

HOW DOES A MUSIC PROGRAM AFFECT  
THE READING FLUENCY OF SECOND GRADE ESL STUDENTS?

by

Candace Rose Cooper

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Committee:

Ann Mabbott-Primary Advisor

Cynthia Lundgren-Secondary Advisor

Kristin Weidlein-Peer Reader

To my aunt,  
Mary Lou Merdan, Ph.D.,  
who dedicated her career to reading literacy  
through the education of children and teachers.

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## CHAPTER ONE: INTRODUCTION

### Music and Culture

Since music is a vital part of human existence, it is used to express people's thoughts and feelings about themselves and the world around them. Can you imagine watching a movie or attending a wedding without music to enhance the drama and create a vibrant effect? Music is everywhere; it is heard on television, radio, and movies as well as in ceremonies and church services. In fact, music is often used to teach language and culture because songs encode cultural meanings and world views. In essence, songs tell thousands of human stories, and it is difficult to imagine a culture without music (Huy Le, 1999). The stories found in music are embodied in folk songs, which are songs of the people that explain their daily joys and struggles.

#### Folk Songs

Every culture has its own set of folk songs which are “songs of the folks.” Folk songs are orally transmitted from one generation to the next, and each folk artist has the freedom to make variations in the music or text in order to claim the song as their own. There are different genres of American folk songs which include ballads, work songs, sea chanties, spirituals, blues, play party songs, pioneer songs, and civil war songs (Van der Horst, 1972). Folk songs are like a mirror that reflects the spirit of the people. They provide the most appropriate literature with which to teach musical concepts to children in music education classes because they are considered by Zoltán Kodály to be “the musical mother tongue of a nation” (1974, p. 1). In addition, folk songs are also useful

for teaching the grammar, language structure, and the prosody of a language because songs are like poems used to express people's thoughts and emotions.

As an elementary music educator, I have the pleasure of continuing the folk tradition by teaching folk songs to children every day. While it is enjoyable for my students to sing folk songs, I also use them as the literature with which to teach musical concepts. In extracting particular rhythmic and melodic elements from these songs, children are able to go from the known to the unknown in learning new musical concepts. Folk songs are a valuable teaching tool because they allow students to experience new concepts in an authentic setting. I will use American folk songs as the literature in my research because I want to answer the following questions. "How does a music program affect the reading fluency of English language learners (ELLs)? Does the repeated singing of folk songs help improve reading fluency in the areas of timing, stress, and intonation?"

For my research, I will be working with second grade ELLs at the beginner, intermediate, and advanced proficiency levels who have not learned how to read in their first language. I want to study how singing American folk songs affects reading fluency, which is the ability to read effortlessly with accuracy, phrasing, and expression. This topic intrigues me because I want to see if the repetition in reading and singing the song lyrics improves reading fluency in order to help educators find an effective and enjoyable way to help their ELLs become fluent readers.

### Background of the Researcher

My interest in this topic began during my advanced practicum with first grade ELLs in a suburban elementary school during the summer of 2009. Throughout the summer, my cooperating teacher and I taught weekly lessons that were theme based. The focus of the theme based lessons was content material and vocabulary. Since I am a music teacher, I taught six short music lessons two or three days a week in which I chose songs to sing that related to the theme. I wrote the lyrics on the board and pointed to them while I sang. The students and I sang the songs several times, but each rendition was slightly different because the lyrics were changed to give students practice with the language skills or vocabulary words we were studying. For example, the song *Little Red Wagon Painted Blue* was sung when the weekly theme was colors. I asked the students what colors we should paint the wagon and they gave me suggestions which I inserted into the song lyrics. Thus, the lyrics changed from Little Red Wagon Painted Blue to Little Green Wagon Painted Yellow. From this experience, I realized that music could be a tool to aid in the development of literacy. Since I am currently an elementary music teacher, I found the music and reading connection intriguing which led me to look at music in a new way. This experience expanded my idea of music education from focusing strictly on musical concepts to incorporating language and reading skills as well.

My interest in this topic was further developed when I went online and learned about the *Tune Into Reading* technology program. It was originally designed as a singing coach to teach people how to sing in tune. However, an unexpected outcome was discovered when struggling readers who used this program increased their fluency and

comprehension skills. This inspired the developers to add a qualitative reading inventory along with cloze tests to measure comprehension that enabled this program to be marketed as a reading intervention instead of a singing coach. Several studies have been conducted which indicate the effectiveness of this program which will be discussed in chapter two (Wahl, 2009, Briggs, 2006).

### Benefits of Music in Education

Since music is motivational to so many students and is one of the multiple intelligences (Gardner, 1983), I believe it has the potential to help develop students' interest in reading. This was found by Paul Young, principal of an inner city school, who noticed a gradual increase in students' test scores that was proportionate to the arts classes implemented in his school. He found that music and the arts motivated students to come to school (Young, 2003).

Plato said, "Music is a more potent instrument than any other for education..." (Towell, 2000). When I was a child, my parents quickly discovered that music was a powerful learning tool for me, so my father composed a short song in which I learned the prayer before meals. Then, when I was in third grade, I learned my multiplication facts through a song. Now there are many songs and raps written to help educators teach grammatical, linguistic, and mathematical content material. Music is an effective tool for rote memorization because psychological research has found that there is a positive relationship between music and verbal learning. Studies have shown that the rhythm in music helped participants in rote memorization of verbal information such as spelling

words and multiplication tables (Gfeller, 1983; Schuster and Mouzon, 1982 as cited in Medina, 2002).

While people benefit from the memorization of verbal information through the use of music, it can be rather irritating when a particular piece of music gets stuck inside one's heads. Even though many wonder how this happens, only a few scientists have studied why this phenomenon occurs. They found that the neural circuits, or paths of neurons inside the brain, get stuck in what is called playback mode which means that the song is played over and over several times inside a person's head. In fact, scientists call this ear worms or the stuck song syndrome. It is interesting to note that it is rare for an entire song to get stuck inside a person's head. Rather, it is usually only a small fragment of the song that lasts between fifteen to thirty seconds. It is likely this occurs because it is equivalent to the duration of auditory short-term memory in the brain (Levitin, 2006). Hence, music can have an effect on our mind, and it can also be a powerful tool in education.

### Conclusion

In this chapter I have explained what folk songs are and how music can be used as a learning tool in education. I have explained the origins of my research question and why I believe this is an important topic for my students and the field at large. However, a review of literature which supports the benefits of music and shows how singing can help improve reading skills is crucial. What are the connections between music and language, music and motivation, reading fluency, fluency and ELLs, and fluency assessment? These topics will be discussed in the following chapter. Then, chapter three will include

the methodology of my study. In addition, I will explain the quasi-experimental design of my classroom-based research and provide daily lesson plans which describe the techniques and procedures used during this research project. The setting and participants will be described along with assessments and scoring in order to give a clear understanding of the validity and reliability of this research. Chapter four will discuss the results of my study. I will present the data using bar graphs, and will provide an interpretation of my research results. Chapter five will include the findings of my research along with a summary of this entire project. Finally, there will also be a discussion regarding the limitations of my research as well as suggestions for future research.

## CHAPTER TWO: LITERATURE REVIEW

### Music, Motivation, Language, and Reading Fluency

A discussion of literature related to music, reading fluency and ELLs is crucial in understanding the motivation behind this research project. This is necessary in order to answer the questions, “How does a music program affect the reading fluency of second grade ELLs? Does the repeated singing of American folk songs help improve reading fluency in the areas of timing, stress, and intonation?” Topics included in this chapter are music and language, music and motivation, oral language, reading fluency, strategies to enhance fluency, and assessment of fluency. These topics were chosen in an effort to better understand the existing research related to music and reading. For example, the topic of music and language is discussed because there are parallels between the two which are necessary to understand in order to answer my research questions. Based on research to be analyzed here, it is believed that a music program will affect the reading fluency of second grade ELLs; as a result, this research will examine the relationship between music and reading. It seems appropriate to tap into the power of music as a universal language since musical intelligence exists (Gardner, 1985).

In his groundbreaking work, Gardner found that there are multiple intelligences with which people learn. These intelligences include the linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal intelligences. While several of these intelligences overlap, they each have distinctive features which aid in the learning process. The musical intelligence exhibits characteristics of the logical-

mathematical intelligence through patterns in musical form, while elements of the linguistic intelligence are found in music through its rhythm and pitch as well as its ability to communicate feelings and emotions (Gardner, 1985). In order to have a better understanding of these two intelligences, the similarities between music and language will now be discussed.

### Music and Language

There are many similarities between music and spoken language. Both are used to convey a message and require a keen sense of hearing. They both have features in common such as rhythm, pitch, intonation, stress, volume, and tempo (Mora, 2000). It is these features which make a series of words and notes come alive and bring meaning to the language and the music. The pitches, rhythm, tempo, and instrumentation have a way of expressing the general meaning of the music; the words add details which help to create a picture in one's mind.

Gardner claims that there is a structural parallel between the musical and linguistic intelligences which is found in the way the brain functions and processes information in these intelligences. In the past, it was believed that music was processed on the right side of the brain and language was the found on the left side. However, recent neuro-imaging has shown that language and music processing are found in both hemispheres of the brain, although language processing has a strong preference to the left hemisphere of the brain (Patel, 2007). This is the structural parallel that Gardner found in his work with the intelligences.

Listening to and performing music involves nearly every region of the brain and almost every neural subsystem, so a rich environment for learning is provided. Many regions of the brain are triggered when listening to music. The brain stem, cerebellum, and cochlear nuclei are the areas at the base of the brain that become activated when first listening to music. Then auditory cortices on both sides of the brain process various sounds. When listening to music one is familiar with, the hippocampus or memory center is triggered. Tapping with the music either outwardly or inside one's head relies upon the timing found in the cerebellum. Performing music as a singer, conductor, or instrumentalist involves the frontal lobes which are responsible for planning movements. In addition, two other parts of the brain are activated during performance. These include the motor cortex in the back of the frontal lobe and the sensory cortex which tells if one pressed the correct key on the instrument. When reading music, the visual cortex in the back of the head is triggered. Recalling or listening to lyrics involves language centers in the frontal and temporal lobes, the latter being responsible for hearing and memory. The emotions experienced in listening to and performing music originate in the limbic system which controls emotions. In particular, the network found in the mesolimbic system, which is involved in arousal and pleasure, transmits opioids and produces dopamine, a chemical that is associated with a positive mood. This is the reason music has been known to help lift people's moods when they feel down (Levitin, 2006).

It is interesting that the initial start of language production in babies involves babbling sounds which have small elements of melodic contour (Gardner, 1985). Research has shown that babies respond to both music and language in the womb,

indicating that auditory memory and sound discrimination occurs before birth (Mora, 2000). Dr. Alfred Tomatis used fiber optic cameras to observe babies in utero. He discovered that they moved a specific muscle, such as an arm or leg, each time they heard a particular phoneme. Tomatis' discovery suggests the importance of combining sensory input with action for learning to occur. Thus, the sensory-motor response of the babies to phonemes allows them to begin the process of learning language in the womb. Dr. Tomatis also observed that by twenty-four weeks the baby blinked its eyes upon hearing music and moved as if dancing to the beat (Hannaford, 1995 as cited by Mora, 2000).

These results suggest that sound perception and its analysis could be one of the first processes to develop (Mora, 2000). Likewise, Gardner believes that the musical intelligence is one of the first to be developed in children. Thus, it may be beneficial for mothers to start singing and speaking to their babies in utero to help create the best opportunities for the development of language and music. Perhaps this is why Towell (2000) quoted Plato who said, "Music is a more potent instrument than any other for education and children should be taught music before anything else" (p.287).

### Music and Motivation

Music can be extremely beneficial for children who are hard to reach because they do not learn through traditional teaching methods (Towell, 2000). Some teachers have used musical intelligence in their lessons in an effort to address different learning styles. For example, teachers might use math raps and songs to help students learn states and capitals as well as memorize their multiplication facts. The alphabet is even learned through song!

Music and rhymes motivate struggling readers (Towell, 2000). This is evident in the *Tune Into Reading* computer program. Although it was originally designed to help people sing in tune, researchers discovered that this program helped struggling readers improve their fluency and comprehension skills (Biggs, Homan, & Detric, 2006). The success of the *Tune Into Reading* program lies in the song repetitions which allow students to practice reading the lyrics while singing the same song multiple times in an effort to improve their performance score.

