The Effect of Verbal Versus Nonverbal Parent Cues on Children's Listening Skills

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THE EFFECT OF VERBAL VERSUS NONVERBAL PARENT CUES ON CHILDREN’S FOCUSED LISTENING SKILL

By
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A THESIS

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THE EFFECT OF VERBAL VERSUS NONVERBAL PARENT CUES ON CHILDREN'S FOCUSED LISTENING SKILL

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This research sought to find a relationship between parental verbal or nonverbal cues and children’s focused listening skills. The data collection took place in February 2012 with children participating in the University of Miami MusicTime 3 program who were four to six years of age. Seventy-four children and parents participated in the study. A review of the literature established the basis for the theory that various types of parental cues and time enrolled in this music program could positively effect a child’s focused listening skill. A child’s focused listening checklist and verbal vs. nonverbal parental cue scale were devised to rate each child and parent videotaped during a MusicTime duple meter pattern activity. Results showed that neither, parental cues, teacher cues or time enrolled in the program showed an effect on children’s focused listening skills.
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CHAPTER I

THE PROBLEM

The role of parents is important, as they are a young child’s first teachers. Therefore, it is essential to determine whether verbal or nonverbal parental cues better effect a child’s ability to perform focused listening, as it could help parents be better teachers to their children. The training of parents as teachers is a neglected area of research. Extensive research can be found on teacher training and its effect on children, however there are very few that focus on parent training. Available research shows how adult verbal and nonverbal cues can influence children’s retention, however it does not show how a parent’s communication skills can effect a child’s ability to demonstrate focused listening (Corsini, 1968; Corsini, 1969; Florit, Roch, Altoe & Levorato, 2009; Hayne, 2004; Hayne & Herbert, 2004; Herbert & Hayne, 2000; Morgan & Hayne, 2007). This is an important factor to this study because parents are an integral part of their child’s learning in a preschool music class. Research has shown that early parent involvement creates stronger learning effects in a child; in addition, employing the most effective teaching strategies that engage the child in home learning activities has been found to positively influence child learning (Cotton & Wikelund, 1989; Heyge & Sillick 1994; Jordan-DeCarbo & Galliford, 2011). Therefore, research is needed to identify the most effective communication strategies for parents with their young children that will enable each child to achieve their maximum potential in focused music listening activities.
Background

Many studies show the positive effects of music literacy skills on preschool children, as well as the positive effect of music on children’s brain development (Jordan-DeCarbo & Galliford, 2011; Heyge & Sillick, 1994). Yet, despite these positive effects for music, well-planned curricula for music in preschool and early childhood programs are not widely available. Evidence of this is that most pre-schools do not employ music specialists. Thus, preschool teachers are left to try and provide appropriate musical experiences for these young children without having much training in this area. As a result, parents do not have models of how to best help their child’s musical growth during the critical time period of early childhood. Music educators and researchers have begun to create early childhood music curricula that can be used by pre-school classroom teachers on a day-to-day basis (Jordan-DeCarbo & Galliford, 2011). However, many times, grants are needed to put these curricula into practice, as funding and time are required to train teachers effectively. Not only must the teachers understand how to use the curriculum effectively, but also it is crucial that the parents be trained on how to incorporate appropriate activities in the home environment. This is important as parents provide the necessary repetition at home that enables children to retain and learn information. Thus, some music curricula incorporate parental training through participation in a music class outside of school.

Over the years, many different early childhood music curricula have been implemented (Guilmartin & Levinowitz, 1987; Heyge, 1974; Heyge & Sillick, 1994; Suzuki, 1972). Parents wanting their child to have additional music outside of school seek these classes. These classes may involve learning to play an instrument, exploring
instruments, movement activities, songs, and stories. Many parents do not realize that such classes stimulate other developmental areas besides music. Such areas include gross motor, fine motor, cognitive, social, and emotional development. In many of these classes, parents are involved by participating with their child. In this way, parents are able to witness first hand how each activity impacts their child. Parents learn ways to incorporate teaching ideas into their home by experiencing each activity with the child. One pilot study showed that music therapy sessions with infants and toddlers increased children’s cognitive, emotional, social and physical development in both children born with disabilities and typical children. (Standley, Walworth, & Nguyen, 2009). Those children who participated in the program for five to seven weeks showed higher skill levels than those who did not participate in the music therapy program.

Today, the most popular early childhood music curricula include: Kindermusik, Music Together, MusikGarten, and the Suzuki method (Guilmartin & Levinowitz, 1987; Heyge, 1974; Heyge & Sillick, 1994; Suzuki, 1972). Most relevant to this study is the MusikGarten curriculum written for children birth to nine years of age. (Heyge & Sillick, 1994) The University of Miami MusicTime program is one such program that uses the MusikGarten curriculum. This program was established in 1987 by Dr. Joyce Jordan and is currently coordinated by Dr. Joy Galliford. Children in this program range between the ages of birth to eight. The MusikGarten curriculum is split by age into five sequential curricular levels. While the number of children in each class may vary, MusicTime strives to have 12 children in each class, along with their parents who meet once a week to engage in age appropriate musical activities. To understand how this program is
effective in sequentially building the child’s musical and listening skills with parental involvement, it is important to know how each level is defined.

First, a child enters the MusicTime for babies program between the ages of birth to fifteen months. These classes are thirty minutes in length, providing aural stimulation through songs, rhymes, rhythm and tonal patterns, movement, and the use of several manipulatives. In this age group, parents learn ways to engage their child aurally before sight as well as ways to stimulate the baby’s overall growth in the home environment (Heyge & Sillick, 1994; Jordan, 1987).

Once children reach the age of fifteen months, they enter the MusicTime 1 program until they reach three years of age. In this program, children gain independence as they begin to walk. Thus, each child is given their own turn during an activity to pick a place to tap and say a pattern, as well as participate in increased movement activities. These classes are thirty-five minutes in length and include listening to a variety of sound sources (Heyge & Sillick, 1994; Jordan, 1987).

Between the ages of three to four, children participate in MusicTime 2. These second level classes are forty-five minutes in length and include elements of nature throughout each lesson. Children learn about all four seasons of the year through stories, movement, and songs as well as learning to distinguish between different animal sounds. Children also continue to develop their independence by participating in some activities without their parent or guardian. Language is added, as children are better able to speak and sing (Heyge & Sillick, 1994; Jordan, 1987).

The next curricular level is MusicTime 3. This is a two-year curriculum for children four to six years of age. The class is an hour long, once a week session and adds
the use of a glockenspiel to help build fine motor skills. In the first year, children learn about places in nature such as the woodlands and the cattail marsh while beginning to recognize written musical patterns that have been previously learned aurally. Children still sing, dance, and participate in stories pertaining to the theme. However, this program encourages specific times for parent participation and times without it. In the second year, children learn to read and play songs on the glockenspiel as well as exploring cultures, heritages, and countries around the world. It is a journey that prepares the child to transfer all the musical melodies they learned to piano at age six in the MusicTime 4 curricular level. This fourth level also is one hour in length occurring over a two-year period in which children learn to develop piano skills using hands together to play written melodies and chords as well as develop their aural skills demonstrated through improvisation and composition (Heyge & Sillick, 1994; Jordan, 1987).

Participants for this study will be taken from both levels within the MusicTime 3 program. While generally, most children in this program are between the ages of four to six, there may be some who are younger. This is because some children have already completed each curricular level and can be observed as functioning like that of a 4-year-old, even if they have not quite turned four.

**Need for the Study**

Research has been conducted on the effect of music on a child’s readiness to enter school and on the role of parental involvement on student achievement or overall musical development (Jordan-DeCarbo & Galliford, 2011; McPherson, 2009 & Zdzinski, 1991). However, few studies have been completed on the effect of parental cues on children’s focused listening skills in a music class. The most relevant study was performed by Sims
(1986), when she examined the effects of more versus less non-verbal teacher affect and active versus passive activities on music listening skills. The study analyzed how these influences changed children’s ability between the ages three to five to stay attentive, give piece preference, recognize music selections, and spend time listening. The present study focuses on listening because it is an important part of everyday life. Children must be able to listen in school, at home, and in many other places in order to be able to learn and accomplish tasks. Studies like that of Sims have shown that early childhood music experiences increase participation and attention span as a child enters Kindergarten.

