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The Comparison of Three Selected Music/Reading Activities on Second-Grade Students' Story Comprehension, on-Task/off-Task Behaviors, and Preferences for the Three Selected Activities.

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By

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This thesis is dedicated to my parents, David and Michele Azan, for their endless love and compassion. You brought me into this world and gave me life, and have continued to support me throughout my education, making this thesis possible. Thank you for filling my heart with all the love and affection one could wish for from two parents as wonderful as you. I hope you read all the pages of this great achievement and smile with pride. This one is for you.
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ABSTRACT

Research suggests that music is beneficial in teaching both academic and social skills to young children. The purpose of this study was to compare three selected music/reading activities on second-grade students' story comprehension scores, on-task/off-task behaviors, and preferences for the three selected activities. The control condition was reading story with no music (SNM). The two experimental music conditions were: (1) reading story with choral refrain throughout (SCR) and (2) reading story with instrumental accompaniment throughout (SIA). Participants in the study were children (N=38) ages 7-8 years old, enrolled in one of three second-grade classes at a public elementary school in Northern Florida. The order of conditions was counterbalanced among the classes to control for order effects. Each class received one reading activity per week for a total of three consecutive weeks. Following each reading activity, participants were given a 10-question story comprehension test and a preference assessment. Classes were also videotaped for later analyses of on-task and off-task behaviors during each reading activity. Results indicated a significant difference in story comprehension scores among the conditions for Classes B and C. Results indicated no significant difference in story comprehension scores among the conditions for Class A. Further analyses revealed that students in two of the three classes made significantly higher comprehension scores when story reading was paired with the music conditions than the no music condition. Analysis of participants’ on-task behaviors revealed the highest percentage of on-task behaviors was during music condition two (story with instrumental accompaniment), followed by music condition one (story with choral refrain). The lowest percentage of on-task behaviors was during the control condition (story with no music). Results also revealed that participants had no significant preferences for the three conditions. These findings suggest that pairing stories with music can be an effective tool in promoting second-grade students’ on-task behaviors, and enhancing their story comprehension scores and their preferences for reading activities.
CHAPTER ONE
INTRODUCTION

Reading is the foundation for all academic learning. Providing children with effective literacy instruction is a primary goal of our educational system. The National Research Council (1998) identified numerous factors that contribute to continual reading difficulties among children. Child-based risk factors, socio-economic factors, and instructional inconsistencies contribute to the large number of children who experience reading difficulties. Additionally, children who fail to read on grade-level by the fourth grade have an increased probability of reading on grade-level and of dropping out of school prior to high school graduation.

A number of factors arise when investigating reasons that contribute to reading difficulty and failure. Family literacy history and home environment, socio-economic status, verbal and print interaction, use of another language or of a non-standard English dialect are all factors for consideration in the prediction of students’ reading success. Research indicates that 31 to 62% of children with reading difficulties have parents who exhibit difficulties with reading. Reading problems are often complicated by either attendance at a chronically low-achieving school or a lack of educational resources (National Research Council, 1998). Educational resources as well as literacy education training for teachers vary among educational settings. With such a wide-range of perspectives on how literacy should be taught, there is little consistency from one educational setting to the next. Additionally, each teacher has his or her opinion on how literacy should be taught, based on their education, personal values, and experience with students.

Reading research has shown that the development of literacy in humans is an ongoing process that begins at birth. Family and environmental factors contribute to a child’s literacy development by facilitating both written and oral language as well as story reading. Through participation in reading and writing, both in the home and in school, children are provided with the opportunities to experience literacy in multiple environments. The “whole language” approach to literacy has become the foundation upon which educators continually formulate literacy instruction (Barrat-Pugh & Rohl, 2000).

In an attempt to unify America’s educational system, the No Child Left Behind Act of 2001 was signed into Federal law in January of 2002. Included in this act and designed “to improve American education,” the READING FIRST program provided $900 million dollars to
ensure that schools use only “scientifically-based instruction and teaching methods” in reading education. This legislation was based on a comprehensive examination of the body of research that stressed phonemic awareness, phonics, fluency, vocabulary and comprehension as the major components to early reading. Moreover, this legislation was in response to studies that indicated only one in three fourth-graders are considered “proficient” in reading at grade-level as measured by various standardized tests (U.S. Department of Education, 2002).

The READING FIRST program was put into effect at the state level, as each state deemed necessary. Implementation of READING FIRST in the state of Florida is outlined in the Just Read, Florida! program. Program elements currently include a variety of professional development and training opportunities for teachers, parent resources and activity kits and several community partnerships to support both early literacy and remedial reading programs.

In August of 2009, the Florida Department of Education provided the new Florida Assessments for Instruction in Reading (FAIR) for K-12 public schools free of charge. Developed by the Florida Center for Reading Research (FCRR) in collaboration with Just Read, Florida!, this new assessment system provides screening, diagnostic, and progress monitoring information. FAIR was developed for teachers to receive information that will enable them to target their instruction to the specific needs of their students in order to positively impact student achievement. Additionally, the Florida Department of Education added on their newest resource, Literacy Essentials and Reading Network (LEaRN). A web-based video resource created through a grant from Just Read, Florida!, LEaRN is a technology-based support system for Florida teachers, reading coaches and administrators as they implement the best practices in reading instruction (Florida Department of Education, 2010).

Finding developmentally appropriate, cost-effective measures to provide young children with the early literacy experiences they need is more challenging than ever before. The inclusive nature of musical environments for young children provides learning opportunities for children with varying academic and developmental levels. Because of music’s natural communicative qualities, children are able to listen and respond regardless of the level of their communicative interactions or lack thereof. Music facilitates a common ground from which all children may grow individually (Register, 2004).

Preliminary evidence has suggested that music can influence children’s learning of literacy skills. Music helps to elicit a higher level of on-task behavior and enhances academic
achievement and development (Tucker, 1981). Literature supports that music interactions and activities can help teach literacy learning components to children. Comparable skills in reading and music learning include, but are not limited to, phonological awareness, phonemic awareness, and fluency (Fisher & McDonald, 2001). Music is also known to be a strong contingency for academic performance. Studies by Gordon (1979) and Madsen (1976, 1981), have shown the significant effects of using music instruction as a contingency for increased reading, math, and other academic skills.

Rationale and Statement of Purpose

Providing children with effective literacy instruction is the primary goal of our educational system. Researchers have found that comprehension strategies can be taught to young readers through successful instruction over time (National Reading Panel, 2000). Additionally, research has shown that combining strategies instead of teaching several strategies separately can assist students in increasing their comprehension skills (Block & Duffy, 2008). Research has indicated that music has an influence on children’s learning of literacy skills and may enhance academic performance and on-task behavior (Tucker, 1981). Moreover, researchers have also revealed that music instruction can be used as an instructional strategy to increased reading performance (Gordon, 1979, Madsen, 1976, Madsen 1981). Based on the research literature, it seems possible that children may improve their reading comprehension with the assistance of music interventions and increase their on-task performance during reading activities paired with music. Furthermore, it may be that children prefer reading activities that are paired with music. Therefore, the purpose of this study was to investigate the effectiveness of three reading/music activities on second-grade students’ story comprehension scores, on-task/off-task behaviors, and preferences for the three selected activities.
Teaching Literacy to Young Children

According to Teale (1995), there are two basic questions in regards to early literacy: (1) should young children be taught to read, and (2) how is beginning reading instruction best accomplished in the education system? While it is agreed that word decoding and reading comprehension skills are necessary for children to learn to read, the means by which literacy is acquired and at what age is of much debate. Emergent literacy follows a developmental sequence and is supported by engaging children in activities that teach phoneme awareness, letter and sound recognition, and reading within the broader context of functionality, which essentially bridges the gap between emergent and conventional reading.

Emergent literacy places the onset of literacy shortly after birth and continues through the experiences that occur over the course of childhood (Lancy, 1994). Teale and Sulzby (1986) reviewed the process of teaching children to integrate literacy, as well as the effect of school culture on the acquisition of literacy skills. Developmental literacy begins with the reception, organization and manipulation of sound. As children are provided with opportunities for interactions, their new found knowledge becomes part of their personal experiences and therefore, is stored deep into their knowledge base. As a result, children who are not regularly exposed at an early age to verbal interactions prior to their formal educational experiences, tend to be labeled as speech and language delayed (Clay, 1998). Additionally, in order to develop reading and writing achievement, children need ample opportunities in the areas of receptive and expressive oral language.

In a longitudinal study conducted by Roth, Speece and Cooper (2002), outcomes indicated that oral language ability contributes to early reading skill in ways other than through the influence of phonological awareness. Both the word retrieval and oral vocabulary of participants accounted for variance in second-grade reading comprehension scores. These findings stress the importance of early interactions and experiences that expose children to print and language exploration. McGee and Richgels (2000) showed that, as with language development, children develop an awareness of print at an early age. Children are able to recognize that printed words have different visual patterns, and are used in a variety of ways. A
child also has the ability to distinguish printed words from pictures and other symbols through previous exposure to books and other printed material.

Many educators employ play-based strategies in an effort to create an environment that promotes literacy. These strategies include, but are not limited to, shared book experiences (teachers read over-sized children's picture books to groups of students and include activities that involve listening, reading, speaking and writing), huddle groups (children work individually within a group on a common project or task) and library checkout. Teachers develop their own models of teaching literacy based on their knowledge and experiences in the classroom, trial and error, and utilizing specific activities or approaches that seem to work best with individual students (Bobys, 2000).

In order to gain greater understanding of how to reach young readers, researchers have investigated both pre-service and in-service teachers about their knowledge and perception of early literacy instruction. Cantrell (1999) investigated the efficacy of teachers in Kentucky in the wake of educational reform. Teachers implemented comprehensive literacy programs that were meaning-centered and used strategies such as reading aloud, independent reading time, journal writing and response to critical thinking questions. These strategies, combined with specific skill instruction and practice (memorizing spelling lists and practicing grammar outside of writing exercises), created balanced learning environments for students to excel in literacy testing and to master reading skills.

When teachers are able to effectively balance instructional methods that facilitate learning for students with various abilities, teacher-student rapport is enhanced. The relationship between rapport and teachers' knowledge and perceptions regarding their influence on student learning tends to change as they gain experience. Mather, Bos, and Babur (2001) compared pre-service and in-service teachers and found that in-service teachers were more knowledgeable about language structure than pre-service teachers while neither group scored high on assessments. Both groups of teachers indicated that holistic instruction was important to the children's literacy development, however, there was a gap in this perception and the level of preparation teachers felt they had received to adequately teach phonemic awareness and phonics.

**Phonics and Whole Language**

Literacy instruction typically falls into one of two categories: phonics-based or whole language programs. There has been a long history of controversy regarding which methodology
is most effective in helping children learn to read, and the issue has continued to be a politically
carged debate. To understand this debate, it is essential that one understands both the definition
and discrimination between the two methodologies. Phonics instruction is a way of teaching
reading that stresses the acquisition of letter-sound correspondences and their use in reading and
spelling (National Reading Panel, 2000). Teachers who use the phonics method teach reading by
stressing the spelling patterns of words rather than the individual letters. The primary focus of
phonics instruction is to help beginning readers understand how letters are linked to sounds
(phonemes) to form letter-sound correspondences and spelling patterns and to help them learn
how to apply this knowledge in their reading. Children are taught to identify “markers” in these
spelling patterns to help identify specific sounds which aid in sounding out the word. This
methodology requires a systematic, direct instruction approach, in order for students to reach the
desired level of proficiency (Shefelbine, 1998). The 2000 Report of the National Reading Panel
identifies five instructional approaches in which students are taught phonics, listed in Figure 1.

Phonics instruction is used widely throughout classrooms across America; however, it is
often used as a holistic reading program approach, when in fact, it only provides a foundational
knowledge in the alphabetical system. It is one necessary instructional component within a
complete and integrated reading program. Several additional competencies must be acquired as
well to ensure that children will learn to read and write. Furthermore, there are many ways to
teach phonics effectively. In implementing phonics instruction, teachers need to evaluate the
methods they use against measured success in their own students. Moreover, the motivation of
both students and their teachers is a critical ingredient of success (National Reading Panel,
2000).
• Analogy Phonics—Teaching students unfamiliar words by analogy to known words (e.g., recognizing that the rime segment of an unfamiliar word is identical to that of a familiar word, and then blending the known rime with the new word onset, such as reading brick by recognizing that -ick is contained in the known word kick, or reading stump by analogy to jump).

• Analytic Phonics—Teaching students to analyze letter-sound relations in previously learned words to avoid pronouncing sounds in isolation.

• Embedded Phonics—Teaching students phonics skills by embedding phonics instruction in text reading, a more implicit approach that relies to some extent on incidental learning.

• Phonics through Spelling—Teaching students to segment words into phonemes and to select letters for those phonemes (i.e., teaching students to spell words phonemically).

• Synthetic Phonics—Teaching students explicitly to convert letters into sounds (phonemes) and then blend the sounds to form recognizable words.

