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MUSIC AS A TOOL TO STRENGTHEN READING SKILLS

A. Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Interdisciplinary Studies:

Integrative Studies

by

Michele Lynn Lenertz

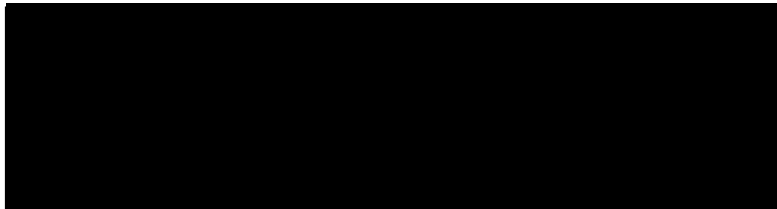
March 2002

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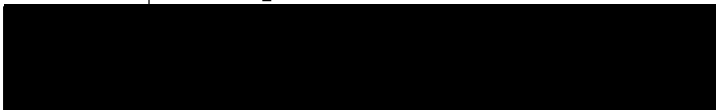
A Project
Presented to the
Faculty of
California State University,
San Bernardino

by
Michele Lynn Lenertz
March 2002

Approved by:



Robert London, Chair, Language,
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3/18/02
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ABSTRACT

The purpose of this study was to determine if teaching children to learn to read music increased the reading ability of at-risk students. The subjects were first graders in the Colton Unified School District. Ten students participated in an eight-week program that included singing, reading, writing and rhyming activities. The students were interviewed at the beginning and the end of the program to determine if their attitudes towards reading, music and school were impacted by the study. The reading, writing and word identification skills of each student were assessed throughout the study. The results indicated that music could be a contributing factor in bolstering low reading scores.

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CHAPTER ONE

ISSUES IN READING

Introduction

Strict State Standards in reading and new retention mandates are causing many districts to scramble to find programs that improve reading skills of at risk students. Music has the ability to facilitate language acquisition, reading readiness, and general intellectual development. It can also enhance creativity and promote social development, personality adjustment and self-worth (Hanschumaker as cited in Weinberger, 1998). Teaching reading through music can increase the reading ability of children reading below grade level. Children often fall behind in reading because they can not identify rhythm patterns, lack the ability to concentrate for long periods of time, and cannot distinguish different phonological sound;, i.e. the children don't have phonemic awareness. Music education can provide the practice necessary to develop these skills in the below grade level reader.

Students who are reading below grade level often have trouble distinguishing letter sounds. Teaching children to listen to changes in pitch in music is believed to help promote the ability to sound out new words. Wisbey (Douglas and Willatts, 1994) proposed that using musical activities to help children develop a multi-sensory awareness and response to sounds could prevent reading difficulties. Musical activities allow the child to both listen and create various pitches and tones in music. In addition, children who are struggling in reading or other academic areas tend to have low self-esteem. The positive energy and enthusiasm found in musical activities can be transferred into a positive attitude towards school. Music's great appeal is its ability to hold the child's attention (Zinar, 1976). Therefore, using music to teach reading skills can improve the child's ability to remember the strategies needed for reading. Feelings of accomplishment in music can motivate the child to do well in other academic areas. Music provides every opportunity for success when it is presented as a no "right or wrong," non-competitive tool of learning. Once a student has experienced

success through music often that student will seek success in other areas of the curriculum (Guaglianone, 1995).

It is hypothesized that teaching children to read songs can improve their ability to distinguish letter sounds, recognize rhyming words, and musical or word patterns. The combinations of words in chants, poems, songs and plays can be used as sources of experience with alliteration, meter, rhythm, accent and form (Whitaker, 1994). Children who are behind in reading often have not had the experience of listening to and reciting nursery rhymes. Nursery rhymes and simple songs offer opportunities to experiment with alliteration, rhythm and sentence structure.

Purpose of the Study

This project focused on the rate of growth in reading skills of two first grade classrooms. As stated, the goal of this project was to improve the reading skills of below grade level students through musical activities. These musical activities focused on reading the words to children's songs.

Approximately forty students in the Colton Unified

School District participated in the study. Classroom A served as the experimental group. Ten of the students received direct reading instruction through music activities, while the other ten students focused on reading comprehension skills. Classroom B served as the control group, therefore, the students did not receive any teaching instruction related to this project.

Ten students, who are reading below grade level standards, in the experimental classroom A received instruction in reading through musical activities over an eight-week period. The ten remaining students, in classroom A, spent their instructional time listening to chapter books during the eight-week period. These activities were provided in addition to the regular classroom reading instruction provided by the classroom teacher. The students in the control group, classroom B, did not receive any additional reading instruction beyond that of their regular classroom teacher.

When comparing these two groups the following questions were addressed. First, "Does teaching reading through music improve reading skills at a

greater rate in below grade level students?" Second,

"Does teaching reading through music improve

individual word recognition?" Third, "Does teaching

reading through music improve writing skills?"

Fourth, "Does teaching reading through music improve a

child's attitude toward reading, music and school?"

Through these findings I hope to demonstrate that

music reading instruction can have a positive affect

on reading and academic development in the below grade

level reader.

Chapter two will review the literature relevant to this project. This review will cover how music can

improve a child's reading ability. Music can reach

child on many different levels, kinesthetic, auditory,

visual, oral, and emotive. By stimulating so many

parts of a child's body at one time, music allows a

child to absorb new information on many different

levels. The more methods through which a child can

process new information, the more likely that the

child will be able to retain and utilize the

information in the future. The literature review will

look at the impact that music has on the many skills

and tools needed to become a strong reader.

The literature review has been broken down into nine sections. In the first section, Music and Learning Styles, I will address how music can be used in the classroom to enhance the different learning styles of the students. (The second section, Music and the Effect on the Brain, looks at how music can stimulate and develop different neurons in the brain, thus causing the brain to grow.) Section three, Music and Movement, will discuss how movement allows the child to experience the song and therefore increase retention of information. In the fourth section, Music and Motivation, I will review how success in music instruction can motivate a child to seek success in other curricular areas. The fifth section, Music and Learning Disabilities, will look at how music can help children with various learning disabilities learn how to read. Section six, Familiar Songs to Teach Reading, will cover how using familiar songs in a reading program can bolster reading scores. The seventh section, Experiencing Language through Music, will address how experiencing language in a musical environment can enhance a child's reading skills. The eighth section, Sound Discrimination, covers how music

can strengthen a child's sound discrimination skills and therefore increase their reading ability. The last section, Reading Music, will discuss the various skills that can be taught through music to strengthen a child's reading skills. The ideas gathered in the literature review will then become the basis for the design of the project.

Chapter three will discuss the methodology of the project. Briefly, the project will consist of working with four different songs in an eight-week period to teach reading. The four songs are Five Little Monkeys, Five Little Speckled Frogs, Ten in the Bed and Upon a Spider's Web. Each song will be used for six lessons, to be taught in a two-week period. The lesson format will follow a specific pattern. The first lesson will focus on learning the song and introducing the students to the written language. During the second lesson the children will work on rebuilding sentences and rhyming. The third lesson will emphasize rhyming words and then using this skill to create silly sentences. The fourth lesson will concentrate on rhythm sticks and syllabication. The fifth lesson will center on rhythm sticks and re-

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writing the song. The final lesson in the series will focus on building the song independently. The lesson format will then be repeated for the following two songs. Data will be collected to answer each of the four research questions stated earlier.

Chapter four will discuss the results of the testing materials used for each question. The first question, "Does teaching reading through songs improve reading levels in below grade level students?" was assessed through district running records, which were taken at the beginning and at the ending of the curriculum program. For the second question, "Does teaching reading through songs improve individual word recognition?" the district word identification test was used. This forty-word test was given at the beginning and the ending of the eight-week program. To assess the third question, "Does teaching reading through songs improve writing skills?" individual writing samples were collected from the students. The writing samples were then scored according to the district writing rubric for kindergarten and first grade. The questionnaire for the fourth question, "Does teaching reading through songs improve a child's

attitude toward reading, music and school?" was developed by comparing two other questionnaires developed for primary students. The questionnaire gives some insight on the student's attitudes towards reading, music and schooling.

Chapter five will discuss the impact the results have on teaching reading to below grade level students. Growth was seen in the reading scores of below grade level students. This growth may have been impacted by the focus on teaching reading through music during this project. Teaching reading through music may have also strengthened the attitudes of the students toward reading, music and school.

CHAPTER TWO
LITERATURE REVIEW

Introduction

Researchers are continuing to study the effect of using music to teach reading to young children. Music is seen as a tool that can improve a child's reading ability. Geoff (1977) has combined the thoughts of other researchers to formulate seven hypotheses concerning how and why music instruction improves reading. (1) The use of music creates a general positive attitude in the child, which in turn improves the student's approach to the task of learning to read words. (2) Music exposure can increase children's willingness to listen. (3) Music activities develop particular or unique aural abilities referred to as auditory perception or acuity. (4) Correct diction in singing helps a learner acquire the ability to read words. (5) Song lyrics contribute to beginning reading achievement by helping children become aware of the meaning of individual words. (6) Reading and music have similar visual functions. (7) Word reading and music are alike in that both involve "language."

Research has been done in all of the areas that Geoff has addressed that supports the use of music to teach reading. Music has the ability to impact several areas of learning at the same time. By using music to teach reading, a teacher can address the different learning styles of a classroom of children at one time. These seven hypotheses described by Geoff provide the focus of the literature review. The remaining sections will review relevant literature that relates to the seven hypotheses.

Music and Learning Styles

Children learn through different styles. While it is not possible to clearly determine which children learn best with what approach, it is clear that when a teacher provides more routes to the goal of literacy, more children will find a route to take them there. Many children are at risk for failure in our schools because their personalities do not match the approach taken to instruction (Cunningham, 1994). Some children learn better through music, others learn better through reading, while still others learn better through tactile activities. It is the

responsibility of the teacher to provide a wide range of activities to help the child learn in the most appropriate way for that child. Using music to teach reading opens a new avenue to children who might otherwise fail. Music touches many aspects within the child, such as emotional, physical, verbal and visual. Many children retain more information when it is presented in a musical format.

Gardner (Brauldi, 1996) has identified several different intelligences in his research. Gardner defines intelligence as "the capacity to solve problems or to fashion products that are valued in one or more cultural settings." (Brauldi, 1996, p.4) He believes that each person is born with several different intelligences, yet each child enters the classroom with varied strengths and weaknesses based on cultural experiences and other factors. Musical intelligence encompasses the capability to recognize and compose musical pitches, tones and rhythms.

Gardner has concluded that the different intelligences work together as a child is developing new skills and solving problems. It is the teacher's responsibility to provide lessons that allow the child to use their

various intelligences to learn new concepts. By teaching children to read songs that establish a rhythm, a teacher could help a child to develop and utilize their musical intelligence. Music can become the gateway for stimulating the musical intelligence within a child and therefore increasing their ability to learn to read. By tapping into as many intelligences as possible the world of reading is opened to more students.

In addition to addressing different intelligences, the teacher must address the environment of the classroom. Dunn, Beaurdy, & Klayas (1989) researched how the learning environment affects the learner. Dunn has found that each person learns best under different sets of conditions. Therefore, the manner in which a lesson is presented impacts the learner's achievement. Different senses can be stimulated during a lesson, thereby helping a child to remember information more easily. For example, lessons that are designed to stimulate more than one of the senses, such as hearing, seeing, speaking and experiencing, would influence the success rates of a classroom. Dunn's research has concluded that when

children are taught with multisensory resources that reinforce their initial, secondary or tertiary modality, test scores increase. Using music to teach reading engages a variety of learning modalities such as visual, auditory, and kinesthetic. By increasing the number of modalities engaged, more areas of the brain are used to process the information. Thus using music to teach reading can increase retention of skills need for reading.

Music and the Effect on the Brain

✓ Plato once said that music is "more important than any other for education." (Hancock, 1996, p. 58) Music triggers many reactions in the brain. Weinberger (1998) states that musical experiences enhance intellectual creativity in general. Listening, singing and creating music can all have positive effects on the brain. Music can set the mood for the lesson by allowing children to both imagine and feel what is happening. Researchers have noted the various effect that music can have on the brain.

✓ Scientists believe that music trains the brain for higher thinking. Through listening and making



music, parts of the brain actually grow. Weinberger (1997) states that music increases the brain's capacity and resources by increasing the strength of the connections among its neurons. Researchers at the University of Konstanz in Germany reported that exposure to music rewires neural circuits (Begley, 1996). Through their research, they discovered that musicians have a larger sensory cortex than non-musicians do. In addition the team noted that the younger a person started music instruction, the larger the sensory cortexes. Children, therefore, can benefit from music activities presented at an early age.

Often a child's first exposure to musical activities, such as group singing and rhythm instruments, is in preschool or kindergarten. Shaw (Hancock, 1996) states that early music training can enhance a child's ability to reason. Rauscher (1997) supports Shaw's claim with his study. He found a link between music and spatial-temporal reasoning ability in children. Based on his study of preschool children, Rauscher concluded that young children who receive music training exhibit long-term enhancement

of their spatial-temporal reasoning. Music can also affect areas of the brain, which control emotions.

✓ Weinberger believes that music can strongly effect behavior in children by communicating different moods and emotions. Playing positive music can help release tension and anxiety within a child, thus, allowing the student to focus on the task at hand.

✓ Kolb (1996) believes that music triggers the brain into a trance like state. Once the child enters this trance state the child can quickly commit to memory new information. Accordingly, teaching reading skills through music will allow the child to retain more of the skills presented during the lesson. Music stimulates both the mind and body.

✓ Brown (1997) believes that music can have profound effects on the body and emotional states. Music stimulates the brain, changes the heart rate, reduces mental fatigue, calms tension, focuses thinking, and stimulates creativity and sensitivity.)

