

**Culminating Experience Action Research Projects,  
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## Introduction

As a part of the teacher licensure program at the graduate level at The University of Tennessee at Chattanooga (UTC), the M.Ed. Licensure candidate is required to complete an action research project during a 3-semester-hour course that coincides with the 9-semester-hour student teaching experience. This course, Education 590 Culminating Experience, requires the student to implement an action research plan designed through (a) the Education 500 Introduction to Inquiry course, (b) one of the two learning assessments required during student teaching, or (c) a newly-designed project not used as one of the learning assessments.

With funding through a UTC Teaching, Learning, and Technology Faculty Fellows award, the Education 590 course is conducted through the use of an online, course management system (Blackboard), allowing for asynchronous discussion and use of the digital drop box feature for submitting required papers.

The action research projects from, fall semester 2008, are presented below.

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Music, Movement, and Literacy Standards

Michelle H. Bailey

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-129.

### Introduction to the Problem

In the school systems of today, children have specific learning objectives for standardized testing under the NCLB Act, with regard to language arts concepts. “Children and teachers are under extreme pressure to perform on tests. Furthermore, precious class time is compromised to focus on testing and traditional subjects are abolished to make room for test preparation” (Kozol, 2005, p. 118). Teachers are able to spend less time focusing on other areas that ignite and boost creativity and meaningful “hands-on” experiences. Educators are forced to teach in a “tunnel vision” mode, with heavy expectations that they will be able to communicate the concepts effectively to their students. Schools, teachers, and students are held accountable for their progress and their level of understanding. As the teachers expunge material at a rapid pace, students are pumped with an extraordinary volume of information. Teachers, even effective and well-meaning educators, often spiral into the pedagogy of teaching in the “rote and drill” style. Learning material goes in one ear and out the other, as students are whisked through a wealth of information. Unfortunately, this can be having an adverse effect on a child’s level of creativity and higher-order thought processes. Concern should be raised as to whether students will be able to retain and recall pertinent concepts covered on tests. From the researcher’s observations and experiences in elementary schools, children spend much time seated at desks doing their work, leaving little opportunity for experiences that may ignite creative thinking and expression. Since the researcher has taught a creative movement class using BrainDance concepts, and is currently seeking a graduate degree in early childhood education, some current practices were a disturbing discovery. Citing Dr. Kay Cowan, a professor in the Teacher Preparation Academy in The University of Tennessee at Chattanooga, “Children need opportunities to express themselves in creative ways, to ‘feel’ language concepts to aid in visual representation, to make connections,

find ways to use and increase vocabulary, and explore aspects of language such as fluency through comprehension strategies” (Cowan, personal communication, October 7, 2007).

Referring to Bloom’s Taxonomy, which is used to illustrate levels of thinking, the higher-order thinking processes are categorized in the upper levels. According to McGreevy-Nichols, “Bloom organizes the thinking processes into six levels, ranging from the simple to more complex thought processes” (McGreevy-Nichols, 2007a, ¶ 2). Because of the amount of material that must be introduced, teachers must forge ahead, and children are spending less time participating in, and working up to, the creative outlets for learning that could be supportive or optimal, and true comprehension of material. As the researcher was reflecting upon all of the expectations placed upon the teachers and students to be successful on their pathway to learning, the elements of dance and music seemed to naturally fit into the solution schema. The bottom line is that children are missing much needed opportunities to promote and ignite creative processes which may enhance key language arts areas pertaining to the curriculum. As a future educator, the researcher’s goal was to explore strategies using music and movement to heighten and support language arts lessons.

While researching, the researcher discovered key pieces regarding how students learn, how dance and music fit into the picture, and strategies that would promote success, with regard to comprehension. It became apparent that many articles have been written in favor of linking the two areas of language and literacy. Christie, cited in Hill-Clarke and Robinson (2004, p. 91), stated “In recent years, the need to develop new, effective teaching strategies to further children’s literacy increased with urgency. National organizations, as well as state policy makers, have developed reading standards and initiatives to address young children’s literacy needs.” Dance and music could be the solution. “Research shows that including visual arts, music, dance

and drama in the school provides a tool for teaching literacy” (Davenport, 1999, p. 13). With these points in mind, the task set before the researcher is to explore the topic and evaluate whether there is a valid connection linking the arts to learning and complimenting key literacy concepts. The purpose of this action research is to examine how creative movement and music activities support and enhance student comprehension relating to language arts standards.

## Review of Literature

### *How Children Learn*

According to Hill-Clarke and Robinson, Christie states that, “In recent years, the need to develop new, effective teaching strategies to further children’s literacy learning increased with urgency. National organizations, as well as state policy makers, have developed reading standards and initiatives to address young children’s literacy needs” (Hill-Clarke & Robinson, 2004, p. 91). An important factor to consider is the brain in the learning process. Music and movement have a place in this domain as they possess the potential for increased learning. As Gilbert points out, “all areas of the brain must work in an integrated way for the brain and body to fully function” (Gilbert, 2006, p. 6). Davenport (1999) cites Bruer, who maintains that three ideas come from brain science: (a) neural connections (synapses) form rapidly in the brain, (b) critical periods occur in development, and (c) enriched environments have an effect on brain development (Davenport, 1999). Aldrich, Shelly, and Downing add to this statement that, “There are two additional senses that most teachers are not familiar with: the vestibular sense (movement) and proprioceptive sense (pressure to the joints and muscles). Some children learn better when senses are targeted” (Aldrich, Shelly, & Downing, 2006, p. 54). Many factors play into the way children learn. According to Jensen (1999), several points should be taken into account regarding brain development and how we learn. The brain changes physiologically as a



result of all experiences, IQ is not fixed at birth, and is greatly impacted by experience. The brain has the ability to recognize (remap) at any age. Learning is strongly influenced by emotion, and learning through movement is most effective because it uses three of the four memory pathways.

Now that the information has been presented, the question is, “Just how do we learn?” The learning process is unique to each individual, but there are a few key points to be addressed. Provided in BrainDance workshop literature, Brandt (1998) states the following, with regard to the process of learning: “People learn what is personally meaningful to them and people learn well when they acquire new strategies” (Brandt, 1998, BrainDance workshop materials). This opens doors to options for learning and casts a negative light upon the mode of current teaching where children are being taught through either auditory or visual learning style exclusively. Other points by Brandt recognize that, “people construct new knowledge by building on current knowledge and that learning is influenced by the total environment (multi-sensory)” (Brandt, 1998, BrainDance workshop materials).

Because our brains crave experience for development, strategies for supporting growth are introduced. Cowan adapted key comprehension strategies for language arts from published sources which include visualizing and making connections (Cowan, personal communication, October 7, 2007). According to Cowan, “Visualizing involves students to create a mental picture of an event, character, or setting and then draw or dramatize it” (Cowan, personal communication, October 7, 2007). To make connections, students must draw upon personal experiences, as well. These connections are pertinent to literacy and language arts because students will be more likely to reflect upon an experience or idea, and then later recall the pertinent information for testing purposes.

*Why Dance and Music?*

Among some of the researchers who have paved the groundwork for the relevance of the arts in the learning process is Howard Gardner, who relates his theories about multiple intelligences (Hill-Clarke & Robinson, 2004). Gardner's eight multiple intelligences include the following abilities: of linguistic, logical/mathematical, spatial, naturalist, interpersonal, intrapersonal, bodily/kinesthetic, and musical (McGreevy-Nichols, 2007b, ¶ 2; Birch, 2000). According to Gardner, the earliest intelligence to emerge is musical. A child's first exposure to music is in the womb, hearing the repeated rhythm of the mother's heartbeat. Bayless and Ramsey (1991, cited in Hill-Clarke & Robinson, 2004, p. 92) state that, "Children, including infants, are naturally guided through their inner kinesthetic sense to move to basic beats and rhythms, and as they grow older this natural desire increases". "Research is beginning to explore the concept that even at this very early stage of development, the human brain begins to develop a circuit of neurons to seek out patterns that build a perceptual map"(Davenport, 1999, p. 11). Beginning with Piaget in the 1920s, according to McIntire (2007, p. 22), "researchers have demonstrated that young children learn best through play in an emotionally risk-free environment". It seems only reasonable to state that musical activities, including movement and rhythm, would engage children in learning. The arts, referring to dance and music aspects, provide a solid outlet for creating learning experiences through role playing, dramatic interpretation, and physical movement, and open pathways for higher-order thinking.

Dance also supports brain pathways, as related by Gilbert, master teacher, choreographer, dance educator, and creator of the BrainDance. The BrainDance is comprised of eight movement elements, or warm-ups, that help students to prepare for their day. The movements, or developmental patterns, which include breathing, tactile, head-tail, core-distal, upper to lower body, body-side, cross-lateral, and vestibular, emulate the first movement patterns that an infant

experiences. By performing these exercises, students can become better adjusted to the school day and more focused on testing, as well as increasing muscle strength (Gilbert, 2006).

According to Gilbert, referring to BrainDance movement, “these elements wire the central nervous system laying a foundation for appropriate behavior and attention, eye convergence necessary for reading, sensory-motor development and more” (Gilbert, 2003a, BrainDance video). Copeland (cited in Birch, 2000), p. 223 states that, “Until recently, dance has been viewed as a kinesthetic activity using motor skills. However, with the advancement of Multiple Intelligences Theory (Gardner, 1983), there is now substantial reason to view dance as an intellectual and affective activity as well.” Referring back to Gardner, the areas of the brain that house the intelligences may be enhanced by meaningful experiences that provide a context for learning (Davenport, 1999, p. 11). Since children are unique, they also possess their own learning style. McGreevy-Nichols (2007b) states that people can have any number of the intelligences. “It is important that dance educators use strategies that support and nurture the varied ways our students process and use information. Dance educators can support student learning by helping them understand content through their dominant intelligence or by helping them improve less intelligences” (§ 3).

With this key point in mind, dance can also be utilized as a metacognitive strategy for carrying out experiences and making meaningful connections. There are six language arts related standards, as designated by the National Council of Teachers of English (1996) and the International Reading Association (1996). They include listening, speaking, reading, writing, visually viewing, and visually representing. Listening and speaking naturally compliment each other. The methods of teaching in today’s classrooms are geared toward passive literacy learning. The real learning takes place when the gears are shifted to the more creative speaking

element. The same applies to reading, which is interconnected with writing, and visually viewing to visually representing. Children benefit greatly, and may be more capable of abstract thought, when they are provided with chances to fine tune their skills in the creative areas. Using dance and music as vehicles to teaching curriculum content, students “increase their knowledge and vocabulary through an understanding of the elements and principles of dance, hone their problem solving skills, increase their learning in other curricular areas, and expand their creative skills through choreography and improvisation” (Gilbert, 2003b, p. 6). McGreevy-Nichols reports in the article related to developing thinking skills through dance education that, “as we carry out a task or attempt to learn something our brain performs many functions and allows us to complete a variety of activities” (McGreevy-Nichols, 2007a, ¶ 1). McGreevy-Nichols further states, “It is desirable and many times mandated that we integrate a variety of thinking processes into our daily classroom activities and student work. In a nutshell... these skills are essential to all learning and need to be practiced” (McGreevy-Nichols, 2007a, ¶ 1).

Recalling Bloom’s Taxonomy, which is comprised of six progressive thinking levels, dance can also be used to develop critical, or the higher-order thinking skills. The levels build from knowledge to evaluating, the more critical process. McGreevy-Nichols illustrates how dance and the multiple intelligences are connected, specifically referring to how “each level can be applied to specific movement and choreographic skills” (McGreevy-Nichols, 2007b, ¶ 2).

### *Tying to Standards*

Viewing the standards for the State of Tennessee, most content can easily be taught using dance and music as supplements. Hill-Clarke and Robinson summarize the work of Carbo; Pike; and Compain and Mumper; stating, “because reading is an active process that includes the reader, the text, and the situation, creative expression activities enhance comprehension and

vocabulary skills (2004, p. 94). For example, one standard applying to kindergarten students in the State of Tennessee in the area of language arts states that students will be expected to expand oral language through vocabulary instruction and experiences (Tennessee Department of Education, n.d.). Dance and music could play an integral part in providing clarity and meaning to vocabulary. One such activity, taken from Gilbert's *Creative Dance for All Ages*, suggests that children "spell vocabulary words with letters formed using the whole body. Letters can be made on different levels, with varying size and with partners. Act out the meaning of the word with actions or a body shape. Write the words in space using different body parts as a pencil...Always say each letter as you form or write it and say the word when you are finished" (Gilbert, 2003b, p. 351-352). It is evident that children would be learning what the teaching standard calls for, and additionally, they would connect the word or words with experiences, allowing for a greater potential for recall or connection with the information designated for learning. This is but one of the many ways in which dance could be used to support the language arts.

Music, standing alone, or combined with dance, is also a powerful tool for supporting language arts. "Because music is naturally woven into a child's day, learning through music can be inseparable from learning in other areas. For example, singing and listening to nursery songs, folk songs, and jingles can extend and develop vocabulary and comprehension skills" (Hill-Clarke & Robinson, 2004, p. 91,94). Hill-Clarke and Robinson summarize the work of Bayless and Ramsey (1991); Chandler; and Morrow by stating, "Learning through music can build listening skills, enhance abstract thinking, improve memory, and encourage the use of compound words, rhymes, and images." There are similar relationships between the art of music and language arts skills. For example, each subject must have concentration, memory, and understanding of abstract concepts (Bayless & Ramsey, 1991). Collett (1992, cited in Hill-Clarke

& Robinson, 2004, p. 94) reports that, “when children engage in musical activities such as moving, singing, snapping, and clapping, they strengthen listening, thinking, and word recognition skills.” The article furthers the comment by relating that other relevant reasons for learning through music include the enhancement of creative expression, phonemic awareness, and creative writing. With the research information presented in favor of applying these vital components into the curriculum, it is important to reflect upon student needs and true comprehension of expected learning material.

One research study, known as The Arts Infusion Program, sponsored by the Greater Augusta Arts Council reported that students showed a significant improvement in the Stanford Achievement Test from 1990 through 1994 as a result of weekly arts instruction provided by artists and specialists in the art disciplines of visual arts, music, dance, and drama (Davenport, 1999, p. 13). Hudspeth’s study (Davenport, 1999, p. 13) saw improvement in California Achievement Test scores in the areas of language mechanics, language expression, total language, and reference skills as a result of a language arts program called SAMPLE (Suggested Activities of Music and Poetry for Language Enrichment).

It comes back to the understanding, that for any creative process to take place, the learner must be actively involved. “Arts experiences also require drawing upon prior knowledge. the process of creating art is the process of creating meaning” (Davenport, 1999, p. 12). Children are expected to recall pertinent information for standardized testing, but, without relevant meaning, recall potential may be compromised. Cohen and Gainer point out that, “when children create art, they also organize their thoughts and actions in patterns necessary for skill in reading” (cited in Davenport, 1999, p. 12). Cowan and Albers point out that learning within a semiotic approach to literacy enables learners to “develop a richer and more complex literacy practice and allows

them to more thoughtfully and critically deal with the images and messages of popular culture” (Cowan & Albers, 2006, p. 124). The arts, in particular dance and music, create those opportunities for creating meaningful experiences and allow children to creatively explore beyond the realm of standardized learning methods. Cowan explains:

Long before I found my way to literature indicating that comprehension increases as cognition and affect are connected (Sadski and Pavino, 1994), I realized from observing my students that they could master and express themselves more easily in written form when English language arts instruction was connected to visual and performing arts instruction...the experience takes on an emotive quality, and the student easily moves to higher order thinking processes and remembers the content long after it has been taught. (p. 129)

Cowan goes on to relate that, “standards relating to language arts are addressed in her research project in a meaningful way in comparison to teaching the skills in isolation without the arts integration” (Cowan & Albers, 2006, p. 129). Tying together the wealth of information that is available, it is possible to view dance and music as comprehension strategies. By implementing these into teaching, students may connect more solidly, and, therefore, may be able to answer thoughtfully, recall vital information, and provide appropriate feedback in relation to what they are required to learn about language arts.

## Data Collection and Results

### *Data Collection*

#### *Purpose*

The purpose of this action research is to examine how creative music and movement activities support and enhance student comprehension relating to language arts standards. The

goal of this study has been to determine the student knowledge base about target concepts relating to language arts standards, prior to implementing music and movement activities. While implementing the strategies/activities, were language arts standards effectively covered, and, if so, were students able to connect with the material to support better comprehension of required language arts standards?

### *Procedure*

*Location.* Students, parents, and the teacher of one kindergarten class at a public Chattanooga elementary school participated in the study. All pre- and post-tests were conducted at the school site. The school was chosen because of the school's close proximity to UTC, the school's program for incorporating arts programs, and because of the relationship as a graduate student in the school. The school is a magnet school where diversity and meeting individual needs are highly valued.

*Instruments.* The instruments used during this research project begin by covering background information from parents through the parent survey/questionnaire to determine if and how creative music and movement activities support and enhance student comprehension of language arts concepts. The questions consisted of general information such as if their child knows how to read, if the child participates in music and/or movement activities, verbal ability of their child, opinions and/or attitudes about creative music and movement activities, and opinions (see Appendix A).

The second instrument was the weekly teacher survey. The survey included questions geared to the teacher views on the lessons taught using creative movement and music activities during the language arts lessons. Questions included yes or no responses, asking if the teacher felt that the lessons were beneficial to students, if the activities adequately supported the



standards, whether or not the students were able to demonstrate comprehension of subject matter after implementation of activities, any changes noticed in student progress after implementing activities, and if children were more engaged in learning the class material relating to the targeted standards after using music and movement activities. The survey included a place for the teacher to list any other relevant information, as well (see Appendix B).

The third instrument was the student questionnaire/check sheet. After the music and movement activities were implemented, the researcher read the questions to each student individually and the researcher checked the appropriate boxes to student responses. Questions were straight forward, and were either a check or identified as, “I did not learn anything.” (See Appendix C.)

The fourth instrument used was the pre- and post-test sheets for students to respond and identify the targeted concept verbally to the researcher. The pre-and post-tests each provided an attached paper for students to illustrate or write the concept taught in class through music and movement activities. For example, in lesson one, the students wrote specific letters before and after the lesson (see Appendix D).

A student observation tool was used by the researcher to document and assess the students’ level of participation, demonstration/comprehension of lesson, attitudes during the activity and other relevant information (see Appendix E).

Finally, the researcher utilized an informal student interview questionnaire to randomly document student attitudes and comprehension each week. The researcher spoke to a total of three different students during three separate weeks (see Appendix F).

*Respondents.* Out of the parent surveys distributed, 16 out of 18 student surveys were completed. Sixteen out of 18 students in the class participated in the research study. The

cooperating teacher completed all three weekly surveys, and all student pre- and post-tests, questionnaires, and interviews were completed.

### *Methodology*

This study was conducted in one kindergarten classroom using pre-test knowledge and post-test knowledge after implementing music and movement activities related to literacy and language arts concepts. During language arts classroom time, students were introduced to music and movement activities that supported the language arts concepts targeted to kindergarten. The research data was collected over a 4-week time period. During this time, the students were tested on knowledge of concepts before implementing the activities and after the activities, were observed throughout the lessons for participation and cooperation, and were randomly chosen to complete informal interview questions pertaining to the lessons. The cooperating teacher in the classroom completed weekly surveys about the lessons and the effectiveness of the strategies, and parents completed an initial survey to provide additional information about their child. Research information gained targeted knowledge of concepts, student's enthusiasm, and clarity of material after the strategies were implemented.

This project consisted of three separate language arts lessons that implemented music and movement activities/strategies in one kindergarten classroom. The objectives and learning goals were determined through a collaborative effort between the cooperating teacher and researcher. The project implemented kindergarten standards for the State of Tennessee.

### *Results*

The following learning accomplishments and standards were successfully met during the language arts lessons:

Reading Content Standard: 1.0: The student will develop the reading and listening skills necessary for word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print and non-print text.

- Show evidence of expanding oral language through vocabulary growth.
- Speak clearly, properly, and politely.
- Begin to use rules for conversation.
- Participate in group discussion.
- Participate in creative responses to text.
- Dramatize, tell, and dictate what has been learned.
- Listen attentively to speaker for specific information.
- Use appropriate listening skills.
- Listen and respond to a variety of media.
- Follow simple, two step oral directions.
- Distinguish letters from words.
- Understand that a phoneme is one distinct sound.
- Segment one-syllable words into individual sounds and blend the sounds into whole words.
- Recognize words that have same beginning and ending sounds.
- Understand words are made up of one or more syllables.
- Recognize and name all upper and lower case letters of the alphabet.
- Use letter-sound matches to decode simple words.
- Build vocabulary by listening to literature and participating in discussions.
- Begin to use word families and word walls.