The *Tune Into Reading* program is designed in a way that each child can independently work on singing songs which contain lyrics at their reading level. The child selects one of the songs and listens to it while following along on the computer screen. A cursor tracks the words and music in real time, helping the student stay focused on reading the song lyrics. Each child has several opportunities to practice singing each song. When ready, the child records himself/herself and receives a score based on how well the song was sung. Each song is recorded at least three times to see which one elicits the highest score. After spending quality time working on a song, the child moves on to another song in the folder and the process is repeated (Wahl, 2007).

The research conducted by Biggs and her associates in two different phases indicates that the *Tune into Reading* technology program significantly improves reading scores for students who are native English speakers (2006). Several research studies were conducted with elementary, middle, and high school students in three school districts. Results for each study indicated an increase in fluency and comprehension skills after using this program for nine weeks (Biggs, et al., 2006).

During the first phase of research, a study was conducted with middle and elementary school students who were identified as struggling readers based on failing the reading portion of the Florida Comprehensive Assessment Test. Those in the treatment group worked with this software in the computer lab for thirty minutes three times a week during a nine week period of their language arts class. Students in the control group received reading instruction during their language arts class, but did not work with the software. All students were assessed in word recognition, comprehension, reading fluency, and instructional reading level at the beginning and end of the study. Results showed that students in the treatment group outperformed their peers in the control group in all areas. In the area of instructional reading level, students in the control group had a decline of .08 in their scores from the pretest to the posttest. However, students in the treatment group had an increase of 1.45 in their scores, indicating an improvement of one year and four months during the nine week study. The impetus behind this drastic improvement is the ability of the music to motivate and engage students to read and sing the same song several times. This repetition helps students learn words and improves reading fluency (Wahl, 2007).

A second phase of research was conducted which involved students from the control group in phase one who became the treatment group in phase two. These students were tested in the same areas of reading as listed in phase one. One significant difference was the change in duration of the study, from nine weeks to six weeks. Results from this phase of research were consistent with those in the first phase, indicating that students in the treatment group outperformed their peers in the control group in all areas. For

instructional reading level, struggling readers in the treatment group who used the *Tune Into Reading* software had a mean increase of 1.4 years in just six weeks! It appeared that the technology, combined with singing, enhanced growth in literacy because the students were motivated by singing, worked hard to be independent, and used alternative texts which offered variety and depth to their reading (Briggs, et al., 2006).

Other educators who have incorporated music into instruction experienced positive results. Paul Young, principal of an inner city school, says that music and the arts transformed his school. When he first started working at the school it had the lowest test scores in the district, and there was a feeling of frustration and anger by both teachers and students alike. Over a period of six years, Young worked to ensure that the arts were gradually incorporated into instruction, both during and after school. The Intervention Assistance Team worked with students who were at-risk to find their strengths in music and the arts. They tapped into these strengths by using them as a springboard to invite students into the world of learning. This proved to motivate students and engage them in school. Over time, the atmosphere of the school improved along with student learning. Within six years, test scores went from the lowest to the highest in the district for grades one, four, and six. Young attributes this success to an increase in music and arts classes offered to all students (Young, 2003).

Most of the existing research has not focused specifically on the benefits of music for ELLs. However, Ha (2006) researched the effect of using music and story to increase ELLs' motivation to read and retell. She selected four stories with music that represented the title and characters in the story. Students were engaged in discussions of how the

music created feelings which helped them predict the main idea or emotion the story evoked. The researcher and students would discuss the musical instruments used and how they were appropriate in describing the character of the story. Finally, after each story was read, listened to and discussed, students were assessed on their ability to retell the story. Ha found that the music helped students recall certain parts of a story. For example, the French horn music which represented the wolf in *Peter and the Wolf* was so dramatic that none of the students forgot that part of the story when they retold it. In addition, all of the students improved their ability to retell stories during the course of the research. The students' scores on retelling improved between three to five points from the first story to the last, with an average improvement of four points. Ha found that as the study progressed, the ELLs' motivation to read increased because the music acted as a magnet which drew them into the story. During the conversations she had with students during the post-assessment, Ha noted that five of the six students said they had so much fun with the music and stories during the research that they wanted to re-read the stories and listen to the music over and over again (Ha, 2006).

While music appears to motivate some students to improve reading, the question arises as to what skills children need in order to be successful readers. Before children learn how to read, they must be immersed in a rich oral language environment which allows them to experience the communicative aspect of language. This provides them with the form, vocabulary, and expressive nature of oral language which is essential to understand before learning how to read.

## Oral Language

Children must be exposed to oral language and listen to its sounds in order to become literate. There are three components of oral language which are important for children to acquire before they learn how to read. These are form, content, and function (Fatticci, 2009).

Form includes phonology, morphology, and syntax. Phonology is the study of sounds in words while morphology includes the meaningful part of words such as prefixes, suffixes, and base words. Syntax is the order of words in a sentence. Children need to break words apart into their individual sounds as well as understand what words and word parts mean. For example, students learning English need to know the various pronunciations of the /ed/ morpheme to be successful communicators. For example, the /ed/ morpheme is pronounced as /t/ in words such as stopped which end in a voiceless sound. However, if a word ends in a voiced sound as in hummed, the /ed/ morpheme is pronounced as /d/. Finally, if a verb ends in a /d/ or /t/ as in wanted, it is pronounced as /ə d/ (Avery & Ehrlich, 1992). Lack of knowledge in these areas can cause errors in pronunciation which may interfere with communication.

The second component of oral language is content which contains the vocabulary and semantics of a language. Vocabulary includes the words we use to express ourselves, and semantics is the understanding of the words in context. Semantics goes beyond the literal meaning of the words into their implied meaning which includes idioms and sarcasm. For example, students need to know that if their teacher tells them to look up a

word, she does not want them to look at the ceiling; rather, they should look for the word in the dictionary to find its meaning.

The third component of oral language is function or the purpose of the language. Is the purpose of our language meant to express our needs and wants, ask questions, explain, persuade, or entertain? In order to fulfill this function, the previous two components must be in place so children have sufficient vocabulary and knowledge of the language structure to be able to express themselves in a way that is understood by speakers of that language (Fatticci, 2009). These components of oral language are learned through experience and continuous exposure to the language.

As children gain an understanding of the components of oral language, they notice how people use their voice when speaking. There is much expression in oral language which results from the way words are chunked together into meaningful phrases. Expression also results from the inflections or pitches used in the voice. This is most clearly manifested when teachers read books aloud to children because they often use different voices to differentiate between characters. Thus, storytelling and reading books aloud are essential because they model oral language and help develop oral language skills among children.

Through exposure to a rich oral language environment, children are given the background knowledge necessary to begin the path towards literacy. Successful instruction in learning how to read involves several components which must be used in tandem to help a child become literate. A discussion of the elements of reading will now follow in an effort to understand how children learn to read.

## Reading Fluency

Reading is the complex process of constructing meaning from text. There are several steps in this process which are necessary in order for a student to be a successful reader. The National Reading Panel has determined that there are five components of reading instruction which are phonemic awareness, phonics, word recognition, fluency, and comprehension. All five of these components should be taught using a balanced literacy approach which incorporates research-based best practices in order for students to become proficient readers (Hasbrouck, 2007).

For the purpose of this capstone, the focus will be on phonemic awareness and fluency, two of the components of a balanced literacy approach. Phonemic awareness is the understanding that words are made up of small parts called phonemes. These phonemes can be segmented to break words apart, or blended with other phonemes to create new words. For example, the word “b/l/a/c/k/” has five letters and three phonemes: /b/, /æ/, and /k/. The word “cat” has three letters and three phonemes: /k/, /æ/, and /t/. The first phoneme can be taken away and replaced by another phoneme /b/ to create the word b/a/t/. It is imperative to remember that phonemic awareness relies strictly upon aural skills and does not involve printed letters. Working with oral language and sounds in this way provides a foundation for success in learning how to read and spell (NICHD, 2000).

Another component of a balanced literacy approach is fluency. Rasinski, (as cited in Hicks, 2009), defined fluency as reading “quickly, effortlessly, and efficiently with good, meaningful expression” (p. 319). When students read fluently, they make reading

sound like talking (Hasbrouck & Tindal, 2006). There are three components of fluency which are reading rate, accuracy, and prosody. Rate is the speed of reading while accuracy refers to reading words correctly by sight or by decoding. Prosody is reading smoothly and effortlessly with appropriate phrasing and expression (Hicks, 2009). There are three key elements in prosody which are stress, intonation, and duration.

Stress is the emphasis placed on words or word parts. It is important because stress can change the meaning and part of speech among words with identical spellings. For example, *r/e/c/o/r/d/* can be pronounced with stress on the first syllable which is *R/E/C/o/r/d/*. This word is a noun that means the best performance in a sport or a document that contains information. However, if the stress is put on the second syllable, the word is pronounced as *r/e/C/O/R/D/* which is a verb that means to take note of or write down. Unless one has extensive knowledge of English, it is easy to put stress on the wrong syllable of the word when reading which creates a sentence that is unintelligible (Rasinski, 2003).

Duration relates to the timing between words and phrases. Pauses in oral language are essential to understanding the phrase boundaries between words. Most of the meaning in sentences is found in phrases, not in individual words. Through repeated exposure to oral language, children learn speech patterns which they can transfer to oral reading. In written text, pauses are usually indicated by punctuation marks. However, this is not always the case. Thus, the reader has to draw upon previous experience with oral language to decipher where the phrase boundaries in the sentence are. Reading

fluently requires the reader to chunk words together into syntactically appropriate phrases (Rasinski, 2003).

Intonation refers to the variations in pitch produced by the voice when speaking and reading. When asking yes or no questions, the pitch of the voice goes up at the end of the question. If *Wh* questions are asked, the intonation rises and then falls at the end of the question. In order to read fluently, there must be appropriate intonation which makes reading sound like speaking. Stress, duration, and intonation are suprasegmental features of language because they go beyond individual words and sounds to include entire phrases and sentences (Dowhower, as cited in Daly, 2009).

When children learn to read, they spend much time on identifying letter sounds, words, and word meanings. In addition, they use strategies to help decode unknown words. Thus, much of their energy is spent on accuracy in word-by-word reading. However, with practice children learn how to automatically identify words without having to concentrate on them. This helps them move from word-by-word reading to more meaningful reading where words are chunked together into phrases (Deeney, 2010). Students who can read fluently use fewer cognitive resources for decoding, so they are able to focus on comprehension in efforts to understand what they read. During this process, students find that meaning is not only found in words, but in phrasing, pausing, intonation, and expression (Rasinski, 2003).

A study on reading fluency and comprehension was sponsored by the United States Department of Education. Over one thousand fourth graders were assessed in reading a short passage aloud. They were given a score that ranged from one to four

based on the rubric in the Multidimensional Fluency Scale (see Appendix B). After this oral reading assessment, the same students were given a comprehension test on a set of passages they read silently. Results showed that the most fluent readers scored the highest on the comprehension test. Likewise, the students who struggled with fluent oral reading had the most difficulty with comprehension despite the fact that they had a high rate of accuracy in word identification (Rasinski, 2003). This shows how fluency can be seen as a prerequisite to comprehension.

Fluency development requires diligent practice and effort. It can be more challenging for some students, such as ELLs, who have linguistic backgrounds in a variety of different languages (Taguchi, 2004). This is primarily due to low levels of oral language skills in English which result in limited vocabulary as well as lack of knowledge in phonology, morphology, syntax, and semantics. However, ELLs who have strong literacy skills in their first language (L1) are usually quite successful in acquiring English reading fluency; they often outperform native language speakers.

One of the hindrances to the successful development of reading fluency among students is the fact that struggling readers are often given texts that are too difficult to read. This leads to a high frustration level because many of the words are unknown. Consequently, students' reading is slow, labored, and choppy because they frequently need to stop and decode which leads to word-by-word reading instead of fluent reading. As a result, struggling readers spend far less time reading which limits their vocabulary development.