It appears that listening to music can release endorphins, which produce an euphoric state. Music can therefore be used to create a tone of learning and creativity within the student. Learning through music



is extremely effective because it is completely brain compatible (Hart as cited in Brown, 1997). Music can touch the four modalities by which the brain processes information: the auditory, kinesthetic, emotive and visual. The brain then stores all the auditory, kinesthetic, emotive and visual information it has received. By touching on all of the learning modalities, the brain has more information to store and therefore, more information to call upon in the future. Webb (Brown, 1997) states that one can achieve more success in learning through strategic use of music. Hence music used during reading instruction can increase the effectiveness of the lesson.)

Cohen (1974) feels that music can stimulate, support and inspire a beginning reading program. Music encourages the body to move which increases a child's creative potential, thus leading to better reading skills. A child can experience rhythm, sounds, drama and the feeling of a song. This kinesthetic approach brings emotion and meaning to the words. As children attach meaning and emotion to songs they sharpen their imagination and visual



perception skills. Again, thereby increasing a child's mental abilities and engaging them further in learning.

Music and Movement

Music can hold a child's attention by allowing the child to experience the music. Children can interpret the music through body movement. Cohen (1974) believes that movement is what triggers the brain to begin thinking creatively. Combining music with movement allows the child to strengthen synapses in all brain systems.

Researchers have found several links to music programs that encourage movement and higher cognitive thinking skills. O'Burba (1987) found that music could be used in beginning reading programs for stimulation and inspiration. Music can broaden reading into a multi-sensory experience. The use of music can heighten interest and involvement, and thus bring pleasure to the experience. Teaching reading through music can then be seen as a kinesthetic approach to teaching reading. Involving the whole body in the singing experience may be the initial way

in which a child begins the creative process. By stimulating the creative processes in the brain, the child becomes more open to adapting and accepting new information.

Kalmar (Weinberger, 1996) conducted a three-year study in which she examined the effects of music lessons on preschoolers using the Kodaly method. The Kodaly method involves the accompaniment of music with rhythmic movements and the verbal and physical representations of songs. Kalmar concluded that children who participate in musical activities score higher in motor development, thinking, play improvisation, originality, and verbal skills than children who do not engage in music. Other music programs based on movement have been developed through the years.

Orff-Schulwerk (Crinklaw-Kiser, 1996) believes that for children to become fluent readers they must possess and feel rhythm and have many different experiences with their language. The Orff-Schulwerk method teaches reading through singing, chanting, rhyming, clapping and dancing. Once children are comfortable with the language and sound, the songs

become tools to teach letter recognition, tracking skills and word boundaries. Movement is added to increase memory and enhance the poems and songs. By using movement based musical activities in the classroom, the child will retain more of the information presented.

Nicholson (Zinar, 1976) conducted a study to determine if movement coupled with music activities would improve the reading skills of low readers, ages 6 to 8. The following movement activities were taught: controlled body movements to music, the use of music to control responses in rhythmic activity and mood, and body responses to the concepts of "high-low" and "fast-slow" tempos. These activities were utilized when reading music, singing alphabetical tones, and listening to records. Nicholson believes that a common characteristic of low readers is a limited attention span. By combining music and movement, Nicholson was able to hold the interest of the learners for a longer period of time. As a result the children showed an increase in reading readiness skills, greater discrimination for paired groups of letters and a greater attention span. Using music to

teach reading skills can combat distractions by holding the learner's interest, therefore increasing retention. Learners will feel success when they apply these skills to other reading situations. In addition, by increasing the student's attention span, the learner can then become more successful in other subject areas. Music can therefore be seen as a tool for motivating a child to learn.

Music and Motivation

Towell (1999) states that music should be used everyday, in some way, to motivate students to read. Music allows the child to feel success and this feeling of success can be transferred into other areas of the curriculum. By using music, any lesson can become a multi-sensory experience. This emotional connection motivates the child to learn. As the child begins feeling success in one subject they will gain confidence to tackle other subjects.

Towell (1999) believes that music can be used to motivate children to read because music allows them to become emotionally connected to the text. Reading through music can be presented in a variety of formats

to motivate students. Music can give that extra little push that some children need to tackle reading. Uhl (Tucker, 1981) states that the use of music to teach reading can catch a student off guard and entice a child into singing words that he would otherwise resent being asked to read. Music is appealing to young readers and allows them to practice skills that are necessary to become successful readers. Link (Tucker, 1981) found that when she taught reading through music to reluctant first grade students that those students achieved higher scores on standardized tests. Thus music can be used as a tool for increasing reading skills in at risk students.

Klink (1976) developed a music program that motivated students while teaching them reading skills. The program allowed children to select contemporary music as an alternative method for teaching basic reading skills. Klink believes that when children respond to music, rhythm, images, motion and excitement, the reading material becomes more alive. He found that using lyric song sheets with the music increased listening and word recognition skills. Klink credits the success of the program to allowing

the students to bring in songs that motivated them to want to read. By using music as a catalyst for motivation, students can learn how to read.

Music and Learning Disabilities

Music can provide a child with learning disabilities success in academics. Often children with learning disabilities have low self-esteem due to the constant struggle of trying to overcome their disabilities. Music can provide them with an immediate area of success. Instruction through music can be presented as a non-competitive form of learning. Many studies found that teaching reading through music proved to be a valuable tool for helping student's with learning disabilities.

Baxley (Taylor, 1981) believes that improved sound speech discrimination results in improved reading and spelling skills. Baxley investigated the effects of training in musical pitch discrimination on the ability to discriminate speech sounds in learning disabled children. She found that music appears helpful as an aid to overcoming sound discrimination problems when the skills are taught concurrently with

basic reading skills. McDonald (Taylor, 1981) supports Baxley's claims that songs can develop auditory discrimination and pronunciation in children. McDonald believes that music can contribute to children's reading readiness and to their early progress in reading. These findings suggest that music should be used in any primary reading program to bolster reading achievement through auditory discrimination.

Moyer (Taylor, 1981) describes a study that was designed to evaluate the extent to which the development of music skills resulted in improvement in language reading skills in children with reading learning disabilities. The study was designed around music to provide the children enjoyable activities in which they would experience success. Moyer reports that great improvement was observed in student's auditory, motor and visual skills. The parents also reported positive changes in the children's attitude toward reading. The teachers of the students noted an improvement in areas of sequencing and comprehension. This study supports using music on a regular basis to reinforce reading skills in students.

Blanton (Tucker, 1981) again supports the benefits of music with learning disabled students. Blanton conducted a study using music in speech therapy classes. The students were tested in articulation. Blanton suggests that the use of music in speech is a constructive force in the development of adequate language behavior. Blanton's study suggests that music used at a young age might even prevent speech problems in children.

Jalongo and Bromley (1984) feel that song picture books can be used help advance children with language delays and disorders. They developed a program using song picture books to give children an opportunity to imitate, comprehend, and eventually produce words. Finger plays and counting songs, which repeat the same vocabulary, provides a natural repetition that allows the child to practice necessary skills in a fun manner. Durkin (Jalongo and Bromley, 1984) states that a child usually needs several encounters that involve receiving, processing, and producing a word before incorporating the word into a speaking or reading vocabulary. Song picture books can be a way for the teacher to provide a successfully reading

experience to students who are being challenged by reading. Song picture books attract a child's attention while encouraging imitation of the rhymed lyrics. By providing successful reading situations the child will be better able to handle new reading challenges.

Using Familiar Songs to Teach Reading

Researchers believe that the appeal of music to young children can be an advantage to teachers. Children's songs can allow students to practice skills that are necessary to become successful readers with fun and familiar material. These songs provide the opportunity for repetition of words and common language patterns. Yaakob (Wright, 1977) states that through music, the following reading skills can be enhanced: auditory and visual discrimination, imitation, listening, and word meanings. The appeal of music allows young readers to strengthen skills that are necessary to become successful readers.

Renegar (1996) believes that starting music at infancy can impact the following reading skills: language reception, auditory and visual skills,

context clues and language structure. As infants, children begin language reception by responding to simple commands. As children grow, their ability to comprehend oral language does also. Listening to simple songs that contain repetitive phrases helps to develop language reception skills. Repetitive songs promote active listening by encouraging the child to sing along. Participation, in turn, increases the child's ability to focus on the material being presented. Music exercises auditory skills necessary for reading. When reading, a child needs to be able to distinguish between sounds in sentences, words and letters. Music activities can allow for the practice of reading skills by identifying different segments of the songs such as words verses instruments, different types of instruments, range of pitch, and changes in rhythm. Visual skills necessary in reading are strengthened through music activities. Eye-motor coordination is enhanced with top to bottom eye movements used in reading music. Nonsense songs emphasize the importance of context clues when reading. Songs with silly words give the student a chance to explain the difference between funny and

real situations. Teachers can cultivate self-monitoring in individuals by stressing that they ask themselves the question, "What would make sense here?" Training students to monitor their own reading can lead to increased comprehension. The phrasing of songs provides a model for sentencing for beginning readers. By reading the repetitive songs over and over the children will adapt the language styling into their own speech and writing. Therefore, music can be used as a learning tool that can be built upon from infancy through grade school.

Bradley and Bradley (1999) believe that both reading skills and composition skills can be enhanced through familiar children's music. They have created a program that uses predictable rhyme, phonics, syllabication, oral storytelling and understanding an author's tone to develop reading skills in children. Bradley and Bradley (1999) have outlined a few reasons why music is important to language art development. First, singing introduces children to new words and concepts. Second, singing increases student attention span and improves their listening skills. Third, nursery rhymes set to music promote oral language

development. They believe that by incorporating familiar children's music into the reading program, a teacher is expanding upon the child's existing knowledge base.

Hayes and Smith (1975) believe that using well-known songs can contribute to the child's success in reading. They developed a program to teach reading skills through contemporary songs that the children selected. They felt that using songs with which the children were familiar would increase a child's desire and interest in learning to read. Once the children knew the lyrics of the songs orally and in written format, Hayes and Smith (1975) incorporate reading skill activities to strengthen the student's reading strategies. They found that when reading skills were taught in a positive environment through familiar music that reading skills improved. They feel that familiar contemporary music can capture a child's attention and thus create a positive environment for learning reading skills.

Smith (1984) believes that using familiar songs can strengthen reading skills of beginning readers. He concluded that reading programs generally include

skills in the areas of vocabulary, comprehension and word identification. By using familiar songs children can focus on word identification, structural analysis, contextual analysis and phonics generalizations. As children become familiar with the written lyrics of songs they can then identify them in other reading material. By discussing the language and structure of the song the children can then develop higher thinking skills such as comparison and contrast, anticipation, sequencing, inference, application and evaluation. By using music with which the child is already familiar the teacher is building on the child's existing knowledge base. Familiar songs allow the child to focus on developing necessary skills for reading rather than the content of the material.

Experiencing Language Through Music

✓ Many researchers believe that music plays an integral part in the development of language. (Music allows the student to experience language.) They can feel happy, sad, successful or silly based on the tone or words of the song. Children come to school with a background in music. A teacher needs to tap into this

knowledge to help develop a beginning reading program. Music provides a wide variety of language experiences with which the child may already be familiar. By using music to transition into reading, the teacher is tapping into experiences and feelings that are familiar to the child.

Ex Reitz (1976) believes in using traditional folksongs as the bridge between spoken language and written language. When students come to the classroom they have already developed strategies for decoding and responding to spoken language. When children begin reading textbooks they apply these same strategies. Beginning reading textbooks do not always correspond with the spoken language of children. Goforth (Reitz, 1976) found that less than a third of the written structure of trade books corresponded to the most common patterns appearing in the oral language of the children. Folksongs are an ideal tool because the written language often matches the spoken language structure of children. (Singing songs with children can provide them with a musical framework for the recall and singing back of language patterns. These patterns can then be transferred into textbook)

reading situations. By drawing on previous experiences, the teacher strengthens skills the child already possesses and helps the student apply them to new situations.

Harp (1988) states that using songs to teach reading is consistent with the nature and purpose of language and puts readers in touch with satisfying meanings. Music can become quite personal and allows the child to express their individual feelings. Harp believes that once children have sung a song enough to be comfortable with the tune and lyrics, they are ready to read the lyrics. (Children can successfully learn to read language with which they are already familiar.) These feeling of success are then carried into other reading situations. Using familiar songs as beginning reading tools can help to bolster confidence in reading while teaching word recognition and basic reading skills.

Wright (1979) believes that music is filled with infinite rhythmic patterns, which consist of rhythm, repetition and rhyme. Rhythm, repetition and rhyme are quite natural to children and can help strengthen a child's speech, sentence structure and spatial

awareness. Repetitive songs provide the child with patterns both orally and musically. Eventually the child will use the repetitive sentences and grammatical patterns with confidence in their own speech.) For example, the simple tones of nursery rhymes and finger plays enable a child to grasp the speech patterns more readily. Arnoff (Wright, 1979) states that as a child acquires a repertoire of songs, he will begin to learn the patterns and qualities of sound. (Music is a vehicle for teaching speech patterns and sentence structure found in written language by allowing them to experience the language.)

McCracken and McCracken (1986) believe that children learn to read through experiencing language. One way for children to experience language is through songs. (Through music children can be taught the concept of printed word, structure of language, and sequencing and rhyming patterns needed for reading.) By introducing a complete song in print, children understand how letters, syllables and words work together to express a person's idea to someone else.) Music is a natural and alluring method to transition children into reading. McCracken and McCracken (1980)

state that by allowing children to hear language, see the same language in its written form and work with the language, both orally and in writing, the children learn about the language. Once a child has learned about language, a child will then have the tools to become a stronger reader.

Sound Discrimination and Musical Ability

One way sound discrimination and musical ability effects reading is through improving the child's ability to discern different pitches and tones within language. Music with rhyming patterns seems to enhance reading by improving phonemic awareness. A child must possess phonemic awareness if he is to understand the relationship between speech and print and; therefore, learn to read. A phonemically aware child is able to hear the beginning consonant of a word and offer other words that begin with that same consonant, segment a word into individual sounds and blend isolated phonemes to form recognizable words (Hennings, 2002). Music teachers and reading teachers believe that a child's awareness of speech sounds plays an important role in learning to read. Children

who are better able to discern different pitches and tones, within a musical piece, tend to have better reading skills. It is felt that the ability to discriminate sounds in music transfers into the ability to discriminate sounds found within language. A few studies have been conducted to support these ideas.

