinforcement	Smiling	Touching/physical affection
Total	4	2	0	2	2

***Week 8***

The session was cancelled by the parent.

**Result of the evaluation survey**

The mother responded that her participation was useful in learning about her child's preferred instruments, songs, and musical games. Also, the mother reported that she learned to use musical parenting strategies. Client B's mother was convinced that music therapy helped to improve her interaction with her daughter. She also became more responsive to her child through the sing-a-long activity at home. She mentioned that the updated parent's instructions were clear and were easy to practice at home. She indicated that music was greatly helpful for increasing interactions with her daughter. Useful strategies were employed for her interaction with her daughter, such as positive reinforcement, physical affection and the use of increasing using phrases like, "good job!", "nicely done", or "such a great playing." She also noted that "Slippery Fish" and "Silly Pizza Song" were useful musical activities for increasing parent-child interaction at home. She felt that the parent self-checklist was effective as a good reminder to keep practicing. The mother also stated that music therapy helped increase parent-child

interaction. The mother reported the following evaluation about the program,

*“We are always looking for positive interaction activities”*

*- Client B’s mother, Mar 18, 2013-*

She was satisfied with this program as it challenged her to actively participate more and taught her interaction strategies and musical activities to do with her daughter.

## CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

### **Summary**

The purpose of this study was to determine the effects of parent's participation in music therapy session focusing on parent-child interaction on home-based musical experiences. Two children with Down syndrome or Autism Spectrum Disorder (ASD), and two parents or caregiver were used in this study. The program took place in an eight week period from January to April of 2013. Subjects were referred from Higher Octave Healing, Inc from Arizona State University music therapy clinic. Weekly program was completed individually by this author in thirty minute to fifty minute sessions for each subject. One significant parent or caregiver was required to participate in music therapy session.

Music therapy interventions were provided in two different settings: 1) the clinical setting and 2) the home setting. Each parent was taught musical parenting strategies by music therapist. The parents learned musical activities while involved in the sessions with their child. After each session, the parent applied the parenting strategies while practicing musical play at home. They also filled out the parent self-checklist to reinforce parent-child interaction three or four times per week. At the end of the treatment period, the participants evaluated the program in three different areas: in session, out of session, and evaluation. The result of this survey presented the effects of parent's participation and parent-child interaction through musical play at home.

A qualitative method of analyzing data was employed in the two case studies: session observations, interviews, informal discussions, and parental surveys. Each session was described as session vignettes and as a summary of the parent self-checklist and evaluation forms using a comparative approach.

## **Conclusion**

Based on the result of this study and the descriptive analysis of those results, the following conclusions have been drawn.

1. Analysis indicated that the parent's participation in music therapy intervention did affect parent-child interaction. The parents became more responsive to their child through participating in music therapy sessions, because the parents spent more quality musical time with their child and enjoyed playing music at home. The parents had the opportunities to learn musical parenting strategies so as to increase parent-child interaction. Also, the parents had musical experiences through this program, so they became interested in knowing about music therapy.
2. As indicated in the survey, musical parenting strategies helped to increase parent-child interaction while the parents practiced musical activity at home. During the session experiences, some strategies were effective in encouraging parent-child interaction: eye contact, positive reinforcement, and smiles. The use of physical affection was a

noticeable effective strategy for increasing parent-child interaction.

3. Parental self-checklist was supportive in encouraging musical play at home as repeated. By checking the list of strategies, the parents attempted to interact with their child while practicing home-based musical play.
4. During the musical play, the parent repeated more interaction with their child, especially, sing-a-long and movements. Home-based musical play is an ongoing process of music therapy intervention in order to enhance parent-child interaction and effective music therapy intervention.
5. All parents were satisfied with involvement in the parent-child interactive music therapy program. They believed that music therapy was an effective tool for strengthening parent-child interaction. The parents highly recommended participating in parent-child music therapy in the future.

## **Discussion**

These case studies described the effects of learning parent-child interaction and using them in musical play at home. The needs of clients required the use of different settings for therapy sessions. For truthful data, the setting should be the use of the same environment. One participant received music therapy sessions at home, so it was difficult to identify home-based experiences versus the structured music therapy experiences even

though musical play was practiced after sessions. Therefore, the same environmental settings should consider for future investigation.