### Strategies for Enhancing Reading Fluency

Since some students struggle in achieving reading fluency, it is necessary to discuss fluency interventions which have proven to be successful with readers who have not had rich oral language experiences in English. This topic relates to the research question which seeks to discover the effectiveness of a singing intervention which is hoped to improve the reading fluency of ELLs.

Most of the research on reading fluency focuses on ways to improve the rate and accuracy of reading. The *Read Naturally* program is one such example. This program is based on the premise that there are three ways to improve reading fluency which include teacher modeling, repeated readings, and monitoring of student progress (Hasbrouck (1999). Before the *Read Naturally* program begins, a teacher needs to determine the student's fluency level using curriculum-based measurements. The teacher and student then set a reasonable fluency goal. After this, the student is given reading materials at the appropriate level of difficulty. The first step in the *Read Naturally* program is reading an unknown text at the appropriate level, and recording the words correct per minute (WCPM). Second, the student rereads the same text while listening to an audio recording or a teacher read it aloud. Third, the student rereads the text independently several times and uses a timer to monitor progress. Next, the teacher listens to the student read aloud to see if he or she has met the desired goal. Finally, the student completes a graph which shows the progress made. This has been proven to be a motivator to help students improve their reading fluency (Hasbrouck, 1999).

While fluency research among ELLs is limited, a study was conducted with Spanish-English bilingual students using a translated version of the *Read Naturally* program. This study involved first and second graders and included teacher modeling, repeated reading, and monitoring of student progress. Results showed that the oral reading fluency skills of ELLs improved after working with the *Read Naturally* program. Students who were highly engaged improved by an average of thirty-two words correct per minute. Their counterparts who showed a lower level of engagement increased by an average of ten words correct per minute. In addition, reading comprehension skills also showed improvement at the end of this study. This shows the positive effects the *Read Naturally* program had on the oral reading fluency skills of Spanish-English bilingual students (Shanahan & Beck, as cited in August & Shanahan, 2006).

One of the key elements in the *Read Naturally* program is rereading the same text to reach a desired goal. For over three decades, research has shown that repeated reading is a strategy that is effective in improving reading fluency. The power of this strategy lies in the practice of engaging students with the same text. However, the success of this strategy lies in the text level the students are re-reading and the assistance they are receiving. For optimum results, the text should be just below each student's instructional level (Hicks, 2009). This provides manageable reading material that will allow them to be successful in attaining fluency goals. In addition, students should listen to a model rereading the text aloud or be provided with an audio tape recording of the text to follow along with while listening. Research has found that this assisted rereading method is the most successful for both ELLs and native speakers alike (Taguchi, 2004).

There are several variations of the repeated reading intervention; one of them is called Reader's Theater. When students are engaged in reader's theater, they dramatically reenact a text and perform it for classmates while reading the script. In this process, students practice rehearsing and rereading the same text several times with appropriate expression. This provides an opportunity for students to share their work through a performance with a small audience. Research has shown this to be an effective way to enhance students' reading fluency (Allington, 2009). An ESL teacher conducted a research project to see if Readers Theater improved the prosody and reading fluency of second grade ELLs. She found that her students improved as much as thirty percent in their reading fluency and prosody scores because of the repeated readings which were conducted during rehearsals of the performance. In interviews with students at the conclusion of the project, she found that they were motivated by the goal of working hard for the performance they enjoyed (Daly, 2009).

Another variation of repeated readings is paired repeated reading which has been very effective in improving ELLs' accuracy and reading fluency. During paired reading, a child works one-on-one with a skilled reader who fluently reads a book or passage aloud while the struggling reader follows. Then, the roles are reversed so the struggling reader rereads the same passage aloud while the skilled reader listens (Li, & Nes, 2001). This paired repeated reading allows readers to focus on a particular text while listening to a skilled reader model fluent reading.

### Fluency and ELLs

ELLs face additional challenges when learning to read which need to be understood and supported by their teachers (August & Shanahan, 2006). One is their incomplete understanding of the English language which leaves them with a much smaller vocabulary as well as lack of knowledge in the areas of syntax, morphology, and semantics. This makes reading more difficult and can significantly slow the reading process. However, if children are literate in their L1, most learners find literacy in their second language (L2) much easier because they already understand concepts of print and have reading skills such as phonemic awareness which can be transferred to L2 (Genesee, et al. as cited in August and Shanahan, 2006). Second, ELLs have the added challenge of learning the prosodic elements of English in their speech and transferring them to oral reading in efforts to become fluent readers. Third, ELLs need to understand the texts they are reading in order to become fluent readers. Some texts involve cultural experiences that ELLs have not had, so they need help building background knowledge or schemata in order to relate to the stories they read (Daly, 2009). Finally, ELLs sometimes have interference from their first language which causes them to make mistakes in pronunciation and/or grammar. It is evident that without scaffolding of instruction to fill these gaps, reading becomes very frustrating for ELLs. Therefore, they need academic support which will give them the tools they need to succeed in school and beyond.

Surprisingly, research on first and second language literacy has shown that English oral language skills are not a predictor of word recognition and pseudoword

decoding as some had previously thought (Geva, 2000, as cited in August & Shanahan, 2006). Instead, it was found that phonological processing skills, such as phonemic awareness and rapid automatized letter naming, proved to be a predictor of word recognition and spelling skills among ELLs at the primary level. However, research regarding the relationship between reading comprehension and oral proficiency in English revealed a strong correlation. This indicates that oral language skills in English are a predictor of reading comprehension skills. In addition, researchers found a direct correlation between vocabulary knowledge and reading comprehension which adds significance to this relationship (Geva 2000, as cited in August & Shanahan, 2006).

### Fluency Assessment

Since fluency is a critical component of reading, it is of utmost importance that it be regularly assessed so that teachers are aware of successes and failures in student learning. This information can be used to show the effectiveness of various teaching methods and allows for modifications to be made in cases where instruction is not producing the desired results.

There are three main assessments that can be used to help determine a student's reading fluency. They are the Dynamic Indicators of Basic Early Literacy Skills or DIBELS test, the Multidimensional Fluency Assessment Scale, and the Fluency Assessment System (Allington, 2009). The most common and widely used fluency assessment is the Dynamic Indicators of Basic Early Literacy Skills or DIBELS test. This test has four main subtests which include letter naming fluency, initial sound fluency, phonemic segmentation, and passage reading. While these tests are designed to

help identify students who are struggling in one of these areas, they are considered by most researchers to be an invalid and unreliable assessment of reading fluency (Allington, 2009). The reason lies in the fact that DIBELS tests students on how quickly and accurately they respond to letter names or initial sounds which is really not fluency as defined in this research project. While the DIBELS tests measure student learning in the areas of letter and sound identification as well as phoneme segmentation, it is a mistake to assume they measure all aspects of reading fluency. Plus, there is no reliable measure of comprehension in the DIBELS test, so teachers do not really know if the students understand what they read at a fast pace (Allington, 2009).

Researchers have found that curriculum-based assessments are more effective than standardized tests because they allow teachers to track students' progress in different areas and see how well students are learning the curriculum. This is valuable because teachers can find areas where students are both excelling and struggling and adjust instruction to best meet the students' needs. Two of these curriculum-based assessments are the Multidimensional Fluency Scale and the Fluency Assessment System.

The Multidimensional Fluency Scale is a rubric which measures aspects of reading fluency such as phrasing, expression, and timing. It is essential to use a fluency scale because these aspects are just as much a part of fluency as the number of correct words read per minute. Teachers who use this scale give students a score of one through four for each category of phrasing, smoothness, and pace. For example, if a student reads with appropriate phrasing, a score of four will be given. However, if a student reads with several pauses and shows little sense of phrases, a score of one will be given. Thus, this

fluency scale gives a clear indication of the student's ability to read fluently with phrasing and expression (Zutell & Rasinski, 1991).

The other curriculum-based assessment is the Fluency Assessment System which includes a computer software program called *Sound Companion* (Johnston, as cited in Rasinski, 2006). This program allows students to read into a computer and make sound files which can be recorded and saved. Students can then play back their sound file and evaluate their own fluency. In addition, the sound file is sent to a company which has raters who evaluate each student's reading sample. One of the most impressive features of the software is that it allows students to see the fluctuation in their voice on the computer screen, which creates a visual medium for students to see what their voice does when they read.

This technology program supplies information on expression, smoothness, and pace (ESP) as it relates to student reading. Expression refers to phrasing or grouping words into meaningful chunks based on the punctuation. Intonation is the pitch of the reader's voice. Specific words are emphasized to show the contour of the phrasing and punctuation in each sentence. When questions are asked, the pitch of the voice goes up at the end of the sentence. Likewise, a sentence that ends in an exclamation mark has a rising and falling intonation pattern which reflects excitement in the voice. Smoothness describes the fluency of reading. Some children make abrupt pauses which cause choppy reading. Smooth reading is free from stops and flows so it sounds as if one were talking. Pace refers to the reading rate which should be neither too fast nor too slow so as to make the reading intelligible and easy to understand.

The reading samples that are recorded by students who use *Sound Companion* are sent in to the company by the teacher who logs into the technology system and stores the recordings on a server. Two raters at the company listen to each reading sample and give scores on a scale of one to four. Over a four year period, raters listened to over ten thousand samples. The reliability rate for exact matches in scores was sixty-six percent and ninety-four percent for scores that differed in one point. Thus, six percent of the reading samples were sent on to a third rater as there was a difference in more than one point between the two raters (Johnston, 2005).

Research has shown how students' reading fluency can improve with the use of the *Sound Companion* technology program (Johnston, as cited in Rasinski, 2006). A pilot study was conducted by a group of thirty-five teachers who used the Fluency Assessment System after receiving training in strategies that teach fluency. Michelle Rezek, one of the teachers, recorded her fifth graders' scores using this technology program. Throughout the school year, she used fluency interventions learned during training and continued to collect fluency samples. One of Ms. Rezek's students went from reading sixty words per minute at the beginning of the year to one hundred thirty words per minute at the end of the school year. Results on the standardized reading test showed that for the first time ever this student was finally reading at grade level.

One of the factors that contribute to the success of the *Sound Companion* technology program is the instant feedback the students receive after reading. They can listen to the reading while watching the fluctuations in their voice. Then, students can evaluate themselves on how they read with expression, smoothness, and pace. This

combination of aural and visual feedback helps students see their strengths and weaknesses, so they know which areas need improvement (Johnston, as cited in Rasinski, 2006).

### Conclusion

In the course of this literature review, three gaps in the research were found. First, little attention has been paid to finding out how singing can help develop the oral language and reading fluency of ELLs despite the fact that researchers have found a connection between music and language. Since learning and practicing a song requires repeated readings of the song lyrics, this could prove to be an effective intervention for ELLs. Second, there is little research, with the exception of Ha's study, which shows how ELLs respond to music. Third, research has neglected to comment on fluency assessments which are effective with ELLs.

Several topics related to music, literacy, and ELLs have been addressed in this chapter in an attempt to answer the question, "How does a music program affect the reading fluency of second grade ELLs?" The literature discussed has shown that language and music share characteristics in common such as sound discrimination, rhythm, stress, intonation, and volume. Music has provided an impetus to increase students' motivation to learn as is evidenced by the *Tune into Reading* program. Additionally, fluency is important for reading because it helps develop accurate and effortless readers who can understand and interpret what they have just read. Some ELLs struggle with reading fluency, so they need additional support through repeated and paired readings. It is of utmost importance that teachers monitor and assess progress

during reading to adjust instruction to meet students' needs. The most simple and effective assessments are the Multidimensional Fluency Scale and the Fluency Assessment System (Zutell & Rasinski, 1991). An analysis of the mentioned subjects here has led to the research that follows.

In the next chapter, I will discuss the methodology of my research project. Topics to be discussed include the research paradigm, participants, setting, assessments, scoring, method used in performing the research, and elicitation of data.

## CHAPTER THREE: METHODOLOGY

### Participants and Research Design

In this chapter, I will explain the method of my research. This includes the research paradigm, setting, participants, assessments, scoring, procedure, and elicitation of data. For my research, I am seeking to answer the questions, “How does a music program affect the reading fluency of second grade ELLs? Does the repeated singing of American folk songs help improve reading fluency in the areas of timing, stress, and intonation?” I want to find answers to these questions in order to help educators find an effective and enjoyable way to help their ELLs become fluent readers.