Bradley and Bryant (Douglas and Willatts, 1994) felt that children who were struggling with reading were actually struggling with breaking up words into component sounds. They believed that there exists a continuum between children who do not appear to discern the different sounds and those who have difficulty with phonological segmentation. During their initial study they tested the phonemic awareness of children in preschool. When they tested these children three years later they found that children who scored low on the phonemic awareness test were struggling with reading, while children who were successful with the phonemic test scored higher on reading tests. To further prove the relationship between phonemic awareness and reading, Bradley and Bryant compared the reading scores of children who

were taught reading through phonemic awareness and children who were given no special training. They found that children who were trained in phonemic awareness scored considerably higher on reading tests than the other group. Bradley and Bryant's study suggests that strong phonemic awareness skills are important to developing reading skills. Many songs designed for young children lend themselves to teaching and strengthening phonemic awareness skills through repetition and rhyme.

Bradley and Bryant go on to further support Wisbey's (Douglas and Willatts, 1994) theory that working with sounds through music is related to success in reading. Wisbey feels that using musical activities to teach reading can prevent reading difficulties. Music allows children to develop their reading skill through a multi-sensory awareness and response to sounds. Wisbey feels that the role of musical training in the development of good literacy skills centers on the acquisition of accurate pitch discrimination skills. Through his research, Wisbey has proposed that teachers should use musical

activities to teach reading to prevent the onset of reading difficulties by building upon phonemic awareness skills.

Douglas and Willatts (1994) conducted a study to determine if a relationship existed between phonological awareness and literacy skills. Douglas and Willatts limited their focus to pitch and rhythm. In their initial testing they found a correlation between scores on the rhythm and pitch discrimination tests and reading tests in young children. They then developed a program to demonstrate the practical application of teaching pitch and rhythm through music. The program consisted of lessons that developed the children's auditory, visual and motor skills through music. The results indicate a link between musical skills and reading skills. These findings suggest that musical activities should be used to teach reading skills to young children.

Lamb and Gregory (1993) believe that, in order for a child to read, two different mental procedures must occur: word recognition and phoneme recognition. Word recognition involves learning the direct correspondence between the complete string of letters

in a word and its spoken form. They described phonemic recognition using the intermediate step of learning the groups of letters corresponding to phonemes and constructing words from them. In the current state guidelines phonemic recognition has been changed to phonological awareness. Phonological awareness consists of the ability to hear the rime at the ends of a set of words and identify other words that end with the same rime. In addition the student can identify the blend at the beginning of a word and supply other words that start with the same rime sound. (Hennings, 2002) Bradley and Bryant (Lamb & Gregory, 1993) suggest that for children to employ the phonic procedure successfully, they must recognize that a spoken word is made up of particular sounds, each of which corresponds to a particular letter or group of letters. Children need to continually practice listening to and identifying words that share the same beginning, middle, and ending sounds to progress in reading. Lamb and Gregory believe that music training can strengthen these reading skills. Music stress listening skills involving discrimination of pitch and rhythm, which can be helpful in

discriminating phonemes, recognizing similar sounds in words and gaining fluency in reading through an awareness of the rhythmic structure of language.

McMahon (Lamb & Gregory, 1993) trained children to discriminate between pairs of three-note chords, some differing only by a semitone, and this improved word recognition, reading and general phonic skills.

Lamb & Gregory (1993) conducted a study to determine if there was a relationship between phonemic and musical sound discrimination and reading ability. They compared the reading, phonemic awareness, and pitch discrimination scores of children who received musical training with those who did not. They found that children who achieved high scores on pitch discrimination also did well on phonemic awareness and showed good reading performance. In addition, children who were able to isolate and manipulate phonemes in words performed better on word matching and word reading tests. Therefore, using music to teach reading practices the skills of differences in pitch and phonemic awareness that are essential to develop reading skills.

These studies seem to disprove Geoff's statement (1976) that working to improve a child's pitch and tones through music will not improve problems with reading. He does not believe that separate mental faculties, such as listening, exist. He believes that oral reading problems exist due to the lack of comprehension skills rather than diction, rhythm and articulation skills. Geoff states that while favorable results exist between music training and reading the growth is not substantial. He states that musical activities should be used only to enliven parts of the reading lessons and not as the sole method of instruction. Geoff credits the favorable results that have been documented to the Hawthorne effect. The Hawthorne effect raises the question of whether the children improved because of the specific tasks presented or because of the additional time spent with the students. I will try to account for the Hawthorne effect by selecting one group of children to read stories to for the same amount of time I am with the experimental group. Geoff feels that music can only be used as a pleasant diversionary activity in a language reading lesson. It should be

pointed out that the studies Geoff reviewed were performed before 1976. In many of the studies sighted in this paper, music instruction is used as an additional part of the regular reading program. Thus, teachers and researchers are looking for the best combination of activities to improve reading skills in all students.

Reading Music

Researchers began questioning the link between music instruction and reading language when they noticed children who had low reading achievement could learn to read music successfully. They were puzzled because the same skills needed for reading music, concentrated attention and memory, the understanding of abstract concepts, and ability to understand the form, structure and logic of a language, are also used in reading language. If the students were able to read music then they should be able to apply these skills to reading language. King (Zinar, 1976) found that poor music readers seemed to test lower on the scale of intelligence than did good music readers. According to King, there is a relationship between the

factor of intelligence and the ability to learn to read music. Researchers conducted several studies to determine if there is a link between music instruction and reading. The studies focused primarily on the relationship between reading music and reading language.

Dalton (Zinar, 1976) was the first person to support the hypothesis that better music readers were superior to poorer music readers in reading language. Since her study in 1952, all further research has supported her claims. Viola and Lester Wheeler (Zinar, 1976) found a low positive correlation between language and music abilities. It is believed that they only found a low positive relationship instead of a high relationship because the children had been exposed to a wide variation of music reading instruction in their private music lessons. Nevertheless, even with non-standardized instruction, they still found a positive relationship between language and music abilities.

Cooley (Zinar, 1976) also looked at test results from students who had a wide discrepancy in their music instruction. He, too, stated that high

intelligence and high music reading ability tended to correlate with musicality and that there was a slight but significant correlation between intelligence and music reading ability. Maze (Zinar, 1976) supports the conclusions of other researchers through her study of the musical ability and reading scores on elementary students. High correlations, especially in boys, were found between the language reading test and the musicality test. These correlations support the hypothesis that the use of music in classroom settings might increase the overall intellectual abilities of students, thereby perhaps increasing their reading skills.

Movesesian (1969) believes that learning to read music develops skills that are necessary for reading books. He conducted a study to determine if children could learn to read more efficiently if they were being taught to read music at the same time. The children learned to read music to play bells with a mallet as a group. A key component of his experiment was having the children perform together to strengthen listening skills and self-discipline. During the study he noticed an increase in the following skills

that are related to reading, left-to-right orientation, sound symbol relationships, ability to distinguish similar symbols from one another, and visual-motor coordination. These skills were then transferred to their reading skills. The students made significant gains in the reading tests over students who did not participate in the study. Movesesian's study supports the theory that learning to read music increases reading skills. It also suggests that music reading programs should be designed for use in the primary grades to bolster reading skills.

Wheeler (Tucker, 1981) feels that there is moderate support for a relationship between music and reading. Wheeler questioned if the quality of the music instruction impacted reading scores. He compared the reading scores of students in private music instruction with students receiving music instruction in public schools. Students who were receiving private music instruction showed only minimal gains in reading scores over students who received music instruction in their regular classroom. Based on his findings, Wheeler feels that regular

music instruction can have a positive effect on reading. Therefore, if children receive ongoing music instruction in the classroom, regardless of the instructors' qualifications, this instruction may improve reading scores within the classroom.

Sullivan (1979) believes that the outcome of a music reading program is based on the teacher's enjoyment of the program. If a teacher likes using the music/reading approach to teaching reading, then it can be successfully utilized as a part of the instructional program for reading. Sullivan also feels that the reading of the words in music has a greater effect on language reading than reading notes of songs. While current studies indicate a positive relationship between reading music and reading language, Sullivan believes that more studies are needed to further determine the effect of music instruction on reading achievement.

Conclusion

The review of the literature leads me to believe that I should include the following six components in my treatment. First, I will be using familiar

children's songs to teach reading through music. Smith (1984) felt that using familiar songs allowed the children to focus on the skills being taught, because they were already familiar with the content of the material. Second, I will focus on having the children read the words to the song. Harp (1988) believes that once children have sung a song enough to be comfortable with the tune and lyrics, they are ready to read the lyrics. Third, the children will work on phonological awareness by replacing words within the songs with words from their word families. Lamb, and Bradley and Bryant (Lamb and Gregory, 1993) believe that children need to be taught to listen and identify words that share the same beginning, middle and ending sounds to progress in reading. Fourth, I will use rhythm sticks to allow the children to feel the beat of the music. Music can be a kinesthetic approach to reading. Orff-Schulwerk (Crinklaw-Kiser, 1996) believes that for children to become fluent readers they must possess and feel rhythm and have many different experiences with their language. Fifth, I will have the child re-write the song to strengthen their language skills. Arnoff (Wright;

1979) believes that repetitive songs provide the child with oral patterns that they will eventually use in their own speech. Sixth, the children will re-assemble the song from beginning to end. McCracken (1986) believes that having the children work with song in its written format allows the child to learn about language and thus become a stronger reader.

CHAPTER THREE

METHODOLOGY

Introduction

The review of the literature suggests that music can be used to strengthen the reading skills of at risk students. The goal of this project is to increase reading levels of at-risk students in first grade using music. The methodology of this project included the development of a program using four children's songs during an eight-week period. The program was constructed to be consistent with the implications of the review of the literature. The program consisted of six lessons taught over a two-week period for each song, 24 lessons total for the eight-week period. Each lesson used music to strengthen skills needed in reading. The experimental group received 20 minutes of music instruction three times a week. To evaluate the effectiveness of the program four questions were asked and evaluated by comparing groups that received treatment with groups that did not receive treatment. The following questions were addressed. (1) Does teaching reading

through music improve reading skills in below grade level students? (2) Does teaching reading through music improve individual word recognition? (3) Does teaching reading through music improve writing skills? (4) Does teaching reading through music improve a child's attitude toward reading, music and school? In the rest of this chapter, the setting and treatment will first be described, then the methodology for answering each of the four question will be outlined, including information concerning the formation of the experimental and control groups.

Setting

The elementary school houses approximately 750 students. The school's population is broken down into 60% Hispanic, 20% Caucasian, 15% African American and 5% Asian. Approximately 75% of the students receive free or reduced lunches. Both classes used in this project consisted of 20 students. Each class had about 10 girls and 10 boys in the class throughout the year. The enrollment within the two classrooms shifted slightly throughout the year as students transferred to other schools. Each teacher retained

75% of their original students throughout the school year. Roughly 60% of the students in each class were of Hispanic decent. Of this 60%, approximately half were listed as English Language Learners, who received additional English language instruction from their regular teacher. The remaining students in classroom A, the experimental group, were 30% Caucasian and 10% African American. The remaining students in classroom B, the control group, were 30% Caucasian and 10% Asian.

Treatment

As summarized in the review of the literature, the lessons for the experimental group were consistent with the following principles: First, familiar children's songs were used to allow the child to focus on the skills being taught. Second, the children focused on reading the words to the song once they were completely familiar with the song. Third, the children replaced words within the songs with words from their word families to teach them to identify words that shared the same sounds. Fourth, rhythm sticks were used to allow the children to feel the

beat of the music. Fifth, the children re-wrote the songs to practice the oral patterns they learned.

Sixth, the children re-assembled the words of the song from beginning to end to allow them to work with the written language.

For the treatment, activities were taught in the classroom during center time. Four songs were covered during the eight-week period; Five Little Monkeys, Five Little Speckled Frogs, Ten In The Bed and Upon A Spider's Web (Appendix A). I chose songs that were probably familiar to the students, because they are often introduced orally in kindergarten. There were six different lessons taught in the same sequence for each song. The lessons lasted approximately 20 minutes each. The songs were written onto pocket chart sentence strips for each lesson.

The first lesson centered on learning the song and introducing the students to the written language. I modeled tracking the song with a pointer. We began talking about reading voices and singing voices. The "reading voice" allowed the reader to focus on each word of the song. During closing, we worked on random word identification and rhyming words.

In the second lesson we concentrated on rebuilding the sentences and rhyming. We began with singing the song as a group, while I pointed to the words in the pocket chart. Since each song was a repetitive song that decreased in number, each student was given the opportunity to practice tracking the song as the group sang. A second set of word cards was made to allow the students to build each sentence as a group. The students still had the original song at the top of the chart and worked together to build each line to recreate the song. After completing each line the group read the line. We then discussed and brainstormed rhyming words.

During the third lesson, we focused on rhyming words and creating silly songs. We again began with the whole group singing the song orally. The sentence strips were removed and the group rebuilt each sentence together without the visual aid. The students were encouraged to sing the song, and listening for beginning letter sounds to help them identify unknown words. After each line was completed the group used their "reading voices" to read each line. Next, each student received a set of alphabet

cards and a working mat. We then created two rhyming words together, while discussing word families. Then each student built and orally read more rhyming words. Next, each child was assigned a word within the song to substitute with a rhyming word. After they wrote their new rhyming word on a piece of paper, they then added their new word to the song. We then sang our new song with the silly words.

During the fourth lesson, I emphasized rhythm sticks and syllabication. We began by singing the song orally. We then focused our attention to the pocket chart. Each line of the song was scrambled. Each student was given a chance to unscramble one line of the song. After each sentence was rebuilt the child read their line of the song to the group. Next, we talked about and identified the syllables and segments within each word of the song. I marked the top of the word card with dots that correspond to the number of syllables in the word. I then passed out two rhythm sticks to each student. I first modeled how to sing and hit the rhythm sticks for each

syllable in the song. We then practiced each line individually before singing and playing the whole song together.