- Recognize a purpose for listening.
- Connect to life experience the information and events in text.
- Derive meaning while reading by creating mental images of the story.
- Explore lyrics to songs.

Elements of Language: Content Standard: 3.0: The student will use standard English conventions and proper spelling as appropriate to speaking and writing.

- Form legible upper and lower case letters.
- Recognize ending punctuation marks for statements and questions.
- Trace and reproduce letters and words correctly.
- Spell own first and last name.
- Use complete and coherent simple sentences when speaking.

With regard to the parent surveys, 2 of the 16 children in the class knew how to read, as checked by Question 1: Does your child know how to read? Six parents out of 16 reported that their child does participate in music or dance classes outside of school. Fifteen out of 16 parents reported that their child was able to demonstrate or verbalize concepts learned inside of the school day. All 16 parents checked “yes” on Questions 5 and 6, regarding creative music and movement supporting comprehension of concepts, and their belief that their child enjoyed music and or dance activities. Three parents responded in writing with additional comments, including a statement of their child’s personal love of music, re-emphasis of their child’s age (kindergarten), and one report of their child loving both dance and music.

The teacher surveys, a total of three, reported “yes” on all questions. The teacher checked “yes” on each survey with the first question stating: “Do you feel that creative movement and music classes were beneficial to students?” The teacher also indicated, by checking yes to the

remaining questions pertaining to beliefs about creative movement and music activities supporting language arts standards, belief that students did demonstrate comprehension of subject matter related to classroom work after implementation of activities, changes occurred in student progress after participating in movement/music activities, and that children were more engaged in learning the class material related to the targeted standards after it was introduced through music and movement activities. The teacher also listed other relevant information at the bottom of the surveys including: “Students continue to show more understanding of letter formation. They are really responding!”

Prior to the first lesson, students were given a pre-test to evaluate student comprehension of targeted material. The pre-test was administered by the researcher and the students wrote specific letters on a pre-printed sheet of paper. To view the standards covered for each lesson and the activities used for each lesson, see Appendices G, H, and I.

After the lesson, students were given a post-test, administered by the researcher. The post-test consisted of the same pre-test questions, and the students repeated the letter writing activity. Additionally, students were asked to complete a questionnaire regarding the lesson, which was administered by the researcher. The pre-test results for the first lesson revealed the following information: 10 out of 16 students were able to demonstrate the desired concept, 9 out of 16 students were able to write specific requested letters, 10 out of 16 students were able to demonstrate making letters. For question 4, student responses varied with the focus question asking, “What are letters?” Eleven out of 16 students responded that letters are the “ABCs,” while 1 student stated that letters are the alphabet. Two students stated that letters are words or what you make words with. One student stated that letters are what you write, and two students stated that they did not know.

For question 5, which asked how students like to learn about new things, 10 students out of 16 stated that they learn by doing, while 1 stated, “playing with things.” One student stated that “seeing things” was the way they like to learn, one student reported “hearing things,” two students reported “coloring and singing,” and one student stated that they “do not know.”

The student questionnaires were conducted simultaneously with the post-test. Student questionnaire results revealed that 13 out of 16 students enjoyed the music and movement activities, while 3 out of 16 students reported that they did not learn anything.

The post-test results differed from the pre-test in that all 16 participants were able to demonstrate the concepts from the lesson, verbalize the concept, write the concept, and explain the concept. One student stated that the movement activity helped her to “see the letters in her mind.” All 16 students stated that music and movement help them to understand how to make letters, and recognize letters and sound correspondences.

A student observation tool was completed by the researcher immediately following the lesson. Findings were as follows: Students were focused and followed directions. Most students were fully engaged and demonstrated letters using their bodies. Most children extended the lesson on their own, making and creating other shapes and letters with their bodies. Regarding Observation Question 1, Students were on task. Two children made all letters with their bodies-their names. Students identified letters verbally, maintained eye-contact, followed multi-step instructions, and said letters as they made each letter with their body. The researcher reported the following results regarding the attitude of students during the lesson: Students expressed enthusiasm about learning new activities. All students participated and stated they liked making letters with their bodies.

One additional tool was the informal student interview. Questions followed the same format as the student questionnaire, and the student responded “yes” to questions 1-3. Questions included: Did you learn anything in this lesson? Do you like music? Do you like moving? Questions 4 and 5 involved responses other than “yes” or “no.” For Question 4, which asked the student what helps them to learn, the student reported, “doing things.” Question 5 involved the student demonstrating what they learned from class. For this first lesson, the student demonstrated the letter “A” by making the letter “A” with their body, and then holding hands on head while stating “A,” moving their hands to shoulders and saying “/a/,” and then touching their toes and saying “apple.” The student adequately demonstrated lesson objectives by showing the letter “A,” and then extending the knowledge by providing the sound correspondences and a word that begins with the letter “A.”

The pre-tests and post-tests were given for the next two lessons, targeting language arts, concepts with similar results. Questionnaires and interview questions revealed that students did enjoy the activities and were able to demonstrate the concepts. On the following two pre- and post-tests, questionnaires, and informal questions, only one student stated he did not learn anything in the lessons. Further observations revealed similar results, with students actively engaged and participating in activities and lessons. Students were all able to demonstrate concepts taught and targeted in all three lessons.

## Conclusions and Recommendations

### *Conclusions*

Learning is a lifelong process. In order to learn, children must build upon prior knowledge. This creates a good case for making concrete connections early. “The brain is built for learning. It wants to make meaning out of experience. Conceptual content is more meaningful than

random facts” (Gilbert, 2006, p. 11). Implementing creative movement and music experiences are effective in helping children to make the important connections related to language arts and literacy standards. More importantly, children can relate content information with a greater level of recall because the information learned is related to an experience. Classroom teachers need to implement activities that include movement and provide rich and meaningful experiences in order to increase student learning, retention, and comprehension of material. Gilbert (2006) relates in her book that Johnson (1987) states that, “We can use movements and our bodies to plant phonics skills more deeply into our brains because we use the kinesthetic track as well as the auditory and visual tracks” (Gilbert, 2006, p. 280). “Sensory-motor activities build the brain. A fully-functioning body reflects a fully functioning brain” (Gilbert, 2006, p. 9). Music is, additionally, invaluable as a tool for supporting learning, and can be used as a method of exploring, for understanding stories and sequences, for background knowledge and vocabulary, for phonemic awareness, for phonics, for spelling patterns, for syllabication, for writing, and for print concepts (Fisher & McDonald, 2001). Additionally, Fisher and McDonald cite Smith (p. 317) as stating, “We know that a young child’s developing literacy skills are exercised when emergent readers hear, sing, discuss, play with, and write songs. They are building important background knowledge that they will draw upon during later reading and writing experiences. With each new song, students learn concepts and word meanings that they will encounter in print.” Teachers, educators, and parents can support true learning through encouragement, implementation, effort, and openness to new and exciting strategies that teach the needed content material.

Future educators are becoming aware of the traditional pedagogy of our school systems, and realize that there must be alternate ways to propel creative processes. From all the research



that has been done in favor of the arts and education, this statement is most revealing: “By adding rhythm, music, and movement to a learning experience, we send messages to the brain through pathways and create a richer learning experience” (McIntire, 2007, p. 44).

At this time, we are informed that students who are engaged and creatively involved in their learning process can make lasting connections. With this realization, language arts standards may be supported and truly comprehended more deeply through the creative outlets of dance and music. Kozol provides an insightful statement when, he says “Education involves the heart as well as the mind...learning entails play and risk-taking as well as ordered study” (Kozol, 2005, p. 132). A balanced approach that implements creative outlets such as music and movement can assist and enhance student learning and support the learning of the material that children are required to learn in today’s classrooms.

### *Recommendations*

As a result of the surveys, activities, questionnaires, student feedback, and results of the research project, it is evident that using a variety of strategies are useful and supportive of learning in the classroom. Since students are required to learn at a rapid pace, and as teachers are held accountable for set standards and learning objectives, it is obvious that teachers should seek out ways to cover a voluminous amount of content in an effective and exciting manner. It seems impossible, at times, to make accommodations for variations in lesson planning due to time restrictions and the set amount of learning material expected to be covered in a day’s time. Music and movement activities can be added to a lesson plan rather easily, and can be as involved as a teacher wants the activity to become. Furthermore, student attention level can and will be held when new and exciting activities/strategies are added to provide students with a chance to “get up and move.” It is my hope that teachers will embrace the value and research behind music and

movement activities and that The University of Tennessee at Chattanooga will continue to educate future teachers on the importance of using a balanced approach to cover standards material. Based upon my research, students were engaged and the majority of students stated that the music and movement activities helped them to understand and remember the information about the day's lesson.

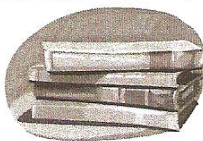
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## Appendix A:

## Parent Survey



The purpose of this survey is to determine if and how creative music and movement activities support and enhance student comprehension of language arts concepts.

Please check the answer that best describes your child's experience involving creative music/movement.

1. Does your child know how to read?      YES \_\_\_\_\_      NO \_\_\_\_\_
2. Does your child participate in music or dance classes outside of school?  
   YES \_\_\_\_\_      NO \_\_\_\_\_
3. Can your child demonstrate or verbally tell you about concepts learned in school?  
   YES \_\_\_\_\_      NO \_\_\_\_\_
4. Do you feel that creative movement and music activities can support or enhance  
comprehension of concepts related to language arts?  
   YES \_\_\_\_\_      NO \_\_\_\_\_
5. Does your child enjoy music and/or dance?  
   YES \_\_\_\_\_      NO \_\_\_\_\_

\*Please provide any comments that might be helpful:

**Thank you for taking the time to complete this important survey!**

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY THE  
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN  
SUBJECTS AT THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA.

## Appendix B:

**Teacher Survey****Date:****Concept/Standard:**

1. Do you feel that creative movement and music classes were beneficial to students?

Yes \_\_\_\_\_

No \_\_\_\_\_

2. Do you believe that creative movement/music activities adequately supported the targeted language arts standard?

Yes \_\_\_\_\_

No \_\_\_\_\_

3. Based upon your students' responses in class, after participating in music/movement activities, do you believe that they demonstrated comprehension of subject matter related to classroom work?

Yes \_\_\_\_\_

No \_\_\_\_\_

4. Have you noticed any changes in your students' progress after they have participated in movement/music activities?

Yes \_\_\_\_\_

No \_\_\_\_\_

5. Are the children more engaged in learning the class material related to the targeted standards after it has been introduced through music and movement activities? Yes \_\_\_\_\_ No \_\_\_\_\_

Please list any other relevant information:

Thank you for taking the time to complete this important survey relating to music, movement and language arts standards.

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## Student Checksheet/Questionnaire



**Date:**

**Literacy Concept:**

**Please check the sentences that you agree with.**

☐ **I participated today in music/movement activities.**

☐ **I enjoyed the lesson involving music/movement.**

☐ **I learned something new in class today.**

☐ **I understood the lesson better when I used movement and music.**

☐ **I can demonstrate what I learned in class today.**

☐ **I can tell you about what I learned today.**

☐ **I feel good after I do movement and music activities.**

☐ **I did not learn anything.**

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## Appendix D:

**Student Pre-Test**

1. Demonstrate \_\_\_\_\_ (concept for standard)
  2. Write or illustrate \_\_\_\_\_ (concept for standard)
  3. Do you know how to \_\_\_\_\_ (concept for standard)
  4. Using words, explain \_\_\_\_\_ (concept for standard)
  5. How do you like to learn about new things? \_\_\_\_\_
- 

**Student Post-test**

1. Demonstrate \_\_\_\_\_
2. Write or illustrate \_\_\_\_\_
3. Do you know how to \_\_\_\_\_
4. Using words, explain \_\_\_\_\_
5. Did music and movement help you to understand \_\_\_\_\_



**Appendix E****Music, Movement and Literacy**  
**Student Observation Tool**

Date: \_\_\_\_\_

Literacy concept: \_\_\_\_\_

Music/movement activities employed: \_\_\_\_\_

1. Attention span of students during lesson: \_\_\_\_\_

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2. Ability of students to demonstrate/communicate concept: \_\_\_\_\_

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3. Attitude of students/classroom during lesson: \_\_\_\_\_

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4. Other observations/comments:

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**Appendix F****Movement, Music and Literacy**  
**Questions for Informal Student Interview**

1. Did you learn anything in the lesson?
2. Do you like music?
3. Do you like moving?
4. What helps you learn?
5. Can you show me what you learned about the lesson?

## **Appendix G**

### **Week 1**

#### **Targeted Language Arts Standards:**

##### ***English/Language Arts Content Standard: 1.0***

The student will develop the reading and listening skills necessary for word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print and non-print text.

##### ***English/Language Arts Content Standard: 2.0***

The student will develop the structural and creative skills or the writing process necessary to produce written language that can be read, presented to, and interpreted by various audiences.

##### ***English/Language Arts Content Standard: 3.0***

The student will use standard English conventions and proper spelling as appropriate to speaking and writing.

#### **Music/Movement Activities/Strategies Employed:**

- The teacher modeled how to make letter shapes with her body. Students were instructed to either lie on the carpeted floor area, or to stand. Using the wall alphabet as a guide, students made letters of the alphabet using their bodies. Some students paired together to form upper case letters.
- Students were instructed to “air write” letters in the air using only their fingers and then moving on to other body parts.
- The teacher led the students in the alphabet song as the students made the letters in the air.
- Students were provided with props (foam swim noodles cut into thirds) to use as “paintbrushes” to form letters and their names in the air.

- Students used the foam noodles to make other shapes and partner with other students to mold the partner into a letter shape.
- Scarves were added to the end of the foam noodle to create paintbrushes to draw and paint with in the air. Students learned about and identified three movement pathways: straight, curved, zigzag.
- Students categorized as a whole class which letters of the alphabet contain the pathways. For example, upper case A has straight pathways.
- Students then drew the letter in the air.
- Students created an illustrated map using the three pathways and performed the map.
- Students wrote letters under the pathways after making the letter with their bodies.

\*Adapted from Anne Green Gilbert's *Brain-Compatible Dance Education*.

## **Appendix H**

### **Week 2**

#### **Targeted Language Arts Standards:**

##### ***English/Language Arts Content Standard: 1.0***

The student will develop the reading and listening skills necessary for word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print and non-print text.

##### ***English/Language Arts Content Standard: 3.0***

The student will use standard English conventions and proper spelling as appropriate to speaking and writing.

#### **Music/Movement Activities/Strategies Employed:**

- Students were led in a review of concepts from previous lesson incorporating music and movement strategies. (body letters)
- Students participated in a whole group movement activity where punctuation was introduced. Students listened to the teacher for information and then performed the targeted body movement.
- Students created a small, round shape with their bodies to represent a period; a jumping straight body shape for an exclamation mark; curved body shape for a question mark.
- Students listened to music sentences and then ended the movement sentence on cue with the appropriate body representation of punctuation.
- Students drew names out of a class name bag and clapped, stomped, kicked, patted, rubbed and other body movements to recognize syllabication of words and names. Names were recognized, categorized by letter and corresponding sound and placed on the class word wall.

## **Appendix I**

### **Week 3**

#### **Targeted Language Arts Standards:**

##### ***English/Language Arts Content Standard: 1.0***

The student will develop the reading and listening skills necessary for word recognition, comprehension, interpretation, analysis, evaluation, and appreciation of print and non-print text.

##### ***English/Language Arts Content Standard: 2.0***

The student will develop the structural and creative skills or the writing process necessary to produce written language that can be read, presented to, and interpreted by various audiences.

##### ***English/Language Arts Content Standard: 3.0***

The student will use standard English conventions and proper spelling as appropriate to speaking and writing.

#### **Music/Movement Activities/Strategies Employed:**

- The students were led in a review of previous concepts.
- Students listened to music that corresponded to a story prior to hearing and viewing a story.
- Students listened to a story and actively participated by using appropriate body movements.
- Students were instructed to act out a part of the story and then with assistance of teacher, placed the students in categories of beginning, middle, and ending of story.
- Students performed the body movements while the teacher retold the story.
- The students participated in a group circle dance that reinforced the concepts learned in the book.

- Students participated in a discussion about the music, dance, and story and danced to the corresponding music.
- Students described in group discussion how the music made them feel.

Middle School Teacher Instructional Survey

Jeremy L. Bramblett

Education 590, Spring 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149)  
has approved this research project # 08-117



### Introduction to the Problem

The purpose of this study was to gather a broad array of information from teachers at an urban middle school located in Chattanooga, Tennessee. The desired data included information about the teachers, teaching strategies used, and student academic proficiencies. In order to gather this information efficiently, a simple survey with 12 questions was designed and distributed to teachers throughout the school. This survey (see Appendix A) was designed to gather information that might prove useful to student teachers or new teachers teaching in an urban middle school environment for the first time. It should be noted that the data collected during this study, was of course, site specific. However, the survey itself or a similarly-designed survey may be a useful tool for student teachers or teachers that find themselves in a new teaching environment. The survey was sufficiently broad that it could be used in a variety of formal teaching environments. That environment need not be an urban middle school.

As a student teacher, I found myself asking my mentor teachers, and other teachers in my discipline or related disciplines, a variety of questions about themselves, their students, and their preferred teaching methods. This was an easy enough thing to do with a mentor teacher or with a select few teachers with whom you work throughout the student teaching experience. However, contact can be quite limited with teachers with whom you do not directly work. In a high school setting, this may be restricted to teachers that teach similar disciplines, and, in a middle school setting, this may be limited to those teachers that teach in different disciplines at the same grade level. An anonymous survey distributed to all teachers throughout a given school may provide a much larger set of responses to questions that would, personally, require an inordinate amount of time to acquire. Also, this information could be reviewed by the

investigator in ways that are far superior to the simple reliance of memories of isolated conversations.

As a result of my desire to learn more about teaching, and specifically the urban middle school environment in which I was student teaching, I designed a survey that would allow me to ask those questions to which I most wanted answers. This allowed me to ask questions to a much greater number of teachers than those with whom I had personal contact during student teaching. The responses to the survey provided me with insight that I could not have acquired as efficiently in any other way, and I was quite surprised by some of the aggregated responses. A similarly-designed survey might prove useful to other student teachers or to new teachers teaching in a new school.

#### Review of Literature

According to Gay and Airasian (2003, p. 283) a questionnaire should be “attractive, brief and easy to respond to.” A questionnaire is, of course, one of the major types of survey methods used to gather information for studies such as this one, and was the method used to obtain the data collected in this study. I’m not sure if my questionnaire was attractive, but it was brief, one page in length, and easy to respond to; respondents were provided with choices, except for one open-ended question at the very end of the survey. Also, the survey dealt with information that I felt would be useful for me, as a student teacher and as a prospective new teacher, in an urban middle school setting. Urban schools can be a challenging environment for some teachers. Ryan and Patrick (2001) stress the importance of teacher respect for, and support of, students in a middle school setting. However, Brown, Anfara, and Roney (2004) found that low-performing urban middle schools have lower academic expectations, lower teacher confidence in student abilities, more stagnant curriculum and school programs, more limited instructional leadership,

more of a focus on test scores rather than student academic growth and development, more limited resources, and a lower level of parent involvement than high-performing suburban middle schools. The finding of lower academic expectations is especially troubling, given the current focus on high-stakes tests (Hoffman & Nottis, 2008).

The first part of the survey asked the teachers to respond to questions about themselves. This included grade(s) and subject(s) taught, and number of years teaching at the middle school level. Most of the teachers in my survey (46%) had been teaching for 5 years or less. Teacher recruitment and retention difficulties associated with urban schools are often discussed by prospective teachers during teacher training. Olsen and Anderson (2007, p. 5) report that, “urban teachers will remain in urban education if they can adopt multiple education roles inside and outside the classroom and receive professional support during the whole of their careers.” Ingersoll (2004) distinguishes between teachers that leave the teaching profession for good, whom he calls “leavers,” and those who migrate to other teaching positions, whom he calls “movers.” He found that teachers left urban, high-poverty schools more frequently than other school settings, and that those teachers who left teaching or moved to another job felt that better pay and better student discipline might encourage more of them to stay in an urban, high-poverty school.