Parent participation is an important part of this process as they provide the activity repetitions in the home that help children solidify learning. If we are aware that parent participation is an important part of early childhood development, then it is essential that we discover how a parent’s nonverbal and verbal cues can effect a child’s ability to learn. Research has focused on the effect of verbal and nonverbal teacher cues in middle and high schools (Balzer, 1969; Kurkul, 2007; Mehrabian, 1972; & Petrie, Lindauer, Bennett, & Gibson, 1998). No research however has been found to determine the effect of a parent’s use of cues on listening for children age’s four to six. The present study will look directly at how a parent’s use of nonverbal and verbal cues in a music class effect a child’s focused listening skills. While research has focused on parental involvement at home, no study has looked at a parent’s effect on their child’s listening skill in a classroom setting. This is vital as it can provide parents with more tools for successful child rearing at home.
Purpose of the Study

The purpose of this study is to determine whether a parent’s verbal and non-verbal cue usage effects the child’s ability to listen. Specifically, this project will determine the correlation between a parent’s cue usage and the child’s ability to demonstrate focused listening in a music class. The substantive questions for this study are listed here.

1. Do focused listening skills differ in children as a function of parental cues during a musical activity?
2. Are there differences in focused listening skills due to parental cue usage, child gender, class level, or their interactions?
3. What is the relationship between children’s focused listening skills and the length of time enrolled in the MusicTime program?
4. What is the best combination of predictors for focused listening skill from the variables: Verbal or nonverbal parent cues, child gender, time enrolled in MusicTime, and class level?

Definitions and Delimitations

This study will use vocabulary from the disciplines of music and cues. A set of operational definitions, designed to assist the reader follow.

- **Effect:** to come into being, to bring about a result (Merriam-Webster, n.d.).
- **Influence:** the power or capacity of causing a result (synonym: affect). (Dictionary.com, n.d.).
- **Verbal cues:** of, or pertaining to, words; a cue that uses spoken language such as speech or singing to redirect. (Merriam-Webster, n.d.)
• Nonverbal cues: cues that provide communication through sending and receiving wordless messages; can involve the use of the senses, as well as the use of gestures, signals or facial expressions to redirect or to communicate with someone including touching, pointing, eye contact, hand gestures and head nods (Battersby, 2009).

• Musical activities: activities that involve the use of music such as singing, playing, or movement, as well as speaking, singing, reading or writing musical patterns (Heyge & Sillick, 1994).

• Focused Listening Skill: the active process of focused perceiving, receiving, and responding to spoken and unspoken messages (About.com, n.d.).
CHAPTER 2
LITERATURE REVIEW

This literature review is divided into two main sections as it covers the main parts of the study at hand, including research on listening skills and verbal and nonverbal adult cues. The first section, discusses listening skill studies as well as those that show the effect of music on listening skills. Next, a section is included that discusses studies related to verbal versus nonverbal adult cue usage with children. This review will help to show the extent of research on teacher cues, yet the lack of research on parent cues and its effect on young children in a classroom setting such as that described for this current research project.

Listening Skills and the Effect of Music

Listening involves processing a great deal of information at a fast pace. How easy it is for us to process this information depends on our experience musically, linguistically, and culturally. According to Barr, Dittmar, Roberts, & Sheraden (2002), listening is the first form of language that children obtain, providing foundational information for growth in cognition and language skills. However, it does not develop on its own. Thus, developing a foundation of listening skills and attitudes in early childhood is essential to helping develop music listening skills throughout music education. “Rogers and Steinfatt (1999) classified the five stages of active listening as hearing, understanding, remembering, evaluating, and responding” (as cited in Oludaja, 2000, p. 3). Over time, researchers have discovered that an effective listener is one who is physically prepared, intrinsically motivated, and contains strong concept imagery (Jalongo, 1995). These are the three main keys to effective listening. Jalongo (1995)
further states, “If we expect children to become good listeners, we will need to do more than worry, complain or demand. We need to teach them to become active listeners” (p. 13).

In 2009, Florit, Roch, Altoe & Levorato provided research testing the relationship between text comprehension and memory skills on listening in preschool age children. These researchers were looking to not only verify the hypothesis that memory contributes specifically to preschool children’s listening comprehension when verbal abilities are controlled, but also to analyze the relationship path as it develops memory skills and listening comprehension of four- and five-year-olds. Few studies have looked at this specific relationship. Eighty-four children were used in this study, including 44 four-year olds and 44 five-year olds, with each group containing half male and half females. Each child was tested individually in a quiet area for approximately thirty minutes. While the tasks were chosen ahead of time, the order of the tasks was random. The first sessions tested listening comprehension, short-term memory, and sentence comprehension. The second session tested verbal ability, listening comprehension, and receptive vocabulary. Finally, the third session tested inference generation, working memory, and verbal ability. Many of the tests were constructed by the authors and designed to evaluate each item specifically the way the researchers wanted them to.

The results of this study indicated that both the four and five year olds performance was appropriate for their age group. For each age group, there were significant correlations between listening comprehension and verbal abilities, with both receptive vocabulary and the ability to operate with verbal information. However, there was no statistically significant relationship between short term or working memory skills
and either listening comprehension or verbal abilities. Results did show that listening comprehension increases between the ages of four and six, yet the multiple regression yielded that when dealing with the relationship of memory and listening comprehension, between the ages of four and six, there is no age effect on this relation. Thus, listening comprehension is more related to the child’s verbal ability than to memory skills.

After discovering that listening comprehension is related to a child’s verbal ability, it was decided to look at research dealing with how music may affect the development of listening and language in young children. Howard Gardner (1983) found music, one of his eight multiple intelligences, as a pre-language form that could be used to help children learn language skills. Barr, Dittmar, Roberts, & Sheraden (2002) further discuss that music is one subject that can be used to encourage listening skills, as it makes connections in a different way than always using verbal directions. Their study showed through surveys, teacher observations, and pre and posttests that children and parents perceived listening to have increased by the end of the study. Simple ways that encouraged this were making parents aware of ways to better communicate with their child, to increase their motivation to want to learn, and listen, such as asking questions and decreasing time spent watching TV. These in turn, led to better achievement not only in music, but also in the general school day.

Sims (1986) examined the effects of more versus less non-verbal teacher affect as well as active versus passive activities dealing with music listening and how this changed the ability of preschool children between the ages of three and five to stay attentive, give piece preference, recognize pieces, and spend time listening. Research over the years has shown that active music tasks provide a higher level of attention than passive music
tasks. The way that the teacher responds and behaves also affects a child’s attention. Children want to be given verbal approval and gestures that show involvement and interest. The teacher’s behavior has been a factor that has shown great influence on a student’s attitude (Sims, 1986). Children were shown to be more on task when the activities went in an order of active to passive rather than vice versa.

In 1991, Sims decided to further her research by describing the effects of two studies, one dealt with the short-term music instruction as it effects preschool children’s ability to respond to one or more musical aspects such as movement, listening, and singing activities. The second study was used to replicate parts of the first study and added singing as another response variable. The subjects in study one were between the ages of four and five years and one month and were enrolled in preschools. In all three preschools, music was a daily activity. The posttest included a listening test that involved different selections than were used during lessons, as well as a movement-to-music activity developed by Sims. In the movement-to-music activity children listen and identify parts of the music that sound like the actions of certain animals. When they heard the section, they were to perform the action of the animal. Results showed that all subjects were able to show the idea of choppy/smooth in the movement-to-music test. After the movement-to-music section of the test, 13 experimental children and nine controls answered the final listening question. Of these children, only eight were correct through their response of movement. Three of these eight who answered incorrectly had performed the correct movement. After singing, results did show improvement. This suggests that children can clearly identify and label music characteristics. The results of the control group confirmed that children do not express musical thoughts well verbally.
This does not mean that young children cannot express verbally, but that guidance and instruction is needed in order to help them acquire the needed vocabulary.