From the 2000 National Reading Panel Reports of Phonics Instruction. The complete Report of the National Reading Panel: Teaching Children to Read Reports of the Subgroups is available from the National Reading Panel c/o NICHD Information Resource Center, P.O. Box 3006, Rockville, MD 20847

Figure 1: National Reading Panel Techniques for Phonics Instruction

Whole language instruction is an inclusive model of exposure to print and literacy skills throughout the day without emphasizing phonetic alphabetic elements of words. The whole language approach is child-centered, with literacy emerging in stages. Children experience reading aloud and writing their experiences within the classroom. Although they may not read every word on the page or spell every word correctly, they are given the opportunity to demonstrate the act of role playing when “reading” or “writing” in these experiences, which encourages the child is further exploration of the literacy field. Additionally, whole language environments demonstrate a “print-rich nature” (Wilford, 2000). Teachers cover the classroom with word labels (i.e. “door” for classroom door) and read books aloud to the class as a whole, or to individuals. Teachers also encourage children to “read” books on their own during the school day, which is done in classroom “book area” or through trips to the library. In essence, literacy
exploration through reading and writing experiences enhances all classroom activities throughout the day.

Traditionally, whole language instruction does not include any phonetic instruction. To investigate the use of these two methodologies in combination with one another, Manning and Kamil (2000) conducted a longitudinal study that supported the use of whole language with embedded phonics instruction to teach reading and writing tasks to Kindergarten children. Thirty-eight students were administered reading and writing tasks individually on five occasions over the course of a school year. Half of the students received isolated phonics instruction, while the other half received phonics instruction in context of other learning experiences. Results indicated that students who received embedded phonics instruction made more progress than their peers who received phonics instruction only.

When asked to identify their personal bias towards a methodology, teachers (pre-K through fifth-grade) indicated that they supported a balanced (89%) or eclectic (76%) approach which was defined as "combining skills with literature." Additionally, when teachers (pre-K through second-grade) were asked to report instructional practice, they reported that they read aloud, accepted invented spellings, engaged children in oral language, journal writing and reading response activities, all of which are supported in a whole language environment. Sixty-six percent of these teachers also indicated that they systematically taught phonics in the context of children's literature and through various spelling and writing activities (Baumann, Hoffman, Moon & Duffy-Hester, 1998).

A meta-analysis by Stahl and Miller (1989) was carried out to investigate the effects of whole language and language experience approaches on beginning reading achievement in comparison to the basal reader approach. Basal reading programs are comprehensive core reading programs, in which the textbook is the source of teaching the child how to read through edited or “watered” down literature (Puorro, 1997). The results suggested that overall, the whole language approach appeared to be the most effective for teaching functional aspects of reading. Moreover, the results of this study suggests that the whole language approach “produced stronger effects on word recognition than on measures of reading comprehension” and yielded greater results in Kindergarten versus first grade students. These results support the argument that the whole language approach is not only effective as a literacy teaching method, but also an age-appropriate method to engage students at young ages. By developing a strong literacy foundation
in young children, students develop the ability to transfer their information to more complex reading skills, such as reading comprehension.

Reading Comprehension

Reading comprehension instruction has evolved over time. In the 1960s and 1970s, little teaching of comprehension skills was taught in elementary classrooms. Instead, comprehension testing took the form of question-and-answer sessions, facilitated by the teacher, after a reading assignment. This type of teacher question-and-answer format was the most typical type of comprehension testing during the aforementioned time period (Pressley & Hilden, 2006). Teachers asked students questions that ranged from factual and literal to higher order and inferential. Higher order and inferential questions often produced a higher degree of learning, although evidence revealed that lower order questions assisted weaker students’ comprehension development, while more inferential questions promoted stronger students’ comprehension and learning.

Anderson and Biddle (1975) found that a popular method of testing comprehension was for teachers to include questions before and after the assigned reading. This pre-post-questioning was used to promote students’ care and focus on specific text material and to facilitate comprehension transfers through reading. Use of initial and final questions was somewhat unsuccessful, for most students became distracted by the questions prior to reading, which resulted in inconsistent focus throughout the entirety of the text. Students illustrated inattention to areas of the text not included in pre-reading questions, hindering whole comprehension. In essence, the relevant research from the 1960s and 1970s was limited and showed that during this period, little was known about how to improve comprehension in young children. Although many students could read words, many failed to understand the meaning behind the text (Pearson & Johnson, 1978).

In the 1980s and 1990s, cognitive psychologists proposed and studied ways that humans could represent texts. Pressley and Hilden (2006) compiled a review of these proposed ideas from various sources, which consisted of the following:

- The mature mind processes the many small ideas in text but manages to condense across these ideas to retain the gist;
- When reading narratives, good readers especially seem to understand and remember parts of the story that are consistent with the typical structure of stories;
Skilled readers often translate the verbal ideas in text into mental images, representing the ideas expressed in words by the author.

The 1980s and 1990s encouraged educational psychologists to devise interventions intended to encourage readers to create text representations as they read; i.e. comprehension strategies, including summarization, attention to story grammar elements, and construction of mental images (Pressley & Hilden, 2006). Moreover, educational psychologists thought that good readers would understand and retain text by relating it to knowledge they already possessed (Anderson & Pearson, 1984). For example, a story about a camping trip is more understandable to people who have gone on a camping trip, for campers have a camping schema that non-campers have had no opportunity to acquire. This schematic knowledge could be used by readers to promote prediction strategies, and to related ideas encountered in text to their prior knowledge.

In an effort to evaluate whether skilled readers used *representational strategies*, cognitive psychologists conducted several studies in which they asked readers to think aloud as they read (Pressley & Afflerbach, 1995). Readers used prior knowledge to relate to the text, to make predictions about what might be in the text, and to construct images and look for main points that were essential to the gist of the text. Overall, skilled readers were mentally active as they read. The verbal protocols of reading reviewed by Pressley and Afflerbach (1995) promoted an interest in teaching children to construct text representations, and in monitoring children to make sure they are actually comprehending what they have read. More often than not, when readers fail to comprehend, they take that as a signal to change strategies, and to reprocess the text, or more simply, to go back and reread the text. The strategy of monitoring children as they process text supports the concept that teaching children to learn and understand what they read is an essential step in achieving comprehension.

Teaching reading comprehension through *reciprocal teaching* took effect in the late 1980s and became another approach for educators to use as a package of comprehension strategies. Reciprocal teaching focused on the use of multiple strategies, and encouraged students to transfer these strategies when reading new text material. Ultimately, reciprocal teaching encouraged teachers to teach a variety of comprehension strategies to their students and students were encouraged to use a variety of these strategies when processing text.
Palincsar and Brown (1984) conducted a study that included 7th-grade readers who could read text but had problems comprehending what they read. The participants in the treatment condition were taught four comprehension strategies: (a) prediction based on prior knowledge; (b) generating questions about ideas encountered in text, (c) seeking clarification when confused, and (d) summarizing. The students were given 20 instruction and practice sessions and encouraged to use the strategies when they read on their own. Palincsar and Brown assessed many measures of comprehension, from answering short-answer questions to passage retellings. The study concluded that children could learn to carry out the cognitive processes that are part of the reciprocal-teaching package. Study results likewise revealed improvement on participants’ standardized comprehension test scores.

Pressley, El-Dinary, et al. (1992) observed multiple comprehension strategies used in elementary schools. They found that when multiple comprehension strategy instruction seemed to produce greater achievement, students were encouraged to use a small repertoire of comprehension strategies, based on instruction they had learned over semesters and years rather than the past few days or weeks. Essentially, students were encouraged to transfer all of the comprehension strategies they had learned, choose the ones that worked best for them, and apply them consistently to comprehension tasks. Pressley, El-Dinary, et al. also observed that during small group interactions, students mixed in their own ideas as they transacted with one another, came up with their own questions and predictions, and created interpretive summaries of the text. The researchers named this concept transactional strategies instruction. A quasi-experimental study by Brown, Pressley, Van Meter, and Schuder (1996) investigated the effects of transaction strategies instruction on second-grade students’ reading test scores. At the beginning of the academic school year, five classrooms were taught using transaction strategies instruction and were compared with five classrooms that did not use the transactional strategies approach. Results determined that by the spring, students who received transactional strategies instruction improved their standardized test scores.

The 21st century has educational psychologists and school teachers reevaluating learning teaching strategies, and meticulously comparing strategy-to-learning congruency. The most current research on this reevaluation and comparison of strategies has resulted in educators teaching fewer, comprehension strategies. It has become evident that contemporary reading programs that tend to utilize many strategies have been found to interfere with students’ abilities
to comprehend independently. Additionally, studies have found that combining strategies instead of teaching several strategies separately can assist students in increasing their comprehension (Block & Duffy, 2008). Afflerbach and Walker (1992) found that core reading programs supported instruction of more skills and strategies than could be sustained by elementary students, ranging anywhere from 18-45 comprehension strategies in a single academic school year curriculum.

The National Reading Panel (2000) found that only nine strategies (predicting, monitoring, questioning, imaging, rereading, inferring, summarizing, evaluating, and synthesizing) have the scientific-basis to be considered essential comprehension strategies. Moreover, the National Reading Panel noted three predominant themes in the research on the development of reading comprehension skills, which are the foundation for understanding how best to help teachers develop students’ comprehension abilities:

- Reading comprehension is a complex cognitive process that cannot be understood without a clear description of the role that vocabulary development and vocabulary instruction play in the understanding of what has been read;
- Comprehension is an active process that requires an intentional and thoughtful interaction between the reader and the text; and
- The preparation of teachers to better equip students to develop and apply reading comprehension strategies to enhance understanding is intimately linked to students’ achievement in this area.

In summary, the past 40 years has established research to support that skilled readers can be taught to use comprehension strategies through successful instruction; however, comprehension research is still a young area of study and more research is needed. Current literature supports teaching several comprehension strategies over a student’s academic career, by teaching fewer concepts per academic year, so that concepts can be thoroughly digested fewer per year. The goal behind this teaching method is to implement student strategy when given standardized testing. Moreover, the literature supports that reading comprehension is a complex process, and that without clear instruction, teacher preparation, and student understanding, then reading comprehension cannot be grasped by any student.
Arts and Literacy

The link between the arts and literacy is commanding more attention in recent literacy research. The National Association for the Education of Young Children (1997) references art, drama, dance and music as sometimes being the "explicit focus" of a child's learning experiences. Moreover, incorporating the arts into children’s curriculum is a positive way of facilitating learning and growth throughout their development. The International Reading Association (IRA) and the National Council of Teachers of English (NCTE) posited that educators must "challenge students to analyze critically the texts they view and to integrate their visual knowledge with their knowledge of other forms of literacy" (IRA & NCTE, 1996, p. 5).

Play-based in nature, the arts allow children to interact with one another within their natural environments. The arts also give children opportunities to emotionally express themselves. Whereas some researchers might define literacy more narrowly as an ability to read, write, and understand print-based texts, Cowen and Albers (2006) suggest that literacy involves experiences with a variety of semiotic or communication systems; in particular, language, drama, music, and the visual arts.

Heymsfeld (1997) and Hitz (1987) have shown that the arts impact on students’ behaviors, attitudes and academic performance including: (1) development of self-discipline, imagination and creativity, (2) willingness to work toward long-term goals, (3) increased concentration and focus, (4) improved divergent thinking and problem solving, (5) increased self-esteem, and (6) increased affective capacity, particularly empathy and compassion. Music, like literacy, is an essential form of communication. Integration of the arts with other academic disciplines provides more comprehensive, multi-sensory learning experiences for children.

Krechevsky and Malkus (1997) studied the means of evaluating children's progress through the arts. The Spectrum assessment framework is based on Howard Gardner's theory of multiple-intelligence, as well as David Feldman's theory of non-universal development. This assessment is designed to be comprehensive and evaluates a wide range of abilities, including those based in the arts. The seven areas of evaluation include: movement, language, mathematics, science, socialization, visual arts and music. Assessments are based on both structured and unstructured classroom experiences.

In the early 1990s, an arts-based literacy program was developed in the United States, called Picture Writing: Fostering Literacy through Art & Image-Making within the Art Process.
**Picture Writing** is an art-and-literature-based approach to writing that combines visual modes of thinking at every stage of the writing process. **Picture Writing** incorporates simple crayon art techniques and quality literature in a progression of mini-lessons that teach essential literacy skills to students with diverse learning styles. This program is based upon *Image-Making within the Art Process*, which is a dynamic art and literature based approach to writing that integrates visual and kinesthetic modes of thinking at each and every stage of the writing process (Olshansky, 1995; Olshansky, 2003).

In 2006, a study was done by Olshansky to assess the impact of the **Picture Writing** program on 1st through 4th-grade students’ reading, writing, and visual literacy skills. 1500 students participated in the study, with half receiving *PW* instruction and the other half receiving approved language arts instruction. Students received instruction over an entire academic school year, with a pretest in the fall and a posttest in the spring. Students were pretested by submitting baseline art and writing samples using a uniform template. Students were instructed to draw a picture and then write a story about it. The posttest consisted of treatment teachers having students create stories using the *PW* process. The control students were asked to complete a story with at least one illustration. When comparing the overall average gains in writing scores from fall to spring for all treatment and all comparison students, grades one through four, significant gains were apparent within the treatment group as compared to the comparison group. Students began the year fairly well matched in writing ability, with only one-tenth of a point difference in writing scores. While there was growth within both treatment and comparison groups, there were much greater gains made among the students participating in **Picture Writing**. Additionally, students participating in **Picture Writing** showed statistically significant gains in reading as compared to students in demographically matched comparison groups as indicated by assessments conducted in the fall and spring.