#### Research Paradigm

This study involves quasi-experimental classroom-based research. The goal of experimental research is to manipulate one or more variables to determine its effect on another variable. Most experimental studies involve a pre-test and post-test to compare performance both before and after the research. There are two types of experimental research: quasi-experimental and experimental. Quasi-experimental research involves subjects who were selected in a nonrandom fashion, while experimental research is conducted with a random group of subjects (Mackey & Gass, 2005).

I chose classroom-based research as my paradigm because I felt it was most appropriate for the purposes of this study. The variable I controlled was singing because I wanted to examine its effect on the reading fluency of ELLs. I performed a pre-test and post-test that measured ELLs reading fluency. These tests were used to assess the effects

of the treatment or intervention. There was a short duration of this research project, because it was conducted in a three and a half week period. During that time, I only saw the students two times per week for a total of six lessons. Since I used a nonrandom group of students for my study, it is considered quasi-experimental research. The research was conducted in my classroom which seemed most appropriate for eliciting the data in this study. Thus, I performed classroom-based quasi-experimental research.

### Setting

The setting for my research was an elementary school in a large city in the Midwest. This school serves five hundred and eighty students in kindergarten through fifth grade. Due to school closings in the district last year, boundaries shifted so there are over two hundred new students at the school this year. There are currently ninety-three ELLs in attendance at the school. The ESL program is new this year so several students came from other schools across the district.

### Participants

<b>Name</b>	<b>Gender</b>	<b>Country</b>	<b>Language</b>	<b>Level</b>
Juan	M	El Salvador	Spanish	Advanced
Destiny	F	Liberia	Lib. English	Advanced
Hassan	M	Egypt	Arabic	Beginner
Diego	M	Mexico	Spanish	Adv. Beginner
Lupita	F	Guatemala	Spanish	Beginner
Maria	F	Mexico	Spanish	Intermediate
Teresa	F	Mexico	Spanish	Advanced

*Table 1: Participants*

For my research, I worked with seven second grade ELLs at my school who were seven and eight years old. There were three boys and four girls who participated in this study. They are from Mexico, El Salvador, Guatemala, Liberia, and Egypt, and speak Spanish, Liberian English, and Arabic. Over half of these students were born in the United States. One of these students is at the advanced beginner language proficiency level, two are at the beginner level, one is at the intermediate level, and three are at the advanced level. I chose to conduct this research project with these students because they are all in the same class which made this research feasible. All of these students qualify for ESL services and receive daily ESL instruction. Only one of these students has difficulty communicating in English and this student is the only one who has a non-native English accent. However, all of these ELLs struggle with cognitive academic language proficiency and are behind their peers in most of their academic subjects. So, I focused on improving their reading fluency through an intervention which involved singing American folk songs.

### Procedure

The focus of my research was to discover how a music program influences ELLs reading fluency. I wanted to see if teaching the prosody of English through songs improved the reading fluency of ELLs. Thus, the literature I selected for this teaching intervention was American folk songs. Since song lyrics are poetry, the students were reading poems set to music. The following is a list of songs included in this research project, and the areas of prosody I focused on while working with these songs.

American Folk Song	Timing	Stress	Intonation
Ida Red		X	
Paige's Train		X	
Home on the Range	X	X	
Over the River and Through the Woods			X
I've Been Working on the Railroad	X	X	
<b>Control Poems for Assessment</b>			
Deep in the Heart of Texas			
Two Little Sausages			

*Table 2: Songs and poems*

Before beginning my research, I obtained approval to conduct this study from Hamline University as well as my school district in order to ensure the ethics of this research project. In addition, I wrote a letter to parents requesting permission to conduct this research project with their child. Pseudo names were used to protect the identity of the students.

#### Pre-tests

Once these preliminary steps were complete, I gave each student a pre-test which consisted of a fluency assessment. First, I obtained Developmental Reading Assessment (DRA) scores (Norfleet, 2010) from the ESL teacher at my school so I knew what the students' instructional reading level was. Then, I performed the pre-test. This consisted of gathering the ESL students together and giving them the lyrics of *Ida Red*. We practiced reading it together before each student was assessed. Then, I gave students the lyrics for *Deep in the Heart of Texas* and repeated the same procedure. The reason I did this was to see if there would be transfer of skills learned through the song treatments and

lessons on prosody. I made a digital audio recording of each student's reading so I could listen and assess each student's intonation, stress, and timing based on the Multidimensional Fluency Scale (Zutell and Rasinski, 1991). In order to ensure reliability,

Questions of validity arise when working with a nonrandom sampling of students. For example, these ELLs were at different language proficiency levels and different reading levels which are more indicative of a random sampling of students. However, I had to work with this nonrandom sampling of students as they were all in the same class. Even though this may seem like a setback, it actually increases the external validity of this research which seeks to discover if the results of this project can be generalizable to a wider population of ELLs (Mackey & Gass, 2005).

### Scoring

As each student read the song lyrics, I recorded them using either a voice recorder or iMovie on my computer. Then I listened to each recording several times to ensure that I gave each student the correct score. First I listened to timing and gave each student a score from one to four. Then I repeated the process for the areas of stress and intonation. In order to ensure reliability, I consulted another teacher in my building who works with these students. She listened and gave each student a score without seeing the scores I had already assigned to the students. We found that the results were close as we both assigned the same score to the students several times. However, when our scores did not match, we found that she tended to give students' scores that were one point higher than mine. To settle this disparity, I averaged the scores. For example, if I gave the student a

1 and she gave a 2, the final score I assigned was 1.5. It seemed that this was the best way to ensure the most accurate results.

### Daily Instructional Procedures

#### Week 1 Lesson A

I began this lesson with singing *Ida Red*. I made a PowerPoint presentation of the song so each student could follow the lyrics as we worked with the song. I printed the song lyrics for the students to take and leave at home so they could practice reading. After singing the song, I asked students what it was about. Next, I sang the song again and asked students if they noticed anything different about my voice on the word *Ida*. I explained how we make certain words louder when we talk to show they are more important than other words. This is called stress. The most important words receive greater stress than other words which are not as important.

To emphasize this point, I read the first phrase of the song in a monotone voice and asked students if they could hear any words that were louder than others. After this, I read the lyrics with appropriate stress and asked students if they noticed the difference in my voice. To reinforce the concept of stress, I used another song for guided practice. I chose *Paige's Train* and had students keep the beat on their laps while I sang the song. Students were asked to raise their hand on words that sounded louder than others. We discussed their responses and I underlined the words of the song on the PowerPoint that they suggested. The same song was sung again to check and see if we agreed or if we would change the stressed words in the song. Then, I read the song lyrics aloud with appropriate stress and asked students if the underlined words were louder than the others.

Next, students were asked to try it themselves by reading the lyrics aloud and stressing the underlined words in the song. After a short practice, we performed a choral reading of the lyrics which demonstrated the students' understanding of stress. Then I changed from my speaking voice to my singing voice by singing the song and inviting students to notice the stressed words in the song. Were they louder than the other words? Did some words have stress on a particular part of the word? After we discussed the answers to these questions, I sang the song again so students could check to see if they were correct.

After this mini-lesson on stress, I invited students to join me in a dance to the folk song *Turkey in the Straw*. This is a fun dance which students in the past have really enjoyed. First I told the students to line up in two lines facing each other making an aisle. Next, I used one of the students as my partner and modeled how they were to complete the dance steps with an action called do-si-do. Then I walked the students through each of the dance steps so they would be prepared for it when I put the music on. Once they understood the concept, I turned the music on and let them dance for a few minutes. This allowed the students a mental break and provided some physical activity which helped them stay focused for the rest of the lesson.

After movement, the students read rhythms and notes they normally read in music class. I included this as part of the research because it involves fluent reading and decoding, just like reading the English language. Next we went back to the song called *Paige's Train*. Even though we spent time with the lyrics, the students never learned to sing the song. So, I sang this song and had the students follow along as I pointed to the lyrics on the PowerPoint. I asked students to listen and tell me how many phrases there

were. To see if students were listening, I changed the words of the last phrase so the name of the girl went from Paige to Abby. The next time I changed Abby to Joseph. This time I asked students what name we should insert in place of Paige and invited the students to sing the whole song with me.

After singing *Paige's Train* together, I sang *Ida Red* while the students lined up. Then I told them we would all learn how to sing it the next time they came to music.

### Week 1 Lesson B

The next lesson began with a review of *Paige's Train* and *Ida Red*. We read the lyrics together chorally one time and then sang *Paige's Train* together one time. Then I proceeded to sing *Ida Red*. In order to help the students learn the melody, I asked them how many phrases were in the song. Then I asked which ones sounded the same. Since the first and second phrases are exactly the same melodically, I invited students to sing that while I sang the rest of the song. I explained that this was called the refrain because it was sung after each verse. Next I performed a beat ostinato and asked students to join me. After doing this for three repetitions of the song, I directed students to the PowerPoint which had the lyrics and asked everyone to read and sing with me.

Next, I asked students what they remembered about stress. We read the lyrics of *Paige's Train* together with appropriate stress. To reinforce the concept, I took the phrase, "I like ice cream" and said it three different ways. As an informal assessment, I asked students to give me thumbs up or down depending on the appropriateness of the stress I used in reading the sentence. For guided practice I presented the lyrics of a new song, *Home on the Range*, and had the students read and analyze a sentence taken from it.

Then the students read it together chorally and we evaluated ourselves in regards to how well the lyrics were read with appropriate stress.

I proceeded to read the lyrics of *Home on the Range* and paused for long periods at selected spots while racing through others. I asked students if it was easy for them to understand what I was reading. When they said no, I asked them why they felt that way. Then I gave a mini-lesson on timing, explaining how important it is to read without going too fast. On the other hand, it is also necessary to pause at certain times so words are grouped together in phrases which give meaning to what was read. I modeled reading a sentence three different ways; the first was really fast, the second was at a moderate speed with several pauses in between certain words, and the third was read with appropriate timing. Then I asked students to rate me on timing. If it was good, they would show me thumbs up. If it was okay, I would see a thumb to the side, and if it was bad, they would show me thumbs down. We discussed their reactions and why they thought each example was good or bad.

Next I gave students two sentences and asked them to practice reading it with a partner. As students worked, I circulated around the room to hear how they were doing. Then I asked for volunteers to read aloud to the class. Everyone evaluated these students on their timing. After this, I gave students a couple minutes to practice reading the song lyrics of *Home on the Range* making sure to use appropriate timing. Finally, we did a choral reading of the song lyrics and sang the song.

After this focused instruction, we stood up and reviewed *Turkey in the Straw*, the dance we learned in the previous lesson. We practiced without the music first to make

sure that the students remembered the form and dance movements. Then I put on the music and we enjoyed the dance!

### Week 2 Lesson A

Today the students reviewed the songs they learned in the last two lessons. We also reviewed stress and timing by taking a sentence from *Home on the Range* and analyzing it on the PowerPoint. I asked students where they thought the pauses would be in the sentence and we practiced reading aloud to see if they were correct. Next, students found the stressed words in the sentence and we read it aloud to check our work. I asked an ELL to practice reading out loud and the class gave them a thumbs up or thumbs down to evaluate how well they did.

After this brief review, I wanted students to learn the melody of *Home on the Range*. So, I told them to listen and follow the lyrics as I sang the song. After singing it once, I told students they would go and get a whiteboard, marker, and eraser while I kept singing the song. First, I asked them to guess the number of times I would have to sing *Home on the Range* before everyone was seated. Students made predictions which I wrote on the board. Then, they lined up to get their materials while I put tally marks on the board to count the number of times I sang the song. When everyone was seated with their whiteboard, marker, and eraser, we discovered whose prediction was right. Then I invited the class to sing the song while reading the lyrics on the PowerPoint.

Next I gave a mini-lesson on intonation. I read a phrase from *Over the River and Through the Woods* in a flat voice; then I read it again with appropriate intonation. What was different about my voice the second time? This time, take your marker and draw the

sound of my voice as I read the sentence again. Does my voice go up and down, or is it flat? I selected two or three whiteboards and showed the class. Then my finger pointed to the line as I read the poem to see if it matched with my original reading. I explained to students that when people talk, their voice naturally goes up and down to make it sound more interesting. So, when we read our voices should go up and down to make it sound like we are talking.