The different diagnoses of the clients were a weakness of these case studies because each diagnosis had different developmental delays, so each client had dissimilar interactions with their parents. For example, case one involved a child with Down syndrome who had weak muscle tone. Choice of movement was very limited because the client usually sat on the floor. For this client, the therapist usually used sing-a-long for encouraging interaction with her mother. In contrast, the client with Autism Spectrum Disorder was an energetic child, but she had a short attention span and a lack of speech due to her diagnosis. The researcher prepared more activities for this client in comparison with the client in case one. Furthermore, case two client had a previous therapist prior to this program. The original music therapist had to be consulted by the investigation to continue therapeutic continuity. This affected the management each session. Therefore, it would be better to have participants with the same diagnosis for more meaningful data.

The lack of participants was also a difficulty in verifying results as to the effectiveness of promoting parent-child interaction. As pointed out earlier, because of different settings, this study could not prove increased parent-child interaction through home-based experiences, though a trend in this direction was evident. So, if there were adequate of participants, more credible and detailed information could be gathered.

The length of each program changed due to unforeseen situation. The term of the study, therefore, was not discussed. However, all participants were required to participation in music therapy sessions within eight weeks or more.

Parent-child interaction is a delicate matter in terms of measurement by numbers, environments, and moods during sessions and out of sessions. Therefore, information reported in these case studies was collected using qualitative methods for case study investigation. All data was collected by interviews, observation of video tapes, live observations, parent's check-list of music therapy reviews and formal evaluation form.

### **Recommendation for future research**

Based on the findings of this research, it is recommended that:

1. the study be repeated with the following changes:
  - a. use the same environmental settings in the clinical music therapy experiences
  - b. increase the number of participants as required for verification of data
  - c. involved participants with the same diagnosis
2. Future research should be designed to compare the clinical setting and home setting. Which one promotes parent-child interaction? A mixed design using quantitative and qualitative method is recommended.
3. Future research should be designed to develop a practical music therapy program which is based on parent-child interaction with their family for use by current music therapists.

It is strongly recommended that more research be done in working with families in the US. There is a lack of research in this area for American families, and such research is needed. It is the opinion of this author that working with the family is an effective tool for fostering parent-child interaction. A practical music therapy program with the family is necessary for current therapists so as to help the client more effectively.

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APPENDIX A

INTERNAL REVIEW BOARD (IRB) APPROVAL LETTER



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Office of Research Integrity and Assurance

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**To:** Barbara Crowe  
MUSIC

**From:** Mark Roosa, Chair *MR*  
Soc Beh IRB

**Date:** 11/26/2012

**Committee Action:** Expedited Approval

**Approval Date:** 11/26/2012

**Review Type:** Expedited F7

**IRB Protocol #:** 1210008471

**Study Title:** Effectiveness of music therapy parent-child intervention on child development

**Expiration Date:** 11/25/2013

The above-referenced protocol was approved following expedited review by the Institutional Review Board.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date. You may not continue any research activity beyond the expiration date without approval by the Institutional Review Board.

**Adverse Reactions:** If any untoward incidents or severe reactions should develop as a result of this study, you are required to notify the Soc Beh IRB immediately. If necessary a member of the IRB will be assigned to look into the matter. If the problem is serious, approval may be withdrawn pending IRB review.

**Amendments:** If you wish to change any aspect of this study, such as the procedures, the consent forms, or the investigators, please communicate your requested changes to the Soc Beh IRB. The new procedure is not to be initiated until the IRB approval has been given.

Please retain a copy of this letter with your approved protocol.

APPENDIX B RECURITMENT  
PARENTAL LETTER OF PERMISSION AND CONSENT

**Effectiveness of music therapy parent-child intervention on the child's learning parenting skills**

PARENTAL LETTER OF PERMISSION AND CONSENT

Dear Parent:

I am a graduate student under the direction of Professor Barbara. J. Crowe in the College of Music Therapy at Arizona State University. I am conducting a research study to present and teach parents the effectiveness of music therapy parenting intervention on a child's development.

I am inviting you and your child to participate, which will involve a 30 minute session once a week of music therapy parenting interventions for a course of eight weeks. Each weekly session will consist of sing along, musical improvisations, and movement. You and your child's participation in this study are voluntary. If you choose not to participate or have your child participate, or you wish to withdraw your child from the study at any time, there will be no penalty. Likewise, if your child chooses not to participate or to withdraw from the study at any time, there will be no penalty. The results of the research study may be published, but neither you nor your child's name will be used.

Parents will fill out the survey after 8 weeks of music therapy sessions so that the child's development and the parent's perception through musical activities can be evaluated. The survey will take 10-15 minutes to complete. Return it to your therapist after you finish the survey.

Although there may be no direct benefit to your child, the possible benefit for your child is support for a parent-child relationship and the child's clinical goals. There are no foreseeable risks or discomforts as a result of your child's participation.