During the fifth lesson, we concentrated on rhythm sticks and re-writing the song. We began by singing the song orally one time. Next each student was given a chance to unscramble the lines of the song. After each sentence was rebuilt the child read the song to the group while using the rhythm sticks to identify the syllables in the song. We then sang the whole song while using the rhythm sticks. Next we talked about the language in the song and discussed two or three sentences we could change to create a new song. As a group we rewrote part the song. Before singing our new version, we identified the syllables in the new words. We then sang the song with the aid of the rhythm sticks. We rewrote the song two times.

During the sixth lesson we concentrated on building the song independently. We began by singing the song using the rhythm sticks. The students were then given all of the words to the song and a piece of construction paper with lines. The students then worked by themselves to rebuild the song correctly.

Methodology

Before discussing the four questions addressed by the methodology, some background concerning the school's testing program and the classes that were worked with is relevant. This project focused on improving the reading abilities of first grade children who were identified as at risk of retention by completion of the first trimester of school. First grade students, in the Colton Unified School District, are considered at risk of retention by scoring low on two of three separate assessments; a running record, a written vocabulary test and a dictation test. The district determines reading fluency by using books that are scored by Reading Recovery guidelines. Students are expected to be reading at level 16 by the end of the school year. At risk students are defined as reading at a Recovery level three or below at the end of the first grading period. The second measure is a writing vocabulary test. The students are given a piece of paper and asked to write all of the words that they know. The teacher is allowed to prompt them by suggesting that they write their name, names of friends, spelling words and simple rhyming words. The

goal is for the children to correctly write 35 words by the end of the year. If the child writes less than 10 words at the end of the first grading period, they are considered at-risk for retention. The third test involves oral dictation. The teacher dictates the following two sentences: "I have a big dog at home. Today I am going to take him to school." A point is given for each correct letter, capitol letter, space and punctuation mark. A total of 37 points are possible. If a student scores below 12 points at the end of the first grading period they are considered at-risk for retention.

I worked in two classrooms of 20 students each. In classroom A, the experimental classroom, the students were divided into two groups of ten based on their running record levels. The ten students with the lowest running record levels received the experimental reading instruction treatment through musical activities. The second group received the same amount of small group time but did not receive any direct reading instruction. I compared the rate of reading growth between these two groups. The music groups were divided into two groups of five. Each

group received 20 minutes of reading instruction through music activities three times a week. The reading group was also divided into two groups of five. Each group received 20 minutes of story time.

In the second classroom the child did not receive any instructional time. The children participated in the testing activities. These scores were compared to the scores of the first children.

The methodology for this study was designed to answer the following four questions. (1) Does teaching reading through songs improve reading levels in below grade level students? (2) Does teaching reading through songs improve individual word recognition? (3) Does teaching reading through songs improve writing skills? (4) Does reading through songs improve a child's attitude toward reading, music and school? A description of how each question was evaluated is listed below.

To evaluate the first question, "Does teaching reading through songs improve reading levels in below grade level students?" I used the district format of Running Records, which tests reading skills. Running records are currently used in the district to evaluate

fluency level of the student and do not look at comprehension skills. Classroom A will be tested at the beginning, middle and end of the project. Classroom B will be tested at the beginning and end of the project only. Appendix B includes an example of a Running Record.

The second question for this project was, "Does teaching reading through songs improve individual word recognition?" Colton Unified School District has compiled a list of 40 high frequency words that the children are expected to know at the end of first grade (see appendix C). To answer question two, Classroom A will be tested using the list at the beginning, middle and end of the project; Classroom B will be tested at the beginning and end of the project only. Each incorrect answer will be recorded and compared to the correct answer to develop an understanding of each child's skills for analyzing words; that is, beginning sounds, letters in isolation, blending sounds, random guessing and words within the word.

The third question was, "Does teaching reading through songs improve writing skills?" Each child

will be asked to submit two writing evaluations during the project. The children will be expected to sound out words or look up words around the room, no direct support will be given. Both classrooms will submit independent writing samples at the beginning and at the end of the eight-week period. The teacher in classroom A will evaluate each writing sample. She is a trainer for the district and is; therefore, extremely familiar with the Colton District writing rubric. The district writing rubric is based on a six-point scale, with six being the highest score. The rubric is used in both kindergarten and first grade. See appendix D for an example of the rubric.

The final question covers the child's attitudes toward reading, music and school: "Does reading through songs improve a child's attitude toward reading, music, and school?" A twenty-four question survey was developed to gather information about the child's attitude and self-perception towards reading, music and school. In developing the survey, two different surveys were analyzed for styling and content. The first survey, Measuring attitude toward reading: A new tool for teachers, was developed by

McKenna and Kear in 1990, for primary children in first through third grade (see appendix E). McKenna and Kear (1990) felt that the recent emphasis on enhanced reading proficiency often ignored the important role played by children's attitudes in the process of becoming literate. McKenna and Kear developed a pictorial format that I adapted to my survey as well as the styling of the questions regarding how the children feel about reading, music and school. The Garfield characters, used to circle in response to the questions are appealing to children and help them to express their feelings. The second survey, The Reader Self-Perception Scale (RSPS): A new tool for measuring how children feel about themselves as readers, (see appendix F) was developed by Henk and Melnick (1995). They discovered that children who have made positive associations with reading tend to read more often, for longer periods of time and with greater intensity. Their survey was developed to measure how intermediate-level children feel about themselves as readers (Henk & Melnick, 1995). I combined qualities of each of these surveys to develop my own questionnaire that looks at how primary

students view their abilities in reading, music and school. See appendices G for the survey developed for this study.

The attitude assessment was given at the beginning and end of the project to each classroom. Each class was divided into four groups of five. Students were given the test booklet to look over before beginning. Students were asked to identify the feelings of the four Garfield characters. I read each question out loud two times and asked the child to circle the Garfield character that best related to their feelings. The questions were scored with a 1, 2, 3, or 4, a "4" indicated the happiest Garfield character. The scores were analyzed and ranked. Each question was given a point value based upon which Garfield was circled. The points for each student were totaled and compared to their previous attitude survey. The results of these findings will be discussed in the following section.

CHAPTER FOUR

FINDINGS AND RESULTS

Introduction

As mentioned in the methodology, I designed my study to test the following four questions: (1) "Does teaching reading through songs improve reading levels in below grade level students?" (2) "Does teaching reading through songs improve individual word recognition?" (3) "Does teaching reading through songs improve writing skills?" (4) "Does reading through songs improve a child's attitude toward reading, music and school?" For the project, I worked with two different classrooms. The students within each classroom were broken down into two groups, based on running record scores, by the regular classroom teachers. The experimental group A1 consisted of nine lowest readers in the classroom, while the non-experimental group A2 consisted of the nine highest readers in the class. Both the experimental group A1 and the non-experimental group A2 participated in project activities. During the treatment I worked with the experimental group A1 three times a week for

eight weeks on reading skills through music activities. The non-experimental group A2 used to control for the Hawthorne effect, was read to from chapter books three times a week for eight weeks. This experimental group did not receive any direct teaching instruction. The second classroom acted as a secondary control group and only participated in the testing at the beginning and at the ending of the eight-week program. Again the students were broken into two groups based on running record scores. The control group B1 consisted of the eight lowest readers in the class, while the control group B2 consisted of the eight highest readers in the class. The subsequent paragraphs will discuss the results of the materials used to assess each question.

Reading Development

To assess the first question, "Does teaching reading through songs improve reading levels in below grade level students?", district running records were used. Running records are graded on a scale of one to twenty-four, with twenty-four being the highest possible score for a first grader.

I compared the scores of the students in the experimental group A1 who received the treatment with the scores of the control group B1 students who did not receive any treatment (see Table 1). I focused on the percent of increase from the assessment given at the beginning of the eight-week period to the assessment given at the end of the eight-week period for each group. I noticed that six of the students in the experimental group A1 increased their reading ability levels over 75%, versus two students in the control group B1. On average the experimental group A1 increased their reading scores an average of 93% during the treatment period, while the control group B1 increased an average of 45%. It is also noted that all of the students in the experimental group A1 did increase their reading scores during the treatment period, while two of the students in the control group B1 show no growth in reading ability. The highest increase in the experimental group A1 was 180% while the highest increase in the control group B1 was 100%. One possible reason for the differences in growth rate is that the control group B1 was reading at an overall higher rate than the experimental group A1 at the

start of the program and therefore received less instruction in decoding skills from their regular teacher.

When comparing experimental group A1 with the non-experimental group A2 we notice some differences in the rate of increase as well. The non-experimental group A2 only averaged 36% increase compared to the experimental group A1's 93% average increase. The highest increase in the non-experimental group A2 was 85% while the experimental group A1's highest increase in reading ability was 180%. The lowest growth rate for the experimental group A1 was 38%, yet the non-experimental group A2 had four students who only increased 9% during the eight-week period. These results support the hypothesis that teaching reading through songs can improve reading levels in below grade level students.

In addition, when the scores of the non-experimental group A2 are compared to the experimental group A1, it is noticed that the rate of growth is far less for the non-experimental group A2 than the experimental group A1. However, based on Geoff's theories the non-experimental A2 group should have

increased their reading scores in accordance with the experimental group A1, because they received the same amount of activity time as the experimental group. The non-experimental group A2 did receive 20 minutes of reading and discussions focused on comprehension three times a week during the eight-week treatment. However, the rate of growth for the non-experimental group A2 was far less, with only a 36% growth rate than the 96% average growth of the experimental group A1. The lower growth rate could be attributed to the fact that the children in the non-experimental group A2 were already at an acceptable reading level and therefore the lessons they received were focused on comprehension rather than decoding skills.

It should be noted that the non-experimental group A2 did have a higher average increase in reading scores of 36% verses the control group B2 average increase of 22%. It could be possible that the reading comprehension skills that were practiced during the group time that I spent with them did increase their reading skills over the control group B2.

Table 1. Running Records

Experimental Group A1	First Test	Second Test	Third Test	% of increase from 1 st to 3 rd
Student # 4	6	10	12	100%
Student # 5	5	8	14	180%
Student # 7	8	10	16	100%
Student # 8	6	13	14	133%
Student # 9	5	10	9	80%
Student # 10	6	10	9	50%
Student # 12	5	9	10	100%
Student # 13	10	14	16	60%
Student # 17	13	15	18	38%
Average	7	11	13	93%

Non-experimental Group A2	First Test	Second Test	Third Test	% of increase from 1 st to 3 rd
Student # 1	22	22	24	9%
Student # 2	13	13	24	85%
Student # 3	22	22	24	9%
Student # 6	22	23	24	9%
Student # 11	22	23	24	9%
Student # 14	22	22	24	9%
Student # 15	13	16	24	85%
Student # 16	13	15	24	85%
Student # 18	14	15	18	29%
Average	18	19	23	37%

Control Group B1	First Test	Second Test	Percent of increase from 1 st to 2 nd test
Student # 3	6	12	100%
Student # 4	12	14	17%
Student # 5	10	16	60%
Student # 6	5	5	0%
Student # 11	12	24	100%
Student # 13	14	22	57%
Student # 14	14	14	0%
Student # 16	14	18	29%
Average	11	16	45%

Control Group B2	First Test	Second Test	Percent of increase from 1 st to 2 nd test
Student # 1	17	22	29%
Student # 2	24	26	8%
Student # 7	20	20	0%
Student # 8	14	18	29%
Student # 9	22	24	9%
Student # 10	18	24	33%
Student # 12	16	16	0%
Student # 15	14	24	71%
Average	18	22	22%

Word Identification

For the second question, "Does teaching reading through songs improve individual word recognition?" the district word identification test was used. The test consists of forty words. I compared the word recognition scores of experimental group A1 and the control group B1 (see Table 2). I noticed that the experimental group A1 averaged over thirty-seven correct words while the control group B1 averaged thirty-six correct words. The students in the experimental group A1 averaged an 8 word increase from the first test to the last test while the students in the control group B1 averaged less than a 1 word increase from the first test to the last test. The experimental group A1 had only one student who did not increase the number of words recognized on the test,

while two students in the control group B1 actually decreased their score by one word.

When looking at the scores of the non-experimental group A2 and the control group B2 not much of a change was noticed between the beginning and ending of the eight-week period. The students in these two groups started the treatment with higher running record scores and therefore were considered to have strong word identification skills. Over half of the students in each of the groups maintained the same score through the treatment period. The remaining half of the students increased their scores by one or two points. It should also be noted that over half of the students in each group received a perfect score of 40 on the word test. In the experimental group A1 and the control group B1 only one student in each group received a perfect score of 40.

The data seems to support the hypothesis that teaching reading through music can increase individual word recognition. Significant growth is observed in the experimental group A1 in their individual word recognition skills. Possible explanations for this

increase may be that the children were starting to identify the words taught in the songs in isolation. The songs presented contained many of the high frequency words presented on the test and as a group we spent a lot of time identifying words and word families. It seemed that during the course of the study that their ability to create and identify rhyming-words improved. The control group B1 had less than one word average increase on the word recognition test. One of the problems with using a separate class as a control group is that the children receive different day to day instruction. For example, the control group B1 started with higher scores on the word test than the experimental group A1. The teacher in the control class B indicated that she sent the words home for homework on a regular basis, while the teacher in the experimental class A referred the words in class, but rarely sent them home for homework. Therefore the increased exposure to the high frequency words in the songs could have played a key role in the increase in scores in the experimental group A1.