**Research in Reading and Music**

According to Tucker (1981), music learning and reading, as well as music participation enhance academic achievement, specifically reading and math. Regardless of the method of instruction, literature continually supports that music interactions and activities teach literacy learning components to children. Comparable skills in reading and music include phonological awareness, phonemic awareness, orthographic awareness, sight identification, cueing systems awareness, and fluency (Fisher & McDonald, 2001). In addition, studies show that children’s
ability to read correlates with their ability to discriminate pitches accurately (Hansen & Bernstorf, 2002).

Foorman et. al. (1997) cited the following results as critical to understanding how reading problems occur, as well as to the relationship between auditory discrimination abilities and visual recognition skills:

- Reading problems occur primarily at the level of the single word.
- Decoding is dependent upon sensitivity to the sound structure of language rather than to comprehension. In other words, a child recognizes that words rhyme or sound different, a skill which is separate from recognizing the meaning of that word.
- For a child to decode language information, alphabet letter recognition must be paired with phonetic-sound patterns. This pairing allows the child to acquire skills in sound blending and word segmentation.

While the comparison of music reading and literary reading seem natural to pair, there is a need for more research to illustrate how this transfer of learning occurs (Butzlaff, 2000). Behavioral researchers have examined the benefits of music instruction as a reinforcer for academic achievement and found that music instruction increased reading achievement (Gordon, 1977). In addition, music therapists have developed musical activities to teach reading skills, in particular, those designed for children with special needs, and found that children increased in their participation, on-task behavior, and academic performance (Roskam, 1979).

Cutietta (1995, 1996) compiled the work of several doctoral dissertations that support the need for further research regarding the music, reading and language connection. Results indicated that participants had better discrimination for perceiving language and were able to make positive transfers from music skills to language and reading skills. Braithwaite and Sigafoos (1998) had similar findings in their study of music used to facilitate oral communication. Results showed that children had higher percentages of appropriate communication responses during the musical antecedent condition than during the non-music treatment, therefore supporting the use of music as a contingency for academic achievement.

In a post-hoc study, Harding (1989) found a strong relationship between language development and early music experiences of second-grade students in a public school setting. Results indicated a significant differences in total reading, expressive language, and spelling
scores with musical experiences. Because of the spontaneous nature of children to engage in activities that are rhythmic and that include music, making music is an ideal tool for teaching facets of language such as speaking, listening, reading, and writing (Kolb, 1996). Likewise, Brown and Brown (1997) describe specific applications of music to teach literacy concepts. Techniques include lyric charts, pocket charts with sentence strips, picture books of songs, dramatic experience, beat competency active listening, music and lyric writing, and counting music.

Feeman (1988) investigated the effects of teaching academic material through songs compared with a lecture format. Treatment took place twice a week for four weeks and students were post-tested three weeks after the last intervention. Results indicated significant gains in the experimental group scores over the control groups’ scores and showed that learning was significantly enhanced by the use of academic songs.

Music is known to be a strong contingency for academic performance. Gordon (1979) studied the effect of instrumental music instruction as a contingency for increased reading behavior. Subjects in this study included 4th-grade students who were both delayed and above grade level in reading achievement. Analyses of the reading achievement data revealed significant increases in reading performances by students who received music instruction.

Madsen (1976) studied the effect of music lessons presented via television as a way to attain music knowledge, as well as to reinforce mathematic skills. Results indicated that math scores increased as a function of the televised contingency for subjects who were reinforced for correct academic responses. Furthermore, subjects exhibited significant music subject matter gains in direct relationship to their music lesson viewing participation. A later study by Madsen (1981) studied the effect of music lessons and books as reinforcement alternatives for an academic task, specifically math problems. Results indicated that students improved their mathematical academic performance in conjunction with expanding their knowledge in music subject matter. These findings suggest that learning contingencies can be designed to offer gains in both the direct subject matter used as a reward and in the subject matter it is intended to reinforce. Moreover, these findings assert the idea that one academic subject can be used to reinforce another academic subject.

Madsen (1991) found that music enhanced new word learning and the child’s ability to transfer the words learned. Sixty subjects were divided into three treatment groups. Group one
used music-gesture for learning new words, group two used gesture only and group three served as the control group. Groups were then taught eight nonsense words. During post-testing students were asked to recall the nonsense words, as well as perform a transfer task using the nonsense words. The number of words learned in the music-gesture treatment was greater than that of the gesture-only group. Moreover, students in the music-gesture group were able to transfer a greater number of words into a different context. The music may have added contextual clues and/or served as reinforcement. Additionally, those students in the music-gesture treatment group exhibited higher on-task behavior.

Clouser (2001) studied the effect of music on story comprehension, vocabulary and attitude towards reading. Fifty preschool children were divided into control and experimental groups and each group received sixteen sessions of music therapy. The control group listened to books read aloud and the experimental group listened to books set to music. Results indicated a statistically significant difference between control and experimental scores on children’s attitudes toward reading, indicating that children in the group that received music displayed a more positive attitude toward reading. Scores on music group’s vocabulary and comprehension measures increased as well, but were not significant.

Standley and Hughes (1997) examined the effects of an early intervention music curriculum on the writing and pre-reading skills of 4-year-olds. Dependent measures included Print Awareness Test for Logos, the Print Concept Checklist, and the Developmental Writing and Language Skills checklist. again at the end of the second semester. Participants were pre-tested, post-tested at the end of the first semester and post-tested. Results showed that music enhanced participants’ print concepts and prewriting skills. In a follow-up study, Register (2001) found that there is a need for music sessions designed with specific academic measures in order to increase gains in student academic performance.

In 2004, Register examined the effect of music on specific literacy learning components by comparing a music curriculum to an educational children’s television show. Both components were aimed at phonemic awareness, letter naming, and book concepts with kindergarten children. Results showed that students who received the music curriculum made greater gains in reading test scores. Gromko (2005) studied the effect of music instruction on phonemic awareness in kindergarten readers. Results indicated that kindergarteners who received musical
instruction improved in their initial-sound fluency and letter-naming fluency, as well as showed significant increases in their phoneme-segmentation fluency.

In 2007, Register, Darrow, Standley, and Swedberg examined the effect of a music curriculum to enhance the reading skills of second-grade students and students with reading disabilities. Music was used to enhance word knowledge, word decoding, and reading comprehension. Results revealed that students with and without specific learning disabilities improved significantly in the areas of word knowledge and word decoding. Moreover, students in both groups improved in the area of reading comprehension, although gains were not significant.

Two meta-analyses have been conducted on the effects of music and reading. In 2000, Butzlaff performed his meta-analysis on six experimental studies in music effects on reading and found a significant mean size ($r = .18$). Butzlaff determined that there was no conclusive causal relationship between music intervention and reading. Standley (2007) conducted a meta-analysis of twenty-five experimental studies comparing the variety of music interventions with non-music conditions or music education conditions. Standley found that music designed to teach reading activities is typically more effective in improving reading ability ($d = .32$). Additionally, she found that music interventions that incorporated specific reading skills matched to the needs of identified children ($d = .45$) or interventions that used contingent music to reinforce reading behavior, resulted in greater benefits for students ($d = .66$).

Although the research is sparse, preliminary evidence suggests that music has an influence on children’s learning of literacy skills and other academic material. Music helps to elicit a higher level of on-task behavior and enhances academic achievement and development. Current findings indicate that there are similar skills employed for both music and word reading. Several studies indicate that is music paired with academic material is beneficial in helping students recall information. Music is known as a communication medium, yet further investigation is needed in order to determine its effect on academic skills such as reading comprehension, which is a vital component of literacy in young children.
Rationale for Study

This study addresses a need in the research literature to further examine the use of music as an instructional strategy to improve story comprehension skills in young children. Studies of utilizing music instruction and music therapy interventions to teach story comprehension to young children are lacking. However, there are successful music instruction and music therapy interventions that have been employed with young children to teach other literacy skills, such as phonemic awareness, phonological awareness, sight identification, fluency, spelling, and other areas of academia. Since previous studies have shown the success of music as a strong instructional strategy for academic performance (Gordon, 1979, Madsen, 1976, Madsen, 1981), and that children are able to show increased gains in reading achievement when music activities are employed (Standley & Hughes, 1997, Register 2001, Register 2004), the present study was designed to determine whether children will improve their story comprehension skills and increase their on-task behaviors when participating in story reading paired with music activities. Also, since children have shown a positive attitude towards reading when paired with music (Clouser, 2001), the present study was designed to determine children’s preferences for stories that are paired with two different music activities. The present study investigated the effectiveness of three reading/music activities on second-grade students’ story comprehension, on-task/off-task behaviors, and preferences for the three selected activities.

Research Questions

1. Which of three conditions, (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) is the most effective in enhancing second-grade students’ story comprehension scores?

2. Which of three conditions, (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) is the most effective in promoting second-grade students’ on-task behavior?

3. Which of three conditions, (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) is most preferred by second-grade students?
CHAPTER THREE

METHOD

Participants

Participants in the study were children \((N=38; n=13, n=14, n=11)\) ages 7-8 years old, enrolled in one of three different second-grade classes at a public elementary school in Northern Florida. Each class participated in a three-week study with complete reversal of conditions and served as their own controls. The order of the conditions was counterbalanced to control for order effects. Each class received one music/reading activity per week for a total of three consecutive weeks. Three conditions were tested in this study. The control condition was reading story alone (SNM). The experimental music conditions were reading story with choral refrain throughout (SCR) and reading story with instrumental accompaniment throughout (SIA).

Description of Control Condition

*Story with No Music (SNM).* Story was read aloud to class and did not incorporate a music activity.

Description of Experimental Music Conditions

*Music Condition one: Story with Choral Refrain (SCR).* Story was read aloud to the class and incorporated a music activity. The researcher used a call and response technique with the students. Students listened to the researcher sing a phrase and then repeated the phrase upon cue. Appropriate hand signals during this activity, to indicate when to start and stop singing. The primary purpose of this condition was to use a music instructional strategy with students that would enhance their attention to the story by singing specific refrains throughout, but also to teach them about *solfège*—a pedagogical solemnization technique for the teaching of sight-singing in which each note is sung to a specific syllable. In regards to the *So-Me* stories used in the present study, the main syllables that were sung were *sol* and *mi*.

*Music Condition two: Story with Instrumental Accompaniment (SIA).* Story was read aloud to the class and incorporated a music activity. Students were separated into small groups and assigned a specific musical instrument which represented a particular character or sound within the story. The researcher practiced with each small group prior to beginning the story, by teaching them a key word that they would have to listen for, so that they could play their instrument. Once the story began, each small group was cued for when it was their turn to play, by stating the key word, making eye contact with the small group, and giving an appropriate
hand signal to start playing. The group was then given another hand signal shortly after playing to indicate stop playing. The researcher had one of every instrument to use for modeling purposes throughout the story. The primary purpose of this condition was to use a music instructional strategy with students that would enhance their attention to the story by waiting and listening for their cue to play their instrument, but also to teach them to play a variety of classroom instruments.

**Description of Measurements**

The researcher assessed three measurements in this study: a) story comprehension of second-grade students, b) on-task/off-task behaviors, and c) student preferences for the three selected activity. The researcher conducted all of these assessments within the elementary school’s regular music classroom where all research was conducted.

There was no standardized story comprehension test for the *So-Me* series by Stuart Manins. Therefore, the researcher developed a story comprehension test for each story, consisting of ten multiple choice questions, each with three response choices. The story comprehension test was given to each student immediately after the music/reading activity had been completed. The tests were coded to maintain confidentiality. Students were asked to circle the answer that they felt best answered each question. The students were given ten minutes to complete the test. One point was given to each question that was answered correctly. When each student finished their test, they were asked to raise their hand quietly, and their test was collected by the researcher. See Appendix C for story comprehension tests for each story.

The researcher used the Direct Observation On-task/Off-task Form to assess the on-task/off-task behavior of each student during each music/reading activity, as indicated in Appendix D. The researcher videotaped each session and then reviewed the videotape to collect data. Videotaping was preferred, for the simple reasoning that each student could be observed closely individually and results would be more accurate. The criteria for observation and recording of on-task/off-task behavior were: 15 seconds observation to 10 seconds record time. For each interval, students were marked as either on-task or one of three possible forms of off-task: noise off-task, motor off-task, or passive off-task. The researcher and three reliability observers recorded students’ on-task/off-task behaviors during each music/reading activity. The formula used to measure interobserver reliability was:
number of agreements \( \times 100 \) total agreements + total disagreements

The researcher used a simple preference assessment for each story, as indicated in Appendix E. The preference assessment was used to ask each student their preference for the selected music/reading activity. The preference assessment consisted of three picture faces and their respective sentence: a) “Happy Face” = I liked the music/reading activity today., b) “Neutral Face” = I thought the music/reading activity today was O.K., and c) “Sad Face” = I did not like the music/reading activity today. For analysis purposes, these facial preferences were converted to numerical ratings: happy face = 3 points, neutral face = 2 points, and sad face with 1 point. The preference assessment was given to each student after each session following the story comprehension test. The tests were coded to maintain confidentiality. Students were asked to mark an “X” across either a picture or a sentence that best represented how they felt about the reading/music activity that day. The students were given five minutes to complete this assessment. When each student finished their preference assessment, they were asked to raise their hand quietly, and their test as collected by the researcher.