Next, I invited the class to read one phrase from the song lyrics. They read it silently at first and then out loud. I asked students if they heard their voices go up and down when they read. We did it again, and this time I asked students to draw the contour of their voices on the whiteboard. Then I asked for a volunteer to read the phrase out loud by themselves so we could draw the contour of their voice. If there was little or no variation in the child's voice, I asked them to read it again in order to make their voice sound like they were talking. Next I asked for another volunteer to repeat the process. I proceeded to select another phrase of the song lyrics and asked students to practice reading it silently. I explained that students would be assigned partners to work with so one of them could read the phrase out loud while the other drew the contour of their voice on the whiteboard. Then, students could switch roles and repeat the process. After assigning partners, I circulated around the room to see how students were doing. When I saw groups that seemed to have a good understanding of intonation, I put another sentence up on the PowerPoint for differentiated instruction. After about four minutes of practice, I invited the class to read the sentence together and draw the contour of their voices on whiteboards.

## Week 2 Lesson B

Since this marked the halfway point of the research, I spent most of the lesson on assessment. However, we did a little work and review before I evaluated students. First, I taught the song *Over the River and Through the Woods*. Even though we had worked with the lyrics of this song, the students had never heard the melody. I began by asking how many phrases were in the song. Next I asked students what the song was about. After a brief discussion to aid in comprehension of the text, I asked students to copy my actions in patting the beat. Finally, I invited students to make up their own actions on the beat as they listened a few more times. Then I showed the PowerPoint with the song lyrics and invited students to sing along with me as they were able. The majority of the students were able to sing the song, but some of the ELLs struggled as they needed more opportunities to listen to the song.

Next we reviewed *Paige's Train* and added movement to it. We continued with our regular music lesson for a short time before the assessment. Then there was a brief review of stress and timing. I put two sentences on the PowerPoint and had the class read them together. Then I asked for two non-ESL students to read so we could evaluate them all together. We gave them thumbs up or thumbs down for each sentence focusing first on stress, then on timing. I told the class what I liked about each student's reading to reinforce aspects of fluency which were positively demonstrated.

Next the assessment began. I started with the song *Ida Red* and recorded each student reading the lyrics of the song. After they read, the rest of the class gave thumbs up or thumbs down so they were engaged; simultaneously, this allowed the ELLs to

receive immediate feedback from their peers. Next, I recorded the ELLs reading the lyrics of *Deep in the Heart of Texas* which was read in the pre-assessment. I wanted to see if the students were able to transfer their knowledge of intonation, stress, and timing into reading a text we had not worked on in class. Each time students read, I paid attention to their intonation, stress and timing and did my best to give each student a score based on the Multidimensional Fluency Assessment Scale. After class, I spent time listening to the recordings multiple times to make sure my initial evaluation was accurate.

### Week 3 Lesson A

Today we reviewed intonation, stress, and timing. Then, I showed students two contour lines on the board and asked which one should match the voice when someone is reading. Why should the contour go up and down while reading? After answering this question, we reviewed the three things that good readers need to read fluently. Then we practiced reading a sentence together and rated the group on how well it sounded in terms of intonation, stress, and timing.

Next I showed a PowerPoint with lyrics of the song, *I've Been Working on the Railroad*, and taught students the song. First I sang it and asked which words were stressed in the song. Next I underlined those words on the PowerPoint and sang the song to see if the students' answers were correct. Then I sang the song one or two more times depending on how well they identified the prominent words that were stressed in the song. Finally, I invited students to read the words with me so we could practice placing appropriate stress on the underlined words.

After reviewing stress, the lesson shifted to a focus on timing. I sang *I've Been Working on the Railroad* and asked if there were any pauses between words in the song. When we read the song lyrics, does it sound natural to pause at the end of the phrase? I explained that it is important to take short pauses at appropriate places when we read and sing, because it allows us to chunk words together into phrases. This is important in reading fluently, because it allows us to better understand the meaning of the words. Next, I asked students where they thought the pauses should come in the text. I marked each pause with a slash and then read the phrase so the students could evaluate whether the pause was in the correct place or not. When this process was complete, I gave students time to practice reading each phrase on their own. Then we read it together.

It seemed important to draw a parallel between reading and singing, so I asked students if they thought the pauses would come in the same places when I was singing the song. They checked to see if their predictions were correct. I explained that pauses in the music allow a singer to take a breath before singing the next phrase. As I sang the song again, I invited students to hold up their hand and imagine they had a paintbrush in it. They were going to paint an arch which showed each phrase in the music. When the song was over, we counted how many phrases were in it. Then we read it to see if there were five phrases in the spoken lyrics as well.

### Week 3 Lesson B

This lesson began with a review of all the songs the students learned during this research project. The students sang the songs while reading the lyrics on the PowerPoint. We reviewed intonation, stress, and timing by analyzing a sentence together on the board.

Next I put students into groups of four so they could practice reading lyrics of various songs fluently while getting feedback from their peers. As they were working, I circulated around the room to offer help and useful feedback. At last, I asked each group to practice reading their lyrics together for the rest of the class so they could be evaluated on how fluently the lyrics were read. After all the groups read together, I applauded them on their hard work and encouraged them to remember intonation, stress, and timing when reading.

#### Elicitation of the Data

After my research was conducted, I gave students a post-assessment to measure fluency and compare it to the pre-assessment scores. The post-assessment was similar to the pre-assessment as it measured intonation, stress, and timing during reading. The only difference was found in the texts. During the post-assessment, the students read an unknown poem to see if there was transfer of fluency skills to an unfamiliar text. The close alignment between the two assessments enhanced the validity of this research project. Likewise, the assessment I used was similar to those of other researchers (Daly, 2009, Zutell & Rasinski, 1991) who were measuring students' prosodic skills. Results of both of these assessments will be discussed in the following chapter.

#### Conclusion

In this chapter, I have discussed the methodology of my research. I began by explaining how my study was classified as quasi-experimental classroom-based research because the students were selected in a nonrandom fashion. Then I discussed the setting and participants in this study who speak three different languages in addition to English.

This chapter included a description of assessments and the procedure for scoring them.

Next I described my teaching methods which included the daily instructional plan.

Finally, I discussed the validity of this research in regards to elicitation of the data. In the next chapter, I will discuss and interpret the results of my research project.

## CHAPTER FOUR: RESULTS

### Data Analysis and Discussion

The focus of my research has been to answer the questions, “How does a music program affect the reading fluency of second grade ELLs? Does the repeated singing of American folk songs help improve reading fluency in the areas of timing, stress, and intonation?” The last chapter discussed the methodology of my research as well as the setting, participants, and assessments. This chapter discusses the results of my research. First I will analyze the data and explain observations I found during the research. Next I will look for patterns and trends. Finally, I will discuss how the research relates to my original question.

#### Pre-test and Post-test Results

I gave a pre-test to the students before the research was conducted to get a better understanding of their reading ability. During the pre-test, I gave students a copy of the PowerPoint slides which contained the lyrics of two songs. First there was a choral reading of *Ida Red* in which we read the text and stopped to learn difficult words. Then each student individually read the lyrics of the song while I recorded them. After this, we read the lyrics of the poem *Deep in the Heart of Texas* together and I recorded the students reading individually. Even though this poem was much longer than *Ida Red*, it contained much more repetition as one phrase was repeated four times.

After I recorded the students reading individually, I gave them a score based on the rubric (See Appendix B) which was adapted by Daly (2009) from the

Multidimensional Fluency Scale (Zutell and Rusinski, 1991) and the Oral Reading Fluency Scale (NAEP, 1995). This rubric focused on three areas of fluency: timing, stress, and intonation. A student could receive between one to four points for each section. I chose to examine each section separately in order to see which areas of fluency were affected by the research.

Halfway through the research I repeated the pre-assessment to see if there was any improvement in the students' reading after working with the song *Ida Red* during the research. The only difference in this assessment was that I recorded students using iMovie on my computer instead of using the voice recorder. This allowed me to go back and watch each student read while I listened and assigned a score using the rubric previously described.

After the research project was conducted, I gave students a post-test which followed the same format as the other assessments. The only difference was in the texts used during the post-assessment, because I added a new poem which the students had not seen before. This was done to see if there was transfer of fluency skills on an unknown reading passage.

In looking at the graph below (Figure 1) it is evident that all of the students either improved or maintained their score from the pre-test to the post-test. Five of the seven students made improvements in timing while reading the lyrics of *Ida Red* while the other two students maintained their original score. It is interesting to note that one of these students received the highest score possible on the pre-test which explains the reason why she did not show improvement. In looking at the students' final score on the post-test, it

is remarkable to see that six of the seven students earned a four which is the highest score possible.

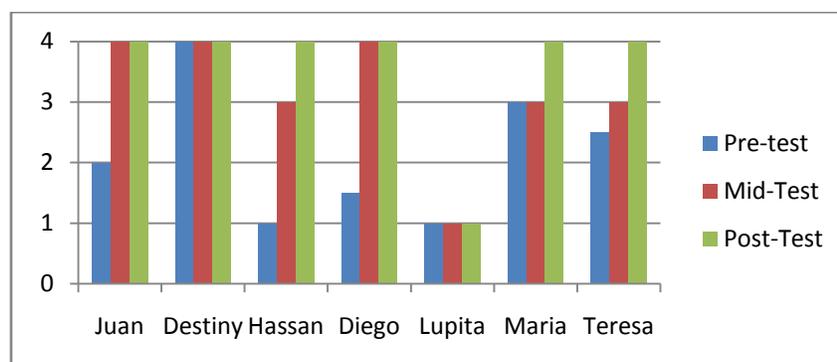


Figure 1--Results of Timing while reading "Ida Red"

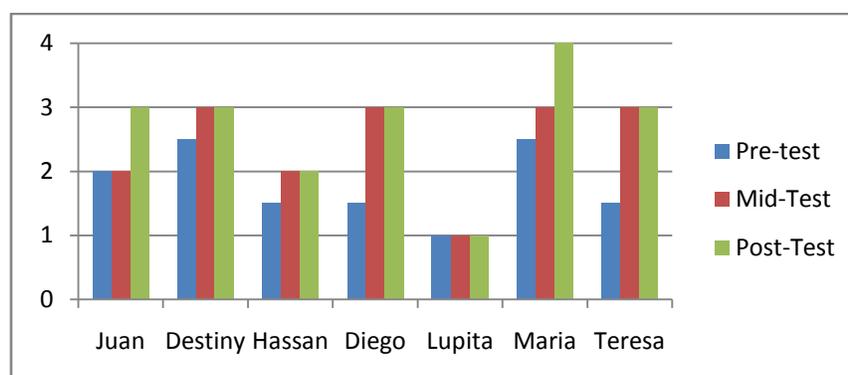


Figure 2--Results of Timing while reading "Deep in the Heart of Texas"

However, in looking at Figure 2, it is evident that reading the lyrics of *Deep in the Heart of Texas* did not yield such high results. Only one of the students received the highest score on timing during the post-test, unlike *Ida Red* where six students received the highest score. Fortunately six of the seven students did show improvement from the pre-test to the post-test. Once again, one of the students did not show any improvement in reading fluency. Since five of the seven students maintained the same score from the

mid-test to the post-test, it appears that they plateaued in making improvements while reading the song lyrics. Bear in mind that the lyrics of *Deep in the Heart of Texas* were not read or sung in music class, so the students did not work with the text from one assessment to another. This indicated that there not a strong transfer of skills. Thus, song lyrics need to be read and sung repeatedly in music class in order to achieve the best results.