Verbal versus Nonverbal Adult Cues with Children

Over time, more research has been conducted regarding nonverbal and verbal communication mainly in the classroom. According to Battersby (2009), nonverbal communication is defined as “the process of communication through sending and receiving wordless messages.” This type of communication can rely on sight, smell, touch or even taste. Researchers have better categorized nonverbal behavior into three main forms: kinesics, proxemics, and paralanguage (Wolfgang, 1979). The study of body movement patterns in human interactions is called kinesics and was coined by Ray L. Birdwhistell. Proxemics, coined by E. Hall, is the way people use their space in their environment as a way of communication. Lastly, paralanguage is the use of elements such as tone, volume, and hesitations that go along with an individual’s speech.

In the classroom, nonverbal communication is very important. Balzer’s study in 1969 identified that about 75% of teacher’s classroom management direction is nonverbal. Petrie, Lindauer, Bennett, and Gibson (1998) believed as well that 75% to 80% of control technique used in the classroom as communication should be nonverbal as verbal techniques take away instruction time and provides more attention for those causing disruptive behaviors that the teacher is trying to ignore. Eye contact has also been identified as a formidable form of nonverbal communication. Facial expressions, hand gestures, and head nodding can also be very powerful. Duncan (1969) looked at nonverbal communication discussing all three forms listed above and found that of the
nonverbal modalities, the ones given the most attention by researchers were body motion, paralanguage, and proxemics.

Over the years, some researchers have tried to discover whether an individual gives more weight to the nonverbal or verbal cues when forming an overall impression of someone. Studies before 1978 all indicated a greater effect of nonverbal messages over verbal messages (Argyle, Alkema, & Gilmour 1971; Bugental, Kaswan, & Love 1970; Mehrabian 1972). Mehrabian (1972) found that the nonverbal behaviors of interpersonal distance, eye contact, body lean, and body orientation were critical to identifying positive attitudes toward someone. When these behaviors were increased, positive attitudes communicated increased, as well in 1978, Friedman decided to look more closely at the relative strength of verbal vs. nonverbal cues on high school students. Students were provided with booklets, in which each page contained a photograph of an adult’s (a.k.a teacher’s) face along with a written sentence being said to the student. Four main facial expressions were used happiness, surprise, anger, and sadness. The teacher’s sentence could be either positive or negative as well as dominant or submissive. Students were then asked to determine how positive the teacher was being as well as what course grade they thought the teacher would give the student. Results indicated that nonverbal cues greatly impacted a student’s response on how positive the teacher was being. However, the verbal sentences had a greater impact on the student’s answer for the course grade question. This study continues to leave questions on which if any form of cues best helps students perceive information. A possible explanation discussed by the author is that students use nonverbal cues such as facial expressions to determine the “affective” attitude while students use words for the “cognitive” aspect.
In contrast, Kurkul (2007) examined the relationship between teacher’s nonverbal behaviors and teaching effectiveness in one-to-one music performance. While there had been some improvement towards answering questions dealing with how teachers and their students interact, learn, and teach, most of the studies completed up to this point in the area of music had focused on verbal rather than nonverbal interaction. Kurkul (2007) cites Wang (2001) as first documenting that in one-to-one music teaching both verbal and nonverbal behaviors shared equal value. Kurkul (2007) found that the nonverbal categories created and used by Gipson (1978), Hepler (1986), O’Neill (1993), Levasseur (1994), and Carlin (1997) were very inconsistent in determining which behaviors are the most noticeable. Some of this inconsistency was due to undefined terms that left the reader to infer meaning. Taking this a step further, there was a need to better define which factors best impact one-to-one music performance instruction. This proved difficult because teacher effectiveness needed to be better defined. The Profile of Nonverbal Sensitivity (PONS) developed by Rosenthal, Hall, DiMatteo, Rogers and Archer (1979) was the instrumentation used by Kurkul (2007). PONS is a test that measures a person’s ability to decode nonverbal cues that are shown through the face, body, and tone of voice. Results for the PONS test indicated that teacher’ PONS scores were significantly correlated to the students’ evaluation of lesson effectiveness, with the strongest correlation being in communication ($r=.53$). This is important to note because the higher the teachers’ PONS score the higher students rated their lessons in reference to communication, rapport, pedagogical skill, general instructional competence, and total scores.
Corsini (1969) looked at the developmental changes in the effect of nonverbal cues on retention. In order to better comprehend this information, it is important that we look at the developmental stages created by Bruner and Piaget. According to Bruner (1964), children go through three developmental stages: enactive, iconic, and symbolic. Piaget’s (1963) stages are sensorimotor, pre-operational, concrete operational and formal operational. The stages applicable to this study are Bruner’s enactive and iconic stage as well as Piaget’s sensorimotor and pre-operational stage. Children between the ages of zero to two are in the “enactive” or “sensorimotor” stage. During this stage, infants are involved in much physical interaction, must see things to believe it, and are egocentric. Children in this stage establish meaning for words through objects and the actions it performs. While Piaget does believe that there is meaning in the environment from the infant’s actions, he does not believe that children at this stage can retain information discovered from one point to another. Children next enter the “iconic” or “pre-operational” stage between the ages of two to seven years. During this stage, children are moving from a more symbolic or imagistic period to learning to express themselves more verbally as language begins to develop. Children at this stage still may not be able to necessarily interpret verbal cues as well as nonverbal ones at this time.

Corsini (1968) performed a study on kindergarten children involving a memory task in which directions were given verbally regarding the manipulation of familiar objects using four methods, some of which contained certain nonverbal cues as well. The four groups consisted of: verbal only, verbal-visual, verbal-visual-point, verbal-visual-point-movement. The results showed that Kindergarten children performed significantly better in the formats in which nonverbal cues accompanied the verbal instruction. This
supports the ideas of both Bruner and Piaget that children’s retention increases when information is presented in an imagistic way. This allows the child to better interpret the instructions as it includes nonverbal cues that help children acquire meaning in these early stages. Corsini (1969) performed a subsequent study that studied preschoolers between three-and-a-half and five-and-a-half and second graders. The test was very similar to the last study he performed, however the different levels of instruction were much more specific and given in three difficulty levels with each age group. The four conditions included: verbal, verbal concrete object, nonverbal-operation, and verbal-nonverbal operation. The results indicated once again that the younger preschoolers scores were enhanced with the use of nonverbal cues along with verbal instruction, however the use of only nonverbal or verbal cues did not lead to as much retention. The younger preschoolers also showed higher retention with simpler nonverbal cues that accompanied verbal instruction rather than more complex nonverbal cues. However, with the second graders, there was no significant change over the different conditions. A closer look at the difficulty levels did reveal that while verbal concrete operation showed the best retention for Level 1 difficulty, higher difficulty levels showed more retention in the verbal-nonverbal operation. Therefore, when second grade children are required to remember a large amount of material, more information is retained when verbal instruction includes specific nonverbal cues.

Pipe and Wilson (1994) studied the influence of cues on event recall in children six to 10 years of age. Research up to this point was inconclusive as to whether young children can be reliable eyewitnesses of events. Some studies suggested that the children were unreliable (Brown 1926; Burtt 1948; Goodman 1984; Ross 1908), while others have
said that this is too simplistic. Previous studies have shown that with free recall, young children can remember as clearly as older children and adults (Goodman, Aman, & Hirschman 1987; Goodman & Reed 1986). Thus, Pipe And Wilson (1994) looked at three issues: first, developmental differences as they relate to the effect that context and relevant and irrelevant cues had on children’s reports. Next, they observed children’s willingness to keep a secret from an incident in relation to their role in that particular incident. Last, they found that errors in children’s reports were significantly related to their ability to understand and explain the truth and a lie. The results of this study showed that older children recalled more accurately than younger children. It was also discovered that children who were interviewed using specific cues rather than no cues at all recalled more information about the event. Children also recalled more information regardless of age when recall time was within a shorter period of time.