The next series of questions on the survey asked teachers about the frequency of computer use, library visits, cooperative learning, guided reading activities, and hours of homework assigned weekly. Cuban, Kirkpatrick, and Peck. (2001) found that having access to computers did not mean that students and teachers used them more frequently. They also state that most of the computer use by students was for word processing in English and social studies classes, with very little or no use of computers in math, science, and foreign language classes. Kramarski and

Mevarech (2003) found that eighth-grade math students that engaged in cooperative learning and metacognitive training significantly outperformed students who engaged in individualized learning and metacognitive training, who outperformed students engaged in cooperative learning or individualized learning without metacognitive training. Lance (1994) stated that most of the studies on the correlation between library media use and academic achievement were conducted between 1959 and 1979. So, very little contemporary information is available. However, Lance (1994) did state that students received higher average test scores on standardized tests if library media specialists were involved in student instruction. This would, of course, require that students visit the library or the media specialist visit the classroom. Gunter Estes, and Schwab. (2003) described how the effective use of cooperative learning lead to better academic achievement and a more accepting learning environment for students that studied together and tutored one another. Veenman, Denessen, van den Akker, and van der Rijt. (2005) stressed the importance of teacher training in conducting effective cooperative learning in their classrooms. Richardson and Morgan (2003, p. 166) state that guided reading helps students to “gather and organize information around main ideas” and to promote independent thinking and studying by requiring students to reread passages to support their initial understanding of the reading material. With respect to homework, Cooper (1989) stated that positive correlations in achievement were seen in students that were assigned some homework every night, as long as the total amount of homework did not exceed more than 1 hour per night. Interestingly, Cooper, Robinson, and Patall. (2006) reviewed the literature on homework, and state that studies conducted on the relationship between homework and achievement were often flawed and lacked strong evidence to support many of their conclusions. However, they state that better correlations

were obtained from studies that surveyed students in Grades 7-12 in which students, rather than parents, reported homework.

I asked the teachers to identify the academic skill (arithmetic, reading, or writing) with which they thought their students were most and least proficient. Langer (2001) stressed the importance of creating a supportive environment for students engaged in reading, writing, and English. She identified six features of high-performing schools in the area of reading, writing, and English academic achievement. These included the following:

(a) skills and knowledge are taught in multiple types of lessons; (b) tests are deconstructed to inform curriculum and instruction; (c) within curriculum and instruction, connections are made across content and structure to ensure coherence; (d) strategies for thinking and doing are emphasized; (e) generative learning is encouraged; and (f) classrooms are organized to foster collaboration and shared cognition. (Langer, 2001, p. 876)

Foegen (2008) studied different ways of monitoring mathematics achievement in middle school students, and stressed the importance of using tests that were reliable and valid, that produced normal distributions to better sort out individual student achievement, and that reflected changes in student achievement that corresponded to student learning. Mattox, Hancock, and Queen. (2005) found that middle schools that transitioned from traditional to block scheduling realized significant increases in mathematics achievement. The middle school classes that I observed had recently switched from traditional to block scheduling earlier in that academic year. Burris Heubert, and Levin. (2006) stressed the relationship between heterogeneous grouping of students and academic achievement in more advanced middle school mathematics courses.

I also asked the teachers which instructional tool they used most frequently. The provided answers included overhead projector, dry erase board, Microsoft PowerPoint, and other. Lawless and Pellegrino (2007, p. 580) state that, “The sheer increase in the availability of electronic resources in schools and classrooms makes it important for teachers to be prepared to effectively integrate technology into their instructional practices. Unfortunately, the evidence suggests that technology is often poorly integrated with other classroom instructional activities.” Cuban et al. (2001) state that more than half of elementary and middle school teachers did not use computers during classroom instruction.

### Data Collection and Results

This survey was conducted at an urban middle school in Chattanooga, TN where I was completing the second student teaching placement during the spring of 2008. This middle school had 432 students enrolled in Grades 6-8. The majority of the students were African-American (approximately 80%). The school had one principal, two assistant principals and about sixteen regular classroom teachers teaching language arts, math, and science. I handed the survey sheets directly to regular classroom teachers at the school, and asked them to fill them out at their convenience and return them to a large manila envelope that was labeled with my name and “Middle School Survey.” The respondents did not write their names on the surveys in order to ensure their anonymity. It was made clear to the participants that all collected data would be reported collectively by school, grade, and/or subject, and not individually. This method of data reporting ensures individual respondents’ anonymity.

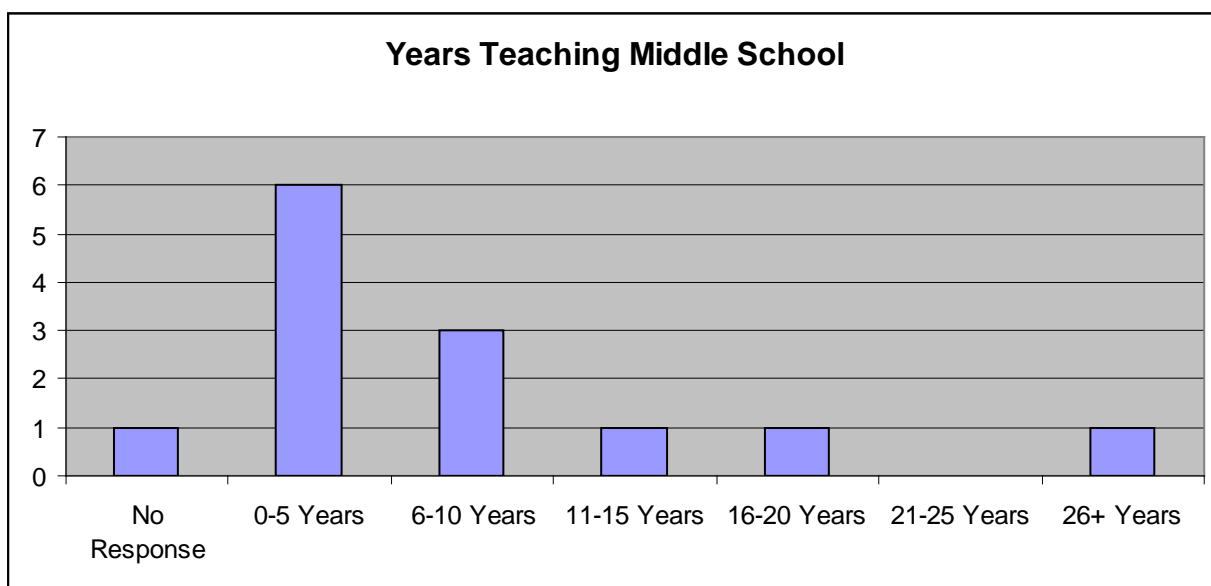
The survey (see Appendix A) consisted of 12 questions, 11 with discrete choices and 1 open-ended question. The first three questions asked the respondents to provide information about the grades, subjects, and years they have taught. The next five questions asked the

respondents about the frequency of specific teaching methods used in their classrooms (e.g., cooperative learning). The next two questions asked the respondents to provide information about student proficiencies in reading, writing, and arithmetic, specifically, in which of those three academic skills they felt their students exhibited the most proficiency, and in which of those three academic skills they felt their students exhibited the least proficiency. The next to last question asked the respondents to indicate which instructional tool (overhead projector, dry erase board, or Microsoft PowerPoint) they used most frequently; a blank space was provided for any other tool that the respondents choose to indicate. The last question was an open-ended question that asked the respondents for any advice they wished to share with a prospective middle school teacher.

A total of 14 teachers responded to the survey; data from 13 surveys were used in the tabulation of results. One of the respondents taught a subject outside of language arts, math, science, or social studies, and taught students in all three grade levels at the school, so that respondent's survey was not included in the results described below. The discrete questions that required a numerical answer were presented in the form of ranges on the survey, therefore, the two most often used measures of central tendency (i.e., mean and median) were not calculated. Instead, the frequency of each response was recorded and reported as histograms in the results. If a respondent answered one of the discrete questions with more than one answer, each answer was divided by the number of responses for that individual respondent. For example, if a respondent had two responses for a given question, each response would be counted as half of a response, and, would, therefore, receive a value of 0.5.

The first question asked the respondents to indicate which grade level they taught, and the results were as follows: four taught at the sixth-grade level, four taught at the seventh-grade

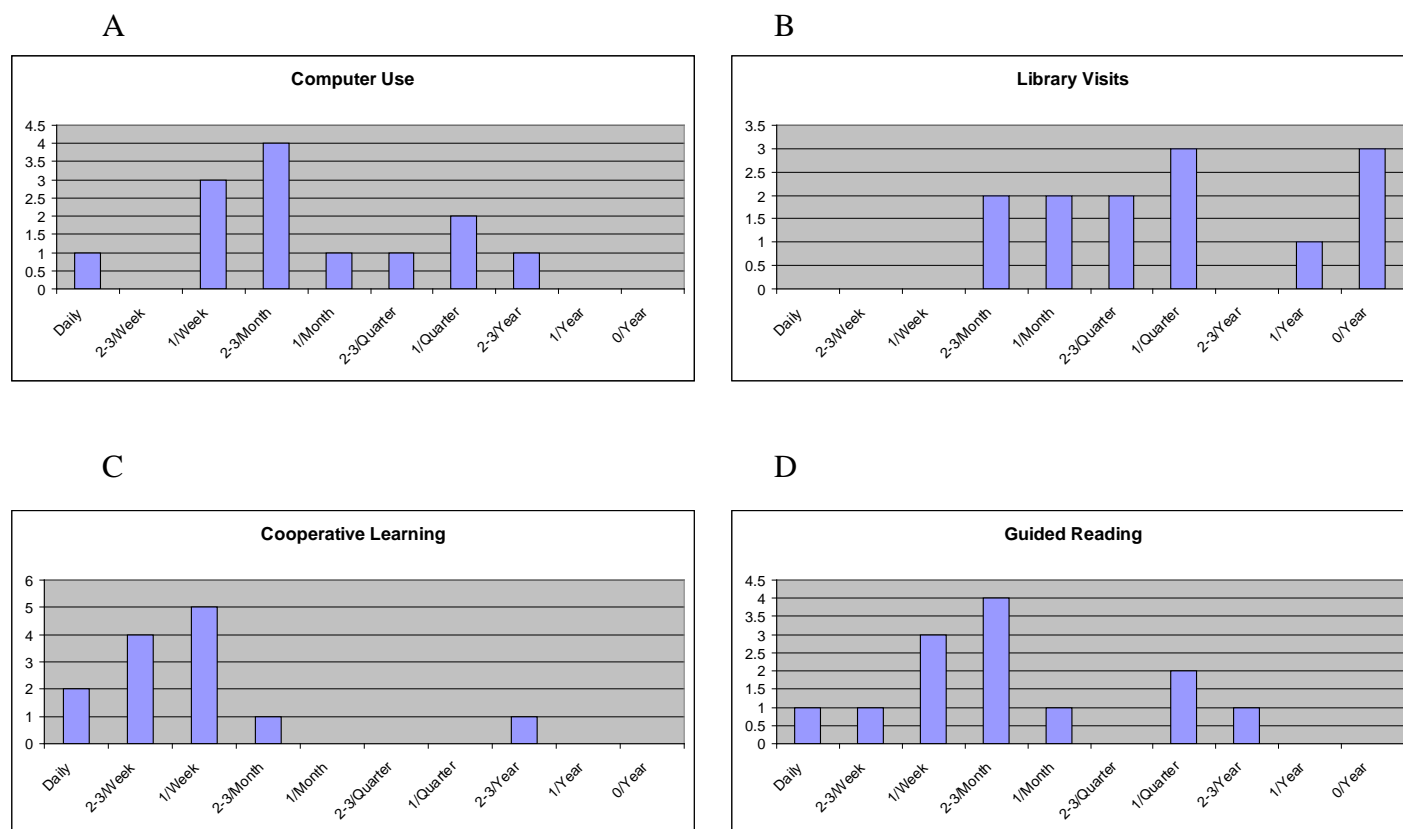
level, and five taught at the eighth-grade level. The second question asked the respondents to indicate which subject (language arts, math, science, social studies) they taught, and the results were as follows: two taught language arts exclusively, four taught math exclusively, three taught science exclusively, one taught social studies exclusively, two taught both language arts and social studies, and one taught both math and science. I had initially planned to analyze the data based on the entire sample (school), grade level, and subject taught. However, the sample was small, and the data that was analyzed by grade level and subject taught yielded very few differences between groups, so that direction of data analysis was abandoned in favor of reporting the data, as a whole, for the entire sample. The third question asked the respondents to indicate how many years they had taught at the middle school level. This question required the respondents to choose a range (e.g., 0-5 years, 6-10 years, etc.). The results are presented in Figure 1. Curiously, one of the respondents did not answer that question. It is obvious, from the results, that this school has a majority of less experienced teachers (0-5 years); nearly half of the respondents fell into this category.



*Figure 1.* Years teaching middle school

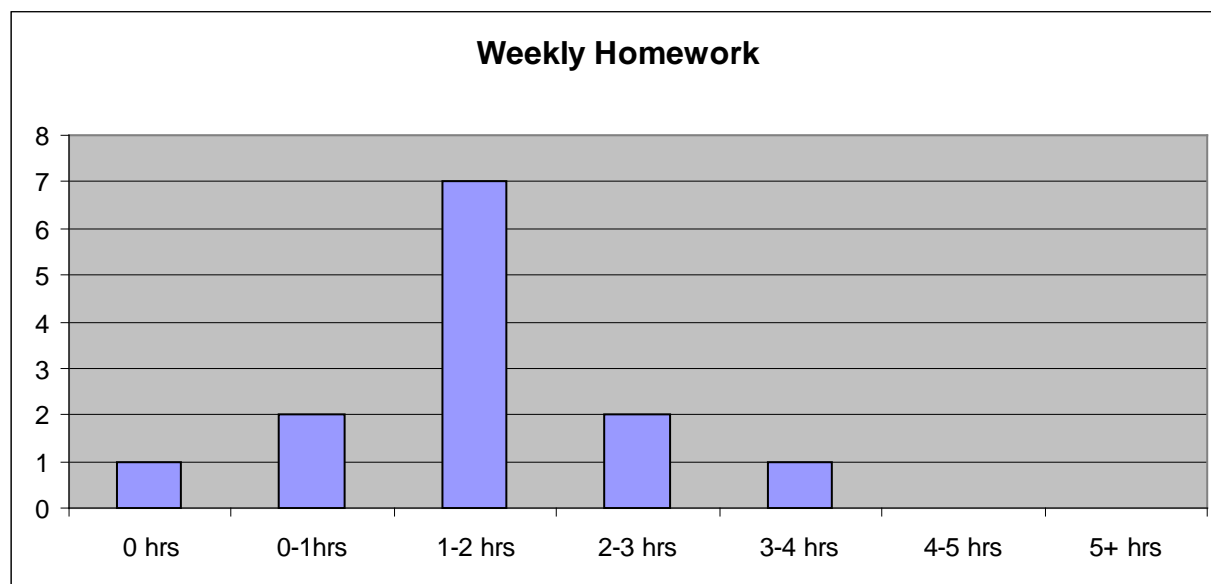


Questions four through seven on the survey asked teachers about the frequency with which they use computers in the classroom, visit the library, engage the students in cooperative learning, and engage the students in guided reading activities. The frequency with which the respondents use computers as a part of classroom exercises is presented in Figure 2 frame A. Approximately 31% of the respondents indicated that they use computers as part of classroom exercises two to three times per month, and another 23% indicated that they use computers on a weekly basis. However, visits to the library were quite uncommon. The data are presented in Figure 2 frame B. In fact, the highest representative percentage of visits to the library (23%) was shared by those visiting once per quarter and those not visiting the library at all. Approximately 38% of the respondents indicated that they use cooperative learning in the classroom on a weekly basis and about 46% use cooperative learning more frequently than once per week. The data on the frequency of cooperative learning activities are presented in Figure 2 frame C. Nearly 31% of respondents utilize guided reading activities two to three times per month, and approximately 38% use this strategy at least once per week. The data on the frequency of guided reading activities are presented in Figure 2 frame D.



*Figure 2.* (A) Frequency of computer use as a part of classroom exercises, (B) Frequency of library visits, (C) Frequency of cooperative learning, and (D) Frequency of guided reading activities.

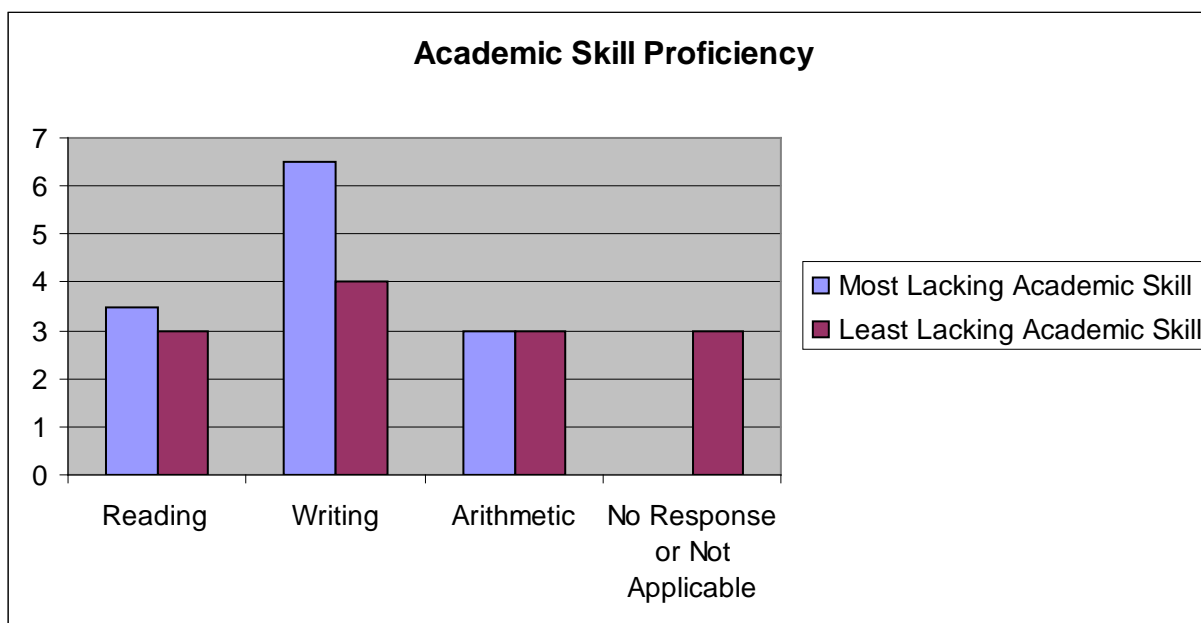
The respondents were also asked to indicate how much homework they typically assigned per week. The data are presented in Figure 3. The majority of respondents (53%) indicated that they assigned between one to two hours of homework per week and only one respondent indicated that homework was not typically assigned.



*Figure 3.* Amount of homework in hours, assigned weekly.