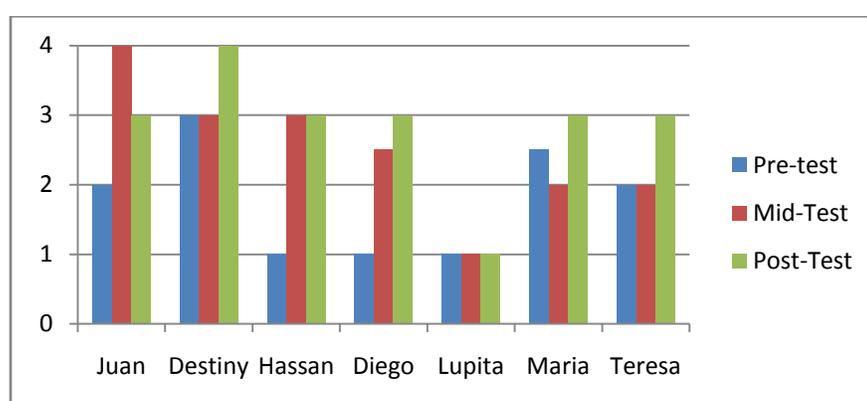


Figure 3--Results of Stress while reading "Ida Red"

Another area of fluency that I examined was stress. The graph above (Figure 3) shows results of stress while students read the lyrics of *Ida Red*. Six of the seven students showed improvements from the pre-test to the post-test. A close look at the graph shows that all but one of the students received a score of three or four on their post-test. These results indicate that the repeated singing of an American folk song improved fluency in the areas of timing and stress. The most striking aspect of this data is that Juan's score actually declined from the mid-test to the post-test. This is unusual as most of the students have either improved or maintained their score during the course of the research.

In comparing results in the area of stress, it is obvious that the transfer of skills in the control poem, *Deep in the Heart of Texas*, once again was not as successful as it was for the treatment song *Ida Red*. This is seen in the margin of improvement which was not as large as it was in *Ida Red*. In addition, only five of the seven students had a final score of three or four on *Deep in the Heart of Texas* in the post-test, compared to six students in *Ida Red*. However, the most notable difference in these results was the fact that all of the students made improvements from the pre-test to the post-test. This has not been seen in any of the results thus far. As you can see, most of the students made improvements between 1 to 1.5 points from the pre-test to the post-test. Likewise, three of the students maintained their score from the mid-test to the post-test.

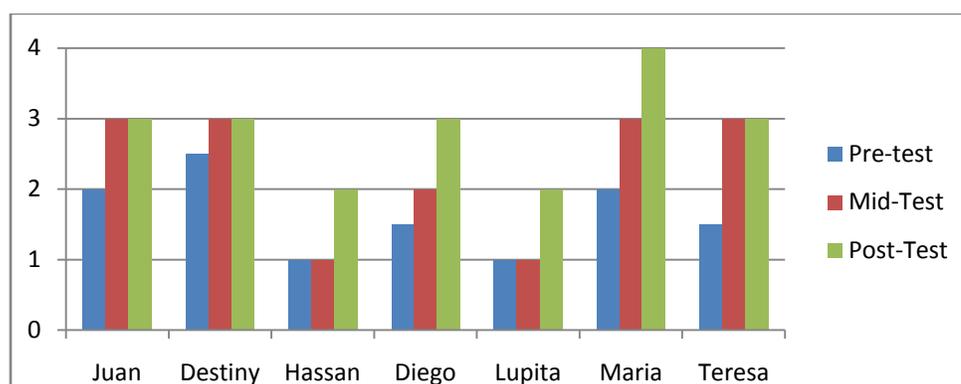


Figure 4--Results of Stress while reading “*Deep in the Heart of Texas*”

The weakest area of fluency was intonation. As is seen in Figure 5 below, the highest score was three instead of four, and only two students showed improvements from the pre-test to the post-test while reading the lyrics of *Ida Red*. This indicates that a music program improved two of the three components of reading fluency for second grade ELLs. However, there was an unexpected result during this research project; six of the seven students actually improved their intonation with the control song, *Deep in the*

*Heart of Texas*. Up until this point, there had been a trend that the control song showed the least amount of development in student's scores. Now this trend was broken by this shocking result. Even though the growth from the pre-test to the post-test only ranged from 0.5 to 1.5 points, it was positive to see progress in the student's scores.

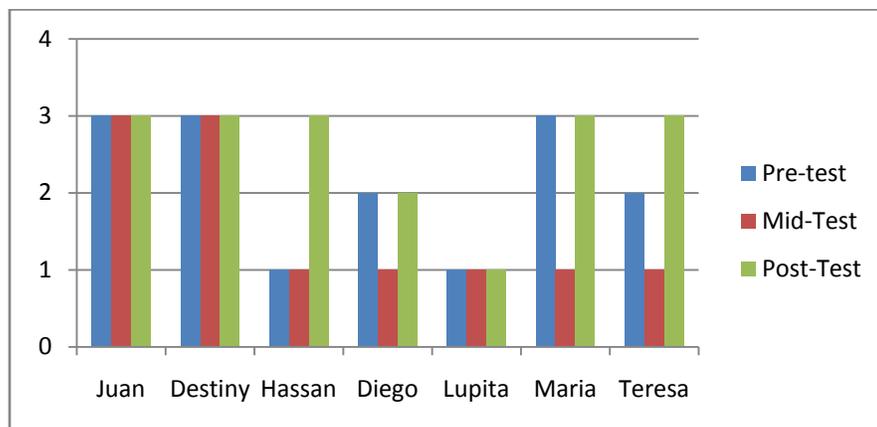


Figure 5--Results of Intonation while reading “Ida Red”

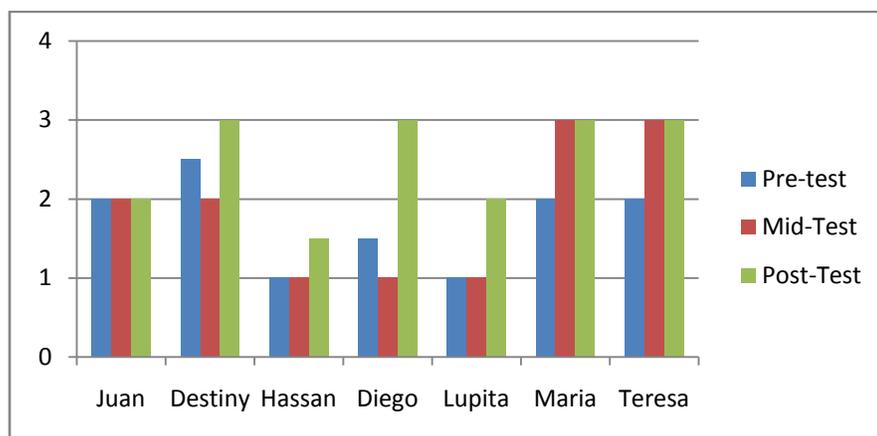
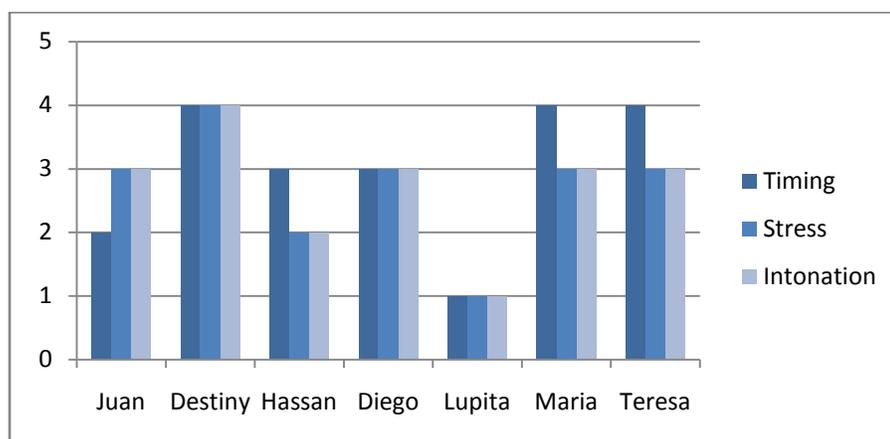


Figure 6 --Results of Intonation while reading “Deep in the Heart of Texas”

During the post-test, I asked the students to read a short poem called *Two Little Sausages* (see Appendix A). They read the poem silently before we performed a choral reading of the poem. When I asked students what words their voice could go up and

down on, they responded with the words pop and bam! The students practiced reading the poem together again and made sure their voices were expressive on the selected words. Next, I recorded each student reading the poem individually. There was no pre-test or post-test since I recorded the students reading this poem one time.

The graph below (Figure 7) shows results of timing, stress, and intonation while reading the poem. It was encouraging that four of the seven students consistently had scores of three and four in all areas. The most striking observation is that all of the students received the same score for stress and intonation. This was not found on previous post-tests as only two of the seven students received the same score for stress and intonation. Another difference in these results is the relative proximity of scores in all areas as most of the students had scores of three and four. These results indicate that there was transfer of skills with this poem since the students did well in the areas of stress and intonation.



*Figure 7--Transfer of Timing, Stress, and Intonation while reading a new poem "Two Little Sausages"*

### Interpretation of Results

In looking at the data, it is noteworthy that the students consistently scored better on reading the lyrics of the treatment song *Ida Red* than on the control song *Deep in the Heart of Texas*. It was incredible that six of the seven students received the highest score possible on the timing section of the post-test while reading the lyrics of *Ida Red*. In comparing these results to the control song *Deep in the Heart of Texas*, only one student received the highest score on the post-test. This shows the effectiveness of the research and affirms my hypothesis that a music program does indeed help improve the reading fluency of second grade ELLs. However, there are limitations to these results as only two of the three components of reading fluency showed improvement with music. Thus, the repeated singing of American folk songs helps improve reading fluency in the areas of stress and timing of second grade ELLs, but not intonation.

The reason for this improved growth lies in the repeated singing of songs in music class. Each lesson, I projected the words of each song on the whiteboard so the students could read the lyrics while singing. This repeated reading helped them find the meaningful chunks in the song and learn unknown words. Another reason for the growth in student scores lies in the analysis of the song in the areas of stress and timing.

While the students' reading fluency improved on the songs we focused on in class, there was only a small amount of transfer to other songs we did not work on in class. This tells me that as a result of this research, the students' stress and timing improved, but there was no significant improvement in intonation.

Despite the growth of the students over the course of this research project, there was one student, Lupita, who rarely made any progress. In talking with her other teachers, it was evident that she has processing and transfer issues and has been referred to child study. It is likely that she is in need of other special education services in addition to the speech therapy she is already receiving. We are hopeful that she can receive assistance to help her be successful in all areas of learning.

### Discussion

The purpose of this research was to find how a music program affected the reading fluency of second grade ELLs. Within the context of the music program, I was specifically exploring how singing and analyzing American Folk Songs would affect reading fluency in the areas of timing, stress, and intonation. During the course of this research, I found that a music program does help improve reading fluency particularly in the areas of timing and stress. It was evident that the repeated singing and reading of song lyrics was most effective in improving timing or chunking words together into meaningful phrases. This was noticeable in the students' scores as all but one of them received the highest ranking in timing while reading the lyrics of *Ida Red* which we worked on during the research. These results also show an improvement in stress as all but one of the students improved their score from the pre-test to the post-test. Unfortunately, there was very little improvement in intonation as a result of this research. Despite this, the research was successful in improving two of the three areas of reading fluency.

### Changes in Research Design

After completing the research, it is evident that changes in the research design could have potentially improved student scores and ensured greater success for the students. One of these changes involves the incorporation of lessons on intonation during the first lesson instead of the third. This would have allowed for more time to work on intonation which is arguably the most difficult aspect of reading fluency to master for both native and non-native speakers alike. The additional time on intonation could have been spent having students read sentences where the words were written at high or low levels on the board. This would have provided a visual aid to help students see which words and syllables their voice was to go up or down on when reading. In addition, the extra time on intonation lessons would have allowed me to listen to each ELL read individually while receiving immediate feedback. Since individual feedback was missing for most of the students, it may explain why there was no significant change in their intonation during the course of the research.

Another change in the research design involves more movement during the lessons since some lessons did not include movement due to time constraints. I had intended to teach students the complete dance for *Turkey in the Straw*; however, this did not happen. Rather, the students only learned the first part of the dance. Since this is a difficult dance for second graders, a simpler dance could have been selected which would have involved less instructional time. Another possibility for quickly including more movement in lessons is to have students walk the beat or perform a hand jive while singing songs or reciting poems. This short movement break would have given students

much needed time to relax and have fun while their brain was processing the learning that was occurring.

Finally, the last change involved the placement of activities in the final lesson of the research project. The students reviewed all of the songs they had learned at the beginning of the lesson. This proved to be more difficult than expected due to the amount of reading that was required in singing some of the songs. It is probable that the students would be more focused and energetic if the songs were split up so they would only sing three of the songs at the beginning before moving on to rhythmic clapping and note reading. Then, after reading well-known musical notes they are familiar with, the students could have gone back to singing the last two songs they learned during this research project. While this is a minor change, it is likely to have improved the students' focus and performance during the lesson.