In 2007, Morgan and Hayne studied the effect of nonspecific verbal and nonverbal cues in facilitating memory retrieval of 4-year-old children. While, it is known that forgetting occurs very rapidly in young children, Hayne’s study in 2004 proved that retention could be restored using a reminder treatment. This research indicated that memory retrieval can occur by using physical cues that are not always the same as the ones originally encountered and encoded. Research has also shown that highly specific verbal cues with physical cues facilitate toddler’s memory performance (Bauer, Wenner, Dropik & Wewerka, 2000; Hayne & Herbert, 2004; Herbert & Hayne, 2000). Morgan and Hayne were trying to determine whether nonspecific verbal cues could aid in this process for toddlers and 4-year-old children. Subjects were tested within two weeks either before or after their four-year birthday using the Visual Recognition Memory
paradigm. The paradigm provided participants with a familiar visual stimulus. Each participant was tested individually in a quiet, dark room in the laboratory with no other human present, only the video camera and Apple Macintosh computers. Before each presentation on the computer occurred, a rotating ball was presented on both monitors to help the child to focus their attention on the computer. The procedure was given in two phases; first, the familiarization phase occurred in which the exact same stimulus was shown on both monitors. The second part of the procedure was the test phase, in which participants were given a familiar stimulus and a novel stimulus at the same time for a 10 second period. Then, they were switched. Using the low light camera, participant’s visual fixations on these stimuli were recorded. Participants were split into five different groups, randomly assigned providing six males and six females to each group. These groups included two experimental and three control groups to ensure that forgetting had occurred without a reminder, that the familiarization stimulus was encoded, and to make sure that the nonverbal reminder was not enough for participants to show a novelty preference during the test. One experimental group was provided with the nonverbal reminder before tested two weeks after familiarization phase weeks later after familiarization phase occurred. The three control groups were labeled forgetting control group, encoding control group, or reminder control group based on the three reasons discussed previously.

The results for this study showed no specific differences in looking times between groups, however there was a decline of memory performance in the novelty preference score of the forgetting control group who were tested two weeks later versus the encoding control group who were tested right after familiarization. It was also shown that both of
the reminder treatments groups did show memory retrieval. The Nonverbal Reminder was \( t(22) = 3.60 \) and the Verbal Reminder group was \( t(22) = 3.00 \). Both of these treatment groups’ scores were significantly greater than that of the forgetting control group. The Nonverbal Reminder group score was higher than that of the Verbal Reminder group. The data shows that both nonverbal and verbal cues facilitate memory retrieval. While, nonverbal cues did score higher, more research is needed to truly show this as statistically significant. The study did help to show that the VRM paradigm might be appropriate for more than just preverbal infants, as it seemed to provide suitable results for 4-year-old children. In this way, it would be interesting to look more closely at the relation of these reminders with the same age or even a different age and how parents’ use of these cues in a class setting may affect children’s memory ability.

Measurement tests found in the area of verbal and nonverbal cue recognition included PONS, children’s PONS, DANVA, and TONCK. The Profile on Nonverbal Sensitivity (PONS) discussed earlier helps to measure a person’s accuracy at decoding nonverbal information that is to a specific situation. This test is mainly accomplished through audio and video. A children’s version was later created to contain items more appropriate for a younger age. In 1994, Nowiki and Duke designed the Diagnostic Analysis of Nonverbal Accuracy (DANVA), which measured people’s differences in being able to send and receive nonverbal social information accurately. This test is used for children between the ages of six and ten and contains four receptive and three expressive subtests. The Test of Nonverbal Cue Knowledge (TONCK) is a paper and pencil test that was created by Rosip and Hall (2004) and found to be reliable in testing one’s knowledge of nonverbal cue meanings and uses. The content of TONCK is much
more diverse than that of the DANVA; however, it is has been used more with adults than children. While all three of these measurements have shown to be appropriate for use in seeing whether or not a person can decode nonverbal cues, no measurements were found to use to be able to rate adult’s use of verbal or nonverbal in the classroom. Measurements still need to be developed that assess whether an adult uses mainly nonverbal or verbal cues in a classroom setting with the child.

Summary

In summary, available research has provided much information on the effect of listening on child retention even through the use of adult verbal and nonverbal cues, especially that of teachers. Yet, research has yet to focus specifically on the effect of parent verbal and nonverbal cues on a child’s ability to demonstrate focused listening skill. This is an important area to discuss as it may provide parents with more information on how to best communicate with their child to promote focused listening, a vital life skill. While measures have been created to test verbal and nonverbal cue recognition, these measures are not appropriate for this study as they focus on determining if an adult can decode cues and do not serve as a tool for measuring a parent’s use of cues. Thus, an additional parental cue rating scale and a child’s focused listening checklist will be created in order to be able to acquire the data that will determine parent’s main type of cue usage and a child’s focused listening skill score.
CHAPTER 3

METHOD

This research will determine if parental verbal and nonverbal cues effect a child’s focused listening skill during a music class. The relationship between focused listening skill and the parent’s verbal or nonverbal cues, gender of the child, class level, and time enrolled in the MusicTime program are also of interest.

Research Population

Children mainly between the ages of four and six in the MusicTime 3 program were asked to participate in this study. Within the MusicTime 3 program there are two different learning levels, Level 2 and Level 4. Therefore, children were selected from both of these class levels. Children were in either Level 2 or Level 4 classes because videotapes were collected in the spring 2012 semester, whereas children complete Level 1 or Level 3 in the fall of 2011 and continue to the next learning level the following semester. The parent, giving permission for their child and themselves to participate, completed a consent form (see Appendix A). This consent form gave permission for videography during the music classes as a means of collecting data, as well as informed the parents that participant names would not be disclosed in any data information. Each child and parent was assigned a random number used to keep track of all collected data throughout the study. The expected number of participating children was 90. The classrooms were those regularly used each week for the MusicTime class, allowing the children to be familiar and comfortable with their environment. Likewise, when video was being recorded, children were performing an activity that was typical for their weekly music class. Thus, the camera was the only object or stimuli out of the ordinary
from their weekly routine. Each classroom targets 12 children and their parents. However, some classrooms may contain a few children more or less than 12.

**Variables**

A child’s focused listening skill was the dependent variable of this study. Focused listening skill can be defined as actively working to recognize, collect, and reply to directions and information being discussed during each activity. During the MusicTime classes, children were asked during multiple activities to complete four listening steps. These include: touching their ears, making the sound heard, pointing and finding the correct picture or pattern heard as well as being able to verbally tell the teacher the answer. The variables being used are listed and described below.

*Verbal vs. nonverbal parental cues* was based on the cues parents used in class to help their child during a musical activity. Verbal cues are spoken language such as speech or singing to redirect, while nonverbal cues provide communication through wordless messages, involving the use of gestures, signals or facial expressions to redirect or to communicate with someone including touching, pointing, hand gestures and head nods.

*Gender* of the child was used to analyze the difference between boys and girls focused listening skill and parental verbal vs. nonverbal cue usage.

*Class level* was defined as the level in which the child was enrolled in the MusicTime program. As explained previously, the MusicTime 3 program is two years in length, in which children go through four consecutive levels. Thus, children were either in Level 2 or Level 4 in the Spring 2012 semester. This was used instead of age, as there are sometimes mixes of ages in each level. Therefore, it was expected that children in the
higher level would function at a higher listening level than those children participating in the younger level.

*Time enrolled in the MusicTime program* was defined as the amount of hours each child spent attending the MusicTime classes. Attendance records were tallied to determine how many times a child has attended class. From there, each class was given the value of an hour; even though not all age level classes were an hour in length. This was done because it was believed that the prior class levels, are just as important if not more vital to developing the child’s focused listening skill as their attention is less as a baby or toddler than as a four year old.

**Measurement Tools**

Data was collected by videotaping children and their parents during their regularly scheduled MusicTime class. Videotapes were watched and assessed by selected raters. These raters were music educators or MusicTime teachers that do not currently teach any MusicTime 3 classes. The raters used two measurement tools to assess children and parents. The first tool was a checklist that measures each child’s focused listening skill (see Appendix B). The second measurement tool determined whether each parent uses mainly verbal or nonverbal cues during a music activity (see Appendix C).