Table 2. Word Identification

Experimental group A1	First Test	Second Test	Third Test	Increase from 1 st to 3 rd
Student # 4	25	36	37	12
Student # 5	28	30	39	11
Student # 7	37	38	38	1
Student # 8	25	34	36	11
Student # 9	18	37	36	18
Student # 10	23	25	37	14
Student # 12	32	36	40	8
Student # 13	35	36	35	0
Student # 17	38	39	39	1
Average Score	29	35	37	8

Non-experimental group A2	First Test	Second Test	Third Test	Increase from 1 st to 3 rd
Student # 1	40	40	40	0
Student # 2	39	40	39	0
Student # 3	40	39	40	0
Student # 6	40	40	40	0
Student # 11	38	39	40	1
Student # 14	39	40	40	1
Student # 15	39	40	39	0
Student # 16	39	39	39	0
Student # 18	38	37	36	-2
Average Score	39	39	39	0

Control Group B1	First Test	Second Test	Increase from 1 st to 2 nd
Student # 3	36	38	2
Student # 4	35	39	4
Student # 5	36	36	0
Student # 6	22	23	1
Student # 11	36	38	2
Student # 13	40	40	0
Student # 14	38	37	-1
Student # 16	40	39	-1
Average Score	35	36	Less than 1

Control Group B2	First Test	Second Test	Increase from 1 st to 2 nd
Student # 1	39	39	1
Student # 2	40	40	0
Student # 7	39	39	0
Student # 8	40	40	0
Student # 9	38	39	1
Student # 10	38	40	2
Student # 12	37	38	1
Student # 15	39	40	1
Average Score	39	39	Less than 1

Writing Development

For the third question, "Does teaching reading through songs improve writing skills?" two separate writing samples were evaluated. The scores reflect minor growth during the assessment period. The writings were graded on a rubric of one to eight, with eight being the highest possible score. The writing rubric focuses on mechanics (i.e. sentence structure and spelling) in stages one to five and content development in stages six to eight. The average score of the experimental group A1 on each of the two writing assessments was a score of four (see Table 3). The experimental group A1 had the biggest individual increase with one student who increased his score by 66%. The other students maintained the same writing scores. Only one student decreased his score by 20%

during the eight-week period. In the control group B1 the average group score for both writing samples was five. One student who increased his score by 20% and another student who increased his score by 50%. The control group B1 also had four students who decreased their writing scores between 16% and 33%.

The non-experimental group A2 students averaged a score of seven on the first writing sample and a score of six on the second writing sample. Five students in the non-experimental group A2 decreased their scores between 14% and 29%. While none of the students in the non-experimental group A2 showed an increase in scores. In the control group B2 the average score for the first writing sample was a five and the second writing sample was a six. Three students increased their writing scores, between 16% and 50%. Also, two students in control group B2 decreased their scores by 16%.

The data collected does not reflect significant improvement in writing skills during this treatment period. When discussing the scores with the classroom teacher, one of the issues holding the students in the experimental group A1 back at a level four was the

standard of being able to address a single topic. The teacher did feel that the students in the experimental group A1 had made strides in their spelling of high frequency words during the treatment period, but tended to wonder off topic in their writing. Another factor that affects writing scores is the child's interest and understanding of the topic. Many children actually decreased their scores in writing. If a child doesn't feel connected to the topic, he may not be as motivated to produce a quality paper. The teacher feels that this may be the reason for the lower score that many students received on the final assignment. Since some improvement was noted in sight word spelling, perhaps a longer study on the effects of teaching reading through music would produce more conclusive data to support the hypothesis.

Table 3. Writing Samples

Experimental group A1	First Writing Sample	Second Writing Sample
Student # 4	4	4
Student # 5	5	4
Student # 7	4	4
Student # 8	3	5
Student # 9	4	4
Student # 10	4	4
Student # 12	4	4
Student # 13	4	4
Student # 17	5	5
Average	4	4

Non-Experimental group A2	First Writing Sample	Second Writing Sample
Student # 1	7	6
Student # 2	7	5
Student # 3	7	6
Student # 6	7	6
Student # 11	6	6
Student # 14	7	5
Student # 15	6	6
Student # 16	6	6
Student # 18	6	6
Average	7	6

Control Group B1	First Writing Sample	Second Writing Sample
Student # 3	5	4
Student # 4	6	6
Student # 5	6	4
Student # 6	5	5
Student # 11	6	5
Student # 13	4	6
Student # 14	5	6
Student # 16	6	5
Average	5	5

Control Group B2	First Writing Sample	Second Writing Sample
Student # 1	4	6
Student # 2	5	6
Student # 7	6	5
Student # 8	6	6
Student # 9	6	6
Student # 10	6	7
Student # 12	4	4
Student # 15	6	5
Average	5	6

Student's Attitude

For question four, "Does teaching reading through songs improve a child's attitude toward reading, music and school?" a survey was given to each student at the beginning and ending of the eight-week period. The survey evaluated the student's attitudes towards reading, music and school in general. There were thirty-two points possible in each of the three sections, with a total possible of ninety-six. The experimental group A1 had an increase of 1% in their total average score from seventy-six on the first test to seventy-seven on the second test (see Table 4). Seven out of nine students averaged above seventy-five in their total score. The group's highest interest category was school in general with an average of twenty-seven points. The group's lowest interest

category was music with an average of twenty-four points. However, the group's interest in music increased 9% from twenty-two points to twenty-four points on average. The control group B1 also had an increase of 4% in their overall average. Their average total points increased from eighty-one to eighty-four. The group's interest in reading remained the same, while their interest in music and school in general increased by 4% in music and 3% in school. Seven out of eight students averaged above seventy-five points in their total scores. In the non-experimental group A2, the total average decreased 5% from seventy-seven points to seventy-three points. The group's interest in reading remained the same, however their interest in music and school in general decreased by 8% each. Six out of nine students averaged above seventy-five total points. In the control group B2, the total average score decreased 12% from eighty-three points to seventy-three points. The control group B2 showed losses in each of the three categories, with the highest decrease in music at 20%. Interest in reading decreased by 4% and

interest in school overall decreased by 6%. Four out of eight students averaged over seventy-five total points.

The data gathered in regards to how music affects a student's attitude shows some support for using music in reading. The experimental group A1 increased their overall score by 1%, with a slight increase appearing in music. One reason for the increase may be the active participation in the treatment program. The students seemed to look forward to the activities and often sang the songs during the day. The non-experimental group A2 decreased their average score by 12%, with the decreases appearing in music and school. One possible reason for the decrease is that this group did not participate in the musical treatment offered to the experimental group A1. When I was working with the non-experimental group A2 they continually asked why they were not participating in the musical activities. At the end of the eight-week program, several students in the non-experimental group A2 appeared uninterested in the reading comprehension activities and asked to participate in the singing group. Another possible reason for the

increases in scores by the control group B1 and the experimental group A1 is that both groups demonstrated increase in reading, word identification and writing. It could be that success in these subject areas help to foster a positive attitude toward school.

Table 4. Attitude Survey

First Attitude Survey				
Experimental group A1	Reading Questions	Music Questions	School Questions	Total Points
Student # 4	29	29	32	90
Student # 5	31	28	28	87
Student # 7	25	25	31	81
Student # 8	31	23	26	80
Student # 9	27	23	28	78
Student # 10	25	20	32	77
Student # 12	24	11	20	68
Student # 13	26	16	24	66
Student # 17	18	20	21	59
Average	26	22	27	76

Second Attitude Survey					
Experimental group A1	Reading Questions	Music Questions	School Questions	Total Points	Difference
Student # 4	29	16	17	62	-25
Student # 5	23	31	29	83	2
Student # 7	20	32	23	75	-5
Student # 9	20	32	23	75	-3
Student # 10	24	24	31	79	2
Student # 12	25	14	25	64	-4
Student # 13	23	26	26	75	9
Student # 17	31	12	32	75	16
Average	26	24	27	77	1

First Attitude Survey				
Non-experimental group A2	Reading Questions	Music Questions	School Questions	Total Points
Student # 1	32	32	32	96
Student # 2	32	32	32	96
Student # 3	31	32	32	95
Student # 6	29	28	27	84
Student # 11	26	20	26	72
Student # 14	30	19	16	65
Student # 15	18	18	29	65
Student # 16	19	19	22	60
Student # 18	10	29	18	57
Average	25	25	26	77

Second Attitude Survey					
Non-experimental group A2	Reading Questions	Music Questions	School Questions	Total Points	Difference
Student # 1	28	21	30	79	-17
Student # 2	32	28	27	87	-8
Student # 3	32	32	31	95	11
Student # 6	27	29	29	85	13
Student # 11	20	25	28	83	18
Student # 14	26	25	27	78	13
Student # 15	22	17	11	50	-10
Student # 16	23	15	25	63	6
Student # 18	16	12	12	40	-37
Average	25	23	24	73	4

First Attitude Survey				
Control Group B1	Reading Questions	Music Questions	School Questions	Total Points
Student # 3	25	20	32	77
Student # 4	28	19	31	78
Student # 5	29	27	31	87
Student # 6	25	22	27	74
Student # 11	29	17	32	78
Student # 13	29	26	28	83
Student # 14	29	17	32	78
Student # 16	32	32	32	96
Average	28	23	31	81

Second Attitude Survey					
Control Group B1	Reading Questions	Music Questions	School Questions	Total Points	Difference
Student # 3	27	25	32	84	7
Student # 4	28	25	32	85	7
Student # 5	30	17	32	79	-8
Student # 6	27	20	32	79	5
Student # 11	29	14	32	75	-3
Student # 13	24	27	30	81	-2
Student # 14	28	29	32	89	11
Student # 16	32	32	32	96	0
Average	28	24	32	84	3

First Attitude Survey				
Control Group B2	Reading Questions	Music Questions	School Questions	Total Points
Student # 1	31	29	32	92
Student # 2	27	18	31	76
Student # 7	30	26	32	88
Student # 8	29	29	31	89
Student # 9	26	22	31	79
Student # 10	27	24	32	83
Student # 12	28	18	32	78
Student # 15	25	29	23	77
Average	27	24	31	83

Second Attitude Survey					
Control Group B2	Reading Questions	Music Questions	School Questions	Total Points	Difference
Student # 1	20	27	32	79	-13
Student # 2	20	18	29	67	-9
Student # 7	27	8	20	55	-33
Student # 8	29	26	29	84	-5
Student # 9	28	18	32	78	-1
Student # 10	29	13	32	74	-9
Student # 12	22	10	32	64	-14
Student # 15	29	29	28	86	9
Average	26	19	29	73	-10

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This chapter outlines a discussion of the findings of this study and the impact of teaching reading through music. The discussion covers the influence that teaching reading through music has on reading development, word identification, writing and the student's attitude.

The data discussed in chapter four supports the hypothesis that music does have a positive impact on reading. The data gathered appeared to support the hypothesis that teaching reading through music can improve below grade level students. The students in the experimental group A1 started the experiment with the lowest reading scores out of all four groups and demonstrated the highest average growth rates. Teaching reading through music provided a new outlook for these struggling students and helped them to improve and strengthen their reading skill. Although the data was not as clear, it seemed to support the second hypothesis, that teaching reading through songs

will improve individual sight word identification. Again the experimental group A1 showed the greatest amount of growth during the time period. However, because two different classes were used with two different teaching strategies, the groups started at different levels of competence. This complicated the interpretation of the data. In regards to the third hypothesis, that teaching reading through writing will improve writing skills, the data gathered does not lead to a concrete conclusion. The rubric used was based primarily on mechanics and while growth was noted the experiment was not long enough to show significant growth. The data on the last hypothesis, that teaching reading through music will improve a student's attitude toward school, provided some support. The experimental group A1 did improve their attitude toward music, while the data for the non-experimental group A2 showed a decrease in attitude toward school and music. However, these results mirrored the results of the data in the control class B with the B1 group increasing their interest in school and the B2 group decreasing their score.

Overall the treatment seems to have had a positive effect on the children involved in the program.

Based on the data I think it is important to develop a program that addresses the needs of the students while sparking their interest. I did observe that the students in the experimental group A1 appeared to feel more confident with their decoding skills at the end of the eight-week period. I noticed that as the children learned each new song they took it upon themselves to share what they had learned with the students in the non-experimental group A2. The students in the experimental group A1 seemed to be proud of their ability to track print of the new song. In addition the students in the non-experimental group A2 were challenged to read chapter books after only a few sessions with them. The children in these groups continued to ask their teacher to provide new materials in their classroom and checked out more challenging material in the library. While the writing data was not conclusive, the teacher commented that spelling of high frequency words and sentence structure had improved among the students in the experimental group A1. I also believe that using

music in the classroom did increase the positive energy in the classroom. The students in the class were overheard singing the songs throughout the day and all looked forward to the new song. Often the children in the non-experimental group A2 asked if they could participate in singing with the experimental group. The teacher began adding music to the class after my treatment ended. I believe that my participation in the classroom had a positive change on the class in general.

The biggest complication for this project was using two different classrooms for comparing results. While each teacher addresses the required standards by the year's end, their approaches are often different. The students were introduced to concepts at different times and the environment within each classroom was very different. In addition, because I worked in classroom A on a regular basis the students were very comfortable with me during the testing, while I felt that the students in class B were nervous. I also feel that this experiment should have lasted for a longer time. Looking back, I feel that eight weeks is

too short of a time to fully assess the impact of a program and the needs of the students.

Direction for Future Research

Future research may include a wider range of students with a longer period of treatment. Does teaching through music only impact students with low reading scores or can it effect reading scores of students with higher reading scores? Future studies may also compare the reading scores of students who learn to read musical notation with students who learn to read just the words of music. While writing scores were tracked in this study, future studies could develop a program that focuses more on how writing effects content, spelling and sentence structure. Another area for study is the attitude of students toward school. In primary students, is there a relationship between a child's attitude toward school and their achievement level? Can music effect the attitude of students at all academic levels?

APPENDIX A:
SONGS USED IN STUDY

Five Little Monkeys

Five little monkeys jumping on the bed,
One fell off and bumped her head.
Mother called the doctor, and the doctor said,
"No more monkeys jumping on the bed!"

Five Little Speckled Frogs

Five little speckled frogs sat on a speckled log
Eating the most delicious bugs: Yum, yum!
One jumped into the pool, were it was nice and cool.
Now there was four speckled frogs: Gulb, Gulb!