### Conclusion

In this chapter I have presented the results of my research. Test scores were presented and discussed. These results showed that reading fluency improved in the areas of timing and stress for six of the seven students. However, the students actually showed more improvement in the area of intonation on the control poem, *Deep in the Heart of Texas*, than on the treatment song. These results show that a music program is effective in improving timing and stress while reading, but not intonation. This chapter then proceeded to the interpretation section where I shared explanations for the research results. In addition, I discussed the small amount of transfer skills that were found in the areas of stress and timing based on results of scores for the control poem *Deep in the*

*Heart of Texas*. Finally, the discussion section connected the results of this project to my research question, and included suggestions for improvements in future research design.

In the next chapter, I will summarize the research results and describe the potential this has on affecting my teaching. In addition, I will discuss the limitations of this project as well as topics for further research in this area.

## CHAPTER FIVE: CONCLUSION

### Summary and Implications for Future Research

This chapter includes a summary of my research project. There will be a discussion of the literature which points to best practices in reading literacy. In addition, I will share observations and reflections of my work with this project. Next, I will discuss the limitations of the research and possibilities for further research on this topic. The chapter will end with implications for future teaching.

#### Research Summary

The purpose of this research project was to answer the question, “How does a music program affect the reading fluency of second grade ELLs? American Folk Songs were selected as the literature for this research because I wanted to find the answer to another question, “Does the repeated singing of American Folk Songs help improve reading fluency in the areas of timing, stress, and intonation?” In order to find answers to these questions, I conducted classroom-based quasi-experimental research. Data was collected through pre, mid, and post-tests which recorded the students reading song lyrics. They received a score based on the Multidimensional Fluency Scale (Zutell & Rasinski, 1991) as well as the Oral Reading Fluency Scale (NAEP, 1995).

#### Findings

- The repeated singing of American Folk Songs improved the students’ timing and stress during oral reading.

- Students' ability to transfer timing and stress skills to new reading material was limited.
- Literacy can be supported across the curriculum and there are multiple ways of supporting fluency, even in music classes.

Results of this current research project indicated that a music program did affect the prosodic elements of timing and stress for second grade ELLs, but not their intonation. Since five of the seven students improved their timing and stress after the repeated singing of *Ida Red* in music class, it appears that a music program positively affected the reading fluency of second grade ELLs. These results are consistent with those of other researchers who discovered that the *Tune into Reading* software program enhanced reading fluency among students. Through repeated practice in reading song lyrics and singing songs, students were able to see a line graph of their voice and compare it to that of the song. Results indicated that struggling readers made significant progress as they students advanced more than one grade level after using the software for just six to nine weeks (Biggs et al., 2006).

These results are similar to what other researchers discovered when they examined the *Sound Companion* technology program. One of the students in the pilot study went from reading sixty words per minute at the beginning of the year to one hundred thirty words per minute at the end of the school year. Results on the standardized reading test showed that for the first time ever this student was finally reading at grade level. It appears that one of the factors that contributed to the success of the *Sound Companion* technology program was the opportunity for students to listen to

their reading while watching the fluctuations in their voice on the computer screen. This allowed them to evaluate themselves on the ability to read with expression, smoothness, and pace. This combination of aural and visual feedback helped students see their strengths and weaknesses so they knew which areas need improvement (Johnston, as cited in Rasinski, 2006).

There is yet another connection between the results of my research and those of others who examined Readers Theatre, an activity which requires the repeated reading of a text to be performed. While Readers Theater is different from singing because it involves the expressive reading of a text, it is similar in that it involves the repeated reading of the same text. Researchers have found that Readers Theater has been proven to increase prosody along with the reading rate and accuracy of students. As previously discussed in chapter two, one study found that ELLs improved an average of nearly thirty percent in their prosodic skills after working with Readers Theatre (Daly, 2009). Research results from these and other studies attest to the fact that the repeated reading strategy has been proven to be effective in enhancing reading fluency among students for over three decades (Hicks, 2009).

Unfortunately, my research results indicated that there was very little transfer of skills when students read unknown texts which were not included in the music lessons. This indicates that a music program is the most successful in improving reading fluency when the music teacher plans lessons which focus on enhancing timing, stress, and intonation using lyrics of American folk songs.

### Observations

As I taught each lesson, I noticed the behavior and reactions of the students to my teaching and the songs I presented. They really liked the songs I taught in addition to some of the activities we did. However, they were restless at various points during the lessons and in some cases I had to remind them to be quiet as there was too much talking. One of the reasons for this likely stems from my teaching. I was a bit uncomfortable teaching these lessons as they were outside the realm of what I normally teach in music class. Plus, it was my only chance to teach the lesson, where I normally teach each lesson three to four times over a period of two days. In doing so, I perfect each lesson and become more familiar with the sequence of songs and activities which actually improves the pacing of the lesson. Unfortunately that did not happen with this research project, so the students were guinea pigs. It is likely that I could have improved my teaching, and possibly the students' scores, if I had the opportunity to teach these same lessons to another class.

Time was another factor that affected the lessons. This second grade class was consistently five minutes late to each lesson as they have been most of the year. This is due to scheduling and logistics as it is a long walk from the second grade classrooms to the music room. As a result, it was difficult for me to meet all of the learning goals for each lesson. I compensated by cutting the movement short or omitting it from the lesson. This is not good as the students need to get up and move to give themselves a short mental break. However, I felt it was the part of the lesson which was the least important.

Perhaps the movement should have been modified and placed at different time periods to vary instruction and the intensity of the lesson.

The students were more successful in understanding the lessons on timing than they were in intonation which accounts for the high scores achieved in this area. Perhaps this is due to the fact that it is easier to identify the meaningful chunks of words in a song than it is to change the contour of the voice when reading. When teaching the lessons on stress, I found that the students seemed to show understanding, yet struggled to identify the stressed words in the song lyrics.

The students really enjoyed the lessons on intonation. They had fun drawing vocal contours on whiteboards. However, some of them started to be silly by exaggerating their drawings so they did not reflect the contour of the voices they heard. I showed my disapproval so it would not happen again. While the students enjoyed the lessons I taught on intonation, they were not as successful in implementing this skill compared to the others. Perhaps this is due to the lack of immediate feedback they received from me. It may also have been due to the lack of time in giving students a second chance to see if they could use more intonation in their voices while reading.

### Limitations

There are several limitations which may have affected the outcomes of this research project. These include the subjectivity of the rubric used in assessments, the lack of a control group, the non-random assignment of students to the research, and the short duration of this study.

The most notable limitation in this study was the subjectivity of the rubric used for assessing the students. The score students received was based on teacher judgment in regards to how well they read a passage with appropriate stress, timing, and intonation. This means that each person who evaluated the students could potentially give a different score within a limited range. As described in Chapter Four, this is exactly what happened when I compared my scores to those of my colleague. While we agreed on certain scores, there were instances where we each gave the same student a different score. Therefore, the rate of accuracy in scoring would be more reliable if I was solely measuring the reading rate of the students because I could calculate the number of words they read in a specified amount of time. However, this was not the case as prosody is far more subjective to evaluate. The subtleties in determining if each student read with intonation that was flat or included some pitch variation were not always easy to detect. Thus, the subjective nature of the rubric used in the assessment limited the reliability of this research project.

Another factor which limited the effectiveness of this research was the lack of a control group. Scheduling constraints made it impossible for me to have a control group, but this would have been beneficial in order to compare students' scores. The presence of a control group would have helped me prove if the lessons conducted during the research really helped improve the students' scores, or if the improvement came with time and repeated readings of the texts.

The non-random assignment of a small group of students included in this study was another limitation to the research. Only seven students participated, even though

there were three other ELLs in the class. One of the students has refused ESL services, and the other two did not return their permission slip so I was unable to include them in this study. Since there were such a small number of students involved, the results cannot be generalized. Consequently, it cannot be assumed that other second grade ELLs would have achieved the same results.

Another limitation in this study is the nature of singing and song lyrics. Since song lyrics contain repetition and are written in verse style like a poem, it may have been easier for students to read compared to text in a story. In fact, research has shown that texts which have repetitive phrases are good for students to practice rereading in order to develop reading fluency (Hicks, 2009). Also, once students sing a song repeatedly, they memorize it. At times, people have ear worms which occur when songs stick inside one's head. This causes frequent internal repetitions of the song which could have contributed to the students' improvement in timing while reading the song lyrics.

Finally, the short duration of this research limited the study. Remember that I only saw my students six times in a three and a half week period. One of the six lessons I taught included the mid-point assessment which consumed most of the lesson. Likewise, each lesson was cut short five minutes as the class was consistently late to music due to travel time in the hallway. Mathematically this results in a loss of thirty minutes which is an entire lesson. This made it extremely difficult to accomplish all of the learning goals in this study. In my opinion, it would have been better to add an additional week to the research so more time could have been allotted to intonation. All of these factors combined could have potentially increased the success of this study.

### Future Research

Now that this research project is completed, there are some questions which need future research to be answered. These include the following:

- Is it possible for singing to play a role in improving intonation while reading?
- Were the students more successful in reading the *Two Little Sausages* poem because it was short? Were they more expressive in their reading because the poem included two words with onomatopoeia?
- Why was there such a small amount of transfer of skills to unknown texts?
- In what other ways can a music program contribute to the development of literacy skills?

### Implications

This research project has caused me to look at my role as a music educator in a different light. While I am still teaching my students how to become musically literate, I now see the ways in which I can help promote reading literacy as well. When teaching a song, I will frequently ask students how many musical phrases it contains. Now I will take that a step further by comparing and contrasting the musical phrases with the spoken phrases. In the past, I would teach certain songs to the children by rote which they learned and memorized without ever seeing the lyrics. Now I am typing song lyrics on a PowerPoint presentation for the students to see. When we sing songs, I use my pointer to track the words so students can easily follow along. In addition, I frequently ask students what rhyming words can be found in the song. While working with first graders, there are times when I show them how easy it is to make words by deleting the first letter and

replacing it with a different one. These simple connections help integrate music and reading because they show students how literacy is found across the curriculum.

Music educators need to learn about the results of this research to develop an understanding of the ways they can promote reading fluency without sacrificing their curricular outcomes. I have shared some of these PowerPoint presentations with my colleagues in hopes that they will use them with students. Now I need to share the findings from this research project so my colleagues can see that music class provides a perfect opportunity to promote reading fluency, since singing songs is another avenue to practice repeated readings of the same text. In fact, singing songs and reading song lyrics does not have to be reserved for music class; it can be incorporated into any subject area. It is my hope that classroom teachers will have the confidence needed to sing and use songs which help aid in the literacy development of their students. Since many adults feel they are lacking in musical skills and are not able to sing, they limit the use of music in the classroom. This research shows how music is accessible for any teacher and can enhance fluency while helping reach students who learn through the musical intelligence.

Researchers claim that fluent oral reading is a gateway to reading comprehension (Rasinski, 2003). Therefore, educators need to be aware of the three components of reading fluency and ensure that their students are receiving instruction in prosody. Even though prosody is an often neglected aspect of reading fluency, attention must be paid to teaching it so that reading with accuracy and meaningful expression can be achieved. However, once prosody is taught, it must be evaluated in order to guide future instruction. While it is much easier to evaluate students' reading rate and accuracy, time

must be taken to rate students on their prosodic skills as well. This can be accomplished with the use of the Multidimensional Fluency Scale (Zutell and Rasinski, 1991) and the NAEP Oral Reading Fluency Scale (NAEP, 1995). The rubrics in these fluency scales should be regularly used so teachers and students can track progress in prosody. It is only when students read with appropriate stress, timing, and intonation that they will become successful readers who read with understanding.

### Concluding Comments

While this research project has been challenging, I can honestly say that I have learned a lot which has enabled me to become a better music teacher. It was rewarding to see the progress my second grade ELLs made and the joy they had in singing some of the songs studied during the course of this research project.