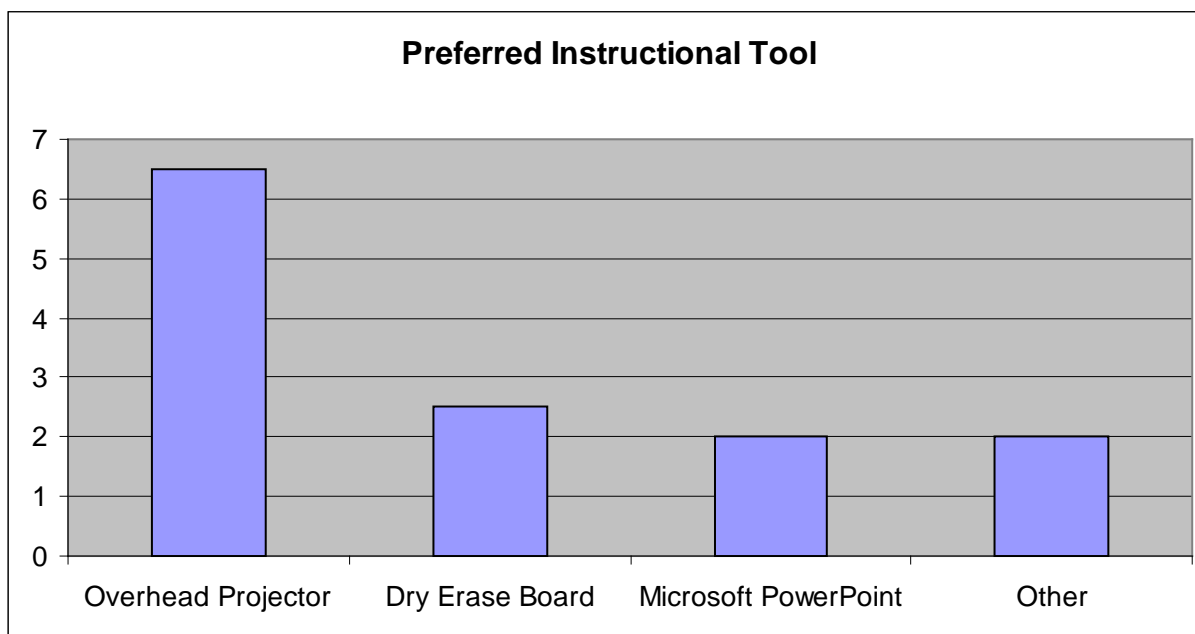
Questions nine and ten on the survey asked the respondents to indicate the academic skill (i.e., reading, writing, or arithmetic) in which students were most lacking in proficiency and least lacking in proficiency. The results are presented in Figure 4. Half of the responses (“responses” instead of “respondents” because some “respondents” answered the question with more than one “response”) indicated that writing was the academic skill in which students were most lacking in proficiency, with reading and arithmetic receiving 27% and 23% of the responses, respectively. The questions only provided three possible answers (i.e., reading, writing, or arithmetic). However, three respondents chose not to answer the question about the academic skill in which students were least lacking in proficiency, with one of the provided responses; two of the individuals wrote in “NA,” which I assume meant not applicable, and one respondent wrote in “?.” I’m not sure if that meant they didn’t understand the question or they could not choose from among the three provided responses. Nevertheless, the responses that were received were practically tied between all three choices, with writing receiving one more response than the

others. Also, one of the respondents choose both reading and writing as the skill in which students most lacked in proficiency, so each response received a score of 0.5, as described earlier.



*Figure 4.* Most and least lacking student academic skill.

The next to last question of the survey asked the respondents to indicate which instructional tool they used most frequently during instruction, and three of the most common instructional tools (overhead projector, dry erase board, and Microsoft PowerPoint) were provided as choices, along with the category “other” with a space provided to fill in the appropriate other tool. The data are presented in Figure 5. Half the responses indicated that the overhead projector was the most frequently used instructional tool, with the dry erase board coming in a very distant second. Also, two respondents indicated that they used ELMO, which is basically a digital overhead projector v or document camera. Also, one of the respondents choose both overhead projector and dry erase board as their preferred instructional tools, so each response received a score of 0.5, as described previously.



*Figure 5.* Most frequently used instructional tool.

The last question stated “Do you have any advice for a prospective middle school teacher?” Ten of the respondents provided the following answers to this question: “Be prepared for whatever. Remember every day is a new day and go with the flow.” “Be flexible. Plan well!” “Over prepare activities.” “Smile a lot and laugh a lot!!”, “Patience-learn each students’ learning style; push them hard-challenge them.” “Don’t smile till Christmas.” “Utilize as many resources as possible and differentiate instruction to fit the needs of your students.” “Knowing and having the ability to relate to your students is the key to being successful as a middle school teacher.” “Get to know your students.” “Be positive. Don’t assume because someone said something to you in anger or distress that you are the cause. That person has 75 students (the other reasons) why the(y) respond(ed) to you as they did. Don’t take it personally!” These are very interesting responses in that they can be loosely categorized into the following: responses stressing the importance of planning (3) responses, addressing the attitude of the teacher (3), relationships with students (2), relationships with fellow teachers (1), and differentiating instruction (2). One

of the respondent's comments fit into two of the above categories, which accounts for 11 responses present in the four categories. Also, it is interesting that one respondent recommends that teachers "smile a lot" and a second respondent recommends that teachers not "...smile till Christmas." Obviously, the two respondents have very different teaching styles, and, as a result, have very different recommendations.

### Conclusions and Recommendations

Although the sample was relatively small, participation in the survey by regular classroom teachers teaching language arts, math, and science was quite high (>70%). The sample was relatively, evenly distributed between grades, and all major subject areas taught at the middle school level were represented.

The first three questions asked the respondents to answer questions about themselves, including grade(s) taught, subject(s) taught, and years teaching middle school. The most interesting data related to the number of years teaching middle school. Most of the respondents (46%) indicated that they had been teaching middle school for 5 years or less, and one respondent did not answer the question. I should have not provided ranges for years teaching, but rather I should have provided a space for the respondents to write in the number of years. This would have provided me with a much more accurate representation of the number of years teaching. I must admit that I was surprised at the number of less experienced teachers present at the school.

The next series of questions asked teachers about frequencies of classroom computer use, visits to the library, cooperative learning, guided reading, and the average number of hours of homework assigned each week. I should have preceded the question about classroom computer use with a question or series of questions about classroom access to computers. This would have

provided a more accurate picture of this aspect of instruction. I am aware that some classrooms at the school have a computer for each student in the classroom, while others have very few computers. Obviously, access will affect student classroom use. I was surprised at the overall lack of use of the library by the classroom teachers. Three teachers indicated that they did not visit the library. Only one of four math teachers indicated that they did not visit the library, while the other two respondents taught science. I visited the library on several occasions and found that, while rather small, it was relatively well-stocked with books and had an enthusiastic librarian. Not surprisingly, all of the teachers indicated that they had their students engaged in guided reading throughout the year, and that two of the math teachers indicated that they engaged in the activity relatively infrequently. However, I was surprised that the respondent that indicated the least frequent use of guided reading was a language arts teacher that engaged students in guided reading only two or three times per year. I was not surprised at the average number of hours of homework assigned to students each week, with the most frequent responses indicating that they typically assigned between 1 to 2 hours per week. This would work out to a total between 3 and 6 hours per week. This is very close to that recommended by the literature for this age group. Also, this is another question on which I should have provided different ranges or a space for the respondents to write in the average number of hours of homework assigned per week. This would have provided me with a much more accurate representation.

The next two questions asked the respondents to indicate the academic skill (arithmetic, reading, or writing) in which their students were most and least lacking in proficiency. I would change the wording of the questions to state “best” and “worst” academic skill. Writing was overwhelmingly the academic skill in which respondents found their students most lacking in proficiency. I must admit that I am not surprised by this result. I have several years of

experience reading undergraduate writing, and have found the majority of students quite lacking in this area. However, the responses for the academic skill “least lacking in proficiency” were rather surprising. Two of the respondents wrote in “NA” and one respondent wrote in “?.” I’m not sure if these responses indicated confusion with the wording of the question or that they considered no skill to be “least lacking in proficiency.” Also, it should be noted that it may be difficult for language arts teachers to evaluate proficiency in arithmetic if they never witness students exhibiting this skill. This is another potential flaw in the survey instrument. However, one language arts teacher indicated that arithmetic was the academic skill in which students most lacked proficiency, and two of the full-time math teachers indicated that either reading or writing was the academic skill in which students most lacked proficiency.

The next to last question asked the respondents to indicate their most frequently used instructional tool. The provided choices included overhead projector, dry erase board, Microsoft PowerPoint, and other. I was, at first, quite surprised with the results. The majority of teachers used overhead projectors most frequently, followed by the dry erase board, Microsoft PowerPoint, and other (ELMO). I use Microsoft PowerPoint, almost exclusively, as a university lecturer. However, upon reflection, I realized that a traditional overhead projector or digital overhead projector provides a teacher with flexibility, and flexibility in instruction is very important at the middle school level. This was, perhaps, the most eye-opening result of the survey, for me, and something that I did not appreciate before conducting the survey. The last question asked the respondents for advice for a prospective middle school teacher, and those remarks are presented in the results section of this paper. I was appreciative of the responses provided.



Lastly, I feel that this survey was a success. I was able to obtain quite a lot of information from a majority of the regular classroom teachers at the school in a very efficient manner. This data provided me with insight that I would not have gained in any other way, given the time constraints of student teaching. I would recommend that student teachers or new teachers design and distribute a similarly constructed survey to gain a “snapshot” of their new school environment. However, this survey was too broad to effectively review the pertinent educational literature that dealt with each topic addressed in the survey. The amount of educational research is quite astounding. I am used to research literature that encompasses a much more narrow area of inquiry, and conducted by a much smaller group of workers. Despite this, this action research project was quite enjoyable and very informative.

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## Appendix

**MIDDLE SCHOOL TEACHER SURVEY**

Dear Teachers, this survey has been developed as part of my graduate program at The University of Tennessee at Chattanooga. Do not record your name; this survey is anonymous. Thank you in advance for your time and effort. Please **circle** the most appropriate answer and return to me, Jeremy L. Bramblett.

1. What grade(s) do you teach?

6<sup>th</sup>                      7<sup>th</sup>                      8<sup>th</sup>

2. What subject(s) do you teach?

Language Arts                      Math                      Science                      Social  
Studies                      Other \_\_\_\_\_

3. How long have you taught middle school?

0-5    years                      6-10 years                      11-15 years                      16-20 years  
21-25 years                      26+ years

4. How often do students in your classroom use computers as part of a classroom exercise?

Daily                      2-3/Week                      1/Week                      2-3/Month                      1/Month                      2-3/Quarter  
1/Quarter                      2-3/Year                      1/Year                      0/Year

5. How often do students in your classroom visit the library?

Daily                      2-3/Week                      1/Week                      2-3/Month                      1/Month                      2-3/Quarter  
1/Quarter                      2-3/Year                      1/Year                      0/Year

6. How often do students in your classroom engage in cooperative learning?

Daily                      2-3/Week                      1/Week                      2-3/Month                      1/Month                      2-3/Quarter  
1/Quarter                      2-3/Year                      1/Year                      0/Year

7. How often do students in your classroom engage in guided reading activities?

Daily                      2-3/Week                      1/Week                      2-3/Month                      1/Month                      2-3/Quarter  
1/Quarter                      2-3/Year                      1/Year                      0/Year

8. On average, how many hours of homework do you assign weekly?

0 hrs                      0-1 hrs                      1-2 hrs                      2-3 hrs                      3-4 hrs                      4-5 hrs  
5+ hrs

9. What academic skill area are your students **most** lacking in proficiency?

Reading                      Writing                      Arithmetic

10. What academic skill area are your students **least** lacking in proficiency?

Reading

Writing

Arithmetic

11. Which instructional tool do you use most frequently during instruction?

Overhead Projector

Dry Erase Board

Microsoft PowerPoint

Other \_\_\_\_\_

12. Do you have any advice for a prospective middle school teacher?

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THIS PROJECT HAS BEEN REVIEWED BY THE INSTITUTIONAL REVIEW BOARD FOR THE  
PROTECTION OF HUMAN SUBJECTS AT THE UNIVERSITY OF TENNESSEE AT CHATTANOOGA

Analysis of Pre-test and Post-test Results for a Ninth-Grade Unit on

Poetry of the English Romantic Period

Eric Cathey

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-191.

### Introduction to the Problem

This project is an evaluation of a pre-test/post-test learning assessment. The learning assessment took place in a ninth-grade English course at a public secondary school in a rural setting. The content material covered was the poetry of the English Romantic movement, and it focused on the seven major British poets of the period: Burns, Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. The study of poetry is relevant to the ninth-grade curriculum in Tennessee. In addition to evaluation and criticism of poems, the content covered the political and religious climate of England during the Romantic period, as well as biographical material regarding the aforementioned poets.

### Review of literature

The teaching of poetry at the middle school and high school levels is fraught with various difficulties. Should its study be based around reading and discussing or should students be encouraged to produce original works? Is one approach right for one group of students and wrong for another? Multiple intelligence theory suggests that a mixture of the two may be appropriate, as that approach posits materials that draw on a range of intelligences, including both disciplinary and interdisciplinary areas of study (Gardner, 1995).

A second problem faced is the negative attitudes about poetry that are present in modern culture. In 2008, to say that we live in a society of instant gratification has become something of a cliché. We accept that statement, for better or for worse, as a given fact about our world. As educators, it is a step on which we must fall down, or else o'er-leap, for in our way it lies. Reading of any sort requires considerable effort on the part of the reader, and this is probably more applicable to poetry than to any other type of writing. A great many adolescents want instant entertainment, and many poems do not yield their secrets at once (Benton, 1984).

The idea that boys offer a special challenge, when teaching poetry, has existed for quite some time, but that notion seems to be changing. A study from the 1950s reveals that boys held a much larger disdain for poetry than did girls (Mosher, 1953). That seemed to still apply in the 1980s, when one researcher wrote that “poetry is not seen to be a part of their [boys] macho image, because of their awareness of their culture which forbids openly admitting sensitivity and emotional response” (Benton, 1984, p.324). This was not a new development at the time, and it probably still accounts for much male animosity toward poetry as a literary genre. However, a more recent study, published in the United Kingdom, suggests that the gap between poetry interest of girls and that of boys is narrowing, and it is not because boys are becoming more interested, but because girls are becoming less interested (Millard, 1997).

#### Data Collection and Results

Pre-test data were collected prior the teaching of the unit on poetry of the English Romantic period. The class completed the pre-test without any assistance from the teacher, each other, or any textbooks. The pre-test consisted of 10, multiple-choice questions (see Appendix A). After the teaching of the unit, the class completed the post-test in the same manner as the pre-test. The post-test was more in-depth than was the pre-test, and consisted of 15, multiple-choice questions, 2 fill-in questions, and 1 short-answer question (see Appendix B).

The pre-test indicated that the students’ prior knowledge of the subject matter was very low. Essentially, they were being exposed to this material for the first time. The results for each student are shown in Figure 1. As the pre-test was multiple-choice in format and each question had four possible answers, the odds favored achieving a score of 25 based on blind guessing alone. As the mean score of all students was 28.1, it appears that most students were doing exactly that. This result was not surprising, because these students had not, given their present



grade level, been exposed to the study of the socio-political climate of Britain at the time in any world history course, and there were several questions on the pre-test regarding that information. Also, many were, as they later indicated, familiar with some of the lines from Burns and/or Coleridge that appeared on the test from hearing them on television or in movies, but they had not committed any academic study to them and could not identify their authors, on sight.

The unit began with basic historical information that would be relevant to the poetry the students would encounter. This included vocabulary and a discussion of how to better read 18th Century language. A copy of *The Book of Common Prayer*, published in 1752 in London, was brought in for the students' perusal. Although its publication preceded the Romantic movement by 20 years or so, its style of printing, if not the particular book itself, would still have been in use by the later years of the 18th Century and the beginning of the 19th Century. The students responded well to the book, and appeared greatly intrigued to have an object that existed through the period they were studying. The archaic typesetting of the book raised questions that led to discussions about the evolution of the English language, which were relevant to the content of the unit. Most notably, students were amused by the regular appearance of the long s character (ſ), which greatly resembles a lower case "f," and enjoyed trying to read the text themselves. Having an historical piece on hand seemed to assist greatly in generating student interest in the subject matter.

The remainder of the lesson plans of the unit focused on the actual poetry of the period, but each included considerable biographical information about the poet, and historical data were presented when they aided in comprehension. On two occasions, students worked in groups to compose original works of poetry. One was composed in dialect, as that assignment was attached to the Robert Burns lesson, and the other was an ode, being attached to the John Keats lesson.

These original works provided additional assessment of how the students were progressing as the unit went along.

The post-test findings revealed the mean improvement of the students was 47.6. Also shown in Figure 1 is the improvement for each student. Overall, the mean score on the post-test was 75.7. Surprisingly, it was discovered that one student's grade actually dropped from a 30 on the pre-test to a 28 on the post-test. Another student's score only improved from a 30 to a 39. These were the only two participants whose post-test scores were lower than 56%. On the other end, three students scored 100% on the post-test. One of these students scored 80 percentage points higher on the post-test than on the pre-test.

STUDENT	PRE-TEST	POST-TEST	IMPROVEMENT
1	40	70	30
2	50	67	17
3	30	78	48
4	20	100	80
5	30	83	53
6	20	67	47
7	30	61	31
8	40	100	60
9	30	89	59
10	20	56	36
11	30	83	53
12	20	94	74
13	30	83	53
14	30	78	48
15	30	28	-2
16	20	72	52
17	10	94	84
18	30	39	9
19	10	66	56
20	40	100	60
21	50	83	33
<b>AVERAGE</b>	<b>28.1</b>	<b>75.7</b>	<b>47.6</b>

*Figure 1.* Student pre-test and post-test scores.

## Conclusions and Recommendations

The pre-test indicated that the students had a general lack of knowledge of the subject matter, prior to the teaching of the unit. They responded well to the unit and its teaching, as their average improvement score indicates. However, there does appear to be room for improvement. Of particular concern is the student whose grade dropped, as well as the student whose grade only improved by nine percentage points. Both of these students appeared to be attentive and both held positive attitudes toward the subject matter and the instructor. Neither student missed any class time while the unit was being taught. It was also noted that both students took active roles in the assignments that involved the composition of original poetry. This indicates that they understood the general themes of Romanticism, but also that they did not process well the historical context that shaped it. In the future, it would be beneficial to help students better develop this historical knowledge while also incorporating an assessment on the final test that allows for some creativity, most likely involving some in-depth writing in place of other questions. A WebQuest might also be useful in future units, so as to introduce an element of technology into the piece.

The National Council for Teachers of English (NCTE, n.d.) has established framing statements on assessment. These beliefs are helping teachers develop competence in using various forms of data to determine whether students are doing well and what they need in order to continue to grow, and are encouraging teachers to be knowledgeable about the appropriate uses and limitations of use for assessments.

Grants are available for professional development. One is the Edwyna Wheadon Postgraduate Training Scholarship Fund. This award provides funding for professional development experiences for English/language arts teachers in public educational institutions.

The purpose of the scholarship is to support postgraduate training to enhance teaching skills and/or career development in teaching.

There are NCTE Research Foundation funding programs. They are awarded for periods of up to 2 years and up to \$12,500 over the life of the grant. Assessment is certainly an area in the teaching of English that could benefit from additional research, and this program could be utilized to support further research in the area of this project.