Responses will be confidential. The results of this study may be used in reports, presentations, or publications but neither you nor your child's name will be used. All audio/video tapes may be used in reports, presentations, or publications but neither you nor your child's name will be used. All audio/video tapes will be destroyed at the completion of the thesis.

If you have any questions concerning the research study or your child's participation in this study, either Professor Crowe or I are available to contact at 480-956-2659.

Sincerely,

Yoon K Choi

By signing below, you are giving consent for you and your child \_\_\_\_\_ (Child's name) to participate in the above study.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

By signing below, you are giving consent for have your child's music therapy sessions audio taped.

\_\_\_\_\_  
Signature  
Date

\_\_\_\_\_  
Printed Name

By signing below, you are giving consent for have your child's music therapy sessions videotaped.

\_\_\_\_\_  
Signature  
Date

\_\_\_\_\_  
Printed Name

If you have any questions about you or your child's rights as a subject/participant in this research, or if you feel you or your child have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the Office of Research Integrity and Assurance, at (480) 965-6788.

## APPENDIX B RECURITMENT SCRIPT

Dear Parent:

I am a graduate student under the direction of Professor Barbara. J. Crowe in the Department of Music Therapy at Arizona State University. I am conducting a research study to present and teach parents the effectiveness of music therapy parenting interventions on a child's development.

I am inviting you and your child to participate, which will involve a 30 minute session once a week of music therapy parenting interventions for over eight weeks.

Attached is a parental letter of permission and consent if you are interested. Please fill out the consent form and give it back to me by email or return it to your therapist.

If you have any questions regarding the research study or your child's participation in this study, please call me (or Prof. Crowe) at 480-965-2659.

Sincerely,

Yoon K Choi  
Graduate Student  
Music therapy department of school of music  
Tel. 773-960-2740  
Email: [ychoi48@asu.edu](mailto:ychoi48@asu.edu)

Therapist: Hello, MS \_\_\_\_\_! My name is Yoon Kyoung Choi and I am a graduate student at Arizona State University. I am conducting a research study to present and teach parents the effectiveness of music therapy parenting interventions on a child's development.

Participant: Reactions or questions.

Therapist: I am inviting you and your child to participate, which will involve a 30 minute session once a week of music therapy parenting interventions for over eight weeks. If you would like to be involved in this program, you will fill out a Consent Form.

Participant: Reactions or questions.

Therapist: Your therapist will give you the consent form when you come to clinic. Please fill out the form and then return it to your therapist. Thank you for your cooperation! Do you have any further questions? I look forward to working with you and your child.

APPENDIX B RECRUITMENT  
CHILDREN ASENT: VERBAL AGE 4-5

## **Children Assent: Verbal Age 4-5**

### **Parent-child music therapy parenting intervention on child's development**

Your parents (mom or dad) said it is ok for you to musical activities, like sing a songs and movements with the music. Music time will last for eight weeks. But, you can stop at any time if you want to and it will be okay, just let me know.

Do you want to have music time?

APPENDIX C  
PARENT INSTRUCTION

## Parent's instruction☺

Thank you for agreeing for allowing me to provide music therapy session with you and your child. This is an instruction sheet for a parent who participates in 8 weeks of music therapy session with your child. A therapist will support parent/child interaction and teach strategies using music to enhance interactions.

In order for this program to be effective, it is important for both therapist and parent to work together. This program has two distinct practices for in session and out of session (home). During the session, the parent will participate in music therapy session and learn musical play. After each session, the parent practice musical play with your child at home 10-15 minutes everyday. The parent will be asked filling out a parent self-checklist 3-4 times for a week.

- **In Session**

Music therapy session will be 30 minutes each and require parent or caregiver's involvement during the session. Each session will have the following structure:

1. Hello song/greeting song: Encourage social awareness.
2. Well-known song or child's favorite song: Encourage participation
3. Movement songs: Practice of physical functioning (fine/motor skills) and concept comprehension
4. Instrumental works: Promote motor skills. Follow simple direction.
5. Quiet music: Encourage physical touch, closeness and bonding with parent-child relationship.

All songs will be provided on a CD for the parent. The parent will learn musical play from the therapist while participating in session.

- **Out of Session**

For effective musical play at home, the parent is provided with a self-checklist for parent-child interaction using musical play at home. The self-checklist will be asked filling out at least 3-4 times for a week.