Ten In The Bed

Ten in the bed and the little one said,
"Roll over!, Roll over!"
They all rolled over
And one fell out.

Upon A Spider's Web

One elephant went out to play,
Upon a spider's web one day.
She had such enormous fun,
She called for one other elephant to come.

APPENDIX B:
RUNNING RECORDS

	Error Rate	Percent Accuracy
Easy	1:200	99.5
	1:100	99
	1:50	98
	1:35	97
	1:25	96
Instructional	1:20	95
	1:17	94
	1:14	93
	1:12.5	92
	1:11.75	91
Difficult	1:10	90
	1:9	89
	1:8	87.5
	1:7	85.5
	1:6	83
	1:5	80
	1:4	75
1:3	66	
1:2	50	

Level: 5 Text Title: _____

Running words Errors	Error Rate	Accuracy (Use chart at left)	Self-correction Rate
160/9	1: 14	93 %	1: <input type="text"/> 1:1-1.2 = excellent 1:3-1:5 = good
Analysis of Errors and Self-corrections: • Information used or neglected (Meaning (M), Structure (S), or Visual (V)) _____ _____ _____			
Scoring Formulas: $\text{Running words} \div \text{Errors} = \text{Error Rate}$ $(\text{Errors} + \text{SC}) \div \text{SC} = \text{Self-correction Rate}$		Retelling: <input type="checkbox"/> Strong Mark one. <input type="checkbox"/> Adequate <input type="checkbox"/> Weak	

Page	A BIRD AND A HIPPO (5/100)	E	Info used E MSV	SC	Info used SC MSV
2	One day a bird met a hippo. They went for a walk on the beach.				
3	<p>✓ ✓ ✓ ✓ <i>come</i> ✓ ✓ ✓ ✓</p> <p><i>come</i> ✓ Can you?"</p> <p><i>Says</i> ✓ ✓ ✓ ✓ ✓ ✓</p> <p>"Yes, I can," the hippo said.</p> <p>✓ <i>should</i> ✓</p> <p>And she did.</p>	1			
4	<p>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ <i>last</i></p> <p>Can you?"</p> <p><i>Says</i> ✓ ✓ ✓ ✓ ✓ ✓</p> <p>"Yes, I can," the hippo said.</p>	1	2	1	

Page	A BIRD AND A HIPPO (5/100)	E	Info used E MSV	SC	Info used SC MSV
	<p>✓ ^{these} ✓ And she did.</p>				
5	<p>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ The bird said, "I can sit in the leaves.</p>				
	<p>✓ ✓ Can you?"</p>				
	<p>^{Says} ✓ ✓ ✓ ✓ ✓ ✓ ✓ "Yes I can," the hippo said.</p>				
	<p>✓ ✓ ✓ And she did.</p>				
6	<p>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ The bird said, "I can jump on the rock.</p>				
	<p>✓ ✓ Can you?"</p>				
	<p>^{Says} ✓ ✓ ✓ ✓ ✓ ✓ ✓ "Yes, I can," the hippo said.</p>				
	<p>✓ ✓ ✓ And she did.</p>				
7	<p>✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ The bird said, "I can fly in the sky.</p>				
	<p>✓ ✓ Can you?"</p>				
	<p>^{Says} ✓ ✓ ✓ ✓ ✓ ✓ ✓ "Yes, I can," the hippo said.</p>				
	<p>✓ ✓ ^{come} But she couldn't</p>				

APPENDIX C:
HIGH FREQUENCY WORD TEST

Colton Joint Unified School District

Word Test Score Sheet

Use any one list of words.

Name: _____ Date: _____

Age: _____ Date of Birth: _____

Recorder: _____ TEST SCORE:

Word List

Supplemental Word List

I
my
the
and
like
no
can
for
to
am
it
me
is
we
at
on
look
see
go
up

had
come
they
are
saw
then
was
here
this
she
over
went
jump
all
said
day
with
you
some
live

To be used with students who have mastered the initial list.

COMMENTS:

APPENDIX D:
KINDERGARTEN AND FIRST GRADE
WRITING RUBRIC

Colton Joint Unified School District

Colton Joint Unified School District elementary writing portfolios reflect student writing in all curricular subjects throughout the elementary years. Writing portfolios measure the growth of an individual student's writing. Assessment is based on the rubric score of a student's self-edited draft. Students will be taught and use the writing process in grade-level appropriate instruction. Students will select pieces for publication. The writing portfolios reflect the California State Language Arts Content Standards. The Standards emphasize writing as a crucial form of communication and require daily writing across the curriculum in a variety of composition forms.

K-1 Writing Rubric

Rubric to Score Student Self-edited Draft

This rubric is designed as a continuum of a child's growth in writing kindergarten through first grade.

















8	<ul style="list-style-type: none"> • Writes complete, coherent sentences that develop a central idea * • Considers audience and purpose during writing * • Uses a core of three-four letter words and grade-level appropriate sight words with correct spelling * • Consistently uses appropriate punctuation and capitalization and correct grammar *
7	<ul style="list-style-type: none"> • Writes complete sentences that include descriptive words * • Organizes ideas * • Usually uses capital letters and punctuation as appropriate * • Correctly spells introduced sight words
6	<ul style="list-style-type: none"> • Writes sentences on a single topic * • Phonetic spelling is almost standard for single and multiple syllabic words (i.e. "eagul" for eagle) • Uses capital letters and periods as appropriate • Writes legibly using appropriate spacing for letters, words and sentences. *
5	<ul style="list-style-type: none"> • Writes simple sentences that are legible and make sense • Begins to address a single topic • Uses phonetic spelling for single and multiple syllabic words (i.e. "pumcn") • Begins to use capital letters and periods
4	<ul style="list-style-type: none"> • Writes words and simple sentences that are legible * • Uses correct directional pattern and spaces between words * • Writes consonant-vowel-consonant words * • Uses sound/symbol relationships (i.e. beginning, middle, and ending consonant sounds – "lkt" for liked) *
3	<ul style="list-style-type: none"> • Uses some letters to represent sounds ("l" for liked or "F" for ph) • Copies words from environment with comprehension • Uses labeling and phrasing to convey a message • Uses directional patterns (letters/words left to right, top to bottom)
2	<ul style="list-style-type: none"> • Uses random strings of letters BASRPTE • Copies words from the environment without comprehension • Uses directional patterns inconsistently
1	<ul style="list-style-type: none"> • Uses scribble writing ☹ ☹ • Uses symbol writing ♥ ◇ 85 □ ∇ • Uses pictures ☹ ☹

* Refer to California Language Arts Content Standards.

APPENDIX E:
ELEMENTARY READING ATTITUDE SURVEY

ELEMENTARY READING ATTITUDE SURVEY

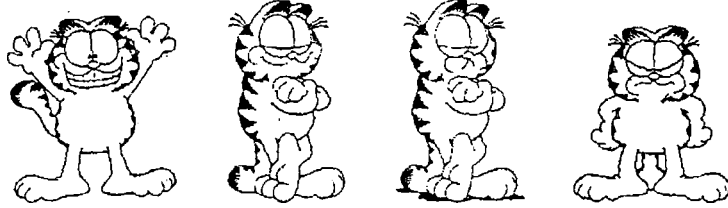
School _____ Grade _____ Name _____

GAMPFIELD, © 1972 United Feature Syndicate, Inc.	1. How do you feel when you read a book on a rainy Saturday?					JIM DAVIS
	2. How do you feel when you read a book in school during free time?					
	3. How do you feel about reading for fun at home?					
	4. How do you feel about getting a book for a present?					

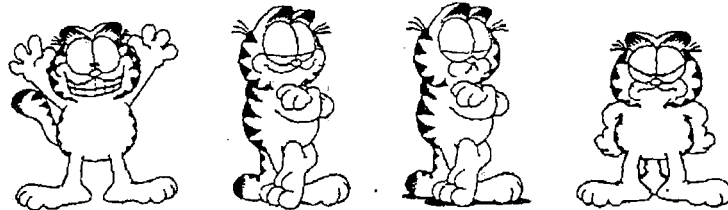
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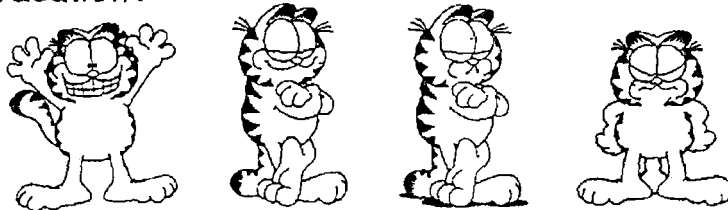
5. How do you feel about spending free time reading?



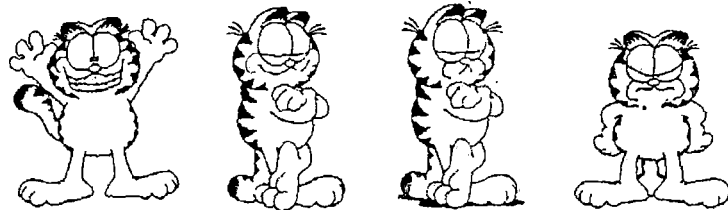
6. How do you feel about starting a new book?



7. How do you feel about reading during summer vacation?

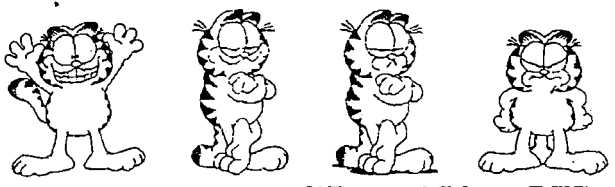


8. How do you feel about reading instead of playing?

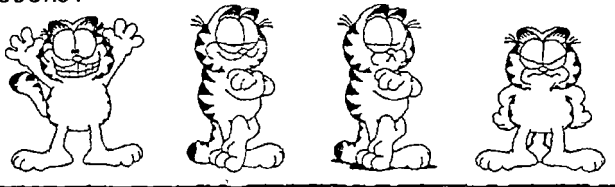


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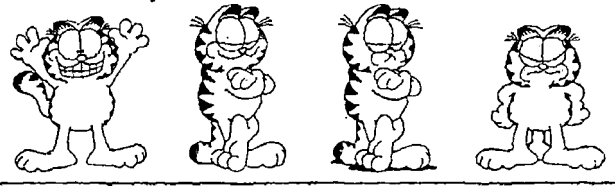
9. How do you feel about going to a bookstore?



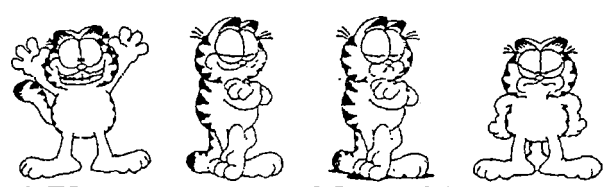
10. How do you feel about reading different kinds of books?



11. How do you feel when the teacher asks you questions about what you read?

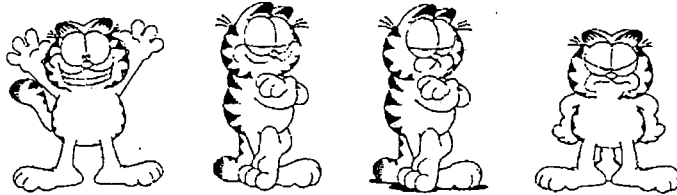


12. How do you feel about doing reading workbook pages and worksheets?

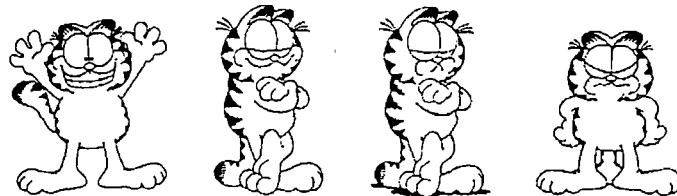


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13. How do you feel about reading in school?



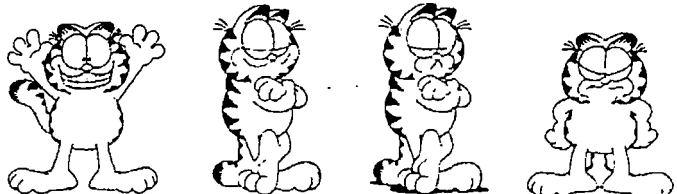
14. How do you feel about reading your school books?



15. How do you feel about learning from a book?



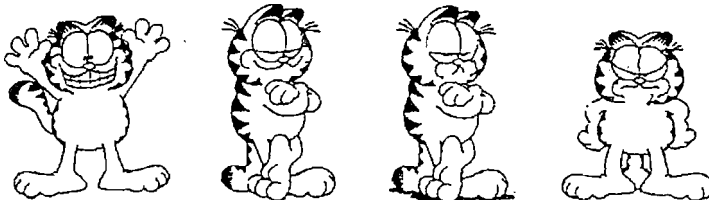
16. How do you feel when it's time for reading class?



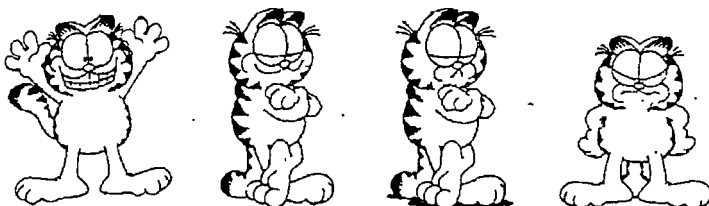
Measuring attitude toward reading

GARFIELD. ©1978 United Feature Syndicate, Inc.

17. How do you feel about the stories you read in reading class?



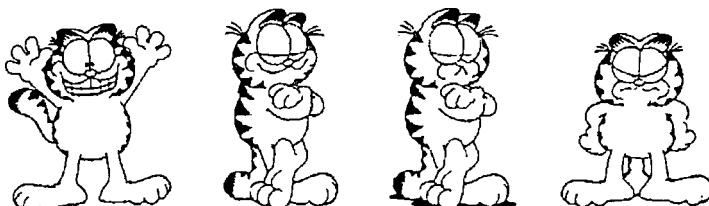
18. How do you feel when you read out loud in class?