The first measurement tool was that used for focused listening skill. This was accomplished with one musical activity using a video recording. The musical activity used was a duple meter pattern activity. Duple meter patterns were used with both MusicTime program levels. However, the patterns chosen for the children in Level 4 were more difficult to ensure it was the appropriate learning level for their class level. There were four steps to listening during the activity: (1) the child touches their ears and
listens to the sound, (2) the child made the sound they heard, (3) the child used their eyes and identified by pointing and choosing the card that they thought made that sound, and (4) the child said which cards were used with their words. Raters watched no more than four children at a time in order to ensure that they were able to accurately judge each student as well as be able to see and hear the children and parents on the videotapes. Using this checklist, raters entered a tally for each listening step the child performs completely. This same procedure was used three times for each set of four children. Afterwards, each child’s score was tallied and added together to determine their overall focused listening skill score.

The verbal versus nonverbal cue rating scale, the second measurement tool, was developed to determine whether a parent is using mainly verbal or nonverbal cues. Raters watched the same video recording of each four children and their parents, putting a mark in either the verbal or nonverbal box each time a parent performed one of the cues listed below. Verbal cues the rater looked for were: repeating the teacher’s directions or giving directions throughout the activity, asking the child to listen to the teacher, giving feedback on the child’s choice of card positive or negative, saying the child’s name as a way to get them to re-focus, and any other audible sound made in an effort to re-direct the child’s attention. Nonverbal cues were: a gentle tap on the child’s body, pointing to the teacher or the activity to re-direct the child, re-directing the child’s head position, re-positioning the child to a better listening posture such as between the adult’s legs or closer in proximity to the adult’s body, and hand gestures or head gestures that affirm or do not affirm the child’s card choice. At the end, each parent’s score was totaled separately and entered into an excel file. From there, the researcher used this information
to establish rater reliability as well as sum and average the raters’ scores to determine the parent’s main cue usage, verbal or nonverbal.

**Data Collection Procedures**

After all consent forms were obtained, data was collected using classroom videotapes. Consent forms were kept locked in the safe in the University of Miami MusicTime Office 130-C inside the University of Miami Music Annex Building located at 1552 Brescia Ave. Four raters were trained about one week before they began receiving the video data using demo videos. These demo videos were created by the researcher with a first semester MusicTime 4 class, who were the closest in age and skill level to the children who would be filmed. The training consisted of a demo video that helped raters identify the four steps of a child’s focused listening as well as three demo videos showing parental verbal and nonverbal cues. Video for the study was taken after the third week of the MusicTime program’s spring semester 2012. The reason for this is that it allowed for children to have a few weeks to settle into the semester before testing. Children and parents were put into groups of four where each group was videotaped separately. Children and parents were split into groups of no more than four because it allowed the raters to be able see and hear everyone on the videotapes. Three cameras were required to film each class. The cameras used were Sanyo Xacti Digital Movie Cameras. These cameras allowed for data to simply be put on a computer in clips through a USB connection. Nine classes underwent this process. Teachers and the video recorder were responsible for writing down the names of students from left to right for each video camera. From there, the researcher prepared the rater sheets for each video writing each child’s designated number on the form. Numbers were assigned randomly to ensure
protection of the child and parent’s identity. Video clips were carefully coded to assure data was correctly assigned to each subject. Therefore, the teacher who regularly has the child in class is aware of their name and the researcher simply switched the name out for their number. In this way, raters had no knowledge of names of children, unless a parent said their child’s name as a verbal cue. It is important to also note that parents are fully involved in each class, therefore, if a privacy issue were to have occurred, the parent could have stopped their participation or fix the issue at any time.

Raters were asked to watch the tapes separately to make sure that there was no bias or teamwork. Video clips were duplicated to allow for each rater to watch them independently, but within the same time period. Raters were asked to watch each videotape twice. The first time, raters tallied the child’s steps of focused listening. The second time the tape was watched, raters tallied parent’s use of verbal and nonverbal cues. After all raters sheets were received, the researcher began determining by tallying their points, whether each parent was mainly verbal or nonverbal as well as the child’s focused listening skill score. Only one excel file contained the participant's names and random numbers assigned. This excel file was located on a thumb drive that was kept locked by the Investigator. All other excel files such as that for calculating time enrolled in the program, entering verbal and nonverbal parental cues, and a child's focused listening skill score were also kept locked on the student Investigator’s thumb drive, however only contained the participants random number. This ensured privacy of participant information. Once all rater information was inputted into the computer, rater sheets were also locked up in the University of Miami MusicTime office safe.
Data Analysis

After all data was obtained descriptive statistics of the independent and dependent variables were calculated. This involved calculating the mean, median, mode, and standard deviation. After this, interrater reliability was calculated for all rated variables.

1. Do focused listening skills differ in children as a function of parental cues during a musical activity?

Both question one and two were answered together as they are directly related. This was accomplished by performing the three-way analysis described under the next question.

2. Are there differences in focused listening skills due to parental cue usage, child gender, class level, or their interactions?

A three-way analysis of variance was used to determine if a difference exists between parental verbal or nonverbal cue usage, child gender, and class level on focused listening skill ability. If the amount of data would not have been sufficient for a three-way analysis of variance, than a two-way analysis of variance would have been used to determine if a difference existed between parental verbal or nonverbal cue usage and child gender on focused listening skill ability.

3. What is the relationship between children’s focused listening skills and the length of time enrolled in the MusicTime program?

Pearson-Product Moment Correlation was used to determine if the amount of time enrolled in the program affects the child’s focused listening skill ability. Amount of time enrolled in the program was calculated by determining how many hours each student had attended MusicTime classes. Each child was given an hour credit for each class attended,
even though the younger class levels are not as long in time. This was done as it was assumed that the worth of each level is the same or even more critical at the younger age levels as children are unable to focus for hardly any time at all. Therefore, attendance records were obtained and each child’s hours of attendance were tallied.

4. What is the best combination of predictors for focused listening skill from the variables: Verbal or nonverbal parent cues, child gender, time enrolled in MusicTime, and class level?

A backwards step-wise multiple regression was used to identify the best set of predictors. The dependent variable for this analysis was focused listening skill ability while the predictors were verbal versus nonverbal parental cues, gender, time enrolled in the MusicTime program, and class level. In this procedure, at the first step, all predictors were used in the regressions with listening skill ability. At the next and succeeding steps, the weakest predictor was removed from the predictor variable set. This will continue until no significant change occurs by removal of a predictor at the .05 level.
CHAPTER 4

RESULTS

Overview

The purpose of this research was to determine if parental verbal and nonverbal cues affect a child’s focused listening skill during a music class. Of interest to this research was the relationship between focused listening skill and the parent’s verbal or nonverbal cues, gender of the child, class level, and time enrolled in the MusicTime program. Participants were 74 children and parents enrolled in the University of Miami MusicTime 3 program. Research data was gathered by taping the interaction of parents and their children during a musical activity in class. From the video, raters filled out a listening checklist for each child and a cue rating scale for each parent. Once all rater information was collected, data were analyzed.

Research Design/Questions

Table 1 shows descriptive statistics for all variables including the mean, median, mode, and standard deviation. Interrater reliability as shown in Table 2 was relatively good for each listening step of the checklist and the parental verbal and nonverbal cue usage.

The substantive questions of the study and their answers are detailed here.