### Q&A

- 1) How to practice musical play with my child?
  - a. Apply musical play. What did you learn from the session.
  - b. Have a fun with your child!  
e.g. " I'm gonna catch you"  
- Turn on music and play with your child.  
- Give pleasure to your child while playing together (laughingly, smilgly, joyfully, cheerfully etc...)
- 2) How long should I practice?
  - a. Just take 10-15 min when you are at home with your child.

- b. Suggest to practice everyday at least one musical activity.
  - 3) How to fill out self-checklist?
    - a. It is recommend to fill out the form 3-4 times a week. It takes 5 min to complete the form.
    - 4) I am confused!
      - a. Bring any questions or feedback when you come to music therapy session or contact with me.
      - b. The therapist will contact with you weekly by email or phone for feedback. You can ask me when I contact with you.
- Here is my information  
Email: [ychoi48@asu.edu](mailto:ychoi48@asu.edu)  
Tel: 773)960-2740



Here are some tips for supporting musical parenting strategies during musical play at the session and home. Apply these strategies while playing music with your child☺

1. **Use of phrases in the positive:** try to avoid saying, “No” or “Don’t” all of the time. Eg. Say, “Walking inside” instead of “No running inside”. “Hold your instrument” instead of “Don’t drop your instrument”.
2. **Eye Contact:** When you communicate with your child, make eye contact while singing, playing and listening.
3. **Positive reinforcement:** Encourage your child when he/she completes the tasks. Give him/her lots of praise (“good job”, “you made it”, “what a great job”, etc...).
4. **Smiling:** Give him/her positive support and pleasure while playing music (smile, laugh, grin, beamingly)
5. **Touching & Physical affection (non-verbal communication):** Use touch extensively during your musical play. Give him/her a big hug completing his/her tasks after musical play.

**Thank you for your cooperation☺**

APPENDIX D

PARENT-CHILD MUSIC THERAPY INTERVENTION EVALUATION FORM

# Parent-Child Music Therapy Intervention

## Evaluation Form

**Directions:** Please briefly write your answer for each question. These questions are divided into three different categories. The first category is “in session”. The second is “out of session”. The third is your evaluation for the program.

### **A. In session (during the session)**

Effectiveness of parent’s participation during music therapy intervention

1. How has your participation in music therapy helped to improve your interaction with your child?

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2. In what ways have you become more responsive in interacting with your child through this program?

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3. In what ways has musical play been easy to learn or follow during the session?

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**B. Out of session (Home-based musical play)**

Musical parenting: musical play, parenting strategies, and parent's self-check list

1. What musical parenting strategies have been useful for your interaction with your child while practicing musical play at home?

(E.g. use of phrase, eye contact, physical affection, smiling, positive reinforcement)

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2. Were there any particularly useful musical activities for your interaction with your child at home? Please list.

(E.g. sing a long, movement, improvisation, musical instrument)

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3. Has your use of the self-check list been effective for increasing your positive interaction with your child? Why or Why not?

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4. In what ways have you found home-based musical experiences to influence parent-child interaction?

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**C. Program Evaluation**

1. Have you found the music therapy approach to help your parent-child interaction?

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2. Would you continue to participate in parent-child music therapy session in the future? Why or why not?

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3. Additional Comments

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**Thank you for your time and cooperation😊**

APPENDIX E  
PARNENT SELF-CHECKLIST

# Parent Self-Checklist

**Direction:** This checklist will be filled out for an 8 week period. Please follow the directions shown below.

## Week 4

### Musical Play (MP)

Please mark an “X” in the appropriate box after practicing musical play with your child.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
MP							

How many days you practice? Total: \_\_\_\_\_ (e.g Total: 3)

### Parenting Strategies

Please mark an “X” in the appropriate boxes to show what strategies you used during the musical play with your child.

Days/strategies	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
Use of phraise								
Eye contact								
Positive reinforcement								
Smiling								
Touching/physical affection								

### Evaluation

What is the **strength area** of your parenting strategies?

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Which strategies in your musical play would you like to **improve** for next week?

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**Week 5**

**Musical Play (MP)**

Please mark an “X” in the appropriate box after practicing musical play with your child.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
MP							

How many days you practice? Total: \_\_\_\_\_ (e.g Total: 3)

**Parenting Strategies**

Please mark an “X” in the appropriate boxes to show what strategies you used during the musical play with your child.

Days/strategies	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
Use of praise								
Eye contact								
Positive reinforcement								
Smiling								
Touching/physical affection								

**Evaluation**

What is the **strength area** of your parenting strategies?

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Which strategies in your musical play would you like to **improve** for next week?