**Procedures**

The researcher used three story books from the "So-Me" series by Stuart Manins. The stories were comparable in difficulty and length. The three second-grade teachers involved reviewed the stories and comprehension tests to confirm that they were indeed appropriate and comparable in difficulty and detail. The story books used were titled: “So-Me goes Missing”, “So-Me and the Spider”, and “So-Me meets the Boss.” Each of these stories was randomly paired with one of the three conditions.

When students entered the music room each week for their scheduled music/reading activity, they were greeted by the researcher and asked to sit on the floor in the music room, in front of the “teacher chair.” The researcher took attendance of the students, verifying that each student had returned their parent and child consent forms. Students who did not have permission were removed from classroom and escorted to the media center with the music teacher to participate in an alternate and comparable music activity. Students were arranged on the floor in a specific order so that each student would be seen on the video camera for data collection purposes. At the beginning of each session, the researcher explained what type of music/reading activity was going to be done for that class period and the materials that would be used.
When classes received the control condition (story with no music), the researcher read the story book aloud to the class and did not incorporate any music activities. During music condition one (story with choral refrain), students listened to the researcher sing a phrase, and then were asked to repeat it, in a call and response manner. When classes received music condition two (story with instrumental accompaniment), the researcher separated the class into small groups, and each group was given a specific instrument. The researcher read the story book aloud to the class and cued the students for when to play their instrument. A task analysis was created for each music/reading condition and a detailed lesson plan was followed for each story using the experimental music conditions, as indicated in Appendix B. Each music/reading activity was done twice, to ensure that students were given the opportunity to grasp the material in the story.

Following the music/reading activity, the researcher passed out writing boards and pencils to each student, and explained that they would be independently taking a story comprehension test consisting of ten questions. Each story comprehension test was approved prior to the start of data collection by the classroom teacher. Students were allowed to ask questions in regards to the meaning of specific words in a question or the formatting of the story comprehension test, but were not given help or suggestions to determine the correct answer. Once all of the story comprehension tests were given back to the researcher, students were given a preference assessment, in which they were asked to identify their preference for the story by marking an “X” on the appropriate picture and/or sentence on the preference sheet. Students were given ten minutes to complete the story comprehension test and five minutes to complete the preference assessment. The researcher wrote each child’s identification number on top of his or her story comprehension test and preference assessment sheet.
Table 1

Counter-Balanced Treatment Order for Each Class

<table>
<thead>
<tr>
<th></th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>SNM</td>
<td>SCR</td>
<td>SIA</td>
</tr>
<tr>
<td>Class B</td>
<td>SCR</td>
<td>SIA</td>
<td>SNM</td>
</tr>
<tr>
<td>Class C</td>
<td>SIA</td>
<td>SNM</td>
<td>SCR</td>
</tr>
</tbody>
</table>

Setting and Schedule of Sessions

Each class received one music/reading activity per week for a total of three consecutive weeks. All sessions were held during school hours in the music room of the school during each classroom’s regularly scheduled music time. The teacher of the class brought the students to the music room and remained present during each session as a supervisor. Students who were unable to participate in the study were removed from the class and taken to the media center with the music teacher and provided with an alternate music curriculum.

Materials and Equipment

The researcher used a variety of percussion instruments during the sessions that required the incorporation of music condition two (story with instrumental accompaniment). The types of instruments included in this study were: two-tone woodblocks with mallets, soprano woodblocks with mallets, kazooos, rainsticks, color coded handbells, sandblocks, gathering drums with mallets, lollipop drums with mallets, egg shakers, rhythm sticks (one rigid and one smooth per pair), and resonator bells. The researcher divided each class into small groups and assigned each small group a specific instrument for the story. Each child who participated in this study was provided with an instrument for the instrumental accompaniment condition. The researcher also had one of every instrument for modeling purposes.

The music teacher of the school provided pencils and writing boards for all the students to use while completing the story comprehension tests and preference assessments. These pencils and writing boards were passed out and collected by the researcher during each music/reading activity. The researcher used a JVC Everio video camera (Model: GZ-MG360) during each music/reading activity to collect students’ on-task/off-task behaviors. This video camera was
placed on a stand in the corner of the music room and was monitored by an assistant, undergraduate music therapy student, to ensure that each child in the study was clearly recorded.
CHAPTER FOUR

RESULTS

Data Analyses for Research Question One

Which of three conditions, (SNM = Story with no Music, SCR = Story with Choral Refrain, and SIA = Story with Instrumental Accompaniment), is the most effective in enhancing second-grade students’ story comprehension?

Raw data for the 41 participants in this study consisting of story comprehension scores appear in Appendix F. Due to incomplete raw data, three participants’ scores were not included in the final results. A Friedman two-way analysis of variance (ANOVA) was used to test the differences between the conditions (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) for story comprehension scores (N = 38). The three conditions were counterbalanced across participants; therefore, each class received each music/reading condition. Results of the analysis revealed a significant difference in story comprehension scores among the conditions (p < .05) for Class B and a significant difference in story comprehension scores among the conditions (p < .01) for Class C. Both Class B and Class C received a music condition first, suggesting that order effect may have affected the significance of their story comprehension scores among the conditions. Class A showed no significant difference in story comprehension scores among the conditions. These results are shown in Table 2.

<table>
<thead>
<tr>
<th>Class</th>
<th>p</th>
<th>Mean Ranks</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SNM</td>
<td>SCR</td>
</tr>
<tr>
<td>Class A</td>
<td>p &gt; .06</td>
<td>2.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Class B</td>
<td>p &lt; .05*</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Class C</td>
<td>p &lt; .01*</td>
<td>1.2</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Note: Indicate a significant difference, p < .05
Wilcoxon Matched-Pairs Signed-Ranks Tests were used as follow up tests to the Friedman two-way ANOVA to further investigate the significance of Class B and Class C for the measure of story comprehension. The Wilcoxon Matched-Pairs Signed-Ranks Test was run three times for each class, to assess the following paired combinations for significance: SNM/SCR, SNM/SIA, and SCR/SIA. The Wilcoxon Matched-Pairs Signed-Ranks tests for Class B revealed significance between music condition one (story with choral refrain) and music condition two (story with instrumental accompaniment). Furthermore, the Wilcoxon Matched-Pairs Signed-Ranks tests for Class C revealed significance between the no music condition and music condition one (story with choral refrain), as well as the no music condition and music condition two (story with instrumental accompaniment), revealing that these students made significantly higher comprehension scores when story reading was paired with music. Results for all three Wilcoxon Matched-Pairs Signed-Ranks Tests for Class C are shown in Tables 3, 4, and 5, respectively. Results for all three Wilcoxon Matched-Pairs Signed-Ranks Tests for Class C are shown in Tables 5, 6, and 7.

Table 3
Wilcoxon Matched-Pairs Signed-Ranks Test for SNM and SCR Paired Combination: Class B

<table>
<thead>
<tr>
<th>Participant</th>
<th>SNM</th>
<th>SCR</th>
<th>d (difference)</th>
<th>Rank of d</th>
<th>Sum smaller rank</th>
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</thead>
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<tr>
<td>1</td>
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<td>10</td>
<td>-1.0</td>
<td>-9.0</td>
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<tr>
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<td>-1.0</td>
<td>-9.0</td>
<td></td>
</tr>
<tr>
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<td>-4.0</td>
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<td>10</td>
<td>-2.0</td>
<td>-12.5</td>
<td></td>
</tr>
</tbody>
</table>

T = 39.0

Note: No indication of significant difference.
Table 4

Wilcoxon Matched-Pairs Signed-Ranks Test for SNM and SIA Paired Combination: Class B

<table>
<thead>
<tr>
<th>Participant</th>
<th>SIA</th>
<th>SNM</th>
<th>d (difference)</th>
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<th>Sum smaller rank</th>
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</table>

Note: No indication of significant difference.

T = 25.0

Table 5

Wilcoxon Matched-Pairs Signed-Ranks Test for SCR and SIA Paired Combination: Class B

<table>
<thead>
<tr>
<th>Participant</th>
<th>SIA</th>
<th>SCR</th>
<th>d (difference)</th>
<th>Rank of d</th>
<th>Sum smaller rank</th>
</tr>
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</table>

*T = 15.5

*Indicates significant difference, p < .02.
Table 6
Wilcoxon Matched-Pairs Signed-Ranks Test for SNM and SCR Paired Combination: Class C

<table>
<thead>
<tr>
<th>Participant</th>
<th>SNM</th>
<th>SCR</th>
<th>d (difference)</th>
<th>Rank of d</th>
<th>Sum smaller rank</th>
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<tbody>
<tr>
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</table>

*T = 6.0
*Indicates significant difference, \( p < 0.02 \).

Table 7
Wilcoxon Matched-Pairs Signed-Ranks Test for SNM and SIA Paired Combination: Class C

<table>
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<tr>
<th>Participant</th>
<th>SNM</th>
<th>SIA</th>
<th>d (difference)</th>
<th>Rank of d</th>
<th>Sum smaller rank</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
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*T = 3.0
*Indicates significant difference, \( p < 0.01 \).
Table 8
Wilcoxon Matched-Pairs Signed-Ranks Test for SCR and SIA Paired Combination: Class C

<table>
<thead>
<tr>
<th>Participant</th>
<th>SCR</th>
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<th>d (difference)</th>
<th>Rank of d</th>
<th>Sum smaller rank</th>
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<td>9</td>
<td>-2.0</td>
<td>-8.5</td>
<td>-8.5</td>
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</tbody>
</table>

Note: No indication of significant difference.

While the Friedman two-way analysis of variance (ANOVA) revealed significant differences between conditions, overall means revealed differences between the classes, as indicated in Figure 2. For two out of the three classes, music condition one (story with choral refrain) revealed higher story comprehension scores compared to the control condition (story with no music). Additionally, for two out of the three classes, music condition two (story with instrumental accompaniment) resulted in higher story comprehension scores compared to the control condition. Moreover, for two out of the three classes, music condition one (story with choral refrain) resulted in higher story comprehension scores compared to music condition two (story with instrumental accompaniment).
Data Analyses for Research Question Two

Which of three conditions, (SNM = Story with no Music, SCR = Story with Choral Refrain, and SIA = Story with Instrumental Accompaniment), is the most effective in promoting second-grade students’ on-task behavior?

Analysis of the Direct On-task/Off-task Form was used to determine on-task behaviors of the participants. Although every child was placed in a specific spot that would allow for clear videotaping, many of the children often shifted their bodies and repositioned themselves throughout the session, causing a few children in each class to be out of sight in the camera. Consequently, the researcher was only able to observe an average of 9 children in each class. To keep consistency and uniformity among the classes for data collection, the researcher calculated the on-task/off-task behavior of 9 children in each class during each music/reading activity. Therefore, a total of 27 participants (approximately 75% of total N) were scored for on-task/off-task behaviors, as indicated in the raw data located in Appendix G.

Table 9 shows the mean for on-task behavior of all three classes. Class data suggest that music/reading activities with instruments resulted in a greater percentage of on-task behavior.

Figure 2: Mean Story Comprehension Scores per Class for All Conditions in Presentation Order

Note: Bars are labeled with the order in which the music/reading condition was received.
Additionally, although highest on-task behavior percentage for Class 2 was with the control condition, the on-task behavior percentage for Class 2 during music condition two (story with instrumental accompaniment) was a difference of 0.01. Table 10 shows a classification of the off-task behaviors displayed by each class during each condition. Using the Direct On-task/Off-task form, the researcher identified each participant’s off-task behaviors, and recorded them according to their respective classification (i.e. noise, motor, or passive). Class data suggest that each class consistency displayed “motor” off-task behavior as the highest interval of off-task behavior during each condition, followed by “noise” off-task behavior. Overall, classes displayed minimal “passive” off-task behavior during the three conditions. Explanations for possible off-task behaviors are discussed in the Chapter 5.

Table 9
On-Task Class Data Collection

<table>
<thead>
<tr>
<th>Class</th>
<th>Condition</th>
<th>Order</th>
<th>Mean On-Task Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>SNM</td>
<td>1</td>
<td>81.8%</td>
</tr>
<tr>
<td></td>
<td>SCR</td>
<td>2</td>
<td>91.0%</td>
</tr>
<tr>
<td></td>
<td>SIA*</td>
<td>3</td>
<td>96.3%</td>
</tr>
<tr>
<td>Class B</td>
<td>SNM*</td>
<td>3</td>
<td>93.4 %</td>
</tr>
<tr>
<td></td>
<td>SCR</td>
<td>1</td>
<td>84.3 %</td>
</tr>
<tr>
<td></td>
<td>SIA</td>
<td>2</td>
<td>93.3%</td>
</tr>
<tr>
<td>Class C</td>
<td>SNM</td>
<td>2</td>
<td>91.4%</td>
</tr>
<tr>
<td></td>
<td>SCR</td>
<td>3</td>
<td>91.7%</td>
</tr>
<tr>
<td></td>
<td>SIA*</td>
<td>1</td>
<td>95.8%</td>
</tr>
</tbody>
</table>

Note: *Indicates the highest mean on-task behavior per class per condition.
Table 10

Classification of Class Off-Task Data Collection for the Three Conditions

<table>
<thead>
<tr>
<th>Class</th>
<th>Condition</th>
<th>Noise Off-Task</th>
<th>Motor Off-Task</th>
<th>Passive Off-Task</th>
</tr>
</thead>
<tbody>
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<td>4</td>
<td>2</td>
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<tr>
<td></td>
<td>SCR</td>
<td>3</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SIA</td>
<td>1</td>
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<tr>
<td>Class B</td>
<td>SNM</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SCR</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SIA</td>
<td>2</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Class C</td>
<td>SNM</td>
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<td>2</td>
<td>1</td>
</tr>
<tr>
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<td>SCR</td>
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<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SIA</td>
<td>2</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Numbers represent the amount of intervals that were marked from each class.