1. Do focused listening skills differ in children as a function of parental cues during a musical activity?

As shown in Table 3 and 4, parental cue usage, whether verbal or nonverbal made no difference in the child’s listening skills. This was first discovered using a
Table 1

*Descriptive Statistics for All Variables*

<table>
<thead>
<tr>
<th></th>
<th>Time Enrolled</th>
<th>Listening</th>
<th>Child Gender</th>
<th>Parent Gender</th>
<th>Class Level</th>
<th>Parent Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>50.110</td>
<td>8.5912</td>
<td>0.500</td>
<td>0.70</td>
<td>2.84</td>
<td>0.46</td>
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<tr>
<td>Median</td>
<td>46.000</td>
<td>8.8750</td>
<td>0.500</td>
<td>1.00</td>
<td>2.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Mode</td>
<td>0.000</td>
<td>11.5000</td>
<td>0.000</td>
<td>1.00</td>
<td>2.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>40.229</td>
<td>2.4293</td>
<td>0.503</td>
<td>0.46</td>
<td>0.993</td>
<td>0.502</td>
</tr>
</tbody>
</table>

Table 2

*Interrater Reliability for all Rated Variables*

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's Alpha</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Cues</td>
<td>0.842</td>
<td>0.914</td>
</tr>
<tr>
<td>Nonverbal Cues</td>
<td>0.783</td>
<td>0.822</td>
</tr>
<tr>
<td>Listening: Step 1</td>
<td>0.968</td>
<td>0.970</td>
</tr>
<tr>
<td>(Touching Ears)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening: Step 2</td>
<td>0.904</td>
<td>0.903</td>
</tr>
<tr>
<td>(Saying Pattern)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening: Step 3</td>
<td>0.774</td>
<td>0.787</td>
</tr>
<tr>
<td>(Finding Cards)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening: Step 4</td>
<td>0.918</td>
<td>0.919</td>
</tr>
<tr>
<td>(Giving Answer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Reliability with all variables listed above</td>
<td>0.731</td>
<td>0.794</td>
</tr>
</tbody>
</table>
Table 3

Three-Way Analysis of Variance Comparing Listening Steps Against Parent Cues

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>LTouch</td>
<td>74.129</td>
<td>7</td>
<td>10.59</td>
<td>1.253</td>
<td>0.287</td>
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<tr>
<td></td>
<td>LSay</td>
<td>166.255</td>
<td>7</td>
<td>23.751</td>
<td>1.522</td>
<td>0.175</td>
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<tr>
<td></td>
<td>LFind</td>
<td>52.460</td>
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<td>7.494</td>
<td>1.405</td>
<td>0.218</td>
</tr>
<tr>
<td></td>
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<td>7</td>
<td>17.091</td>
<td>1.063</td>
<td>0.397</td>
</tr>
<tr>
<td>Intercept</td>
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<td>6979.819</td>
<td>826.001</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>LSay</td>
<td>3175.648</td>
<td>1</td>
<td>3175.648</td>
<td>203.472</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>LFind</td>
<td>6931.148</td>
<td>1</td>
<td>6931.148</td>
<td>1299.09</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>LAns</td>
<td>3188.388</td>
<td>1</td>
<td>3188.388</td>
<td>198.354</td>
<td>0.000</td>
</tr>
<tr>
<td>Parent Type</td>
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<td>1</td>
<td>7.393</td>
<td>0.875</td>
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</tr>
<tr>
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<td>3.079</td>
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<tr>
<td></td>
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<td>1</td>
<td>0.023</td>
<td>0.004</td>
<td>0.947</td>
</tr>
<tr>
<td></td>
<td>LAns</td>
<td>47.446</td>
<td>1</td>
<td>47.446</td>
<td>2.952</td>
<td>0.090</td>
</tr>
<tr>
<td>Child Gender</td>
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<td>6.654</td>
<td>1</td>
<td>6.654</td>
<td>0.787</td>
<td>0.378</td>
</tr>
<tr>
<td></td>
<td>LSay</td>
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<td>7.686</td>
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<tr>
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<td>0.008</td>
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</tr>
<tr>
<td></td>
<td>LAns</td>
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<td>18.184</td>
<td>1.131</td>
<td>0.291</td>
</tr>
<tr>
<td>Class Level</td>
<td>LTouch</td>
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<td>1</td>
<td>2.149</td>
<td>0.254</td>
<td>0.616</td>
</tr>
<tr>
<td></td>
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<td>9.351</td>
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<tr>
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<td>LFind</td>
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<td>23.537</td>
<td>4.411</td>
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</tr>
<tr>
<td></td>
<td>LAns</td>
<td>26.281</td>
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<td>26.281</td>
<td>1.635</td>
<td>0.205</td>
</tr>
<tr>
<td>Parent type * Child Gender</td>
<td>LTouch</td>
<td>16.884</td>
<td>1</td>
<td>16.884</td>
<td>1.998</td>
<td>0.162</td>
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<tr>
<td></td>
<td>LSay</td>
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<td>2.383</td>
<td>0.153</td>
<td>0.697</td>
</tr>
<tr>
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<tr>
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<td>1.000</td>
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<tr>
<td>Parent type * Class Level</td>
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<td>3.054</td>
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<td>0.550</td>
</tr>
<tr>
<td></td>
<td>LSay</td>
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<td>0.544</td>
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<tr>
<td></td>
<td>LFind</td>
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<td>1.867</td>
<td>0.35</td>
<td>0.556</td>
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<tr>
<td></td>
<td>LAns</td>
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<td>1</td>
<td>0.474</td>
<td>0.029</td>
<td>0.864</td>
</tr>
<tr>
<td>Child Gender * Class Level</td>
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<td>1</td>
<td>39.905</td>
<td>4.722</td>
<td>0.033</td>
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<tr>
<td></td>
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<td>83.123</td>
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<tr>
<td></td>
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<td>18.040</td>
<td>3.381</td>
<td>0.070</td>
</tr>
</tbody>
</table>
three-way analysis of variance taking each listening step individually and comparing it to parental cue type, child gender, and class level. When no significance was found, the researcher decided to more specifically identify parents who were truly verbal and nonverbal by eliminating those parents that were mixed. This left 13 verbal and 13 nonverbal parents as well 13 female and 13 male children. This further separation of cue usage produced no significant difference between the child’s focused listening skill and parental cue type (Table 4).

2. Are there differences in focused listening skills due to parental cue usage, child gender, class level, or their interactions?

A three-way analysis of variance was calculated two different ways, as shown in Tables 3 and 4, and as discussed in the previous question, no significance was found between parental cues and focused listening skills. The only significant variable found
Table 4

Three-Way Analysis of Variance Comparing Only High Verbal and Nonverbal Parents

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
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<td>8.821</td>
<td>2.01</td>
<td>0.11</td>
</tr>
<tr>
<td>Intercept</td>
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<td>1500.926</td>
<td>341.947</td>
<td>0.00</td>
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<tr>
<td>Child Gender</td>
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<td>1</td>
<td>2.112</td>
<td>0.481</td>
<td>0.497</td>
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<tr>
<td>Verbal Parent</td>
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<td>2.754</td>
<td>0.114</td>
</tr>
<tr>
<td>Class Level</td>
<td>3.151</td>
<td>1</td>
<td>3.151</td>
<td>0.718</td>
<td>0.408</td>
</tr>
<tr>
<td>Child Gender * Verbal Parent</td>
<td>1.386</td>
<td>1</td>
<td>1.386</td>
<td>0.316</td>
<td>0.581</td>
</tr>
<tr>
<td>Child Gender * Class Level</td>
<td>16.904</td>
<td>1</td>
<td>16.904</td>
<td>3.851</td>
<td>0.065</td>
</tr>
<tr>
<td>Verbal Parent * Class Level</td>
<td>11.771</td>
<td>1</td>
<td>11.771</td>
<td>2.682</td>
<td>0.119</td>
</tr>
<tr>
<td>Child Gender * Verbal Parent</td>
<td>1.828</td>
<td>1</td>
<td>1.828</td>
<td>0.417</td>
<td>0.527</td>
</tr>
<tr>
<td>Error</td>
<td>79.008</td>
<td>18</td>
<td>4.389</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2109.563</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

was the interaction of child gender and class level with focused listening skills. In Table 3, this was shown in only the first two steps of focused listening. In Table 4, since all listening steps were combined, it had one significant value for class level and child gender as it relates to a child’s focused listening skill.
### Table 5

**Multiple Regression Significance Analyses**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>18.098</td>
<td>4</td>
<td>4.524</td>
<td>0.756</td>
<td>.557</td>
</tr>
<tr>
<td>Residual</td>
<td>412.724</td>
<td>69</td>
<td>5.982</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>430.822</td>
<td>73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Predictors: (Constant), Class Level, Child Gender, Parent type, and Time Enrolled. Dependent Variable: Listening.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients B</th>
<th>St. Error</th>
<th>Standardized Coefficients Beta</th>
<th>t</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>6.908</td>
<td>1.031</td>
<td></td>
<td>6.700</td>
<td>0.000</td>
</tr>
<tr>
<td>Parent type</td>
<td>0.569</td>
<td>0.598</td>
<td>0.118</td>
<td>0.951</td>
<td>0.345</td>
</tr>
<tr>
<td>Child Gender</td>
<td>0.307</td>
<td>0.572</td>
<td>0.064</td>
<td>0.537</td>
<td>0.593</td>
</tr>
<tr>
<td>Time Enrolled</td>
<td>-0.003</td>
<td>0.009</td>
<td>-0.045</td>
<td>-0.315</td>
<td>0.754</td>
</tr>
<tr>
<td>Class Level</td>
<td>0.495</td>
<td>0.342</td>
<td>0.202</td>
<td>1.447</td>
<td>0.152</td>
</tr>
</tbody>
</table>

*Note.* Dependent Variable: Listening.