I found it astounding to learn how nearly every part of the brain is involved in musical activity. In addition, I gained much insight into the process of learning to read with fluency and prosody. This knowledge has affected my teaching because I now have students read song lyrics out loud before singing a song with multiple verses. If their reading is flat, I model it and ask them if that is the way they talk to their friends. When they say no, I tell them that reading should sound like talking. Next, I model how to read the lyrics with prosody and ask students to try reading with expression. It is amazing to hear the difference in their reading that results from attention to prosody! It is my hope that all children can experience the reward of their labors by gaining competence in reading with fluency. Then, they will find joy and adventure in reading. As Dr. Seuss

said, “The more that you read, the more things you will know. The more that you learn, the more places you’ll go” (Seuss, 1978).

APPENDIX A  
Lyrics of Folk Songs

**Ida Red**

Down the road and across the creek,

Can't get a letter but once a week.

Ida Red, Ida Blue, I got stuck on Ida too.

Down the road and across the creek,

Can't get a letter but once a week.

Ida Red, Ida Green, prettiest girl you've ever seen.

**Paige's Train**

Paige's train, runs so fast, can't see nothing but a window glass.

**Home on the Range****Verse 1**

Oh give me a home, where the buffalo roam, where the deer and the antelope play.

Where seldom is heard a discouraging word, and the skies are not cloudy all day.

**Refrain:**

Home, home on the range, where the deer and the antelope play.

Where seldom is heard a discouraging word, and the skies are not cloudy all day.

**Verse 2**

How often at night when the heavens are bright, with the light from the glittering stars.

Have I stood there amazed and asked as I gazed, if their glory exceeds that of ours.

**Refrain**

## **Over the River and Through the Woods**

### **Verse 1**

Over the river and through the woods, to Grandmother's house we go.  
 The horse knows the way to carry the sleigh through the white and drifted snow.  
 Over the river and through the woods oh how the wind does blow!  
 It stings the toes and bites the nose as over the ground we go.

### **Verse 2**

Over the river and through the woods trot fast my dapple gray.  
 Spring over the ground like a hunting hound for this is Thanksgiving day.  
 Over the river and through the woods now Grandmother's face I spy.  
 Hurrah for the fun! Is the pudding done?  
 Hurrah for the pumpkin pie.

## **I've Been Working on the Railroad**

I've been workin' on the railroad, all the live long day.  
 I've been workin' on the railroad just to pass the time away.  
 Don't you hear the whistle blowing? Rise up so early in the morn.  
 Don't you hear the captain shouting, "Dinah, blow your horn!"  
 Dinah won't you blow, Dinah won't you blow,  
 Dinah won't you blow your horn?  
 Dinah won't you blow, Dinah won't you blow,  
 Dinah won't you blow your horn?  
 Someone's in the kitchen with Dinah, someone's in the kitchen I know.  
 Someone's in the kitchen with Dinah, strumming on the old banjo.

Fee, fie, fiddle-e-i-o. Fee, fie, fiddle-e-i-o-o-o-o.

Fee, fie, fiddle-e-i-o. Strumming on the old banjo.

### **Control Poems used for Assessment**

#### **Deep in the Heart of Texas**

The stars at night are big and bright,

Deep in the heart of Texas.

The prairie sky is wide and high,

Deep in the heart of Texas.

The sage in bloom is like perfume,

Deep in the heart of Texas.

It reminds me of the one I love,

Deep in the heart of Texas.

#### **Two Little Sausages**

Two little sausages frying in a pan.

One went pop and the other went BAM!

APPENDIX B  
Multidimensional Fluency Scale\*

### **Timing**

**Level 1:** Reads primarily in a word-by-word fashion, with little sense of phrase boundaries. Occasional two-word and three-word phrases may occur, but these are infrequent.

**Level 2:** Reads primarily in two-word phrases with occasional three- and four-word phrases. Some word-by-word reading may be present. Word groupings may be awkward and unrelated to the larger meaning of the sentence or passage.

**Level 3:** Reads primarily in three- or four-word phrases. Some smaller phrases and some run-on sentences may still be present. Most of the phrasing is appropriate and preserves the author's meaning.

**Level 4:** Reads primarily in longer, meaningful phrases. Timing/phrasing expresses the meaning intended by the author.

### **Stress**

**Level 1:** Does not use stress appropriately. All words may be stressed equally, or emphasis may be inappropriately placed.

**Level 2:** Some sentences are read with appropriate stress, but in most cases emphasis is still not placed in a way that communicates the meaning of the text.

**Level 3:** Stress is reasonably appropriate and, in most cases, is consistent with the author's intended meaning.

**Level 4:** Stress is primarily used in an appropriate manner to express the meaning intended by the author.

## **Intonation**

**Level 1:** Intonation is flat. There is little or no variation in pitch.

**Level 2:** Some pitch variation occurs, but in most cases, intonation is not used to mark the endings of sentences and clauses appropriately.

**Level 3:** Most intonation is appropriate, though some sentences may still have flat intonation or inappropriate intonation contours.

**Level 4:** All or almost all phrase, clause and sentence boundaries are marked with appropriate intonation which is consistent with the author's intended meaning.

\*Taken from Daly, A. (2009). *Teaching Prosody through Readers Theatre*. St. Paul: Hamline University.

Adapted from the Multidimensional Fluency Scale (Zutell and Rasinski, 1991) and the NAEP Oral Reading Fluency Scale (NAEP, 1995).

## REFERENCES

- Allington, R.L. (2009). *What Really Matters in Fluency: Research-based practices across the curriculum*. Boston: Pearson Education, Inc.
- Avery, P. & Ehrlich, S. (1992). *Teaching American English Pronunciation*. Oxford: Oxford University Press.
- Biggs, M., Homan, S. & Dedrick, R. (2006). Research Abstract III: Does singing improve reading? Elementary Study Report. Retrieved November 3, 2009 from [http://www.elpcorp.com/files/ResearchAbstract\\_III.pdf](http://www.elpcorp.com/files/ResearchAbstract_III.pdf)
- Brueschke, E. (Ed.) (1988). *The World Book Medical Encyclopedia: Your guide to good health*. World Book, Inc.: Chicago.
- Daly, A. (2009). *Teaching Prosody through Readers Theatre*. Unpublished master's thesis, Hamline University, St. Paul, MN.
- Deeney, T. (2010). One-minute fluency measures: Mixed messages in assessment and instruction. *The Reading Teacher*, 63(6) 440-450.
- Erdei, P. (1974). *150 American Folk Songs to Sing Read and Play*. Boosey & Hawkes.
- Fatticci, A. (2009). *The essential phonological awareness and oral language components in a Kindergarten program, especially for kids with limited literacy experiences*. Unpublished master's thesis, Hamline University, St. Paul, MN.
- Gardner, H. (1985). *Frames of Mind*. United States of America: Basic Books.
- Genesee, F, Geva, E., Dressler, C., & Kamil, M. (2006). Synthesis: Cross-Linguistic Relationships. In In August, D. & Shanahan, T. (Eds.), (2006). *Developing Literacy in Second-Language Learners: Report of the National Literacy Panel on language-minority children and youth*. New Jersey: Lawrence Erlbaum Associates.
- Geva, E. (2006). Second-Language Oral Proficiency and Second-Language Literacy. In August, D. & Shanahan, T. (Eds.), (2006). *Developing Literacy in Second-*

*Language Learners: Report of the National Literacy Panel on language-minority children and youth.* New Jersey: Lawrence Erlbaum Associates.

- Ha, Yina (2006). *Using music and story to increase English as a second language students' motivation to read and retell.* Unpublished master's thesis, Hamline University, St. Paul, MN.
- Hasbrouck, J.E., Ihnot, C., & Rogers, G.H. (1999). "Read Naturally": A strategy to increase oral reading fluency. *Reading Research and Instruction, 39*(1) 27-37.
- Hasbrouck, J.E., & Tindal, G.A. (2006). Oral reading fluency norms: A valuable reading assessment tool for reading teachers. *The Reading Teacher, 59*(7) 636-644.
- Hicks, C.P. (2009). A lesson on reading fluency learned from the tortoise and the hare. *The Reading Teacher, 63*(4) 319-323.
- Huy Le, M. (1999). The role of music in second language learning: A Vietnamese perspective. Retrieved November 25, 2009 from <http://www.aare.edu.au/99pap/le99034.htm>
- Johnston, S. (2008). The Fluency Assessment System: Improving oral reading fluency with technology. In Rasinski, T. Blachowicz, C. & Lems, K. (Eds.), (2006). *Fluency Instruction: Research-based best practices.* New York: The Guilford Press.
- Johnston, S. (2005). Reading Fluency. Retrieved January 28, 2011 from [http://www.education.ne.gov/LCACONF/READFLUENCY\\_files/frame.htm](http://www.education.ne.gov/LCACONF/READFLUENCY_files/frame.htm)
- Kodály, Z. (1974). *The Selected Writings of Zoltán Kodály.* London: Boosey & Hawkes.
- LaBerge, D. & Samuels, S.J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology 6* 293-323.
- Levitin, D. (2006). *This is Your Brain on Music: The science of a human obsession.* New York: Plume.
- Li, D. & Nes, S. (2001) Using paired reading to help ESL students become fluent and accurate readers. *Reading Improvement, 38*(2) 50-61.
- Macky, A. & Gass, S.M., (2005) *Second Language Research: Methodology and Design.* New York: Routledge.

- Medina, S. (2002). Using Music to Enhance Second Language Acquisition: From theory to practice. Retrieved August 26, 2009 from <http://www.forefrontpublishers.com/eslmusic/articles/06.htm>
- Mora, C.F. (2000). Foreign language acquisition and melody singing. *ELT Journal*, 54(2), 146-152.
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Retrieved January 17, 2011 from [http://www.nichd.nih.gov/health/topics/national\\_reading\\_panel.cfm](http://www.nichd.nih.gov/health/topics/national_reading_panel.cfm).
- Norfleet, M. (2010). How to Find Developmental Reading Assessment Levels for Books. Retrieved February 15, 2011 from [http://www.ehow.com/how\\_6462769\\_developmental-reading-assessment-levels-books.html](http://www.ehow.com/how_6462769_developmental-reading-assessment-levels-books.html)
- Patel, A. (2007). Is Music the Universal Language? Retrieved January 3, 2011 from <http://www.abc.net.au/rn/allinthemind/stories/2007/1907069.htm>
- Rasinski, T., Blachowicz, C. & Lems, K. (Eds.), (2006) *Fluency Instruction: Research-based best practices*. New York: The Guilford Press.
- Rasinski, T. (2003). *The Fluent Reader: Oral Reading Strategies for Building Word Recognition, Fluency, and Comprehension*. New York: Scholastic.
- Samuels, S.J. (2008) *Reading Fluency: Its past, present, and future*. In Rasinski, T., Blachowicz, C. & Lems, K. (Eds.), (2006) *Fluency Instruction: Research-based best practices*. New York: The Guilford Press.
- Seuss, T. (1978). *I Can Read with My Eyes Shut!* New York: Beginner Books.
- Shanahan, T. & Beck, I. (2006). Effective Literacy Teaching for English-Language Learners. In August, D. & Shanahan, T. (Eds.), (2006). *Developing Literacy in Second-Language Learners: Report of the National Literacy Panel on language-minority children and youth*. New Jersey: Lawrence Erlbaum Associates.
- Taguchi, E. Takayasu-Maass, M., & Gorsuch, G. (2004). Developing reading fluency in EFL: How assisted repeated reading and extensive reading affect reading fluency development. *Reading in a Foreign Language*, 16(2) 70-96.
- Towell, J.H. (2000). Teaching Reading: Motivating students through music and literature. *The Reading Teacher*, 53(4), 284-289.

- Van der Horst, B. (1972). *Folk Music in America*. New York: Franklin Watts, Inc.
- Wahl, M. (2007). Florida Center for Reading Research: Tune in to Reading. Retrieved August 26, 2009 from [www.fcrr.org/FCRRReports/PDF/TuneReading.pdf](http://www.fcrr.org/FCRRReports/PDF/TuneReading.pdf).
- Young, P. (2003). Don't leave your students playing blues. *Principal*, 82(3), 20-25.
- Zutell, J. & Rasinski, T.V. (1991). Training teachers to attend to their students' oral reading fluency. *Theory Into Practice*, 30(3) 211-217.