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## Appendix A

## English Romantic Poetry Pre-test

1. The Romantic Period took place, roughly, between what years?
  - a) 1637-1815
  - b) 1798-1832
  - c) 1914-1919
  - d) 1000-1066
2. The term “apostrophe” is best defined as
  - a) the addressing of a usually absent person or a usually personified thing rhetorically
  - b) a basic set of rules carrying binding authority
  - c) extravagant exaggeration
  - d) anything that stands for or represents something else
3. Lord Byron is regarded as a national hero in what country?
  - a) India
  - b) Wales
  - c) Scotland
  - d) Greece
4. Ozymandias is the Greek name for which historical figure?
  - a) Pope John X
  - b) Saint Augustine of Canterbury
  - c) Louis XIV
  - d) Ramses II
5. The lines “If Winter comes, can Spring be far behind?” were written by
  - a) Thomas Hawley Tubberville
  - b) William Blake
  - c) William Wordsworth
  - d) Percy Bysshe Shelley

6. Robert Burns is widely regarded as the national poet of what country?
- a) England
  - b) Canada
  - c) Scotland
  - d) New Zealand
7. Where is the Lake District located?
- a) Hyde Park, London
  - b) Edinburgh
  - c) Northwest England
  - d) West Wales
8. A Luddite is
- a) a person who opposes technological advancement
  - b) a supporter of the French Revolution
  - c) a supporter of the Church of England
  - d) a person who fought under Napoleon at Waterloo
9. This term refers to the Protestant Christians of England and Wales who refused to accept the governance of the Church of England.
- a) Antidisestablishmentarianists
  - b) Nonconformists
  - c) Whigs
  - d) Anglicans
10. Samuel Taylor Coleridge is best remembered as the author of which poem?
- a) Stopping By Woods on a Snowy Evening
  - b) When We Two Parted
  - c) Tintern Abbey
  - d) The Rime of the Ancient Mariner

## Appendix B

### Romanticism Post-Test

- 1) This term refers to the Protestant Christians of England and Wales who refused to follow the governance of the Church of England.
  - a) Antidisestablishmentarianists
  - b) Anglicans
  - c) Nonconformists
  - d) Whigs
  - e) Tories
- 2) How does William Blake differ from most other poets of the Romantic Period?
  - a) He was a Republican.
  - b) He was an atheist.
  - c) He was Jewish.
  - d) He was a devout, nonconformist Christian.
  - e) He spent much of his writing career in Switzerland.
- 3) Identify the author of the following line:  
"The best laid schemes o' Mice an' Men,  
Gang aft agley"
  - a) William Wordsworth
  - b) Lord Byron
  - c) John Keats
  - d) Samuel T. Coleridge
  - e) Robert Burns
- 4) What is written on John Keats's tombstone?
  - a) Man must endure his going hence.
  - b) Here lies one whose name was writ in water.
  - c) A friend to honesty and a foe to crime.
  - d) Cast a cold eye on life, on death. Horseman, pass by!
  - e) I told them I was sick.
- 5) The speech characteristic of a particular region or group is
  - a) apostrophe
  - b) nonconformism
  - c) vocabulary
  - d) dialect
  - e) hyperbole



- 6) The Act of Union of 1800
  - a) created the United Kingdom of Great Britain and Ireland
  - b) united France after the Revolution
  - c) separated the Protestant Episcopal Church in the USA from the Church of England following the American Revolution
  - d) unionized all breweries in England and Wales
  - e) all of the above
- 7) A Luddite is
  - a) a follower of French King Louis IV
  - b) one who opposed King George III
  - c) a person who opposes technological advancements.
  - d) one who accepts the Archbishop of Canterbury as Primate of All England
  - e) none of the above
- 8) Early on, William Wordsworth was sympathetic toward the ideology of
  - a) The French Revolution
  - b) Karl Marx
  - c) The Oxford Movement
  - d) The Roman Catholic Church
  - e) Guy Fawkes
- 9) Romanticism is best described as
  - a) A religious revival that sought to restore certain elements of Roman Catholicism to the Anglican Church.
  - b) A literary, artistic, and philosophical movement that developed during the late 18th and early 19th centuries as a reaction against neoclassicism.
  - c) A movement that emphasized writing in Greek and Latin that swept through England during the early 19th century.
  - d) The revival of classical standards and forms in the 17th and 18th centuries.
- 10) The Lake District is located in
  - a) Murfreesboro
  - b) Northwest England
  - c) London
  - d) Northern Ireland
  - e) West Wales
- 11) The lines
 

Water, water, everywhere,  
And all the boards did shrink;

Water, water, everywhere,  
Nor any drop to drink

were written by \_\_\_\_\_.

- 12) Under the policy of laissez faire
  - a) plentiful jobs increase the standard of living.
  - b) There is no government interference in economic policy.
  - c) Child labor is prohibited.
  - d) Ten percent of one's income is given to the established church.
  - e) none of the above
- 13) The study of dialect was encouraged by members of the Romantic movement because of their
  - a) adoption of Anglo-Catholicism.
  - b) interest in rural life and customs.
  - c) undying quest for the origin of human language and oral communication.
  - d) fascination with urban Ireland.
  - e) desire to return to the linguistic purity of ancient Rome.
- 14) Ozymandias is the Greek name for which historical figure?
  - a) Julius Caesar
  - b) William the Conqueror
  - c) Charlemagne
  - d) Lord Byron
  - e) Ramses II
- 15) \_\_\_\_\_ can be defined as a figure of speech in which a speaker directly addresses an absent person, abstract quality, or something non-human.
- 16) Robert Burns is widely regarded as the national poet of
  - a) Ireland
  - b) Scotland
  - c) Brittany
  - d) Wales
  - e) the Isle of Man
- 17) Lord Byron died of a fever while fighting for
  - a) the Greeks.
  - b) the Romans.
  - c) the abolition of slavery in America.
  - d) Great Britain
- 18) Based on the poems we read in class, how did William Blake's opinion of London

differ from that of William Wordsworth?

The Impact of Art Integration Across the Curriculum to Enhance Student Performance

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The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-132.

### Introduction to the Problem

Art integration across the curriculum supports all avenues of enhancing student performance. The arts are always the first subject to be expelled from schools when budgets are being revised, and they are viewed as specialties in a school environment. Changing the public's view regarding the necessity of art in education is a hard goal, but clever teachers can protect the arts in their own classrooms through art integration. This process is not an easy task to achieve, through dedication, knowledge of the content areas, and motivation to increase student creativity will push those special teachers to succeed.

Art integration across the curriculum should be a natural part of the classroom environment where artistic expression is supported and communicated. Integrating the arts into all subject areas is essential to enhance student achievement, and it would be unwise to create a wall against art. Banishing art takes away the journey humans travel to express oneself, the surrounding community, and the expression of civilization through which children learn about the world. Students need to be actively involved in their learning and must comprehend new information in a meaningful way. Integrating the arts allows students the opportunity to comprehend new information, increase literacy, and make connections to the world around.

The purpose of this study is to determine whether the impact of art integration across the curriculum will enhance student performance. Student retention of information is easily lost due to the student's inability to make connections, and their understanding of new information is lost because of the lack of involvement in the learning process. Behavior issues arise because student frustration is provoked when there is lack of interest or incomprehension of the information being taught. Hence, when teaching a basic concept to students, they often lose interest,

therefore, resulting in a lack of retention. How can I help increase student retention and interest in a lesson?

### Review of Literature

Throughout the history of education, a great deal of attention has been directed towards increasing student knowledge and enhancing the curriculum to produce student achievement. Art integration has been a focus for improvement in classrooms, but many find it hard to convince the public for the necessity of art integration across the curriculum. Adapting the arts in all subject areas benefits students because they can transfer their language into a more expressive media. “Arts education has the potential to complement and enhance the content of all subjects” (Kaagan, 1998, p. 16). This enhances the meaning of all subjects being taught and provides a curriculum that is student-focused. Many psychologists and philosophers have discovered that there are cognitive values in integrating the arts, that help children develop language and literacy skills. Integrating the arts allows students to make sense of the world and make connections when all subjects are woven together.

Every journal article encouraged art integration across the curriculum and stated art is an expressive way to communicate the way students think, feel, and act. “The starting point is the language educators’ claim that all knowing, learning, and thinking is symbolically mediated” (Donmoyer, 1995, p. 14). Many individuals argue that language is both the way we communicate the content information and the matter of forming ideas, but adapting the arts can be a method of teaching language that can be linked to a constructivist theory. Theorists believe that all teachers must teach all language education, and language development must be integrated into every part of school and the curriculum. Also, these psychologist and philosophers, like Vygotsky and Dewey, believe that language is best learned indirectly, at times in which students use language

in various environments throughout the curriculum. All of the journal articles presented and supported artistic activity as an intellectual form of learning and artistic products as valuable sources of providing instruction. The main focus is that language allows us to refer to a feeling which does not say very much, but illustrations of feelings are much more powerful. Many believe that, whether you are expressing yourself artistically or scientifically, all thinking is visual.

The journal articles recognize that classroom instruction is standards driven and that it makes educators view lessons as monogamous and isolated from one another. Art integration can enhance each subject being taught and create a learning environment that is perceived as rich and fun. Integration has been described as a way to connect different subjects, rather than teaching each subject by itself. Integration is not easy because teachers must know and adapt art in ways that are meaningful and overlapping all discipline goals.

Each study supported the need to integrate the arts into the classroom and provided proven cases that art integration brightens the learning environment. These cases showed that each student's experience with art helped strengthen the core subject matter while they enjoyed the learning process. The articles stated, repeatedly, that art should be a natural process in the classroom and teachers must share in the joy of art with the students to increase their engagement and attention. Research shows that "artistic expression has been an integral part of human nature and communication for longer than we can document. Surely it would be unwise to create an artificial curricular barricade against this intensely human expression of self, community, and civilization, through which children learn about the world" (Manner, 2002, p. 17). After reviewing several cases of art integration, it seems very ignorant to create a wall in the classroom

that separates learning and human expression of self, community, and civilization through which humans have learned about the world.

## Data Collection and Results

### *Data Collection*

The sample was a second-grade classroom population containing 22 students varying in gender and race. The study did not research which gender or race is more artistic or creative. The study did measure varying student ages within the second grade class, and compared maturity levels to art expression. The study focused on enhancing student performance and strengthening retention of new information by integrating art through the content areas.

Research data was collected in the classroom through a gradual process of integrating art across the curriculum. Daily art activities were conducted but not every lesson included some form of art. The teacher was responsible for keeping student work filed and noted. The data collection method applied used triangulation method. I collected data in several different ways: experiencing, enquiring, and examining. I was an active participant, observing the creation of the students' works. I noted accurate data in the field notes of the interests of the students within each art activity and the experiences of each student. An unbiased account of the students' expressions was documented and taken into consideration. The next portion of the triangulation method was enquiring. I conducted informational interviews with the students to gain insight on their thoughts and feelings of this new way of learning. I was socially involved with the students and their activities. The third portion of the triangulation method was examining. I evaluated my field notes to assess whether students were comprehending and retaining the information being presented. I also collected student artifacts that were logged and filed to use as a resource for the data collection. The final portion of the enquiring method was conducting a pre- and post-test to



assess the student's performance. I will be able to gauge if any of my methods of teaching were effective and enhanced student learning.

The data collection was an ongoing process paired with an ongoing analysis of the pre- and post-test data. This method of analysis helped keep the data summarized and helped to accurately measure which art integration methods were suitable and successful. Some data analysis strategies I incorporated within the study were organizing the data collections in files and journals, asking the students key questions that provoked their thoughts and feelings, and identifying themes so that I learned what works best for the students and enhanced the learning environment. I had a mixed-method of data analysis because I was able to manually collect the students' creations and completed assignments. The pre- and post-test data was evaluated and graphed to show student progress.

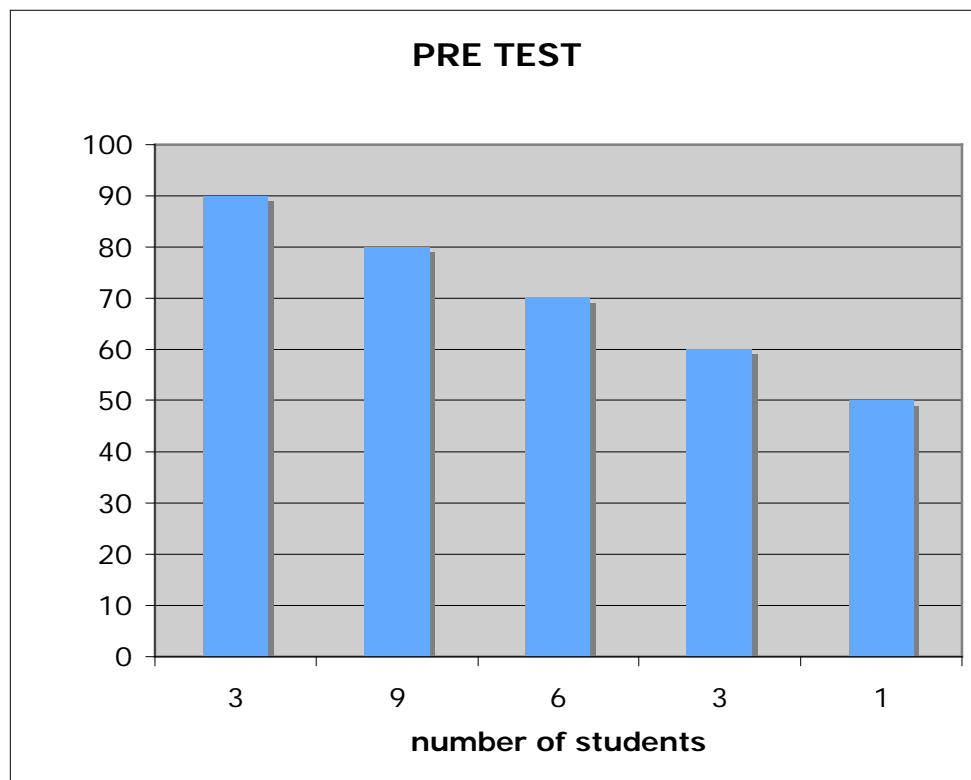
### *Results*

The data collection I applied was the triangulation method. I collected data in several different ways: experiencing, enquiring, and examining. The experienced data I viewed was truly impressive. The students were actively engaged and were very excited to participate in each lesson and activity. The students showed enthusiasm and could hardly stay seated as I modeled the various art activities. This type of student keenness was my initial indicator that art integration was a positive step to teaching and learning. I noted accurate data in my field notes of the zealous interests of the students within each art activity, and the positive experiences of each student. An unbiased account of the students' expressions was documented and taken into consideration. One student, in particular, asked "Can I do this at home with my family?"

The next portion of the triangulation method was enquiring. I conducted informational interviews with the students to gain insight on their thoughts and feelings of this new way of

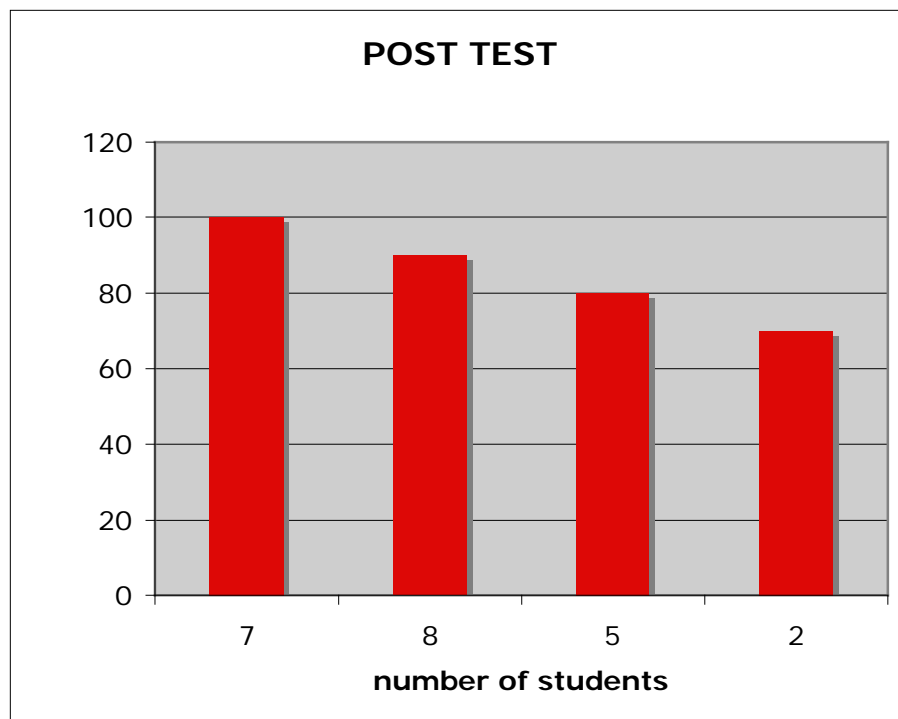
learning. I was pleased to discover that all 22 second-grade students were happy with the art activities and enjoyed learning new information about Japan. The students were able to regurgitate the information that was taught, and proved to have gained an understanding of Japanese culture. The third portion of the triangulation method was examining. I evaluated my field notes to assess that students comprehended and retained the information that was presented. I also collected student artifacts that were logged and filed to use as a resource for the data collection. The final portion of the enquiring method was conducting a pre- and post-test to assess the student performance. The test was comprised of 10, multiple-choice questions. Student exploration of Japan's history and culture is significant because it exposes students to the diversity of the world and the intriguing differences that other cultures possess. There are many creative and engaging methods of teaching about Japan. The pre-test was designed to gauge the students' prior knowledge of the history and culture of Japan.

The pre-test results showed that many students struggled to identify or make connections to the Japanese topics (see Figure 1). Out of 22 students, only 3 students possessed an awareness of Japanese culture and traditions. Nine out of the 22 students missed 2 questions out of 10. Six students answered seven questions correctly. Three out of the 22 students only answered six questions correctly, placing them with a failing grade. Only one student received a 50 percent score. Out of the entire class, a total of 10 students struggled to identify with Japanese culture and choose answers that made sense. The other 12 students were vaguely familiar with Japanese culture but no students were 100 percent correct. The student data confirmed that Japanese culture should be taught, in detail, and presented in a way that is engaging and fun.



*Figure 1.* Pre-test results.

The post-test data showed significant student gains about Japanese culture (see Figure 2). The test was presented to the students at the end of Japan unit. The test design was the same as the pre-test, with 10 questions and three multiple-choice answers. Out of the 22 students, seven students scored a one hundred percent. Eight of the twenty-two students scored a 90 percent, 5 of the students scored an 80 percent, and only 2 students scored a 70 percent. None of the students received a failing grade, and only two students needed enrichment.



*Figure 2.* Post-test results.

The value of the pre- and post-test procedure was meaningful for the teacher and students because we were able to gain confidence and get a visual understanding of the impact of art integration across the curriculum. The students saw their strengths throughout the unit presented and knew where they needed to improve. The value of the pre-and post-test procedure for the teacher is extremely meaningful because the teacher is given exact analysis of student growth and progress. The teacher can view which students need enrichment or struggle with a particular lesson. Also, the assessments give the teacher a way to manipulate future lesson plans and gauge whether his or her methods of teaching are engaging and successful. Figure 3 is a visual representation of the comparison of the pre- and post-test data.

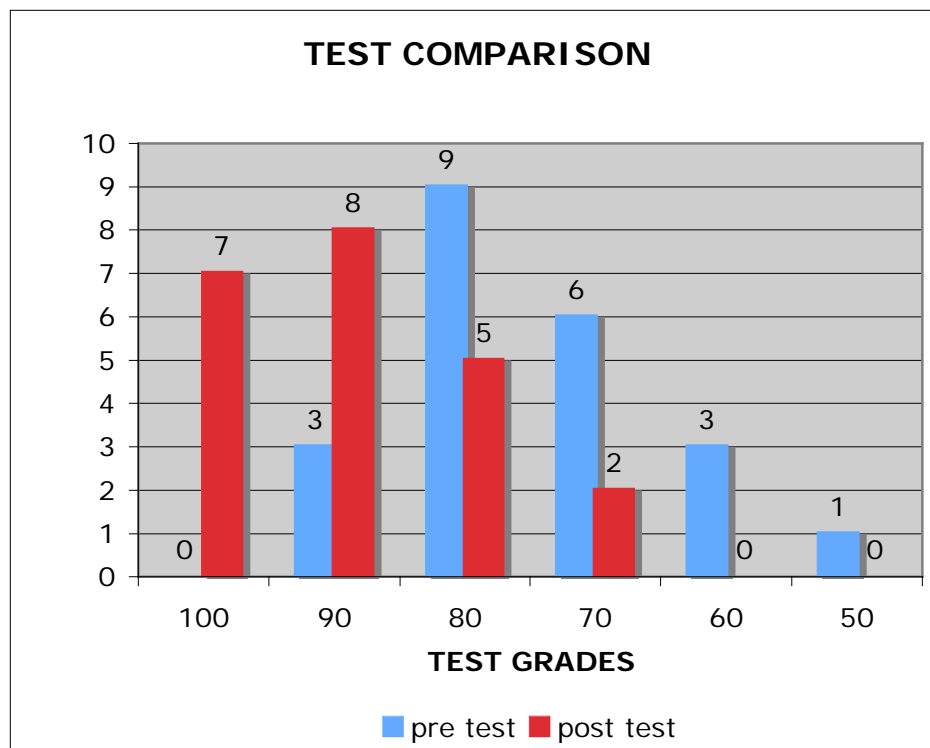


Figure 3. Pre- and post-test comparison.

## Conclusion and Recommendations

### *Conclusions*

In conclusion, the impact of art integration across the curriculum definitely enhanced student performance. Through each data collection method, the results showed an increase in student interest, retention of new information, and performance. The design of each lesson was engaging and provoked creative expression. I modeled each activity with energy and chose lessons that would capture student creativity. The students were introduced and directed to the proper uses of all the materials. Student success was achieved and proved that art integration across the curriculum does increase student performance.

### *Recommendations*

I would initiate one to two lessons per day that had art integrated throughout the content and move towards eventually increasing the art integration process to a greater number of lessons

per day. Creating a theme, and weaving the information throughout all content areas, would benefit each student. Art integration across the curriculum will increase the creativity process within the classroom and the content areas. In order to keep within time frames during a scheduled day, lessons should begin with a 10-15 minute mini-lecture about the subject topic, 5 minutes of teacher modeling, and then allow the art-related activity to fulfill the remaining time segment (this should allow 20-30 minutes). The teacher should continuously talk and ask engaging questions for the students to answer during the hands-on art activities, or allow for questions or inquiries from students. This time should present the teacher with more clues of student interest or concerns. It is a great assessment tool to use to strengthen lessons and teaching methods.