3. What is the relationship between children’s focused listening skills and the length of time enrolled in the MusicTime program?

The Pearson Product Moment Correlation was calculated and showed a *p* value of .033 between listening and time enrolled in the MusicTime program. Therefore, there was no significance value found between these two variables.

4. What is the best combination of predictors for focused listening skill from the variables: Verbal or nonverbal parent cues, child gender, time enrolled in MusicTime, and class level?
Table 6

*Three-Way Analysis of Variance For Teacher Effect on Listening*

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p&lt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>33.552</td>
<td>7</td>
<td>4.793</td>
<td>0.872</td>
<td>0.536</td>
</tr>
<tr>
<td>Intercept</td>
<td>2677.874</td>
<td>1</td>
<td>2677.874</td>
<td>487.29</td>
<td>0.000</td>
</tr>
<tr>
<td>Child Gender</td>
<td>2.430</td>
<td>1</td>
<td>2.43</td>
<td>0.442</td>
<td>0.510</td>
</tr>
<tr>
<td>Class Level</td>
<td>9.896</td>
<td>1</td>
<td>9.896</td>
<td>1.801</td>
<td>0.187</td>
</tr>
<tr>
<td>Teacher</td>
<td>17.205</td>
<td>1</td>
<td>17.205</td>
<td>3.131</td>
<td>0.084</td>
</tr>
<tr>
<td>Child Gender * Class Level</td>
<td>8.695</td>
<td>1</td>
<td>8.695</td>
<td>1.582</td>
<td>0.216</td>
</tr>
<tr>
<td>Child Gender * Teacher</td>
<td>0.0000675</td>
<td>1</td>
<td>0.0000675</td>
<td>0.000</td>
<td>0.997</td>
</tr>
<tr>
<td>Class Level * Teacher</td>
<td>0.009</td>
<td>1</td>
<td>0.009</td>
<td>0.002</td>
<td>0.967</td>
</tr>
<tr>
<td>Child Gender * Class Level  * Teacher</td>
<td>1.007</td>
<td>1</td>
<td>1.007</td>
<td>0.183</td>
<td>0.671</td>
</tr>
<tr>
<td>Error</td>
<td>225.313</td>
<td>41</td>
<td>5.495</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3475.375</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 5 the multiple regression analyses showed no significance for any of the predictors of focused listening skill. A backwards step-wise regression was not calculated, as none of the predictors were viable. For the model, \( R = .205 \) and \( R^2 = .042 \).

During the data collection and analyses process, the researcher noticed a difference in teacher cues when giving instruction. That is, one teacher was more verbal in giving directions while another was nonverbal in giving directions. When parent cues were found to not significantly effect children’s focused listening skills, it was decided to compare the results for the most verbal and most nonverbal teachers to determine if teacher cues effect children’s focused listening skill. As shown in Table 6, this analysis did not show any significance between the teachers on children’s focused listening skills. These results included 49 of the total 74 children tested in which 27 were boys and 22 were girls. Among these students, 27 were in Level 2 classes and 22 were enrolled in
Level 4 classes. Twenty-five were enrolled with the most nonverbal teacher and 24 were enrolled with the most verbal teacher.
CHAPTER 5
SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to determine whether a parent’s verbal and non-verbal cue usage effect a child’s ability to listen. Specifically, this project sought to determine the correlation between a parent’s cue usage and the child’s ability to demonstrate focused listening in a music class. The tool used to assess the child’s focused listening skills was the Child’s Focused Listening Checklist created by the researcher based on the listening steps used in class. Verbal and nonverbal parent cues were assessed using the Verbal versus Nonverbal Cue Rating Scale developed by the researcher. Raters used both measurement tools to assess videotapes of children’s focused listening skills and parent’s verbal and nonverbal cues during a duple meter pattern activity.

The questions the research initially sought to answer were:

1. Do focused listening skills differ in children as a function of parental cues during a musical activity?

2. Are there differences in focused listening skills due to parental cue usage, child gender, class level, or their interactions?

3. What is the relationship between children’s focused listening skills and the length of time enrolled in the MusicTime program?

4. What is the best combination of predictors for focused listening skill from the variables: Verbal or nonverbal parent cues, child gender, time enrolled in MusicTime, and class level?
The development of the research questions for this study was prompted by the review of literature supporting the importance of developing listening skills and teacher verbal and nonverbal cues on children’s retention. It was thought that in a classroom setting parental verbal and nonverbal cues used with young children might have an effect on a child’s overall ability to exhibit focused listening.

The dependent variable in this study was a child’s focused listening skill. The principal independent variable involved in this study was the parent’s use of verbal and nonverbal cues with children participating in the University of Miami MusicTime 3 classes. A second independent variable was child gender. The third independent variable was time children had been enrolled in the University of Miami MusicTime program. The fourth and final independent variable was class level in the University of Miami MusicTime program.

Seventy-four parents and children were included in the sample. The 74 children were equally divided with 37 females and 37 males. There were 22 male parents and 52 female parents. For class level, 43 were currently enrolled in a Level 2 class and 31 were currently enrolled in a Level 4 class. Only Level 2 and Level 4 classes were included as data was collected in the spring semester in which children had completed Level 1 or Level 3 in the previous fall semester. Parents each completed a consent form allowing for participation in the study. From there, each class was videotaped in groups of four or less, including parent and child, during a duple meter pattern activity. After video was collected, chosen raters filled out a focused listening checklist for each child and a cue rating scale for each parent while rating the video. Once all rater information was
collected, data was analyzed. When parents were initially split into verbal and nonverbal groups, 34 were classified as verbal and 40 were classified as nonverbal.

Results showed no significant difference between parent’s use of verbal and nonverbal cues and a child’s focused listening skill. Results indicated that time enrolled in the program did not significantly effect a child’s focused listening skill. Teacher cues were another factor investigated because appeared from the videotapes that there was a difference in teacher cue usage among the three teachers included in the study. Yet, even in comparing the most verbal to the most nonverbal teacher, no significant effects were found on focused listening skill. Thus, adult’s use of verbal and nonverbal cues does not effect a child’s focused listening skill.

Conclusions

Of all the factors examined in this study, neither parent or teacher cue usage influenced a child’s focused listening skill. The second most important finding was that time enrolled in the MusicTime program did not directly influence a child’s ability to demonstrate focused listening skills. Hence, children just entering the MusicTime 3 program may have the same focused listening skills as those who have been enrolled in the program for several semesters. It is important to note that this does not mean that focused listening is not important to develop in a young child. This study did not look at the importance of developing focused listening skills, only how listening was effected by the factors of parental cues, child gender, time enrolled in the program, class level, and teacher cues. This proves important, as we now understand that verbal and nonverbal cues do not change a child’s ability to listen. This makes it easier on the teacher and caregiver in selecting appropriate listening cues.
**Recommendations for Future Studies**

The results of this study are the first of their kind to look at parent cue interactions in a classroom setting and their effect on children’s focused listening skills. While this study has established that there is no connection between parent and teacher cue usage and children’s focused listening skills, it is not yet known why such cues do not make a difference. Prior observations have confirmed that certain types of cues are effective in memory retrieval in children and adults (Corsini, 1968; Corsini, 1969; Florit, Roch, Altoe & Levorato, 2009; Hayne & Herbert, 2004; Herbert & Hayne, 2000; Morgan & Hayne, 2007). This study should encourage additional research to further understand why cues can effect a young child’s retention, but not focused listening skills. Also, research should continue to strive to provide parents with the most effective ways to communicate with their young child as they serve as the primary role models who can help foster good focused listening skills. In future studies it may be important to look instead at the importance of developing children’s focused listening skills and whether this truly effects their ability to learn and complete activities successfully.