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**Week 6**

**Musical Play (MP)**

Please mark an “X” in the appropriate box after practicing musical play with your child.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
MP							

How many days you practice? Total: \_\_\_\_\_ (e.g Total: 3)

**Parenting Strategies**

Please mark an “X” in the appropriate boxes to show what strategies you used during the musical play with your child.

Days/strategies	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
Use of praise								
Eye contact								

Positive reinforcement								
Smiling								
Touching/physical affection								

**Evaluation**

What is the **strength area** of your parenting strategies?

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Which strategies in your musical play would you like to **improve** for next week?

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**Week 7**

**Musical Play (MP)**

Please mark an “X” in the appropriate box after practicing musical play with your child.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
MP							

How many days you practice? Total: \_\_\_\_\_ (e.g Total: 3)

**Parenting Strategies**

Please mark an “X” in the appropriate boxes to show what strategies you used during the musical play with your child.

Days/strategies	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
Use of praise								
Eye contact								
Positive reinforcement								
Smiling								
Touching/physical affection								

**Evaluation**

What is the **strength area** of your parenting strategies?

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Which strategies in your musical play would you like to **improve** for next week?

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**Week 8**

**Musical Play (MP)**

Please mark an “X” in the appropriate box after practicing musical play with your child.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
MP							

How many days you practice? Total: \_\_\_\_\_ (e.g Total: 3)

### **Parenting Strategies**

Please mark an “X” in the appropriate boxes to show what strategies you used during the musical play with your child.

Days/strategies	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Total
Use of praise								
Eye contact								
Positive reinforcement								
Smiling								
Touching/physical affection								

### **Evaluation**

What is the **strength area** of your parenting strategies?

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Which strategies in your musical play would you like to **improve** for next week?

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APPENDIX F  
HELLO SONG

# Hello, Hello, How Are You?

Yoon. K. Choi

Yoon. K. Choi

Moderato (♩=110)

The musical score is written in treble clef with a key signature of one sharp (F#) and a 4/4 time signature. The tempo is marked 'Moderato' with a quarter note equal to 110 beats per minute. The melody consists of two lines of music. The first line contains 6 measures, and the second line starts at measure 7 and contains 2 measures. The lyrics are placed below the notes.

He-llo, he-llo, How are you? Wel come to mu - s - ic time- He-llo, he-llo, How are you?

7  
I am glad you are here -

APPENDIX G  
GOODBYE SONG

# Good Bye Song

Unknown

Unknown

Moderato (♩=100)

Good-bye, <Na me>!      Good-bye, <Na me>!      Good-bye, <Na me>!      It's time to say good-bye.

The image shows a single staff of music in 4/4 time with a key signature of one sharp (F#). The tempo is marked 'Moderato' with a quarter note equal to 100 beats per minute. The melody consists of four measures: the first two measures each contain a quarter note followed by an eighth note and a quarter rest; the third measure contains a quarter note followed by two eighth notes and a quarter rest; the fourth measure contains a quarter note followed by an eighth note, a quarter note, and a half note.

APPENDIX H  
RHYTHMIC INSTRUMENT SONG

# 리듬악기 노래

보통빠르게

이계석 요 / 이계석 곡

큰 북을 울려라 둥 둥 둥 작은 북을 울려라 둥 둥 둥  
캐스터네츠 짹짹 탕버린은 찰찰찰 트라이앵글은 칭칭칭  
너 도나도 다 같이 흥-겹게 쳐 보자  
콩따리콩따리 콩콩콩 콩따리리리콩따리리리 콩콩콩

WEEKLY HYUNJIN  
그림 현진아빠

English Translation:

Rhythmic Song We Play The Instrument

Composed by K. S. Lee

Written by K. S. Lee

Translated by Y. K. Choi

Big drum, big drum, boom, boom, boom,

And small drum, small drum, boom, boom, boom,

Let's play together and make fun music!

Big drum, big drum, boom, boom,

And small drum, small drum, boom, boom, boom!

APPENDIX I  
MUSICAL PLAY LIST (CD)

1. I'M GONNA CATCH YOU
2. THE WHEELS ON THE BUS
3. TWINKLE, TWINKLE, LITTLE STAR
4. SILLY PIZZA SONG
5. SLIPPERY FISH
6. BEAR HUNT
7. THE CHICKEN DANCE
8. JUMP
9. SHAKE AND MOVE
10. FIVE LITTLE MONKEYS JUMP ON THE BED
11. ABCs
12. OLD MCDONALD HAD A FARM
13. ITSY BITSY SPIDER