19. How do you feel about using a dictionary?



20. How do you feel about taking a reading test?



Elementary Reading Attitude Survey Scoring sheet

Student name _____

Teacher _____

Grade _____ Administration date _____

Scoring guide	
4 points	Happiest Garfield
3 points	Slightly smiling Garfield
2 points	Mildly upset Garfield
1 point	Very upset Garfield

Recreational reading

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Raw score: _____

Academic reading

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Raw score: _____

Full scale raw score (Recreational + Academic): _____

Percentile ranks

Recreational

Academic

Full scale

APPENDIX F:
THE READER SELF-PERCEPTION SCALE

APPENDIX A
The Reader Self-Perception Scale

Listed below are statements about reading. Please read each statement carefully. Then circle the letters that show how much you agree or disagree with the statement. Use the following:

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

Example: I think pizza with pepperoni is the best. SA A U D SD

If you are *really positive* that pepperoni pizza is best, circle SA (Strongly Agree).

If you *think* that is good but maybe not great, circle A (Agree).

If you *can't decide* whether or not it is best, circle U (undecided).

If you *think* that pepperoni pizza is not all that good, circle D (Disagree).

If you are *really positive* that pepperoni pizza is not very good, circle SD (Strongly Disagree).

	1. I think I am a good reader.	SA	A	U	D	SD
[SF]	2. I can tell that my teacher likes to listen to me read.	SA	A	U	D	SD
[SF]	3. My teacher thinks that my reading is fine.	SA	A	U	D	SD
[OC]	4. I read faster than other kids.	SA	A	U	D	SD
[PS]	5. I like to read aloud.	SA	A	U	D	SD
[OC]	6. When I read, I can figure out words better than other kids.	SA	A	U	D	SD
[SF]	7. My classmates like to listen to me read.	SA	A	U	D	SD
[PS]	8. I feel good inside when I read.	SA	A	U	D	SD
[SF]	9. My classmates think that I read pretty well.	SA	A	U	D	SD
[PR]	10. When I read, I don't have to try as hard as I used to.	SA	A	U	D	SD
[OC]	11. I seem to know more words than other kids when I read.	SA	A	U	D	SD
[SF]	12. People in my family think I am a good reader.	SA	A	U	D	SD
[PR]	13. I am getting better at reading.	SA	A	U	D	SD
[OC]	14. I understand what I read as well as other kids do.	SA	A	U	D	SD
[PR]	15. When I read, I need less help than I used to.	SA	A	U	D	SD
[PS]	16. Reading makes me feel happy inside.	SA	A	U	D	SD
[SF]	17. My teacher thinks I am a good reader.	SA	A	U	D	SD
[PR]	18. Reading is easier for me than it used to be.	SA	A	U	D	SD
[PR]	19. I read faster than I could before.	SA	A	U	D	SD
[OC]	20. I read better than other kids in my class.	SA	A	U	D	SD

(continued)

APPENDIX A (cont'd.)
The Reader Self-Perception Scale

[PS]	21. I feel calm when I read.	SA	A	U	D	SD
[OC]	22. I read more than other kids.	SA	A	U	D	SD
[PR]	23. I understand what I read better than I could before.	SA	A	U	D	SD
[PR]	24. I can figure out words better than I could before.	SA	A	U	D	SD
[PS]	25. I feel comfortable when I read.	SA	A	U	D	SD
[PS]	26. I think reading is relaxing.	SA	A	U	D	SD
[PR]	27. I read better now than I could before.	SA	A	U	D	SD
[PR]	28. When I read, I recognize more words than I used to.	SA	A	U	D	SD
[PS]	29. Reading makes me feel good.	SA	A	U	D	SD
[SF]	30. Other kids think I'm a good reader.	SA	A	U	D	SD
[SF]	31. People in my family think I read pretty well.	SA	A	U	D	SD
[PS]	32. I enjoy reading.	SA	A	U	D	SD
[SF]	33. People in my family like to listen to me read.	SA	A	U	D	SD

APPENDIX C

The Reader Self-Perception Scale scoring sheet

Student name _____

Teacher _____

Grade _____ Date _____

Scoring key: 5 = Strongly Agree (SA)
 4 = Agree (A)
 3 = Undecided (U)
 2 = Disagree (D)
 1 = Strongly Disagree (SD)

Scales

General Perception	Progress	Observational Comparison	Social Feedback	Physiological States
1. _____	10. _____	4. _____	2. _____	5. _____
	13. _____	6. _____	3. _____	8. _____
	15. _____	11. _____	7. _____	16. _____
	18. _____	14. _____	9. _____	21. _____
	19. _____	20. _____	12. _____	25. _____
	23. _____	22. _____	17. _____	26. _____
	24. _____		30. _____	29. _____
	27. _____		31. _____	32. _____
	28. _____		33. _____	

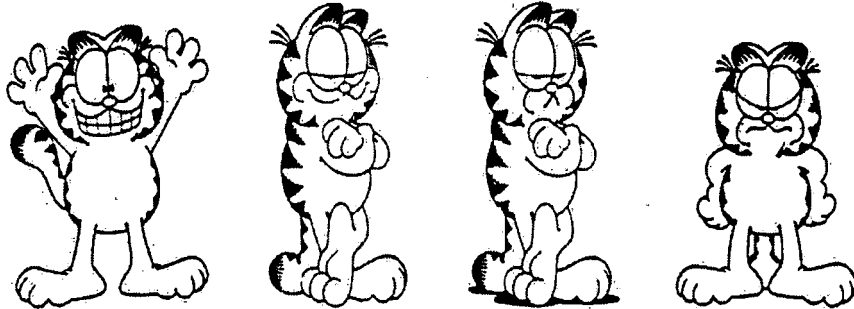
Raw score _____ of 45 _____ of 30 _____ of 45 _____ of 40

Score interpretation	44+	26+	38+	37+
High	44+	26+	38+	37+
Average	39	21	33	31
Low	34	16	27	25

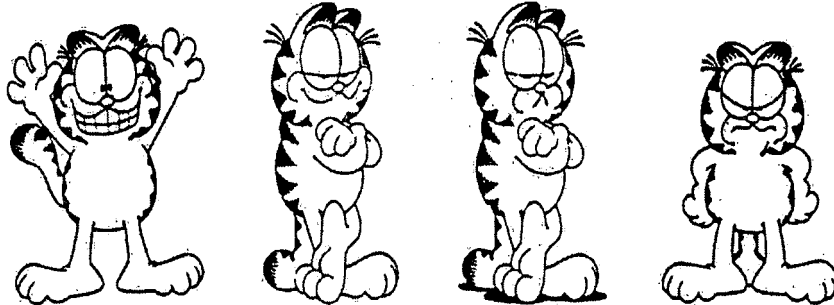
APPENDIX G:
STUDENT ATTITUDE SURVEY

Student Attitude Survey

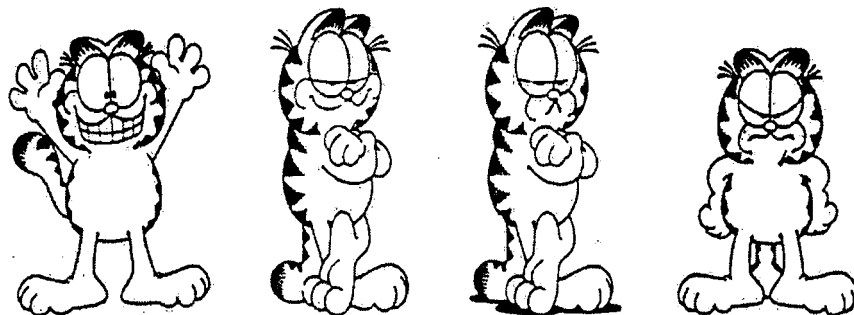
1) When you read do you have to try as hard as you use to?



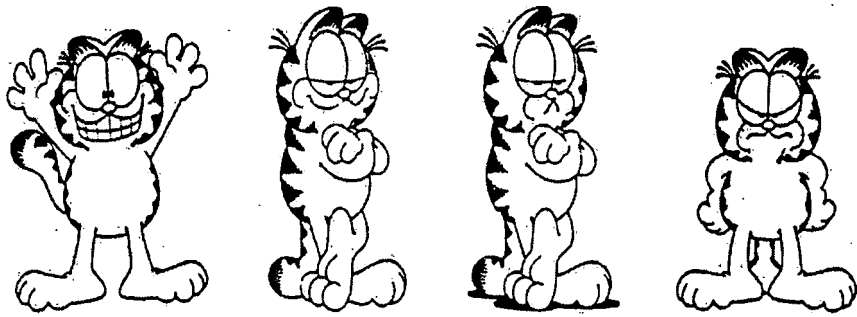
2) Do people in your family think that you are a good reader?



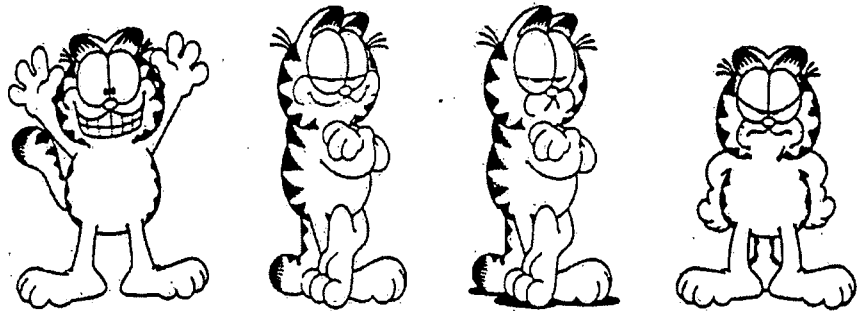
3) How does reading make you feel inside?



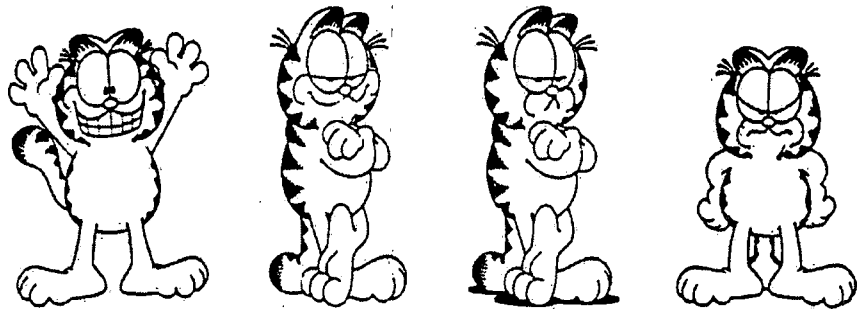
4) Do you think reading is fun?



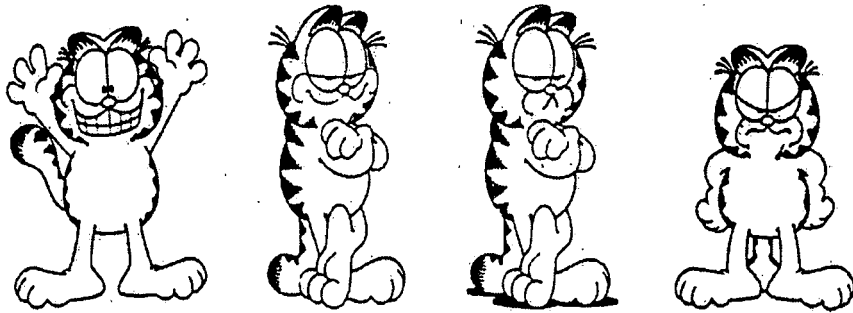
5) Do you think you are a good reader?



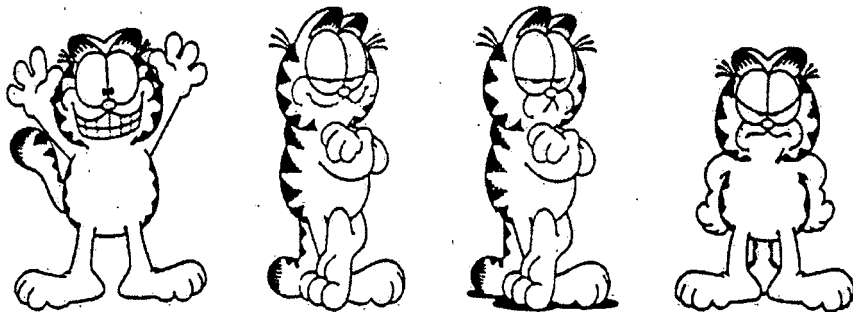
6) How do you feel about reading schoolbooks?



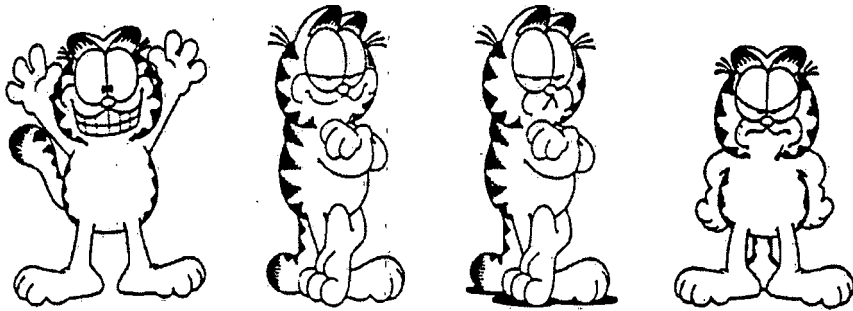
7) How do you feel when it's time for reading group?