In order to determine interrater reliability, 18 participants (approximately 75% of the 27 participants scored and/or 50% of total N) were selected and observed by three independent observers. The researcher randomly selected six participants from each class to be viewed in all three music/reading activities. The three observers recorded participants’ on-task behaviors. Interrater reliability was 91%. The formula used to measure interrater reliability was:

\[
\frac{\text{number of agreements}}{\text{total agreements + total disagreements}} \times 100
\]

Graphically, Figure 3 indicates the overall mean on-task behavior scores for all the classes, revealing that both music condition one (story with choral refrain) and music condition two (story with instrumental accompaniment) yielded the highest scores in on-task behavior, than the control condition (story with no music). Between the two music conditions, music condition two yielded the highest overall on-task behavior of the three conditions for all the classes. This graph suggests that students may be more on-task during reading when paired with instrumental activities. Figure 4 graphically displays the mean on-task behavior for all classes during the three conditions and revealed that there were differences among classes and
conditions for on-task behavior. However, two out of three classes revealed increased on-task behavior during the experimental music conditions (SCR and SIA) compared to the control condition (SNM). Moreover, two of the three classes exhibited their highest on-task behavior during music condition two, suggesting that instrumental activities paired with reading may promote increased on-task behavior with young children.

Figure 3: Mean On-Task Behavior for All Classes
Figure 4: Mean On-Task Behavior for all Classes during the Three Conditions

Note: Bars are labeled with the order in which the music/reading condition was received.

Data Analyses for Research Question Three

Which of three conditions, (SNM = Story with no Music, SCR = Story with Choral Refrain, and SIA = Story with Instrumental Accompaniment), is most preferred by second-grade students?

Raw data for the 41 participants in this study consisting of preference assessment ratings appear in Appendix H. Due to incomplete raw data, three participants’ scores were not included in the final results.

Raw data scores indicated that most of the participants preferred all of the reading activities, and seemed to enjoy the story books when paired with or without music activities. Although some participants to chose a “Neutral Face” or “Sad Face”, the majority of participants selected a “Happy Face” as their preference rating for all three conditions. Table 11 indicates the overall mean scores for preference ratings by condition. These means indicate that participants rated the three music/reading conditions similarly. However, the overall mean score of music condition two (story with instrumental accompaniment) suggests that students showed a greater preference for reading paired with instruments. Additionally, results suggest that students have the same preference for stories with singing as compared to stories with no music.
Table 11
Overall Preference Rating by Condition

<table>
<thead>
<tr>
<th>Condition</th>
<th>Overall Mean Score</th>
</tr>
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<tbody>
<tr>
<td>Story with No Music (SNM)</td>
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</tr>
<tr>
<td>Story with Choral Refrain (SCR)</td>
<td>2.71</td>
</tr>
<tr>
<td>Story with Instrumental Accompaniment (SIA)</td>
<td>2.76</td>
</tr>
</tbody>
</table>

Summary Response to the Three Research Questions:
1. Which of three conditions, (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) is the most effective in enhancing second-grade students’ story comprehension scores?
   Results revealed a significant difference in story comprehension scores for Class C, which may be attributed to order effect. Both music condition one (story with choral refrain) and music condition two (story with instrumental accompaniment) yielded higher story comprehension scores compared to the control condition (story with no music), and between the two experimental music conditions, music condition one revealed the highest overall mean story comprehension scores. These results suggest that pairing reading with music activities, specifically singing activities, may result in enhanced story comprehension scores for second-grade students.

2. Which of three conditions, (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) is the most effective in promoting second-grade students’ on-task behavior?
   Results indicated that music condition two (story with instrumental accompaniment) revealed the highest overall on-task behavior, which suggests that instrumental activities paired with reading may promote increased on-task behavior for second-grade students.

3. Which of three conditions, (SNM = story with no music, SCR = story with choral refrain, and SIA = story with instrumental accompaniment) is most preferred by second-grade students?
   Overall, the majority of students in the present study preferred all three music/reading activities. However, results indicated that music condition two (story with instrumental accompaniment) yielded the highest mean preference rating for all classes and conditions.
CHAPTER FIVE
DISCUSSION

The purpose of this study was to compare three music/reading activities on second-grade students’ story comprehension, on-task/off-task behaviors, and preferences for the three selected activities. For second-grade students, results revealed a significant difference in story comprehension scores for Class C, which may be attributed to order effect. Both music condition one (story with choral refrain) and music condition two (story with instrumental accompaniment) yielded higher story comprehension scores compared to the control condition (story with no music), and between the two experimental music conditions, music condition one revealed the highest overall mean story comprehension scores. These results suggest that pairing reading with music activities, specifically singing activities, may result in higher story comprehension scores for second-grade students. Results indicated that music condition two (story with instrumental accompaniment) revealed the highest overall on-task behavior, which suggests that instrumental activities paired with reading may promote increased on-task behavior for second-grade students. Overall, the majority of students in the present study preferred all three music/reading activities. However, results indicated that music condition two (story with instrumental accompaniment) yielded the highest mean preference rating for all classes and conditions.

Class B and Class C revealed a significant difference in their story comprehension scores among the conditions. Possible reasons for an insignificant difference for story comprehension scores among the conditions for Class A may have been the result of diverse teaching methods in student’s regular classrooms, which may have allowed for some variability in student placement regarding academic issues. Furthermore, possible reasons for a significant difference in story comprehension scores among the conditions for Class B and Class C may be attributed to order effect. Class B started their order of music/reading activities with music condition one, followed by music condition two, and ended their series with the control condition. The order effect for Class B may have caused as a possible disappointment to the participants in that class. Class C started their order of music/reading activities with music condition two (story with instrumental accompaniment), a condition which was quite different than anything students at this school had previously experienced in the classroom or the music room. Class C then followed with the control condition (story with no music), which may have been disappointing to the class, after
coming from a high-energy instrument activity, resulting in reduced attention level and subsequently, lower story comprehension scores.

The results of on-task/off-task behavior indicated an increase in on-task behavior for students when combining reading with a musical instrument activity. Possible reasons for this increase in on-task behavior may be attributed to students paying closer attention to the reader, so that they may be cued during the story to play their instrument. Additionally, students were instructed to keep their instrument on the floor unless cued to play, which may have caused a heightened amount on-task behavior. It should also be worth noting that if students display a greater amount of on-task behavior during reading activities with the use of music activities, then why is it that music and reading are not paired more often in the classroom? The results of this study are important for both music teachers and educators to gain insight upon, for this is another strategy that may be used in the classroom or the music room to promote the use of one academic task to enforce another.

Results of the preference ratings yielded no significant difference for all three conditions, which may be the result of students enjoying all activities due to participating in something new in the curriculum, regardless of the condition. The introduction of a new teacher, unfamiliar instruments and sing-a-longs, and an interesting story series are all possible reasons that can attribute to the results of second-grade students’ preference ratings. Additionally, it is important to note that at this young age, it is not uncommon for children to have a strong liking towards anything that is new. Nevertheless, results did reveal that stories with instrumental accompaniment (SIA condition) did yield the highest mean preference for all three conditions, suggesting that pairing reading with music is a worthy strategy for teachers to implement.

**Relationship to Extant Literature**

With regard to students’ story comprehension scores, the results of this study are similar to the findings of Feeman (1988), who investigated the effects of teaching academic material through songs when compared to lecture format. He found that students showed significant gains in learning material by the use of academic songs, similar to the use of singing phrases of the So-Me stories during the SCR condition. As results indicated, the SCR condition and SIA condition both yielded higher story comprehension scores when compared to the control condition, and additionally, the SCR condition revealed the highest overall mean story comprehension score for the three conditions. Participants from Class C revealed a significant difference in story
comprehension scores, which may be attributed to starting their order of conditions with the SIA (story with instrumental accompaniment) condition. These findings are similar to the study by Register (2004), who found that students who received the music curriculum, when compared to an educational children’s television show, yielded greater gains in reading test scores.

The results of this study corroborate to the findings of Madsen (1991), who found that music enhanced new word learning, children’s abilities to transfer the words learned into daily use, and promoted higher on-task behavior. Her study is similar to the present study, in the use of music to enhance concept learning, the ability to transfer concepts from a story to a story comprehension test, and the recognition of higher on-task behavior during reading activities paired with musical stimuli. A similarity in preference can be paralleled to a study by Clouser (2001), who studied the effect of music on story comprehension, vocabulary, and attitude towards reading. Results from the study indicated that children in the class that received music displayed a more positive attitude towards reading, much like the students in the present study that distinguished a positive preference for all the stories in the present study, whether paired with music or without music.

When studying the format of reading comprehension exams, Pressley and Hilden (2006) found that questions that teachers asked students ranged from factual and literal to higher order and inferential. The researcher chose to include a combination of these types of questions in each of the So-Me story comprehension tests. Observation of students during the present study revealed that many students found the factual and literal questions to be quite simple, but took more time to come to an answer and often used the technique of rereading for higher order and inferential type questions. The researcher also found that students who displayed poor on-task behavior often had difficulty determining the correct answer for the higher order questions, which may have been an indicator for poor story comprehension test scores for some students.

With regard to preference, second-grade students in the present study were pleased with all of the So-Me music/reading activities. Reasons for this high level of preference may be attributed to the stories being interesting, the activities that were paired with them, having a new teacher, and the overall experience of music paired with reading. Some of the student experience responses are listed in Table 12.
Table 12

Participant Statements About the Music/Reading Activities

<table>
<thead>
<tr>
<th>Condition</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNM</td>
<td>“I really liked the <em>So-Me goes Missing</em> story. Where can I buy this book?”</td>
</tr>
<tr>
<td>SNM</td>
<td>“<em>So-Me and the Spider</em> made me jump! I got scared when the spider went back up the thread.”</td>
</tr>
<tr>
<td>SCR</td>
<td>“I like to sing when reading a story. That was fun!”</td>
</tr>
<tr>
<td>SCR</td>
<td>“Why didn’t I think about singing when reading a story? I had a good time today.”</td>
</tr>
<tr>
<td>SIA</td>
<td>“I like playing instruments when reading. It was much more fun.”</td>
</tr>
<tr>
<td>SIA</td>
<td>“I had fun playing the egg shakers today. I had to pay attention because I had an important part. Can we do that again next week?”</td>
</tr>
</tbody>
</table>

Limitations of the Present Study

There were several factors that may have influenced the results of this study. Participants’ prior musical experience was not investigated, and this may have affected all the measures investigated in this study. Students who had never been introduced to reading paired with a musical activity may have been overly excited to participate in the study, hindering their on-task behavior or possibly causing them to attend too much to the music and not to the content of the story. Because all of the students attended the same public elementary school, they may not be a representative sample of the general population of students. During the data collection phase, every attempt was made to ensure that the music during the experimental music conditions were the only auditory stimulus available to participants; however, because the study was conducted in the participants’ general music classroom, which was adjacent to the general art classroom and physical exercise field, extraneous noises while participants were attending to this study were unavoidable at times. The musical stimuli in the present study included only sung phrases and instruments used in Western music, so further research is necessary to determine whether the same results would be obtained using other types of music or instruments from other cultures. Because of the wide range of cultures of students who attended this public elementary school, several of the children came from low socio-economic families or families where English is a second language, which at times caused confusion, especially during instructional periods or
when students were completing their story comprehension exams. Additionally, it was unknown to the researcher if any of the participants in this study were labeled with a learning disability, which may have attributed to variance in story comprehension scores, on-task behavior, and/or student preference.

During the second week of data collection, the elementary school scheduled a week long outdoor activity of renting a snow truck, for use during the students’ physical exercise special area time. For all of the classes used in this study, physical education special class immediately followed their scheduled music time, therefore causing a heightened amount of distraction (as snow was being blown onto the grass, which could be seen from the classroom windows) or unexpected noise (the generator blowing the snow created a loud buzzing sound). This unexpected event may distracted students. During the third week of data collection, the teacher of Class C became injured, resulting in the assignment of a classroom substitute teacher. This change in command may have caused a increased inattention among the students when they arrived to the music room, which may have affected their scores and on-task behavior.

Many of the students in this study wore bracelets on their wrists, known as Silly Bands. These bracelets caused much distraction during the data collection of the present study and resulted in the majority of the off-task behavior that was recorded. Students would often come to the classroom with dozens of bracelets on their arms and would often trade with other students or be caught in conversation with a peer, discussing their bracelets. Furthermore, prior to starting this study, the researcher observed the general music teacher to assess how students entered the music room, where they sat, and the general behavior level of classes. Keeping uniform with the rules of the general music room, the researcher choose to have students sit “criss-cross” on the floor in front of the teacher chair. This choice resulted in many students repositioning themselves throughout study, which in turn resulted in several of the students being out of lens for the video camera. Additionally, sitting on the floor promoted off-task behavior at times, which could have been avoided if the researcher was provided with chairs for the students to sit in.