It is important to note that this study considered all children to be normally functioning children, yet some of the participating children have been diagnosed with learning disabilities. This in turn, may have altered results by not showing the best representation of children’s focused listening skills. A future study may want to look specifically at a certain disability such as Aspergers and how parental cues effect these particular children in relationship to their focused listening skill. Those parents and children who were classified as new to the program during the semester data was collected were not asked if the child had been exposed to any other music program or
curriculum and were awarded with zero time enrolled points. This may not have helped to provide the most accurate results in terms of time enrolled in music classes and its effect on focused listening skills if some of these children had received musical training from other programs. Therefore, a future study may want to include for new enrollees a parent survey on children’s musical experience in their early years.

Another important factor to consider in the idea of future studies on the development of focused listening skills is discovering if certain steps of the listening process are more important than others. In this particular study, children were given an equal amount of points for completing each of the four listening steps. These steps included: touching their ears, saying the pattern heard, finding the cards of the pattern heard, and saying which cards were used to create the pattern. If listening steps were weighted in order of importance, listening score results may change the overall effect of parent or teacher cue usage.

Since class level in the MusicTime program did not prove influential in a child’s focused listening skill, it is possible that age may have been a better variable. Class level was used because it seemed appropriate, especially if time enrolled in the MusicTime program showed significant results on a child’s focused listening skill. This would have shown that children in the older level would function at a higher listening skill level because of their experience in participating in music classes for several semesters. Yet, since time enrolled did not yield significant results in listening skills, it may be worthwhile to revise this study and classify children by age instead. This should be considered as research has shown a difference in the effect of certain cues on age as children are transitioning from Bruner’s enactive to iconic stage, meaning children are
moving from a more nonverbal period to becoming very verbal. Thus, age may show better results as children who are five or six should function at a higher verbal rate than children who are three or four.

Not only may it be important to re-look at the steps of focused listening, but it may also be critical to consider the main parenting and teaching styles and how these may effect a child’s focused listening skill. Each child is provided with different home environments and experiences including: Overall parenting styles, teacher styles and learning experiences that shape a child’s whole being. These may in turn be the main factors in how a child develops lifelong focused listening skills. Thus, parenting or teaching styles may be the key to providing researchers with what positively and negatively effects a child’s ability to demonstrate focused listening. Hence, taking the research already available on different styles of parenting and teaching may provide a better understanding of when and how to best develop focused listening skills in young children.

In conclusion, the researcher feels that valuable information was provided by this study in discovering that parental cues do not effect the child’s focused listening skills. It is the hope of the researcher that more research will be developed to better understand how to foster focused listening skills in young children with the guidance of parents. This will in turn better equip children at a younger age with the necessary life listening skills to be able to learn more effectively during their main school years.
REFERENCES


Laboratory. National Coalition for Parent Involvement in Education. www.ncpie.org


Appendix A

Consent Form
University of Miami
CONSENT TO PARTICIPATE IN A RESEARCH STUDY
The Effect of Verbal Vs. Nonverbal Parent Cues on Children’s Focused Listening Skill

The following information describes the research study in which you and your child are being asked to participate. Please read the information carefully. At the end, you will be asked to sign if you agree to participate and allow your child to participate.

PURPOSE OF STUDY:
You and your child are being asked to participate in a research study. The purpose of this study is to determine the effect of parental cues on a child’s ability to listen.

You and your child are being asked to be in the study because you are enrolled in the University of Miami MusicTime 3 program and are actively engaged in the musical activities that will be assessed.

PROCEDURES:
You and your child will be asked to participate in a short video recording that will be taken in your regularly scheduled MusicTime class during one musical activity. Your child’s attendance records in the MusicTime program will be used to calculate their time enrolled in the program. You and your child’s participation in this study is voluntary. The results of the research study may be published, but your or your child’s name will not be used. Each participant will be assigned a random number at the start of the study and will not be referred to by name at any point in the data collection process. The length of time you and your child are expected to participate in the study is approximately 10 minutes during one musical activity in your regularly scheduled class.

RISKS AND/OR DISCOMFORTS:
Because we are doing regular MusicTime activities, we do not anticipate you or your child will experience any personal risk or discomfort from taking part in this study.

BENEFITS:
It is possible that you and your child will benefit from this study by providing information for music teachers and parents on how to better help children develop listening skills. This could in turn provide you with additional insights into successful child rearing practices.

CONFIDENTIALITY:
All data files will only contain participant numbers and no child or parent names. There will only be one main file that simply lists names and random numbers with no data attached. All records will be kept locked on a hard drive in a secure environment. Only the Investigator and Co-Investigator will have access to these records.

By signing this consent, you authorize the Investigators(s) and his/her/their staff to access your video and data information as may be necessary for purposes of this study.

COSTS:
There are no costs associated with you and your child’s participation in this study.

COMPENSATION:
There will be no compensation for this study.
RIGHT TO DECLINE OR WITHDRAW:
You and your child’s participation in this study is voluntary. You and your child are free to refuse to participate in the study or withdraw consent at any time during the study.

If you are an employee or student at the University of Miami, you and your child’s desire not to participate in this study or request to withdraw will not adversely affect your status as an employee or grades at the University of Miami.

CONTACT INFORMATION:
Alaina Lorenzo (305-333-5600) or Dr. Edward Asmus (305-284-6475) will gladly answer any questions you may have concerning the purpose, procedures, and outcome of this project. If you have questions about your rights as a research subject you may contact Human Subjects Research Office at the University of Miami, at (305) 243-3195.

PARTICIPANT AGREEMENT:
I have read the information in this consent form and agree to allow myself and my child to participate in this study. I have had the chance to ask any questions I have about this study, and they have been answered for me. I am entitled to a copy of this form after it has been read and signed.

Name of Child

Signature of Participant ___________________________ Date __________

Signature of Person Obtaining Consent ___________________________ Date __________

Authorization for Audio/Video/Photography Recording in a Research Study
I hereby authorize the University of Miami, Department of Music Education and Music Therapy, to take still photographs, videotapes, and/or sound recordings of me/(my child).

I authorize the University to use in any manner said photographs, film, video or tape recordings, in whole or in part as follows (Please read and check box next to appropriate permission statement):

For the purpose of teaching, research, scientific meetings and scientific publications, including professional journals or medical books;

For research purposes only.

I agree that the University of Miami, its Trustees, officers, employees, faculty and agents will not be responsible for any claims arising in any way out of the taking and use as described above of such photographs and/or recordings. I understand that I will not have an opportunity to inspect and approve such photographs or recordings prior to their use.

Signature of Parent: ___________________________ Printed Name of Participant: ___________________________ Date: __________
Appendix B

Child’s Focused Listening Checklist
Child’s Focused Listening Checklist

Rater: ________________  Video#______

<table>
<thead>
<tr>
<th>Child Number</th>
<th>Step 1: Touches their ears</th>
<th>Step 2: Makes sound heard</th>
<th>Step 3: Points/Picks the card(s)</th>
<th>Step 4: Identifies aloud the card(s) chosen</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>No. _____</td>
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</tr>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rater Instructions:**

As you watch each videotape place a tally in each box when the child completes the listening step given above. You will complete this checklist three times for each child.
Appendix C

Verbal versus Nonverbal Cue Scale
## Verbal versus Nonverbal Cue Scale

Rater: ________________  Video#______

<table>
<thead>
<tr>
<th>Child Number</th>
<th>Verbal</th>
<th>Nonverbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. _____</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rater Instructions:**
As you watch each videotape, tally each time you see a parent give verbal or nonverbal feedback to their child. Verbal and nonverbal cues can include any of the below as discussed and seen in our demo.

**Nonverbal Cue List**
Cues can consist of:
1. tap on the child’s body
2. pointing to the teacher or activity
3. re-directing the child’s head position for better listening
4. re-positioning a child’s body to a better listening posture
5. hand or head gestures to affirm or not affirm child’s choice

**Verbal Cue List**
Cues can consist of:
1. repeating or giving directions
2. asking their child to listen
3. giving feedback on the child’s choice of card
4. saying their child’s name to get them to listen
5. any other audible sounds made