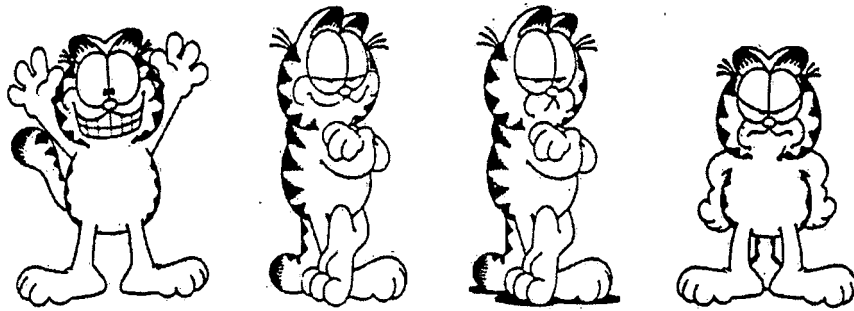
8) How do you feel when you read out loud in class?



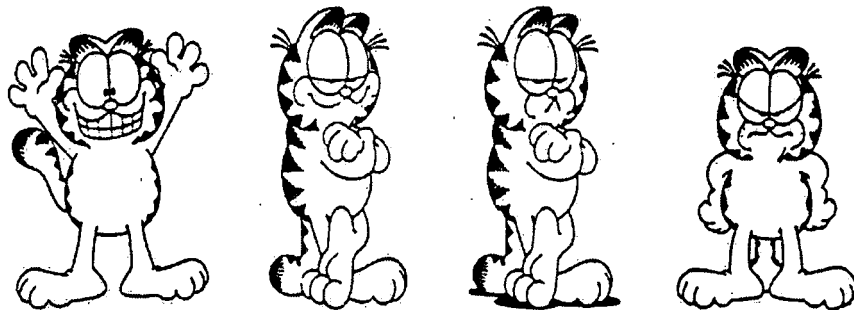
9) How does singing make you feel on the inside?



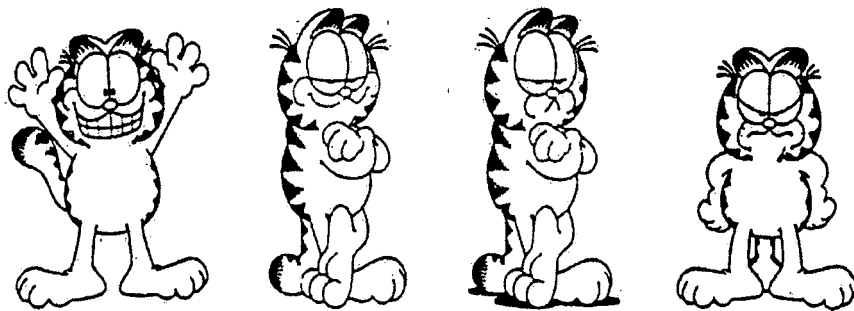
10) How do you feel when you sing out loud in class?



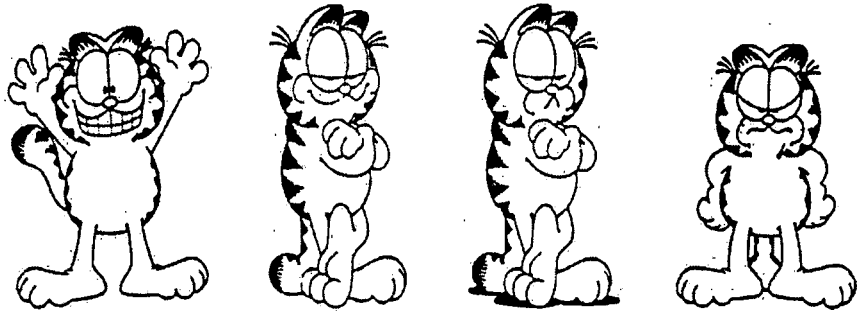
11) How do you feel when you sing out loud at home?



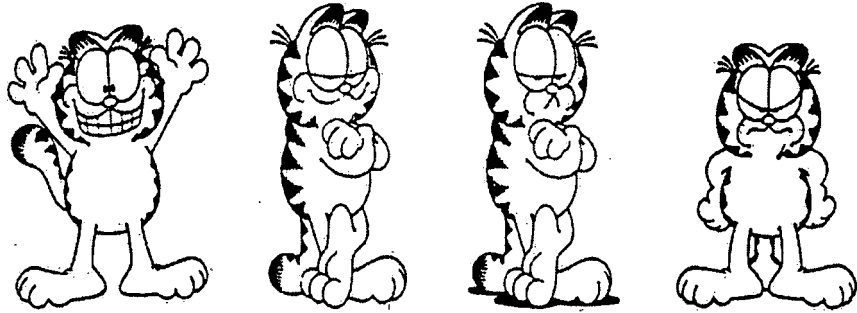
12) Do you like to sing in a group?



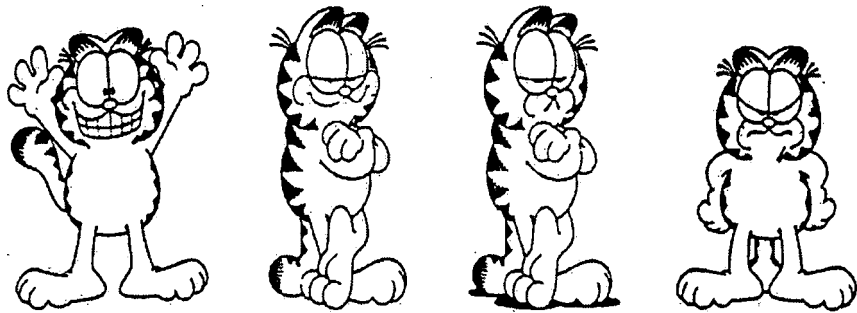
13) How do you feel about listening to music at school?



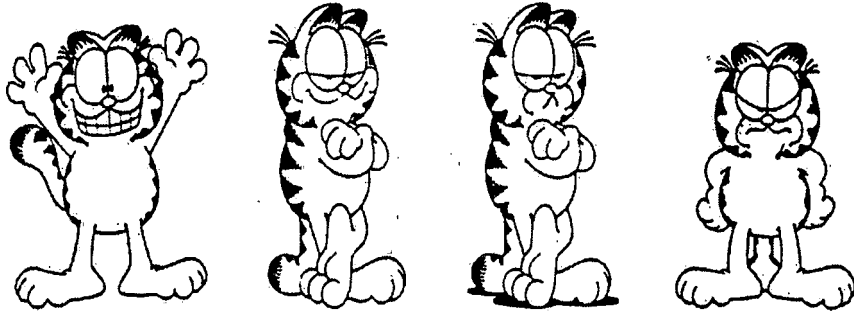
14) How do you feel about singing by yourself in a small group?



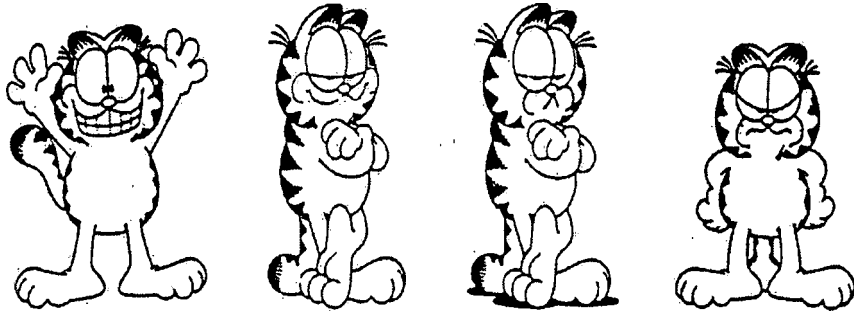
15) Do you think you are a good singer?



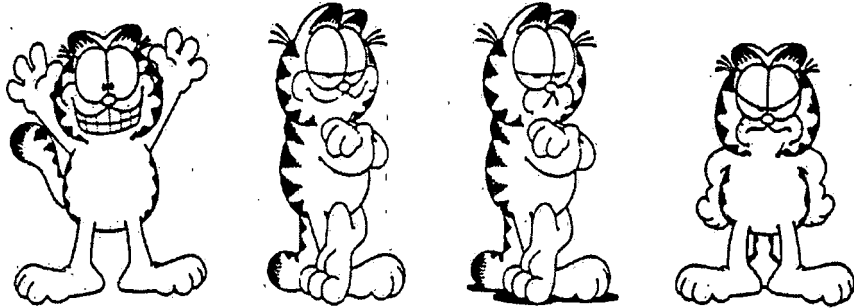
16) How do you feel about reading the words to songs?



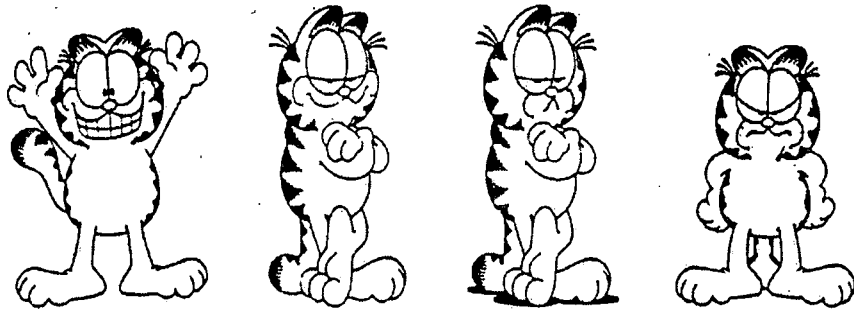
17) How do you feel about school?



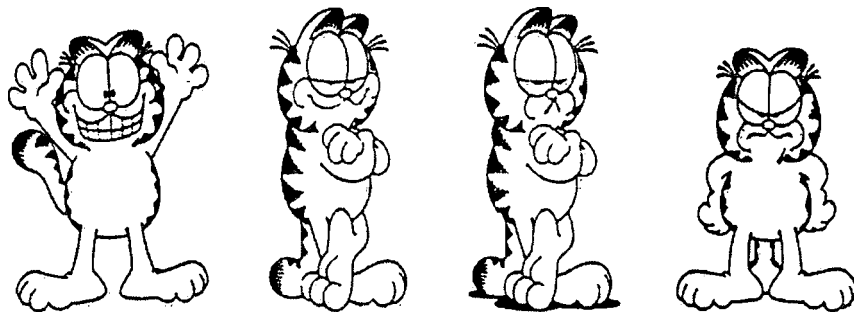
18) Do you think you are a good student?



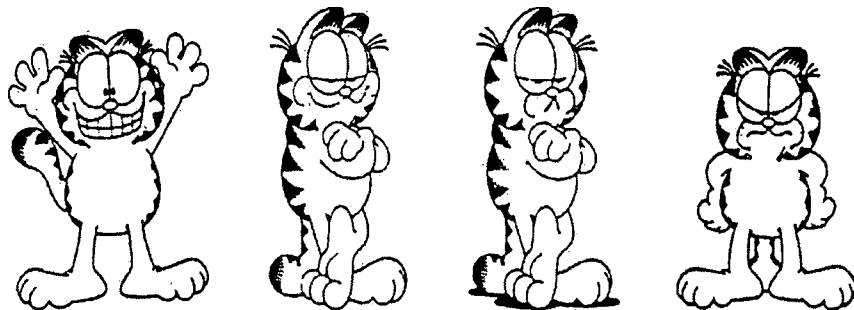
19) Do you think school is fun?



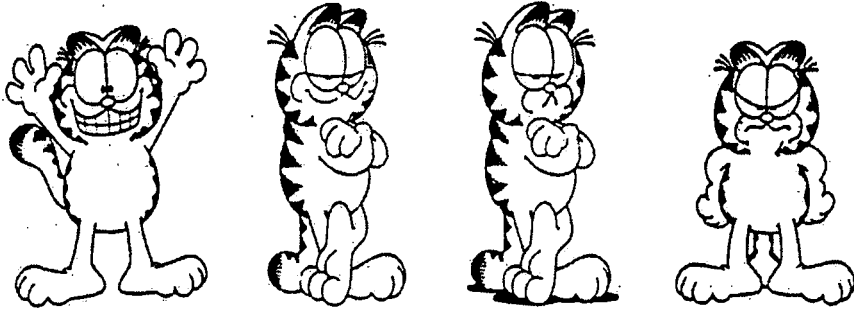
20) Do your parents think you are a good student?



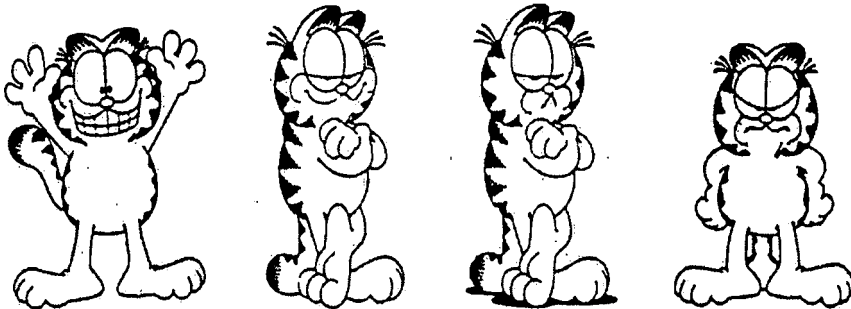
21) How do you feel about learning new things at school?



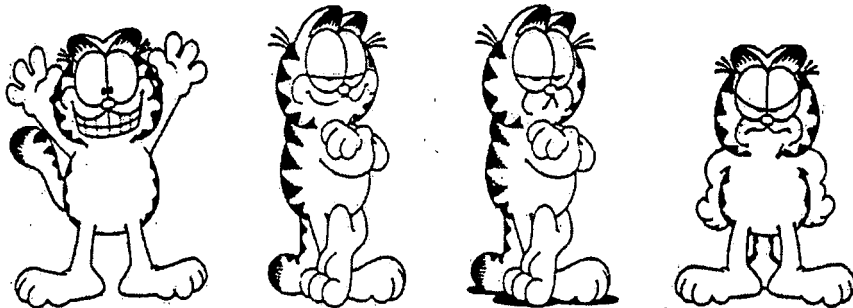
22) How do you feel each morning when you come to school?



23) How do you feel about doing schoolwork?



24) Do you like participating in class activities?



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