**Suggestions for Further Research**

As mentioned earlier, participants used in the present study were all from the same public elementary school, were part of a regular second-grade classroom, and were not surveyed for previous musical experiences with reading. Replications of this study might include aspects of participants’ demographic information such as musical experience, parents’ socioeconomic
status, and could include subjects from several different schools to attempt to create a more representative sample. Additionally, it may be interesting for future researchers to investigate this study using students with special needs or learning disabilities from an exceptional student education (ESE) second-grade classrooms.

Further researchers may choose to relocate the setting of a study like this into the students’ regular classroom instead of the music classroom. Students may be more likely to focus on an academic task like story comprehension if they remain in their classroom, where reading normally takes place. Collecting data in a regular classroom versus a music room may decrease the amount of excessive and unpredictable noise. Finally, many elementary music classrooms do not provide chairs or desks for students, items which are located in a regular classroom, which may promote a higher level of attention.

**Implications for Practice**

Findings from the present study suggest that pairing stories with music can be an effective tool in increasing second-grade students’ on-task behavior, enhancing story comprehension scores and preferences for reading activities. Teachers may refer to the results of this study and choose to implement music into other academic tasks as a strategy to promote success among second-grade students. The knowledge of how music can be effective in promoting student on-task behavior when reading may assist classroom teachers by providing the opportunity to explore new teaching strategies, and collaborations with music educators and music therapists. Because literature continually supports that music interactions and activities teach literacy components to children (Tucker, 1981), it is important for classroom teachers, music educators, and music therapists, to work together to combine academic material with music to promote learning.

**Conclusions**

The goal of this study was to compare three music/reading activities on second-grade students’ story comprehension, on-task/off-task behaviors, and preferences for the three selected activities. For second-grade students, results indicated that implementing music/reading activities into school curricula was effective, particularly in the area of story comprehension, an area that is often lacking in intervention strategies. Literature has continued to support the use of music interactions to help teach literacy components to children (Tucker, 1981), and thus this study may encourage classroom teachers to use music throughout their lesson planning as an effective
technique for student learning. Results from this study may also encourage music teachers, music therapists, and classroom teachers to work together to find the most effective approach to enhance student literacy. As the present study indicated, not every classroom showed a significant difference in the use of a music/reading activity. However, ultimately, it is up to the classroom teacher to evaluate his or her classroom and determine what method of teaching is appropriate.

Participants in the present study revealed high on-task behavior during music/reading activities as well, specifically during the stories with instrumental activities, which supports the implications of music into academic tasks. These results may entice music educators and music therapists to increase the amount of literacy that they bring into their music classrooms or sessions, as it has shown that music can help to teach literacy. Moreover, for students with or without developmental disabilities, combining literacy with music may not only improve a child’s academic functioning, but it may also increase their social/behavioral skills in the classroom.

Preference assessment ratings by second-grade students supported students’ liking for stories paired with music activities, which may be a successful strategy for teachers to use in the classroom. Although the results from the present study indicated little difference in preference for the three music/reading activities, raw data suggests that students may be more involved in an academic task if paired with a music activity. The goal of teachers in the classroom is to transfer as much knowledge as possible to the minds of students; therefore, it is in the educator’s best interest to utilize any and all teaching strategies that can effectively enhance the learning environment. In essence, it is the job of educators to promote the highest and most effective instruction to students, and to find the best methods for each student to learn and grow, so that they may benefit, both academically and socially.
APPENDIX A
EXAMPLE OF *SO-ME* STORIES USED FOR THE PRESENT STUDY
AND COPYRIGHT PERMISSION FROM THE AUTHOR
So-me Goes Missing

Nobody knew where So-me was. “So-me, where are you?” called Mum.

She went into the lounge. She could hear the grandfather clock tick tock tick tock but she couldn’t hear So-me.

She listened for an answer but all she could hear was the leaking tap in the bathroom.

It went drip drip drip drip.
Sometimes So-me used to hide in his wardrobe, so Mum quietly tiptoed to the wardrobe doors and flung them open.

But So-me wasn’t there.

By this time So-me’s father had joined in the search. He put his head out the window and called,

“So-me!”

But all he could hear was a bee, which buzzed close by his head.

“I’ll see if he’s in the hut,” said his brother.

So-me and his brother had their very own hut in the branches of a tree at the back of the garden.
“So-me, Mum wants you,”
his brother called out
from underneath the hut.

So-me’s brother climbed up
to make sure that nobody was there.

There was no sound except for the wind whispering in the leaves.
Swish, swish, swish, swish, swish, swish.

Nobody was inside,
but he could hear a fly which was caught in a spider’s web.

It went buzz buzz buzz buzz

“Maybe he’s playing with his friends over in the park, said his sister.
She called,
“So-me, come home.”
When she listened for a reply, all she could hear was the echo of her voice, which came back softly, "S-o-m-e, c-o-m-e h-o-m-e."

Just then a police car drove past the house.
Its light was flashing and its siren went.
It seemed to be calling "S-o-m-e S-o-m-e S-o-m-e S-o-m-e S-o-m-e"

Mum and Dad were beginning to get worried now.
"What will we do?" said Dad.
"Ring the police," said Mum.
All the family stood by the phone and heard it ring at the other end of the line.

Brrrrring Brrrrring Brrrrring)

Then So-me’s father saw a big toe poking around the side of the sofa. The toe was moving up and down.

Dad quickly put down the phone before anyone had time to answer it.
Behind the leg was a body.

On top of the body was a head.
On top of the head was a pair of headphones.

“We have been looking for you everywhere,” they said.

“But I’m not lost.”

Someone put on his headphones and went on listening to the music.
Attention: Denise Gagne  
Date: November 12, 2010  
Subject: Copyright Permission (via e-mail)

Dear Ms. Denise Gagne,

I am writing to you to obtain copyright permission for the So-Me series by Stuart Manins, particularly the use of the first book in the series, So-Me Goes Missing. I purchased the set of So-Me books from West Music earlier this academic year and used the first three books of the collection for my Master's thesis, titled: The comparison of three music/reading activities on second-grade students' story comprehension, on-task/off-task behaviors, and preferences for the three selected activities. These books were used for educational purposes only. The students absolutely enjoyed the So-Me books and were engaged throughout each story. I am quite grateful for the use of these stories in my research and am pleased with the results that I obtained. In the appendix of my thesis, I would like to include, upon your permission, copies of the pages of the first story, So-Me Goes Missing, so that other researchers may see an example of the type of stories that were used in this study, so as to make the method of my study more clear to the reader. Again, upon your permission, this will only be placed in a copy of my thesis for educational purposes, but will not be included, should my research be published by an academic journal at a later date.

I would appreciate your consent as soon as possible. Thank you in advance for your time.

Best regards,
Amanda M. Azan, MT-BC, NICU MT

Hi Stuart - Your books have been the basis of a Master's thesis - how neat. I would like to give her permission to use the copies of the first story in the thesis, but wanted to clear it with you first.

Denise

Hello Denise and Amanda,

You have permission to use my So-me stories for the Master's thesis. However, I would appreciate being informed of the project as it develops and particularly of any conclusions made.

Stuart Manins
APPENDIX B
TASK ANALYSIS FOR EACH CONDITION AND LESSON PLANS
Task Analysis for Story with No Music (SNM) Condition

1. The researcher will explain to the class that this story will be read with no music. Students are asked to remain seated on the floor during this story.
2. The researcher will ask if there are any questions before starting the music/reading activity. Once all clarification is made, the researcher will begin the activity with the students.
3. Following the music/reading activity, the researcher will hand out writing boards and pencils to the students, so that they may complete the story comprehension test associated with the story. Students will be given 10 minutes to complete this test.
4. Students will be asked to remain quiet while completing the story comprehension test and to raise their hand if they have a question or if they are finished with their test.
5. Once all story comprehension tests are turned in, the researcher will then pass out the preference assessment sheet to each student. Students will be given 5 minutes to complete this test.
6. Students will be asked to remain quiet while completing the preference assessment and to raise their hand if they have a question or if they are finished with their sheet.
7. Once all preference assessments have been turned in, the researcher will collect all writing boards and pencils.
8. The researcher will ask all students to stand up and make a line by the door of the music room, so that their second-grade teacher may take them back to their classroom.
Task Analysis for Story with Choral Refrain (SCR) Condition

1. The researcher will explain to the class that they will be singing parts of the story through a technique called *call and response*.
2. The researcher will demonstrate how to properly do *call and response*, by practicing with the class using the first sung line of the story.
3. The researcher will ask if there are any questions before starting the music/reading activity. Once all clarification is made, the researcher will begin the activity with the students.
4. The researcher will use sheet music that correlates with the *So-Me* story. This sheet music was arranged by the researcher.
5. Following the music/reading activity, the researcher will hand out writing boards and pencils to the students, so that they may complete the story comprehension test associated with the story. Students will be given 10 minutes to complete this test.
6. Students will be asked to remain quiet while completing the story comprehension test and to raise their hand if they have a question or if they are finished with their test.
7. Once all story comprehension tests are turned in, the researcher will then pass out the preference assessment sheet to each student. Students will be given 5 minutes to complete this test.
8. Students will be asked to remain quiet while completing the preference assessment and to raise their hand if they have a question or if they are finished with their sheet.
9. Once all preference assessments have been turned in, the researcher will collect all writing boards and pencils.
10. The researcher will ask all students to stand up and make a line by the door of the music room, so that their second-grade teacher may take them back to their classroom.
Lesson Plan

*So-Me goes Missing* by Stuart Manins

SCR Condition

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Line in Story to be Sung</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page (pg.) 1</td>
<td>“So-Me, where are you?”</td>
</tr>
<tr>
<td>Pg. 2</td>
<td>“Tick, tock, tick, tock”</td>
</tr>
<tr>
<td>Pg. 3</td>
<td>“Drip, drip, drip, drip, drip”</td>
</tr>
<tr>
<td>Pg. 5</td>
<td>“So-Me”</td>
</tr>
<tr>
<td>Pg. 6</td>
<td>“Bbbuuumzzzzzzzzzz”</td>
</tr>
<tr>
<td>Pg. 8</td>
<td>“So-Me, Mum wants you.”</td>
</tr>
<tr>
<td>Pg. 9</td>
<td>“Swish, swish, swish, swish, swish”</td>
</tr>
<tr>
<td>Pg. 10</td>
<td>“Bbbuuumzzzzzzzzzz”</td>
</tr>
<tr>
<td>Pg. 11</td>
<td>“So-Me, come home.” (loud)</td>
</tr>
<tr>
<td>Pg. 12</td>
<td>“So-Me, come home.” (soft)</td>
</tr>
<tr>
<td>Pg. 13</td>
<td>“woooo…oooo…woooo…oooooo”</td>
</tr>
<tr>
<td>Pg. 13</td>
<td>“So-Me, So-Me, So-Me, So-Me”</td>
</tr>
<tr>
<td>Pg. 14</td>
<td>“Brrring, Brrring, Brrring”</td>
</tr>
</tbody>
</table>

Note: See Sheet Music.
So-Me Goes Missing

R: Researcher sings
(repeat by students)

Arr. Amanda M. Azan

©2010
Lesson Plan

*So-Me and the Spider* by Stuart Manins

SCR Condition

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Line in Story to be Sung</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pg. 1</td>
<td>“So-Me”</td>
</tr>
<tr>
<td>Pg. 1</td>
<td>“So-Me, where are you?”</td>
</tr>
<tr>
<td>Pg. 2</td>
<td>“So-Me”</td>
</tr>
<tr>
<td>Pg. 4</td>
<td>“So-Me, So-Me, So-Me”</td>
</tr>
<tr>
<td>Pg. 6</td>
<td>“Creeeeek”</td>
</tr>
<tr>
<td>Pg. 8</td>
<td>“ahhhhh…haaaaa….ahhhh….haaaaaa”</td>
</tr>
<tr>
<td>Pg. 11</td>
<td>“chomp, chomp, chomp, chomp”</td>
</tr>
<tr>
<td>Pg. 13</td>
<td>“b’dom, b’dom, b’dom”</td>
</tr>
<tr>
<td>Pg. 14</td>
<td>“Boom boom, Boom boom, Boom boom”</td>
</tr>
<tr>
<td>Pg. 16</td>
<td>“So-Me”</td>
</tr>
</tbody>
</table>

Note: See Sheet Music.
So-Me and the Spider

R: Researcher sings
(repeat by students)

Arr. Amanda M. Azan

Voice

So - Me  (So - Me)  So Me where are you?  (So Me where are you?)

So Me  (So Me)  So Me, So Me, So Me!  (So Me, So Me, So Me!)

Creeeeek!  (Creeeeek!)  Aahhhh Haaaan  Aahhhh Haaaan  (Aahhhh Haaaan  Aahhhh Haaaan)

Chomp, chomp, chomp, chomp, chomp, chomp, chomp!

(Chomp, chomp, chomp, chomp, chomp, chomp, chomp!)