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Does Implementing Focus Techniques, Behavior Modification Strategies, and Journaling  
Activities Positively Effect the Academic Outcomes of Students with ADHD?

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The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149)  
has approved this research project # 08-199.



### Introduction to the Problem

Academic achievement, in particular, what contributes to negative or positive outcomes, is a hot topic in education circles. Research, which has been focused upon influences on cognitive development, has now directed its inquiry towards the influences of social and emotional development and their effect upon academic outcomes. Attention-Deficit/Hyperactivity Disorder (ADHD), currently, is the most diagnosed label placed upon school-aged children who exhibit behavior and cognitive problems associated with inattention, hyperactivity, and impulsiveness (Smith & Corkum, 2007). In fact, according to Barkley, ADHD represents “one of the most common reasons children are referred for behavioral problems to medical and mental health practitioners in the United States and is one of the most prevalent childhood psychiatric disorders” (Barkley, 2006, p. 3). Referrals for ADHD can account for more than 5% of school-age children (Millichap, 2008). The disorder may be seen as early as 3-4 years of age, but is recognized as having long-term effects reaching into adulthood.

ADHD is seen as a neurophysical disorder, which is affected by genetic and environmental factors, and contributes to academic underachievement and the inability to adapt one's behaviors (Loughran, 2003). Due to ADHD's core symptoms (inattention, hyperactivity, and impulsivity), children with ADHD perform low in school, resulting in lower than average marks, more failed grades, more incomplete assignments, more expulsions, increased dropout rates, and lower rates of college completion (U.S. Department of Education, 2003). The academic success of a child with ADHD seems daunting, but through the understanding of the factors that contribute to the disorder, and the best treatment methodologies, these children can be supported and bolstered to succeed in school. Understanding the debilitating implications upon school success for a child with ADHD, direct intervention must occur in the classroom.

This leads one to question the best methods for addressing the educational needs of children with ADHD. The answer, and more profound question, may lay in connecting proven behavior modification strategies to the realm of neurophysiology and its study of the brain: Does implementing focus techniques, behavior modification strategies, and journaling activities positively affect the academic outcomes of children with ADHD?

#### Review of Literature

The etiology of ADHD has been a matter of debate over the last century. Earlier views and observations attributed ADHD to deficits in moral control, brain damage (to the frontal lobes), brain dysfunction, and hyperactivity (Barkley, 2006). There has also been a change of focus from seeing children with ADHD as struggling with hyperactivity to a struggle with inattention. Current theories view ADHD as a result of deficits in behavioral inhibition. This finding suggests that the deficits in executive functioning and self-regulation account for the inattentive symptoms associated with ADHD. In essence, the difficulties children with ADHD demonstrate originate from a problem in the brain's management system, which controls, manages, and integrates daily tasks to be performed (Brown, 2002). Even the results of neuropsychological studies support the view that ADHD is an inhibitory disorder associated with deficits in executive functioning (Barkley, 2006).

According to current theory, the core symptoms of ADHD address the outcomes of self-regulation, in particular, how self-regulation is affected by behavior inhibition and executive functioning (Barkley, 2006). Self-regulation, or cognitive control, is the ability to "suppress inappropriate actions in favor of appropriate ones" (Casey & Durston, 2006, p.1). Therefore, cognitive development is seen as the ability to filter and suppress information or actions that are not relevant in exchange for ones that are. The aim of self-regulation is to have goal directed

motor behavior. This is accomplished in the brain through what Barkley calls goal directed persistence and self directed behavior; which is the ability to create, sustain, and renew internal sources of motivation to support goal directed motor behavior. Goal directed behavior is then dependant upon behavior inhibition, which is affected by the executive functioning of the brain. The interaction of this system accounts for the observable results presented in self-regulation.

Viewing ADHD as a developmental delay in behavioral inhibition, and the executive function which effect it explains the impairments children with ADHD present. These impairments of executive functioning include difficulties in: self-control in words and action, organization/planning skills, remembering information, and focusing on tasks that are not interesting (Brown, 2002). These impairments are not due to a lack of motivation or will, but to a deviation in typical brain development.

According to neurophysiologic studies the prefrontal cortex is the area of the brain that supports a number of cognitive functions. The cognitive functions hosted by the prefrontal cortex include: the executive control of attention, the ability to suppress in appropriate responses or thoughts, and working memory. These are all functions that are implicated to be sources of difficulty for children with ADHD (Shaw, Eckstrand, Sharp, Blumenthal, Lerch, Greenstein, Clasen, Evans, Giedd, & Rapoport, 2007). Studies demonstrate that children with ADHD have brains with a smaller-sized prefrontal cortex and a reduced engagement of frontal-striatal-temporal-parietal networks (Wang, Jiang, Cao, & Wang, 2007). Due to atypical brain development, the action-attention network is physically disrupted in the child with ADHD, and results in poor inhibition, decision-making, attention control, and working memory. Children with ADHD are suffering from a developmental failure in their brain. The brain's circuitry that monitors inhibition and self-control is compromised (U.S. Department of Education, 2003). The

observable results look like a “renegade motor control system that is not under the same degree of control by internally represented information, time and future,” which is in contrast to their typically developing peers (Barkley, 2006, p.319).

These disruptions in typical brain development may be an area on which to focus treatment of children with ADHD. Research demonstrates that the brain, throughout a lifetime, is constantly changing and molding. The process is called neuroplasticity. This characteristic of the brain allows the nerve cells to “constantly lay down new pathways for neural communication and to rearrange existing ones throughout life; thereby, aiding the processes of learning, memory, and adaptation through experience” (MemoryZine, 2007, p.1). Neuroplasty works in two ways, either deleting old connections or making new connections. This process of deleting and making connections is called synaptic pruning. Our ability to learn and to remember is tied closely to this process. In essence, the brain is like a garden; things are being newly planted and pruned, allowing for people to learn and remember, adapt to a new environment, and generate new brain cells. Experience determines which connections will be strengthened and which will be pruned. The more frequently activated connections are preserved (Hoiland, 2003). Plasticity of the brain offers hope to those who suffer, not only from ADHD, but dyslexia, Down Syndrome, depression, and other behavioral/emotional disorders (MemoryZine, 2007).

Children with ADHD tend to have more academic problems than their peers. Due to the inability to inhibit behavior, sustain attention, and self regulate, children with ADHD have difficulty in attending to detail in direction, and sustaining attention for the duration of a task, and misplace needed items (U.S. Department of Education, 2003). Often, their behavioral and cognitive impulsivity causes problems in the classroom. Behavioral impulsivity will include acting without thinking, an inability to wait their turn, or showing aggression. Cognitive

impulsivity includes guessing to solve problems and not implementing problem solving strategies (New Ideas, 2008). In order to support and help children with ADHD succeed in the classroom, a multimodal approach must be utilized, addressing appropriate behavior, educational interventions, services, and family environments (Reid, 2001). Caring for a child with ADHD calls for one to focus upon the input provided by the child, the teacher, and the family.

### *Assessment and Diagnosis*

The core symptoms that children of ADHD exhibit include inattention, hyperactivity, and impulsivity. The symptoms manifest themselves in children as having difficulty staying on task, difficulty remaining seated, difficulty concentrating, difficulty resisting distractions, acting without thinking, or appearing as if they are daydreaming. Other functional problems include troublesome interpersonal relationships (peers, adults, or family members), school difficulties, academic underachievement, and low self-esteem (Herrerias, Perrin, & Stein, 2001). Teachers, according to Nowacek and Mamlin (2007), describe children with ADHD as demonstrating a lot of impulsiveness, having an inability to stay focused, being loners, being easily distracted, and having difficulty listening or organizing.

It is suggested that a child 6-12 years of age be referred for evaluation if this child exhibits inattention, hyperactivity, impulsivity, behavior problems, or academic underachievement. Physicians, teachers, parents, and children all provide valuable information when assessing a child for ADHD. In fact, children with ADHD “may be able to provide useful information about their feelings and behaviors” (Klimkeit, Graham, Lee, Morling, Russo, & Tonge, 2006, p.181). Since children with ADHD are self-aware, they should be a part of the assessment process, impacting results and practice. A diagnosis of ADHD is multifaceted, and should include behavioral, medical, and educational data (U.S. Department of Education, 2003).

To be labeled or diagnosed with ADHD, a child must meet the diagnostic criteria of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). A child must exhibit at least six of the nine listed symptoms, symptoms must be apparent before age 7, symptoms must be noticeable for at least 6 months in two or more settings, and the symptoms must significantly impair the child's academic and social functioning (New Hope Media, 2007).

The following is the DSM-IV's symptoms/criteria for ADHD:

1. Inattentive

- fails to give close attention to details or makes careless mistakes,
- has difficulty sustaining attention,
- seems not to listen when spoken to,
- has trouble following through on instructions or finishing tasks,
- has difficulty organizing tasks and activities,
- is reluctant to engage in tasks that require sustained mental effort,
- often loses things,
- is easily distracted,; and
- is forgetful in daily activities.

2. Hyperactive/Impulsive

- fidgets with hands or feet or squirms in seat,
- leaves seat in classroom,
- runs about or climbs excessively,
- has difficulty playing quietly,
- often seems "on the go" or acts as if "driven like a motor,"
- talks excessively,

- blurts out answers before questions have been completed,
- has trouble taking turns, and
- interrupts or intrudes on others.

Because ADHD contributes so strongly to academic underachievement, it is important that children are identified and treated early so they are connected to appropriate services. Identification and diagnosis may be as early as preschool age, however, caution must be used so that labeling is limited (Loughran, 2003). To limit the false labeling, one must collect data from a number of sources. These sources include direct observation of behavior, structured interviews, standardized rating scales, and directly measuring attention, impulsivity, and hyperactivity. Along with these sources, it is suggested that a sequence of questions should be used to assist in the assessment and diagnosis of ADHD. Smith and Corkum suggest the following questions:

1. Does the child meet DSM-IV criteria?
2. Are there alternative explanations for the symptoms?
3. Are the symptoms developmentally inappropriate?
4. Do the symptoms impair the child's functioning?

#### *Comorbid Factors*

Children who are diagnosed with ADHD tend to have other coexisting psychological or developmental disorders. More than half of the children with ADHD will also suffer from comorbid conditions. According to ADDmag editors, the following are common comorbid conditions associated with ADHD: (a) learning disabilities (difficulty mastering reading, writing, math skill, memory work); (b) language disabilities (difficulty understanding what is said, or organizing thoughts and finding the right words); (c) anxiety (fearful, panic attacks); (d) depression; (e) anger-control problems; (f) obsessive-compulsive Disorder; or (g) bipolar

disorder. With the existing comorbid conditions, it is important to be alert and responsive to these conditions, and know where to locate the appropriate help and services (Herrerias, Perrin, & Stein, 2001). A team will be necessary to meet and assess the needs of a child with ADHD.

### *Influence of the Family*

Predominantly, ADHD is seen as pathology of genetic and environmental factors. The environment typically is seen as the classroom-the physical space, and the student's location and interaction within the space. However, the impact of the environment may be extended to the influence of the family. Children with ADHD tend to have families that are less cohesive, are less expressive, exhibit more conflict, and do not encourage independence (Kepley & Ostrander, 2007). Parents of children with ADHD appear to be more likely to have a history of antisocial behavior, alcoholism, and learning disabilities. Other risk factors, or adverse environmental factors, which may contribute to children being diagnosed with ADHD include severe marital discord, low social class, large family size, paternal criminality, maternal mental disorder, and foster placement (Garbarino & Thompson, 2000). Parents have a great responsibility to provide a safe, warm, and responsive environment for a child with ADHD. A child who is able to securely attach to the parent will be able to manage, process, and cope with ADHD-related difficulties (Garbarino & Thompson, 2000).

### *Classroom Modifications and Accommodations*

There is no cure for ADHD; it is a long-term disorder. However, there are a number of sources for treatment for children with ADHD. Effective treatment strategies include behavioral, pharmacological, and multimodal therapies (U.S. Department of Education, 2003). According to Swanson (2003), combining behavioral therapy and pharmacotherapy is the most effective method, rather than using either alone. This combined approach, or multimodal approach,



improves academic performance, parent-child interaction, and school-related behavior, and reduces child anxiety and oppositional behavior (U.S. Department of Education, 2003). This model should address four major areas including educational accommodations, promotion of appropriate behaviors, medical management, and support services for children and parents (Reid, 2001).

Teachers tend to know the key characteristics of children diagnosed with ADHD, and are able to identify their needs. However, few accommodations for modifications are implemented. Research suggests the reason for the lack of implementing modifications or accommodations is that a majority of teachers lack the knowledge of what appropriate interventions or modifications include (Nowacek & Mamlin, 2007).

When considering classroom accommodations, the instructor should be proactive instead of being reactive in their intervention. Educational accommodations should address the physical classroom environment, task/materials, and instruction. A teacher should maintain a stable, predictable, structured instructional environment, and effectively communicate expectations and limits (Reid, 2001). The goal of ADHD intervention is to provide a child with the necessary prerequisites and to modify behavior for future academic success. Refer to Appendix A for a listing of educational accommodations and modifications adapted from Reid's strategies for counselors and teachers.

The two goals a teacher desires to accomplish in promoting appropriate behavior are (a) decreasing the inappropriate behavior, and (b) teaching replacement behaviors that will help the child with ADHD function better in the classroom. Before implementing an intervention, a teacher must *specifically* identify the behavior to be changed. Behaviors described as "impulsive," "hyperactive," or "inattentive" are not specific enough. To determine the purpose or

function of a behavior, a functional assessment must be performed. As a result, the function served by the behavior is matched appropriately to an intervention (Reid, 2001). The following are frequently used intervention techniques: (a) response cost -- loss of a specific reinforcer due to the performance of an inappropriate behavior; (b) time out-- denying access to receive reinforcement for a fixed time; (c) token economy-providing tokens to students for performing appropriate behavior to be redeemed for later reinforcers; and (d) peer-tutoring--providing a student with a peer to support attention to task, increase academic learning, and decreasing noncompliance (Reid, 2001).

### *Conclusion*

ADHD behavior is a lifelong problem that affects a person's emotional, social, and cognitive development. All these dimensions will and do have an impact upon a child's academic and future success. A child with ADHD not only presents behavior problems that affect academic outcomes, but may also carry with them other coexisting psychological disorders or family influences that will negatively affect the child's success in school and life. Treatment and care for a child with ADHD require time and effort with a team of professionals partnering to meet the needs of a child. Success can be achieved when the teacher, parents, and other caregivers provide environments that are highly responsive, warm, caring, and structured. A multimodal approach should be used in caring for a child with ADHD to ensure that self-regulation is learned and behavior inhibition is increased. Studies in neurophysiology suggest that the brain can be reshaped and molded to make new pathways to learning. Applying these concepts, teachers may be able to answer the question: Does implementing focus techniques, behavior modification strategies, and journaling activities positively affect the academic outcomes of children with ADHD? Through reaping the benefits of both brain research and

developing emotional and social competencies, teachers may perform classroom; interventions that positively affect the academic outcomes of children with ADHD.

## Data Collection and Results

### *Data Collection*

#### *Subjects*

Two 8-year-old boys were selected from a third-grade classroom; both presented difficulties with attention. According to the classroom teacher, and the parents, the students demonstrated the following criteria set forth in the DSM-IV for ADHD: (a) fails to give close attention to details or makes careless mistakes, (b) has difficulty sustaining attention, (c) has trouble following through on instructions or finishing tasks, (d) has difficulty organizing tasks and activities, and (e) is reluctant to engage in tasks that require sustained mental effort.

#### *Methodology*

For 1 week, the students participated in a multimodal therapy approach to lessen the effects of diminished attention and focus associated with ADHD. The multimodal approach had three components: (a) a focus/attention ritual, (b) a behavior modification/positive reinforcement intervention, and (c) refocus reflective journals.

#### *Focus Ritual*

Two times per day, to gain focus and practice attending, the students participated in an adapted “actor’s ritual,” which is a concentration-building routine developed by Sean Layne of the Kennedy Center. The ritual was performed once in the morning, at the beginning of the day, and once in the middle of the day, after lunch. The following are the steps for the focusing ritual:

1. Calming music will be played.

2. The students will (TSW) come to the back area designated for the ritual, and stand in a circle.
3. TSW listen to and follow the instructions of the teacher.
4. TSW be reminded that we use our whole body when we focus and do our work.
5. The teacher will (TTW) say: *To remind us that we use our whole bodies when we learn, bend down and touch your toes. As you slowly stand up, keep your fingers in contact with your body.*
6. TTW say: *To remind us that we must control our voice when we learn, when your reach your throat, stop. Take a deep breath and let it out while making a small sound.*
7. TTW say: *Keep moving your fingers up your body until you reach your temples. Stop here. This will remind us, as students, that we use our brain to think, to problem solve, and to be creative. Close your eyes and imagine that you are clearing out a space in your mind for today's lessons and activities. Don't think about what happened this morning, or what will happen this afternoon, just bring your mind to right here.*
8. TTW say: *Now stretch your hands high in the air and bring them around the person's shoulder on either side of you. Look to all who are to your right, and now look to all who are to your left. Remember we are here to cooperate and work with everyone. We do not cause conflict or distraction.*
9. TTW say: *Now I want you to look at a point on the wall in front of you. Pick a point that will not move. I want your eyes to lock on the point and not move. Everyone*

*lock your eyes on your point now. This is called your FOCUS POINT. As you stare at your focus point, I want your bodies and voices to freeze.*

10. TSW each find their FOCUS POINT and lock their eyes on it while freezing their body and voice.
11. TTW walk around the circle and look each student in the eye. If the student takes their eyes off their FOCUS POINT, encourage them to look at their FOCUS POINT, not at you.
12. Once students have their focus, encourage them to begin their day of work remembering to keep their focus on their lessons and activities for the day.

### *Refocus Reflection Journal*

To teach self-regulation and self-awareness, students kept a refocusing journal (see Appendix B for the form). Each time a student did not remain on task and was in need of redirection more than two times, the student was instructed to step out to “take time to refocus.” The student then stepped out of the activity to reflect upon the reasons for their lack of focus, using the refocusing journal. Once filled out, the student conferenced with the teacher and then returned to their work.

### *Positive Reinforcement*

To provide incentives for focused and attending behavior, a system of positive reinforcement was introduced. Each student was given two jars on their desk. One was filled with 20 gems, while the other was empty. When a student was seen doing positive work, making positive choices, or remaining on task, the teacher moved one gem to the empty jar. Once all the gems were in the second jar, the student was rewarded with a prize. Positive behavior was explained and defined to the students as sustained attention and effort on class work, maintaining

control of their voice (no outbursts, complaining, or disruptions), completing assignments on time, and making choices that aid attention (e.g., removing self from distractions to get work finished).

### *Data Selection*

A pre- and post-test analysis was used to interpret the data. A sample of five completed assignments, previous to the intervention, was compared to five assignments completed during the intervention. Since spelling worksheets were a daily, consistent assignment, spelling assignments and grades were decided upon as scores to be compared and analyzed. The data collected included the grade (numerical score) of the assignment, and whether the assignment was completed on time. First, the mean grade of the pre-test was compared to the mean grade post-test. Second, the percentage of late assignments of the pre-test assignments was compared to the percentage of late assignments in the post-test assignments.

### *Results*

Figure 1 shows the pre-test scores for student one. Before the intervention, the mean score accomplished on an assignment for student one was 76.8, while completing 20 percent of assignments on time. Figure 2 shows the pre-test scores for student two. The mean grade accomplished by student two before the intervention was a 94.8 with 40 % of assignments completed on time. Figure 3 shows the post-test score for student one. The post-test mean score was 82.4, with 60 percent of assignments turned in on time. Figure 4 shows the post-test scores for student two. The post-test scores mean score was 96.6, with 80 percent of assignments turned in on time. Figure 5 compares the pre-and post-test scores of students one and two. Figure 6 compares the percentage of assignments turned in on time in the pre-and post-tests.