B' dom, b' dom, b' dom  (B' dom, b' dom, b' dom)

Boom boom boom boom boom boom boom boom boom boom boom boom boom boom boom boom boom

(So)

2010
Lesson Plan
*So-Me Meets the Boss* by Stuart Manins

**SCR Condition**

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Line in Story to be Sung</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pg. 3</td>
<td>“How-dy, So-Me”</td>
</tr>
<tr>
<td>Pg. 3</td>
<td>“So-Me, hel-lo”</td>
</tr>
<tr>
<td>Pg. 6, pg. 7</td>
<td>“So-Me, So-Me, don’t you know my name? So-Me, So-Me, won’t you sing the same?”</td>
</tr>
<tr>
<td>Pg. 9</td>
<td>“So-Me, So-Me, Tammy is my name? So-Me, So-Me, won’t you sing the same?”</td>
</tr>
<tr>
<td>Pg. 11</td>
<td>“So-Me, So-Me, Hone is my name? So-Me, So-Me, won’t you sing the same?”</td>
</tr>
<tr>
<td>Pg. 12</td>
<td>“So-Me, So-Me, won’t you sing the same?”</td>
</tr>
<tr>
<td>Pg. 13</td>
<td>“Head Teacher, Head Teacher, what is your name?”</td>
</tr>
<tr>
<td>Pg. 14, pg. 18</td>
<td>“Mrs. Ross and I’m the Boss, who made up this game?”</td>
</tr>
</tbody>
</table>

Note: See Sheet Music.
So-Me Meets the Boss

R: Researcher sings
(repeat by students)

Arr. Amanda M. Azan

Voice

How dy So Me! (How dy So me!) So Me Hel lo! (So Me Hel lo!)

So Me So Me don't you know my name? So Me So Me won't you sing the same?

(So Me So Me don't know you my name? So Me So Me won't you sing the same?)

So Me So Me Tam my is my name, So Me So Me won't you sing the same?

(So Me So Me Tam my is my name, So Me So Me won't you sing the same?)

So Me So Me Hone is my name, So Me So Me won't you sing the same? (So Me So Me

Hone is my name, So Me So Me won't you sing the same?) So Me So Me

won't you sing the same? (So Me So Me won't you sing the same?)

©2010
So-Me Meets the Boss

33 pg. 13

Head teach er Head teach, what is your name? (Head teach er Head teach er,

36 pg. 14, 18

what is your name?) Mr s. Ross and I'm the boss, who made up this game?

39 (Mr s. Ross and I'm the boss, who made up this game?
Task Analysis for Story with Instrumental Accompaniment (SIA) Condition

1. The researcher will separate students into small groups and assign each group an instrument.
2. The researcher will pass out instruments to each group and ask students to follow directions by placing their instrument on the floor and wait for further instruction.
3. Once all instruments have been passed out, the researcher will demonstrate how to properly hold and play each instrument, by modeling the correct way to play for the class.
4. The researcher will ask each group to try playing their instrument, and will make any necessary adjustments. This will continue until each small group has been shown how to play their instrument and has been given an opportunity to explore playing their instrument.
5. When all students are comfortable playing, the researcher will again ask that all instruments be placed on the floor. The researcher will then explain to the students that each instrument represents a specific sound in the story (i.e. the Kazoos represent the sound of a buzzing bee).
6. When a small group is verbally cued (i.e. researcher will stay “kazoos” and gesture to the kazoo group via hand signal to start playing). The group should look up at the researcher for another hand signal that represents to stop playing (cut off).
7. The researcher will ask if there are any questions before starting the music/reading activity. Once all clarification is made, the researcher will begin the activity with the students.
8. Following the music/reading activity, the researcher will ask each small group to bring up their instrument and put them away (ex. Everyone with a rainstick, please put them gently into the instrument box).
9. Once all instruments have been put away, the researcher will hand out writing boards and pencils to the students, so that they may complete the story comprehension test associated with the story. Students will be given 10 minutes to complete this test.
10. Students will be asked to remain quiet while completing the story comprehension test and to raise their hand if they have a question or if they are finished with their test.
11. Once all story comprehension tests are turned in, the researcher will then pass out the preference assessment sheet to each student. Students will be given 5 minutes to complete this test.
12. Students will be asked to remain quiet while completing the preference assessment and to raise their hand if they have a question or if they are finished with their sheet.
13. Once all preference assessments have been turned in, the researcher will collect all writing boards and pencils.
14. The researcher will ask all students to stand up and make a line by the door of the music room, so that their second-grade teacher may take them back to their classroom.
**Lesson Plan**

*_So-Me Goes Missing*_ by Stuart Manins

### SIA Condition

<table>
<thead>
<tr>
<th>Words in Story</th>
<th>Instruments to Represent Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick tock (clock)</td>
<td>2-tone woodblocks with mallets</td>
</tr>
<tr>
<td></td>
<td>• High side for tick and low side for tock</td>
</tr>
<tr>
<td>Drip, drip, drip, drip, drip (bathroom sink)</td>
<td>Soprano woodblocks with mallets</td>
</tr>
<tr>
<td></td>
<td>• Hit woodblock four times (for each “drip”)</td>
</tr>
<tr>
<td>Buzz (bee)</td>
<td>Kazoos</td>
</tr>
<tr>
<td></td>
<td>• Buzzing sound</td>
</tr>
<tr>
<td>Swish, swish, swish, swish, swish, swish</td>
<td>Sandblocks</td>
</tr>
<tr>
<td>(leaves)</td>
<td>• Move sandblocks back and forth to create sound of swishing leaves</td>
</tr>
<tr>
<td>Buzz (2\textsuperscript{nd} time; bee)</td>
<td>Kazoos</td>
</tr>
<tr>
<td></td>
<td>• Buzzing sound</td>
</tr>
<tr>
<td>Siren (police car)</td>
<td>Rainsticks</td>
</tr>
<tr>
<td></td>
<td>• Move from side to side in a fast motion to imitate the sound of a</td>
</tr>
<tr>
<td></td>
<td>police car siren</td>
</tr>
<tr>
<td>Brrrrring (Phone)</td>
<td>Handbells (C, E, G)</td>
</tr>
<tr>
<td></td>
<td>• Play all three bells in unison for 4 beats</td>
</tr>
</tbody>
</table>
### Lesson Plan

*So-Me and the Spider* by Stuart Manins

**SIA Condition**

<table>
<thead>
<tr>
<th>Words in Story</th>
<th>Instruments to Represent Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louder and Higher (Mother’s voice)</td>
<td>Gathering drum with mallets</td>
</tr>
<tr>
<td></td>
<td>• Play on cue with reader’s voice</td>
</tr>
<tr>
<td>Creek (wardrobe)</td>
<td>Rainsticks</td>
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<tr>
<td></td>
<td>• Move slowly from one side to another to imitate creek sound</td>
</tr>
<tr>
<td>Brɪɪr (cars)</td>
<td>Kazoos</td>
</tr>
<tr>
<td></td>
<td>• Buzzing sound</td>
</tr>
<tr>
<td>Ahhhh Haaaaa (breathing)</td>
<td>Sandblocks</td>
</tr>
<tr>
<td></td>
<td>• Move sandblocks back and forth to create sound of breathing in and out</td>
</tr>
<tr>
<td>Chomp (Ants marching)</td>
<td>Handbells (C, D, E, F)</td>
</tr>
<tr>
<td></td>
<td>• Order students so that the bells are in the following order: F/C/D/E.</td>
</tr>
<tr>
<td></td>
<td>• Cue students to play to imitate sound of ants marching</td>
</tr>
<tr>
<td>B’dom/Boom (heartbeat)</td>
<td>Lollipop drums with mallets</td>
</tr>
<tr>
<td></td>
<td>• Beat drums to imitate heart beating fast</td>
</tr>
</tbody>
</table>
**Lesson Plan**

*So-Me Meets the Boss* by Stuart Manins

**SIA Condition**

<table>
<thead>
<tr>
<th>Characters in Story</th>
<th>Instruments to Represent Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>So-Me’s song: “So-Me, So-Me, don’t you know my name? So-Me, So-Me, won’t you sing the same?”</td>
<td>Egg shakers</td>
</tr>
<tr>
<td>Tammy’s song: “So-Me, So-Me, Tammy is my name? So-Me, So-Me, won’t you sing the same?”</td>
<td>Sandblocks</td>
</tr>
<tr>
<td>Hone’s song: “So-Me, So-Me, Hone is my name? So-Me, So-Me, won’t you sing the same?”</td>
<td>Rhythm Sticks</td>
</tr>
<tr>
<td>Mrs. Clapham’s song: “Head Teacher, Head Teacher, what is your name?”</td>
<td>Rainsticks</td>
</tr>
<tr>
<td>Mrs. Ross’ song: “Mrs. Ross and I’m the Boss, who made up this game?”</td>
<td>Lollipop drums</td>
</tr>
</tbody>
</table>

- Have children shake their egg shaker on the beat as the reader sings So-Me’s song.
- Have children play their sandblock on beat as the reader sings Tammy’s song.
- Have children play their rhythm sticks by rubbing the smooth stick against the rigid stick in rhythm as the reader sings Hone’s song.
- Have children play their rainsticks from one side to the other in beat as reader sings Mrs. Clapham’s song.
- Have children play their drums in rhythm as reader sings Mrs. Ross’ song.
APPENDIX C

STORY COMPREHENSION ASSESSMENT FORMS & ANSWER SHEET
Story Comprehension Assessment

*Me Goes Missing* by Stuart Manins

Directions: Read each question carefully. Choose one answer for each question.

1. Who is looking for Me?
   a. His mom
   b. His brother
   c. His dog

2. What was making noise in the lounge inside Me’s house?
   a. The cat
   b. His sister playing guitar
   c. The grandfather clock

3. What sound did the bathroom tap make?
   a. Drip, drip, drip
   b. Plop, plop, plop
   c. Whoosh, whoosh, whoosh

4. What was buzzing next to Me’s dad?
   a. A bird
   b. A bee
   c. A butterfly

5. Where did Me’s brother go looking?
   a. In the house
   b. In the treehouse in the back of the garden
   c. At school

6. What did Me’s brother find when he climbed up the tree?
   a. A fly caught in a spider’s web
   b. Me sitting in the hut
   c. A bird’s nest

7. Who went to the park to look for Me?
   a. His mother
   b. His brother
   c. His sister

8. What form of transportation passed by Me’s house?
   a. A police car
   b. An ambulance
   c. An airplane

9. What did Me’s dad find behind the sofa?
   a. The cat
   b. A book
   c. Me

10. What was Me doing when his father found him?
    a. Listening to music on his headphones
    b. Reading a book for school
    c. Looking for a button on the floor
Story Comprehension Assessment

So-me and the Spider by Stuart Mansin

Directions: Read each question carefully. Choose one answer for each question.

1. Where was So-Me sitting quietly?
   a. the Kitchen
   b. the Closet
   c. the Bathroom

2. When So-Me’s mother was looking for him, what happened to her voice?
   a. It got louder and louder and higher and higher
   b. It got softer and softer and lower and lower
   c. It got louder and louder and lower and lower

3. What types of sounds did So-Me hear inside of the closet?
   a. Only sounds from his breathing in and out
   b. Only sounds from the cars outside
   c. Sounds from his breathing and the cars outside

4. Which thing was not inside the closet?
   a. Ants marching across the wall
   b. A toy car
   c. A spider on a thread

5. What happened to So-Me’s heart when his mother called?
   a. It went slow
   b. It stopped beating
   c. It started beating really fast

6. What happened to the spider when So-Me answered to his mother?
   a. The spider smiled.
   b. The spider spun up and down the thread.
   c. The spider jumped with fright and went back up the thread

7. Where did the spider hide?
   a. In a crack in the wall
   b. At the top of his thread
   c. Behind So-Me’s ear

8. What did So-Me take to school?
   a. The spider
   b. His backpack
   c. His cat

9. Where did So-Me go at the end of the book?
   a. To school
   b. To eat a snack
   c. Back to his room

10. What happened to the spider after So-Me went to school?
    a. He kept hiding in the wall
    b. He went with So-Me to school
    c. He climbed down the thread again
Story Comprehension Assessment

So-me Meets the Boss by Stuart Manins

Directions: Read each question carefully. Choose one answer for each question.

1. What letters are on the back of So-Me's school bag?
   a. S and M
   b. O and E
   c. S and O

2. What are the names of So-Me's friends?
   a. Tammy and Hone
   b. Kimmy and Ben
   c. Missy and Roger

3. What does Mrs. Clapham want So-Me to tell the class?
   a. Tell them about his dog, Sparky.
   b. Tell them his name.
   c. Tell them how to do the class assignment.

4. How does So-Me's song go?
   a. "So-Me, So-Me, don't know your name? So-Me, So-Me won't you sing the same?"
   b. So-Me, So-Me, do you know my name? So-Me, So-Me, can you sing the same?
   c. So-Me, So-Me, I know my name! So-Me, So-Me, will you sing the same?

5. Who sang after So-Me?
   a. Hone
   b. Tammy
   c. Betty

6. What does Mrs. Clapham say that Tammy will be when she grows up?
   a. A doctor
   b. A teacher
   c. A famous singer

7. Who sang after Tammy?
   a. Hone
   b. Tammy
   c. Betty

8. Which teacher sings along to So-Me's song?
   a. Mrs. Ross
   b. Mrs. Clapham
   c. Mrs. Starman

9. What did Mrs. Ross have So-Me sing into?
   a. A tape-recorder and microphone
   b. A CD player and microphone
   c. A boombox and microphone

10. Where does So-Me go at the end of the story?
    a. To another classroom
    b. To his house
    c. To the playground
Answer Sheet for Story Comprehension Assessments

So-Me Goes Missing by Stuart Manins
1. A
2. C
3. A
4. B
5. B
6. A
7. C
8. A
9. C
10. A

So-Me and the Spider by Stuart Manins
1. B
2. A
3. C
4. B
5. C
6. C
7. A
8. B
9. A
10. C

So-Me meets the Boss by Stuart Manins
1. C
2. A
3. B
4. A
5. B
6. C
7. A
8. B
9. A
10. B
APPENDIX D
DIRECT ON-TASK/OFF-TASK ASSESSMENT FORM
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On-task = _______ (%)

Off-task = 100 - (% On-task) = _______

Intervals Observed:

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<tbody>
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Totals:

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</table>
APPENDIX E
PREFERENCE ASSESSMENT FORM
Preference Assessment

Directions: Mark an “X” over the face or sentence that best represents how you felt about the music/reading activity today.