Assignment number	Score	Late/On time
1	100	Late
2	75	Late
3	19	Late
4	100	On time
5	90	Late

*Figure 1.* Student 1 pre-test scores: mean score, 76.8, percentage of on time assignments, 20%.

Assignment number	Score	Late/On time
1	100	On time
2	95	Late
3	86	Late
4	93	On time
5	100	Late

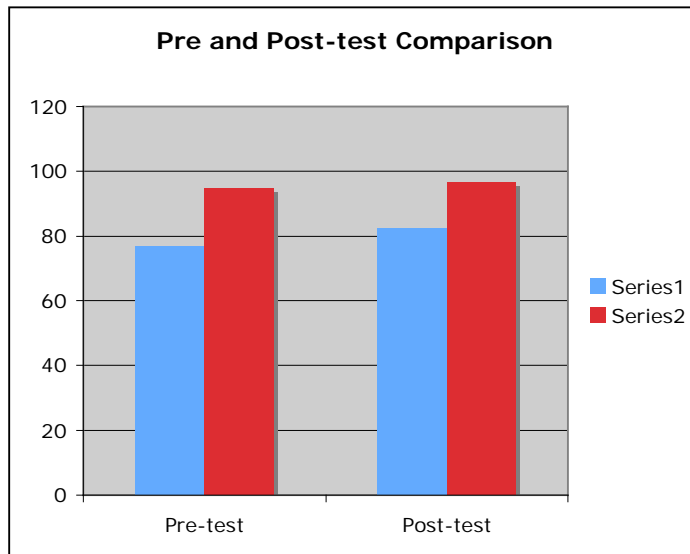
*Figure 2.* Student 2 pre-test scores: mean score, 94.8, percentage of on time assignments, 40%.

Assignment number	Score	Late/On time
1	91	On time
2	52	Late
3	76	Late
4	93	On time
5	100	On time

*Figure 3.* Student 1 post-test scores: mean score, 82.4, percentage of on time assignments, 60%.

Assignment number	Score	Late/On time
1	100	On time
2	90	On time
3	93	Late
4	100	On time
5	100	On time

*Figure 4.* Student 2 post-test scores: mean score, 96.6, percentage of on time assignments, 80%.



*Figure 5.* Pre- and post-test comparison.



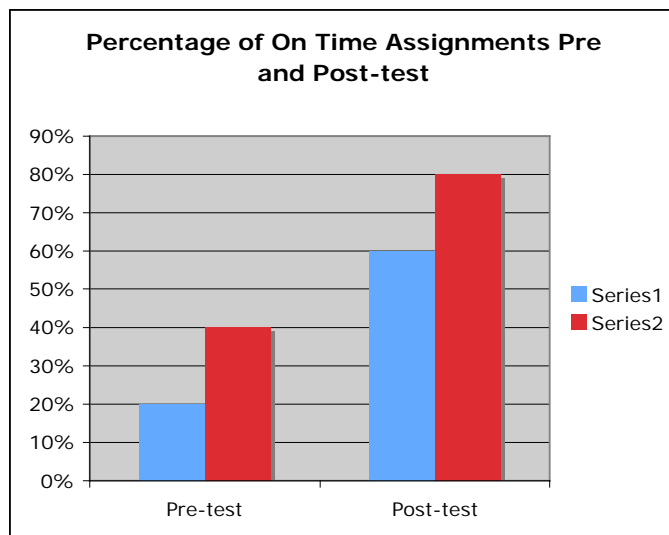


Figure 6. Comparison of percentage of on time assignments.

## Conclusions and Recommendations

### *Conclusions*

The measures of data collection revealed that the intervention provided a positive impact upon academic outcomes for students suffering attention deficits by strengthening attention skills. Positive academic outcomes were defined as gains in academic achievement (grades) and increases in number of assignments turned in on time. The study demonstrated small gains in academic achievement, yet positive for student one. The student's score increased from a mean of 76.8 to 82.4. This increase in achievement brings the student into satisfactory standing. As for the number of assignments turned in on time, student one increased this percentage from 20 percent to 60 percent. This gain is positive, for the student had to sustain work and effort, thereby, increasing attention to complete assignments on time. Student two demonstrated gains, as well, in academic achievement. According to the data, student two had small gains in achievement, increasing mean score from 94.8 to 96.6. The more significant data is the gain in the number of on-time assignments. The student increased his percentage of on-time assignments

from a 40 to 80 percent. This gain is positive, for the student had to sustain work and effort, thereby, increasing attention to complete assignments on time.

According to the data, it appears that implementing a multimodal approach to addressing attention deficits in students will increase academic performance. The multimodal approach included a focusing ritual, a system of positive reinforcement, and refocusing reflection journals. The focusing rituals allowed the student to engage and train the brain to focus and concentrate, thereby, learning (or teaching the brain) how to attend and increase attention span. The systems of positive reinforcement and journals provided the student incentives and tools to self-regulate their own behavior, thereby, increasing their own self-control, which is needed to attend to tasks and ignore distractions. According to this research, a multimodal approach does have a positive impact upon the academic outcomes of students with attention deficits. The gains are seen in academic achievement demonstrated in increased scores, as well as by the increase in the number of assignments completed on time.

### *Recommendations*

This study was executed over a short span of time, a period of 5 days, as well as with a small sample consisting of two boys. To demonstrate that the gains in achievement are valid, and correlate to the intervention completed, I would recommend that the sample be increased in size, and the amount of time the study is executed be increased as well. Only one of the boys in this study has been formally diagnosed with ADHD. The other displayed symptoms associated with ADHD, as observed by both the teacher and parent, in two different environments, but he was not formally diagnosed with ADHD. For future study I would recommend finding samples in which children are formally diagnosed with ADHD.

Research suggests that few general classroom teachers, though they can identify the symptoms of ADHD, are knowledgeable regarding the types of interventions, modifications, or accommodations that should be used to meet the needs of these students. In fact, many teachers are not convinced that ADHD is a legitimate cognitive disorder affecting the executive functioning of the brain. Following this study and its results, I would recommend that schools provide teachers workshops helping teachers understand the neurophysiology behind ADHD, and its potential impact upon treating students and intervention plans. Teachers must have access to multimodal strategies that work to help students with attention deficits succeed academically, socially, and emotionally.

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## Appendix A

**Educational Accommodations & Modifications****Classroom Management:**

- Post a written schedule of daily activities.
- Maintain a daily routine.
- Establish appropriate and effective class rules and procedures.
- Keep directions clear, simple, and with appropriate language.
- Deliver reprimands in a calmly, firmly, with an unemotional manner.
- Give reprimands as soon as possible (privately and not publicly).
- Place children with ADHD in groups that do not include their friends.

**Classroom Environment:**

- Reduce or eliminate distractions.
- Provide a more physically closed room than an open room.
- Allow for various types of seating: normal desk, stand-up desk, and a study carrel.
- Seat the child close in proximity to the teacher and away from high traffic areas.
- Arrange desks in rows.

**Task Accommodations and Modifications:**

- Before assigning independent work, assess the child's performance level and then provide the assignment.
- Provide students job cards with step-by-step instructions to accomplish a task.
- Pair a child with a "study buddy," a peer who will provide assistance when needed.

- Shorten assignments.
- Intersperse different activities within assignments to maintain attention.
- Provide frequent breaks during assigned tasks.
- Reduce the amount of written assignments (many children with ADHD have poor handwriting, and written assignments can be laborious).

### **Curriculum & Instruction Accommodations**

- Couch the curriculum within the context of a student's interests to maintain compliance and attention.
- Schedule most cognitively demanding activities during the morning hours, and hands-on or less demanding activities in the afternoon.
- Make presentation of instruction stimulating and interesting: add color, shape or texture to handouts; vary the instructional format or strategies (lecture, seatwork, or hands-on activities); or intersperse high-interest and low-interest tasks.
- Provide opportunities for response.

## Appendix B

Date: \_\_\_\_\_

# Refocus Journal

Why am I taking time out to refocus? In my own words this is what happened:

This is how I felt. I felt \_\_\_\_\_ because:

This is what I will do next time I act or feel this way:



Breakfast and Performance

Melissa Hartley

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-164.

### Introduction to the Problem

Many students in schools participate in free and reduced-price lunches. This helps to ensure that children from low-income families do not go without food on a daily basis. Sadly, lunch is the only meal that some children may receive, on any given day. By the implementation of the School Breakfast Program, that was established in 1966, students are also provided with free and reduced-price breakfasts. However, only half of the schools within the United States offer this program to their students. Only six million students participate in the breakfast program.

Numerous studies have been conducted in order to determine the benefits of eating breakfast. Some of the benefits include increased alertness, concentration, cognitive functioning, and nutrition. Malnutrition, among students, is a concern for schools since it has been proven that a nutritional deficiency can cause a decrease in cognitive performance. Schools are trying to counteract this deficiency by offering meals based on the School Breakfast Program guidelines. These guidelines promote healthier diets by offering fruits, vegetables, and milk products. Studies have shown that the meals provided by the program have less fat, saturated fat, cholesterol, and sugar.

In order to help more people become aware of the benefits of eating breakfast and the School Breakfast Program, the research to be conducted will show if there are benefits to be gained from eating breakfast. With greater awareness, more schools may be more willing to adopt the program. Therefore, the purpose of this study is to determine if there is a correlation between students eating a breakfast that is based on the School Breakfast Program guidelines and performance on tests.

## Review of Literature

Childhood nutrition has been a growing concern in the United States for the past several years. The primary focuses have been placed on childhood obesity and lack of physical activity. However, there is another area of childhood nutrition that requires emphasis. Malnutrition in school-aged children can have drastic consequences if the problem is not alleviated. With schools providing breakfast for students, there is a greater chance that more children will receive nourishment they would otherwise go without. In turn, children may demonstrate an increase in performance in the classroom.

In order to provide food for children who were part of low-income families or who traveled quite a distance to school, the School Breakfast Program (SBP) was established in 1966 (Eating Breakfast, 1998). Prior to the SBP was the creation of the National School Lunch Program (NSLP) in 1946 (Hurd, Friedman, & Cise, 1996). With the launching of both the SBP and the NSLP, over 25 million students are served meals within the schools (Hurd et al.). By 2003, it was estimated that approximately six million children received food from the SBP (Antoine, Donald, & Cox, 2003). In order to help fund the SBP, the Secretary of Agriculture was compelled by the Child Nutrition Act of 1989 to sustain the startup costs of the program in areas that were known as low-income (Eating Breakfast, 1998). Soon, the SBP became available to all schools in the United States that wanted to participate, as long as breakfast was offered to all students (Eating Breakfast, 1998). The SBP is responsible for supplying participants of the program with a quarter of the essential nutrients which may have the potential to increase school performance, as well as enhance the children's diets (Eating Breakfast, 1998).

The two main studies that were conducted to determine the effects of breakfast included establishing if breakfast had been consumed and observing the effects consumption of breakfast

had on functioning (Eating Breakfast, 1998). The studies can also be categorized as being either field or experimental (Pollitt, 1995). Research conducted to determine if breakfast was eaten did not focus on caloric intake, but the research for effects on performance did take caloric intake into account (Eating Breakfast, 1998). One particular study, that observed if students were eating the food given to them, did not focus on how many calories were consumed, but on what foods were eaten by the students, as well as how much of a certain type of food (Antoine et al., 2003). Another study that focused on the effects of breakfast on performance showed that the performance of certain tasks either went up or down, not because of intellect, but because of a change in motivation, attentiveness, and interest (Worobey & Worobey, 1999b).

Children who do not receive breakfast cannot compensate for those nutrients later in the day from either lunch or dinner (Bro, Shank, McLaughlin, & Williams, 1996). The continuance of not receiving the proper nutrients could lead to a lower immune system for fighting disease and infection, as well as a lower level of performance (Bro et al., 1996). The loss of weight and stunted height that are often seen in developing countries are becoming a reality for the malnourished in the United States (Worobey & Worobey, 1999b). Iron deficiencies in children can cause lower cognitive performance which puts the children at a disadvantage in of the classroom (Taras, 2005). Other negative results of malnutrition include increased absenteeism, decreased cognitive ability, and reduced academic accomplishment (Taras). During 2006, it was reported that only half of the students within the United States are offered the SBP at their schools, while the daily participation rate is only 19 percent (James, Rienzo, & Frazee, 1996). Transient hunger can also result from not eating a meal, which can cause not only physical and psychological problems, but also performance difficulty (James et al., 1996). Research has shown that a majority of children do not obtain a sufficient daily breakfast (Worobey &

Worobey, 1999b). One study found that 95 percent of mothers supply their children with breakfast while only 15 percent of those actually give their children breakfasts that meet the guidelines of the SBP (Worobey & Worobey, 1999b).

Although food is offered to students from the SBP and the NSLP, many students are not taking advantage of the opportunity to receive the meals due to several reasons that were given during a focus group interview (James et al., 1996). Students do not consume school-based meals because of the lack of presentation and taste (James et al., 1996). It was also found that most Caucasian students disapproved of the food while African American students were more satisfied with the school meals (James et al., 1996). The study also found that boys participate more than girls, elementary and middle school children participated more than high school students, and students who attended rural schools participated more than students from urban schools (James et al., 1996). When given alternatives to the SBP or the NSLP, students are more likely to choose the alternative (James et al., 1996). Some suggestions for increasing participation in the programs include making the food more appealing, increasing food options, and enlarging serving sizes (James et al., 1996). However, schools have to be careful when implementing new food items so that the food is nutritional (Antoine et al., 2003). Many schools now allow children to choose food items instead of serving the items, which increases the chances that the children will not take the food that is nutritious (Antoine et al.).

Schools are now providing meals that are healthier for the students by choosing foods that are low in fat, sugars, and cholesterol (Hurd et al., 1996). However, some schools find it easier than others to supply students with these kinds of foods since these schools may have greater access to certain foods and have more resources to gain those items (Hurd et al.). The amount of nutrition available in meals served is a growing concern since students are consuming a large

amount of saturated fat during breakfast (Friedman & Hurd-Crixell, 1999). The SBP guidelines include a serving of milk, a serving of fruit or vegetable that may be substituted by full-strength juice, and two servings of bread or meat (Worobey & Worobey, 1999a). The breakfast must provide the child with a quarter of their daily Recommended Dietary Allowances (RDA) (Worobey & Worobey, 1999a). There are many health benefits that are obtained when provided a diet that includes adequate amounts of starch and fiber (Worobey & Worobey, 1999a). These include a greater immunity to diseases, weight control, and a decrease in risk of heart disease and diabetes (Worobey & Worobey, 1999a). Sugar is also recommended to be limited to small amounts to prevent tooth decay and unhealthy eating habits (Worobey & Worobey, 1999a). The consumption of breakfast enhances a person's intake of energy, carbohydrates, proteins, and nutrients that will help in the prevention of disease and deficiencies (Pollitt, 1995).

There are numerous positive effects that are behavioral, physical, and cognitive in nature when breakfast is eaten (Pollitt, 1995). Students who ate breakfast had a positive emotional effect and improved performance on tasks with increased speed of information retrieval from memory (Pollitt). While the fast between dinner and breakfast can decrease arithmetic performance, eating breakfast can increase vigilance and problem solving performance (Pollitt). A study involving high school students who ate breakfast showed that on-task behaviors increased in both vocational and high school settings (Bro et al.). Other improvements that were mentioned include a decrease in tardiness and absenteeism, an increase in health, and an increase in achievement (Bro et al.). A survey given to the high school students showed that the students had positive feelings towards the SBP (Bro et al.). The program also increased social interaction between students during mealtimes (Bro et al.). When undernourished children eat a nutritious

breakfast, cognitive and academic performance can improve, as well as the health of the child (Taras 2005).

Since there have been numerous studies to research the effects of breakfast, it is difficult to ignore the improvements in performance and behavior that breakfast has on children. By continuing the research and finding supportive results, a strong argument is developing in favor of expanding the SBP to all schools so that every child has a chance to be healthy and to perform well in school.

## Data Collection and Results

### *Data Collection*

#### *Subjects*

The subjects that were included in the study were from a single, fifth-grade classroom. This classroom consisted of 20 students: 7 females and 13 males. All 20 students were given parental and participant consent forms. Fifteen of the forms were returned that gave permission for the students to participate in the research. These 15 participants included 7 females and 8 males. The participants were made aware that any information that they would give would be strictly confidential. All students, regardless of participation, were told that their grades would not be impacted in any way from the study.

#### *Methodology*

The study took several weeks to complete. Participants were given surveys on the first day of the study. Parents and guardians of the students were also asked to complete and return surveys. These surveys gathered information about the eating habits of the participants. These surveys asked about student's meals: how many times per week they ate, where they ate, what

they ate, and who served them. Once the forms were returned, the participants were assigned a number for anonymity.

The participants were taught a standard science lesson from their classroom's science textbook. This lesson was 1 hour in length. Once the lesson was complete, the participants were given five questions to answer on a sheet of paper. These questions were derived straight from the lesson that had been taught. The goal of asking these questions was to see how much information the participants were retaining and if eating breakfast helped the participants to retain that information. This sequence of teaching a lesson and asking five questions continued for 9 days. After the participants answered each set of questions, they were instructed by the researcher to write their assigned numbers at the top of their paper. Next, they were asked to write at the bottom of the paper if they had eaten breakfast that morning. If the participants answered yes, they were instructed to write down what they had eaten for breakfast. The results were grouped into two categories. These categories were participants who ate breakfast and participants who did not eat breakfast. The number of questions each participant got correct in each category was averaged. Those averages were recorded for each of the 9 days.

For each day of the study, there was a student behavior log that was filled out to record the behavior of each participant. The log includes several headings that are negative behaviors that teachers do not want exhibited in their classrooms. The participants' identification numbers were used on this form, instead of their names.

On the final day of the study, the participants were given a 50-question chapter test. This test included matching, multiple choice, listing, and fill-in-the-blank questions. The participants were given the full hour to complete the exam. This exam showed how much information was retained from the lessons that were taught within the past couple of weeks. Participants were



asked to put their number on the paper and whether or not they had breakfast. All forms were collected and analyzed based on whether or not the participants ate breakfast.

### *Instruments*

Participants were given surveys. Paper and pencils were necessary for participants to answer the five questions at the end of each day's lesson. A final test was also completed in order to examine the retention of information by each participant. A copy of the breakfast menu was obtained through the cafeteria staff. A computer with Microsoft programs was essential to analyze and report data. Graphs and charts were made using these programs to display findings from the study. Instruments are contained in Appendices A through E.

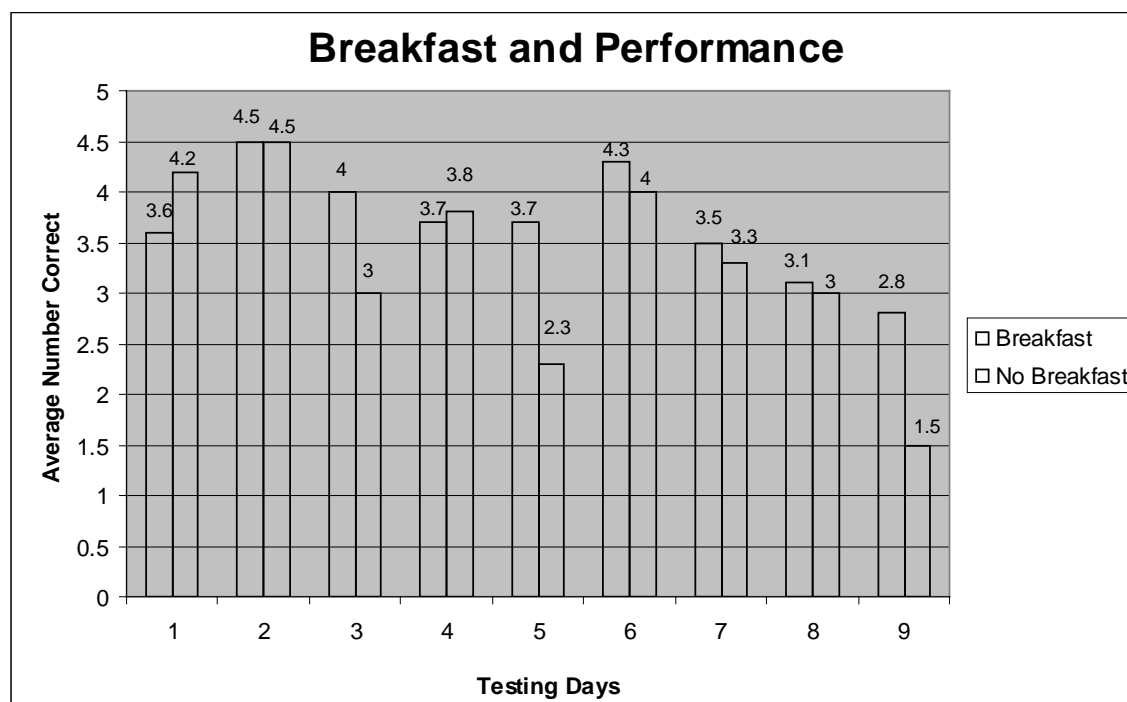
### *Results*

The 15 participants were required to fill out a survey at the beginning of the study. The parents/guardians also filled out a similar survey. These surveys allowed the researcher to examine the breakfast habits of each participant such as how many times they eat breakfast, what they eat for breakfast, who serves them breakfast, and where they eat breakfast. The responses for each question varied. The actual numbers of days that the participants ate during the study matched the number of days on the surveys. One participant ate breakfast only once during the 2 weeks of the study. Seven participants ate breakfast everyday during the study. Three participants ate breakfast eight times while single participants ate breakfast two, three, six, and nine times during the study. The range of days that breakfast was eaten was between 1 and 10. The median was 9 days, the mode was 10 days, and the mean was 7.6 days.