- I liked the reading/music activity today.
- The reading/music activity today was O.K.
- I did not like the reading/music activity today.
APPENDIX F
RAW DATA FOR ANALYSIS: STUDENT STORY COMPREHENSION SCORES
<table>
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### Class B

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Note: Gray indicates incomplete raw data, resulting in participant attrition.
### Class C

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Note: Gray indicates incomplete raw data, resulting in participant attrition.
APPENDIX G
RAW DATA FOR ANALYSIS: ON-TASK/OFF-TASK BEHAVIOR
### Raw Data of Participant On-Task/Off-Task Behavior

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Note: Intervals of On-task behavior/Intervals of Off-task behavior.
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Note: Gray indicates incomplete raw data, resulting in participant attrition.
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APPENDIX I

UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL AND
LEON COUNTY PUBLIC SCHOOLS REQUEST FOR RESEARCH APPROVAL
Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673, FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 5/24/2010
To: Amanda Azan
Dept.: MUSIC SCHOOL

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
The comparison of three selected music/reading activities on second-grade students' story comprehension, on-task/off-task behavior, and preference for the three selected activities.

The application that you submitted to this office in regard to the use of human subjects in the research proposal referenced above has been reviewed by the Human Subjects Committee at its meeting on 05/12/2010. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 5/11/2011 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.
By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Alice-Ann Darrow, Advisor
HSC No. 2010.4325
Dear Ms. Azan,

The Leon County Schools Research Review Board has determined that the findings of your proposed study could be pertinent to our efforts and so we are initially consenting to your request for the research mentioned above. Conditions are:

- Clarification – Communication between you and Leon County Schools’ personnel, regarding plans for this study, are considered an integral part of this consent and approval.
- Principal’s Consent – Initial consent by the Research Review Board does not in itself constitute permission to carry out the research. You may now contact principals of the schools in your study. The principal has the final decision relative to research at each school. It is your responsibility to return the enclosed “Principal’s Consent for Research Participation,” signed by the principal(s) of the school(s) to be involved, prior to the start of any research.
- Clearance – Leon County Schools is under contract with your university regarding researchers. You are required to contact Dr. Patrick Malone’s office (850.644.3555) who will work with you to obtain security clearance, including fingerprinting, and proof of health and liability insurance. Dr. Malone’s office will inform Leon County Schools when your clearance is complete.
- Approval – Once you have Principal’s Consent and we are informed of your clearance, then you will receive approval for this study. At that time, your name will be included in the weekly listing of individuals approved to enter the respective school(s). Notify us when you are finished with data collection and no longer need to be in the schools.
- Time Period – Your research period is September 7 through November 30, 2010. Should you desire to extend your data collection efforts after this period of time, you must submit (a) a progress report, (b) preliminary results of your research, and (c) a request for renewed approval for continuation. Any significant changes or amendments to the procedures or design of this study must be approved by resubmitting the request for research to the Research Review Board.
- Submit Results – Leon County Schools is interested in your research partly due to the potential benefit of information to the district; therefore, we expect that you will send this office an executive summary with purpose, methods, results and discussion directly after concluding your study. We will place this information in our on-line research library.

We look forward to receiving your results.

Sincerely,

Linda M. Dean, Ph.D., Chairman, Research Review Board
C: Peggy Youngblood, and principal at Seeley

3955 West Pensacola Street • Tallahassee, Florida 32304 • Phone (850) 487-7007
http://sharepoint.lean.k12.fl.us/review/default.aspx

Building the Future Together

"Leon County Schools does not discriminate against any person on the basis of gender, marital status, sexual orientation, race, religion, national origin, age, color, or disability."
Florida State University
College of Music
Music Therapy Department

Researcher: Amanda Azan:

Office of Research: Florida State University 109 Westcott building. Tel: (850) 644-9694
Thesis Director: Dr. Alice-Anh Darrow
College of Music 220 Kuersteiner Music Building Tel: (850) 645-1438 Email: aadarrow@fsu.edu

My name is Amanda Azan, and I am a student at the Music Therapy Department at Florida State University. Your child is invited to be in a research study involving music/reading activities designed for story comprehension, on-task behavior, and preference for the activities. Please read this form and ask any questions you may have before agreeing to allow your child to take part in this study. Your child may withdraw from the study at any time without penalty or prejudice.

The Study: The purpose of this study is to find out if music/reading activities are helpful with second-grade students in their story comprehension skills, their on-task behavior during an academic task, and if they enjoy music paired with reading. If you agree to allow your child to participate, your child will be a part of the group doing music and non-music reading activities once a week for 30 minutes each time. The study will take 3 weeks and will take place during their scheduled music class time in the regular music classroom. There will be three music/reading activities in this study. In addition there are going to be two individual assessments: one short story comprehension test after the completion of each story and one short preference assessment after the completion of each story. Individual assessments are going to take place in the same room. All individual assessments will be coded to keep your child confidential in this study.

All activities will be supervised by the classroom teacher and music teacher and videotaped for data collection only for this study. Please read the following page about videotaping. Should you have any questions, please contact the researcher via contact information provided above.

FSU Human Subjects Committee approved on 5/24/10, void after 5/11/11. HSC# 2010:4325
Confidentiality Protection Protocol

Please read the following for videotaping for this study:

Videotaping is going to take place during this research study for group analyzing and reporting purposes. The researcher will videotape all group activities. Group activities will take place once a week for three weeks, which will include a music/reading activity, a story comprehension test, and a preference test. At the end of each group activity the researcher is going to analyze all the tests (story comprehension test and preference test). Using the recording of group activities, the researcher will measure on-task and off-task behavior of the entire group during each session. Data will be reported in the research report by group only and students will be coded to maintain confidentiality.

The video camera used for recording of activities during this study is the researcher’s personal property. Also, the recordings of the activities will be property of FSU Music Therapy Department and will be stored in a locked cabinet by the researcher. Video recordings from this study will be used for group data collection for this study only. Amanda Azan (researcher) and Dr. Alice-Ann Darrow (Thesis Director) will have access the video recordings. All video recordings will be destroyed by May 1, 2011.

Participation in this study is voluntary and there is no penalty for non participation. Children whose parents do not give permission for their child to participate and be videotaped will not be included in the video and the study, and follow their routine play time activities.

I understand that my child will be videotaped by the researcher. These tapes will be kept by the researcher in a locked filing cabinet and used for data collection for this study only. I understand that only the researcher and Department Head will have access to these tapes and that video recordings will be destroyed by May 1, 2011.

I hereby consent for my child ________________________ to participate in the study.

Signature of Parent/Guardian: ____________________________ Date: __________

If you have any question about your child’s rights as 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 Committee through the Vice President for the Office of Research at (850) 644-8633.

Child Assent Form

My name is Amanda Azan. I am a student researcher from Florida State University. I am asking if you would like to take part in a research study about participating in music activities while reading stories.

If you agree to be in this study, you will participate in three music/reading activities with me. You will do one activity each week during your regular music class time for three consecutive weeks. After each music/reading activity, I will ask you to answer some questions about the story and ask you what you thought of the activity.

Please talk this over with your parents before you decide whether or not to participate. I have asked your parents to give their permission for you to take part in this study and be videotaped. But even if you parents said “yes” to this study, you can still decide to not take part in the study, and that will be fine.

If you do not want to be in this study, then you do not have to participate. This study is voluntary, which means that you decide whether or not to take part in the study. Being in this study is up to you, and no one will be upset in any way if you do not want to participate or even if you change your mind later and want to stop.

You can ask any questions that you have about this study. If you have a question later that you did not think of now, you can call me at [ ], email me at [ ], or ask me next time.

Signing your name at the bottom means that you agree to be in this study. You and your parents will be given a copy of this form after you have signed it.

Child’s Name (Print): ____________________________________________

Child’s Signature: ______________________________________________

Date: __________________________________________________________

Teacher Consent Form

My name is Amanda Azan, and I am a student at the Music Therapy Department at Florida State University. Your second-grade class is invited to be in a research study involving music/reading activities designed for story comprehension, on-task behavior, and preference for the activities. Please read this form and ask any questions you may have before agreeing to allow your class to take part in this study.

The Study: The purpose of this study is to find out if music/reading activities are helpful with second-grade students in their story comprehension skills, their on-task behavior during an academic task, and if they enjoy music paired with reading. If you agree to allow your class to participate, your class will be a part of the group doing music and non-music reading activities once a week for 30 minutes each time. The study will take 3 weeks and will take place during their scheduled music class time in the regular music classroom. There will be three music/reading activities in this study. In addition, there are going to be two individual assessments: one short story comprehension test after the completion of each story and one short preference assessment after the completion of each story. Individual assessments are going to take place in the same room. Your class will also be videotaped for group analyzing and reporting purposes.

Upon your consent, I will ask you for a specific date and time in which I may come to your classroom and distribute parent and child consent forms to your students. These forms will go home with each student. I will also ask you for specific dates and times in which I may come to your classroom and collect parent and child consent forms that have been completed and returned by the students. Once all parent and child consent forms have been returned, I will begin the study. I will ask you to please remain in the music room while I conduct my research study so as to have another adult in the room. Students who have not been given permission to be in this study will participate in a general music activity conducted by the regular music teacher. This activity will be comparable to the activity being conducted in the research study, but will be done in a separate room so that the students are not videotaped or involved in the study.

You may ask any questions about this study at any time. If you have a question, please contact the researcher, Amanda Azan, at [contact information] or via email at [email address].

Signing your name at the bottom means that you agree to participate in this study as a non-research subject role. You will be given a copy of this form after you have signed it.

Teacher Name (print): ________________________________

Teacher Signature: _________________________________

Date: _________________________________

FSU Human Subjects Committee approved on 5/24/10. Void after 5/11/11. HSC# 2010-4325
Music Teacher Consent Form

My name is Amanda Azan, and I am a student at the Music Therapy Department at Florida State University. Three second-grade classes at your elementary school have been invited to be in a research study involving music/reading activities designed for story comprehension, on-task behavior, and preference for the activities. These music/reading activities will take place in the music room during each classroom’s scheduled music time. Students who are unable to participate in this study will be given a general music activity which will be conducted by you, the music teacher. Please read this form and ask any questions you may have before agreeing to provide students with a general music activity if unable to participate in the study and to allow me to use of your music classroom for this study.

The Study: The purpose of this study is to find out if music/reading activities are helpful with second-grade students in their story comprehension skills, their on-task behavior during an academic task, and if they enjoy music paired with reading. Three second-grade classes will be seen by the music therapist once a week for 30 minutes each time. The study will take 3 weeks and will take place during their scheduled music class time in the regular music classroom. There will be three music/reading activities in this study. In addition, there are going to be two individual assessments: one short story comprehension test after the completion of each story and one short preference assessment after the completion of each story. Individual assessments are going to take place in the same room. All groups will be videotaped for group analyzing and reporting purposes.

Upon your consent, I will provide you with a schedule of when I will need to use the music classroom to conduct the study. During these times, I will use your classroom to conduct a music/reading activity with one of the three second-grade classes. I will also have the second-grade teacher in the room at all times as an adult supervisor. With your consent, I would like for all students who have not been given permission to be in this study to participate in a general music activity. This activity should be comparable to the activity being conducted in the research study, but will be done in a separate room so that the students are not videotaped or involved in the study.

You may ask any questions about this study at any time. If you have a question, please contact the researcher, Amanda Azan, at [redacted] or via email at [redacted].

Signing your name at the bottom means that you agree to participate in this study as a non-research subject role. You will be given a copy of this form after you have signed it.

Music Teacher Name (print):

Music Teacher Signature:

Date:


HSC# 2010.4325
REFERENCES


BIOGRAPHICAL SKETCH
Amanda Marie Azan

**Education**
May 2005 to December 2009 Bachelor of Music in Music Therapy, Cum Laude, Florida State University, Tallahassee, Florida

**Professional Experience**
August 2007 to December 2010 Registrar Assistant, Florida State University College of Music, Tallahassee, Florida

May 2010 to December 2010 Music Therapist, ABC Music, Tallahassee, Florida

January 2010 to December 2010 Music Therapist, Private Homebound Services, Tallahassee, Florida

June 2009 to December 2009 Music Therapy Intern, United Cerebral Palsy of Miami, Inc., Miami, Florida

May 2008 to May 2009 Early Childhood Assistant Teacher, Florida State University Infant and Toddler Child Development Center, Tallahassee, Florida

**Certification and Training**
2010 Board Certification in Music Therapy (Certification Number: 09561)
2010 Neonatal Intensive Care Unit Music Therapy Certification (NICU MT)
2010 Music Together, LLC. Teacher Certification
2009 Music in Special Education Certificate
2008 Early Childhood Specialist (granted by Florida Department of Children and Families)