The participants told of where they ate breakfast. Five of the participants ate breakfast at the cafeteria in the school while the remaining 10 participants ate breakfast at home. The breakfast menu was obtained from the cafeteria. The cafeteria provided several options to

students for breakfast each morning. Participants consumed waffles, biscuits, oatmeal, fruit, toast, eggs, cereal, breakfast pizza, pancakes, cereal bars, and juice. They obtained their food from preparing it themselves, or it being prepared by their parents or guardians, or the cafeteria staff.

Participants were asked five questions each day after a 1-hour long lesson that covered a topic in science. The questions were derived from the topic covered that day. The averages for the number of questions correct were calculated and separated into two categories. These categories were participants that ate breakfast and participants who did not eat breakfast. The averages for the two are compared in Figure 1. This figure shows that there is not a drastic difference in the average number of correct answers between those participants who ate breakfast and those who did not.

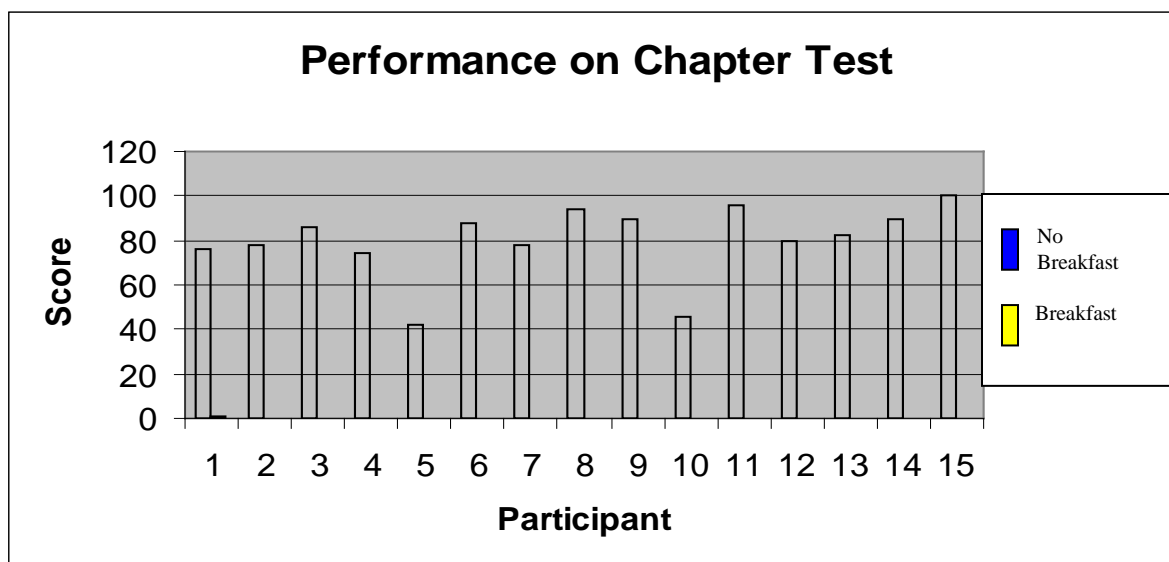


*Figure 1.* The average number of questions with correct answers by participants who did or did not eat breakfast is shown in the figure. The figure shows 9 days of testing with 15 participants.

During day one, six participants did not eat breakfast. The average showed that the participants who did not eat breakfast had a higher average of the number of questions correct, 4.2 questions, than the participants who ate breakfast, 3.6 questions. Day two had four participants who did not eat breakfast. The average, which was 4.5 questions, was the same for both categories. The third day of testing showed a higher average for those participants who ate breakfast. There was a whole question difference with the breakfast consumers receiving a 4 and the nonbreakfast consumers receiving a 3. On the fourth day, those who did not consume breakfast had a slightly higher average of 3.8, compared to 3.7. This was the last day that the participants who did not eat breakfast had a higher average. The most drastic differences between averages were during testing days five and nine. The breakfast consumers scored an average of 1.4 and 1.3 questions higher, respectively. During days six, seven, and eight, the gap between the average numbers of questions correct decreased with differences of 0.3, 0.2, and 0.1, respectively. Those who ate breakfast had the higher average number of correct answers during these days.

A test was run to see how strong of a correlation there was between the consumption of breakfast and the performance on these tests. There was a correlation of 0.049577. This meant that there was a weak correlation between the scores on the tests and the consumption of breakfast.

On the final day of testing, the 15 participants completed a 50-question test. This test included several different testing methods such as matching, multiple choice, listing, and short answer questions. Each participant wrote at the top if they had eaten breakfast or not. The scores were recorded and analyzed, as shown in Figure 2.



*Figure 2.* The chapter test score for each participant is listed. The bars show which participants ate breakfast and which did not before they took the exam.

Only 4 out of 15 participants did not eat breakfast on this day. Out of the two lowest grades, which were 42 and 46, the lowest grade was made by a participant who did eat breakfast. The participant who scored a 46 did not consume breakfast that morning. The two highest grades, 96 and 100, were made by participants who did eat breakfast. The two next highest grades were 90 and 94 which were made by non-breakfast consuming participants. The mean for those who ate breakfast was 80.7 while the mean for those who did not eat breakfast was 78. There was a 2.7-point difference favor of for those who ate breakfast.

A test was also run using the scores from this test to see if there was a correlation between the consumption of breakfast and higher scores. The correlation was 0.075615, which, again, showed that there was not a strong correlation between the two.

The behavior logs were analyzed to see if eating breakfast would improve behavior in the classroom. The log included the headings of head down, talking, out of seat, distracted, unorganized, not following directions, and looking around. Most of the negative behavior for participants occurred from the participants who ate breakfast. On day one, there were six

participants with negative behavior. Three were breakfast consumers. Most had their heads down or were distracted. Only one was looking around the classroom. The second day had six breakfast consumers behaving negatively, with only four nonbreakfast eaters exhibiting the same behaviors. The most common behaviors were heads down, distracted, and looking around. Five breakfast consumers were distracted, put their heads down, and did not follow directions on the third day. Only three participants who did not eat that morning had the same behavior. The fourth day showed much the same, with five breakfast consumers and four nonbreakfast participants putting their heads down, talking, being distracted, not following directions, and looking around. The following three days' negative behavior was only exhibited by participants who ate breakfast. Seven breakfast consumers had negative behavior on the eighth day, with only two nonbreakfast participants talking, getting out of their seats, being distracted, not following directions, or looking around. The ninth day had only one participant that was out of their seat. This participant had eaten breakfast that morning. On the final day, there were five participants who ate breakfast who were talking, out of their seat, distracted, unorganized, and not following directions. Only one participant who did not eat breakfast was talking and distracted. That one participant was the only nonbreakfast participant that continually showed negative behavior throughout 7 of the 10 days. After examining the behavior logs, it is clear that consuming breakfast does not increase positive behaviors within a classroom since most negative behaviors were exhibited by those participants who had eaten breakfast on the mornings of the study.

## Conclusions and Recommendations

### *Conclusions*

After all of the notes and test scores from the research period were compiled, it has been deduced that breakfast did not have an overall impact on performance in the classroom.

Furthermore, the consumption of breakfast did not influence the behavior of the participants. The correlations between breakfast and performance on both the 9 days of questioning and the one final exam were weak, showing that eating breakfast did not significantly increase performance or retention of information.

The behavior in the classroom that was logged was also not improved when participants ate breakfast. On the contrary, most negative behaviors were exhibited by those who did eat breakfast. Only a few participants who did not consume breakfast on the mornings of the study showed some negative behaviors.

There were some negative effects that were caused by not eating breakfast. Participants were asked how they felt when they had not eaten breakfast in the mornings. The participants volunteered that they felt hungry in the mornings if they did not eat breakfast. Their stomachs would hurt and they would feel drowsy, tired, lazy, and sick. When they had breakfast, they would feel refueled, not hungry, and awake. This shows that breakfast does help individuals to not be distracted by their feelings of hunger.

Although there were no strong correlations between breakfast and performance with these participants, there are still benefits from the consumption of breakfast that are both physical and cognitive. The consensus on the problem studied is that breakfast consumption does benefit the consumer in several ways that do not just include performance on tests.

### *Recommendations*

The methods of this study can be used for teacher professional development. The length of the study, the sample size, and the types of instruments used may be altered so that the study may be more in depth. Lengthier studies and larger sample sizes may result in a higher correlation between breakfast and performance in the classroom. There were several data collection methods

utilized, but more may be added to the study, as needed. Schools that are interested in providing their students with the School Breakfast Program may receive up to \$15,000 in grant money if the schools have 20 percent students who eligible for free/reduced price meals. Technology could provide an accurate and simple data analysis tool. Databases could be used, also, to store research data and organize it into a usable format.

While a strong link between breakfast and performance was not fully demonstrated, further study could be warranted in the area. Many other positive impacts were observed, based on physical wellbeing measures. Perhaps the study should be expanded to view all aspects of positive measures to the individual. The true merits of eating breakfast could be fully realized with further study.

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## Appendix A

### Student Questionnaire

Directions: Answer the following questions honestly and to the best of your ability.

All answers are confidential and will only be seen by the researcher.

1. How many days a week do you eat breakfast?
2. What kinds of food do you eat when you have breakfast?
3. Where do you usually eat breakfast? (ex. at home, in a car, at school)
4. Who usually serves you breakfast?
5. What food items would you like to eat for breakfast?
6. How do you feel after you eat breakfast?
7. How do you feel when you do not eat breakfast?

Appendix B  
Parent Questionnaire

Directions: Please answer the following questions honestly and return the survey to the school.

All answers are confidential and will only be seen by the researcher.

1. How many days a week does your child eat breakfast?
  
  
  
  
  
  
  
  
  
  
2. What food items does your child usually eat for breakfast?
  
  
  
  
  
  
  
  
  
  
3. Where does your child usually eat breakfast? (ex. at home, in a car, at school)
  
  
  
  
  
  
  
  
  
  
4. Who usually serves your child breakfast?
  
  
  
  
  
  
  
  
  
  
5. What food items would your child prefer to eat for breakfast?

## Appendix C

### Assessment Questions

Day 1:

1. What phase of the moon looks like there is no moon at all?
2. What does Earth rotate on?
3. How many days does it take for Earth to revolve around the sun?
4. What is the path called on which Earth revolves?
5. How many days does it take the moon to complete its orbit around Earth?

Day 2:

1. Which eclipse has the moon pass between the sun and Earth?
2. List one feature of the moon.
3. Does Earth or the moon have craters?
4. Which eclipse has Earth pass between the sun and the moon?
5. What are huge chunks of rock that look like potatoes called?

Day 3:

1. How many time zones are there worldwide?
2. Would it be later in the day in Florida or California?
3. The day with the greatest amount of daylight is called what?
4. The day with the same amount of daylight and darkness is called what?
5. What are meteors called that fall through Earth's atmosphere?

Day 4:

1. What is the day with the least amount of daylight called?
2. What are balls of ice and rock that circle the sun called?

3. How many time zones does the US have?
4. Which planet is known as the red planet?
5. Which planet is known for having rings?

Day 5:

1. What was the American space program that landed the first human on the moon?
2. Voyager 1 and Voyager 2 were two what?
3. Sputnik I was an artificial object that is called a what?
4. Galileo and Sir Isaac Newton used what to observe distant objects?
5. Which country was the first to land a person on the moon?

Day 6:

1. Which planet is known for its rings?
2. What is the big red spot seen on Jupiter?
3. List one characteristic that Earth has that the moon does not.
4. What does NASA stand for?
5. What are the four inner planets?

Day 7:

1. Several countries are working together to form what in outer space?
2. What were the first rockets made out of?
3. What country was the first to launch a satellite?
4. What were rockets first used as?
5. How can footprints remain on the moon for millions of years?

Day 8:

1. What is our “local star?”

2. What two gases make up the sun?
3. What uses the sun's energy to make its own food?
4. What is the process of hydrogen colliding together to form helium called?
5. How does the energy of the sun travel?

Day 9:

1. What is the part of the sun that is the densest?
2. What does photosphere stand for?
3. What is the atmosphere of the sun called?
4. Does the sun have distinct layers of gas?
5. Why do scientists study the sun instead of other stars?

## Appendix D

Test

Name \_\_\_\_\_

**Match the word with the definition.**

- |   |                |
|---|----------------|
| _____ 1. The spinning of Earth on its axis  | a. orbit       |
| _____ 2. Balls of ice and rock that circle the sun  | b. revolve     |
| _____ 3. Large, round bodies that revolve around a star   | c. axis        |
| _____ 4. An imaginary line that passes through Earth's center and its North and South Poles         | d. rotate      |
| _____ 5. Chunks of rock that look like giant potatoes in space                                      | e. eclipse     |
| _____ 6. The path one body in space takes as it revolves around another body                        | f. asteroids   |
| _____ 7. Point in Earth's orbit at which the hours of daylight and darkness are equal               | g. satellite   |
| _____ 8. Point in Earth's orbit at which the hours of daylight are at their greatest or fewest      | h. telescope   |
| _____ 9. The passing of one object through the shadow of another                                    | i. solstice    |
| _____ 10. To travel in a closed path around an object such as Earth does as it moves around the sun | j. planets     |
| _____ 11. A natural body or an artificial object that orbits another object                         | k. equinox     |
| _____ 12. A robot vehicle used to explore deep space  | l. space probe |
| _____ 13. An instrument that magnifies distant objects or makes them larger                         | m. comets      |

**Write the letter of the answer in the blank on the left.**

- \_\_\_\_\_ 1. Earth's orbit is an \_\_\_\_\_ shape, which is not quite circular.
- square
  - ellipse
  - cylindrical
  - cone
- \_\_\_\_\_ 2. Earth's \_\_\_\_\_ results in day and night.
- rotation
  - orbit
  - shape
  - axis

- \_\_\_\_ 3. When a location is facing towards the sun, it is \_\_\_\_ in that location.
- a. day
  - b. night
  - c. dark
  - d. summer
- \_\_\_\_ 4. The \_\_\_\_ revolves around Earth.
- a. sun
  - b. planets
  - c. moon
  - d. universe
- \_\_\_\_ 5. The moon takes \_\_\_\_ Earth days to complete one rotation.
- a. 365
  - b. 24
  - c. 31
  - d. 27.3
- \_\_\_\_ 6. The \_\_\_\_ side of the moon faces Earth.
- a. flat
  - b. same
  - c. phased
  - d. different
- \_\_\_\_ 7. The moon can be seen from Earth at night because it \_\_\_\_ sunlight.
- a. reflects
  - b. generates
  - c. makes
  - d. absorbs
- \_\_\_\_ 8. The moon appears to have different phases due to its \_\_\_\_ in the sky at night.
- a. shape
  - b. motion
  - c. reflection
  - d. position
- \_\_\_\_ 9. During a \_\_\_\_, Earth passes between the sun and the moon.
- a. solar eclipse
  - b. solstice
  - c. equinox
  - d. lunar eclipse



- \_\_\_\_ 10. There are a total of \_\_\_\_ eclipses in a single year.
- 24
  - 12
  - 7
  - 5
- \_\_\_\_ 11. The moons surface contains \_\_\_\_.
- craters
  - maria
  - highlands
  - all of the above are correct
- \_\_\_\_ 12. Earth goes through a cycle of daylight and darkness in \_\_\_\_.
- 24 hours
  - 27 hours
  - 24 days
  - 365 days
- \_\_\_\_ 13. There are \_\_\_\_ standard time zones worldwide.
- 12
  - 24
  - 7
  - 5
- \_\_\_\_ 14. Would it be later in the day in Atlanta, Georgia or Houston, Texas?
- Houston, Texas
  - both have the same time
  - Atlanta, Georgia
  - both are in the Eastern time zone
- \_\_\_\_ 15. Earth completes its orbit in \_\_\_\_.
- 24 days
  - $365 \frac{1}{4}$  days
  - 27.3 days
  - 31 days
- \_\_\_\_ 16. An equinox occurs every \_\_\_\_.
- summer and winter
  - winter and spring
  - summer and spring
  - autumn and spring

- \_\_\_\_ 17. The inner planets are\_\_\_\_.
- Mercury, Venus, Earth, Mars
  - Jupiter, Saturn, Uranus, Neptune
  - Venus, Earth, Mars, Jupiter
  - Mercury, Earth, Jupiter, Saturn
- \_\_\_\_ 18. \_\_\_\_ used telescopes to observe the sky.
- Galileo
  - Sir Isaac Newton
  - Sir Charles II
  - both a and b are correct
- \_\_\_\_ 19. The \_\_\_\_ was the first country to launch the satellite Sputnik I into space.
- United States
  - China
  - Soviet Union
  - Japan
- \_\_\_\_ 20. The best-known American space program that landed 12 humans on the moon was Project\_\_\_\_\_.
- Columbia
  - Alpha
  - Voyager
  - Apollo

**Put the phases of the moon in order.**

- 
- 
- 
- 
- 
- 
- 
- 

**List the features of Earth, the moon, and both.**

### **Earth**

- 
- 
- 

### **Moon**

- 
- 
- 

### **Both**

- 
- 
- 

### **\*\*EXTRA CREDIT\*\***

**What does NASA stand for? Try to spell it as close as you can. Sound it out!!**

## Appendix E

## Student Behavior Log

<u>Student ID</u>	<u>Head Down</u>	<u>Talking</u>	<u>Out of Seat</u>	<u>Distracted</u>	<u>Unorganized</u>	<u>Not Following Directions</u>	<u>Looking Around</u>
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Teaching Japanese Art through the Country's Traditional and Contemporary Forms and Themes

Melissa Hoesman Johnson

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-149.

### Statement the Problem

Elementary art education curriculums could incorporate more problem solving activities to help students develop higher-order cognitive skills. It is my opinion that art education curriculums do not challenge students enough to achieve these higher-order thinking skill levels, like other standard-based disciplines such as math and reading.

### Introduction to the Problem

Developing analytical skills matures our cognitive capabilities so we can become more rational and objective, as opposed to the emotional and subjective choices that we tend to make. Visual culture surrounds our lives every day and the effects are aesthetically stimulating. People typically gravitate towards the same images and colors that are emotionally appealing, resulting in repetitive patterns of thinking. In the end, this repetitive behavior isolates the viewer from experiencing culture conceptually, and inhibits him or her from discovering the diverse ways that it can and does affect us emotionally. Analyzing contemporary culture through an aesthetic approach is a practice that helps the viewer interpret their social environment and their responses to the objects around them. The viewer can then define their relationship with these objects by interpreting their reaction and developing an individual and collective meaning based on their own personal experience and social interaction (Gude, 2008).

Gude states in her article, *Aesthetics and making meaning*, that, “knowledge from the discipline of aesthetics supports both the interpreter and the maker in making nuanced observations of form, imagery, metaphors, antecedent practices, related concepts, and social and political implications as well as utilizing various strategies to construct and develop artworks” (Gude, 2008, p. 98). Gude believes that contemporary art education should contain these interpretive practices. In addition, students should create works of art that communicate

constructive meanings based on their own personal perspectives of the world and communities in which they live.

The traditional museum setting, as seen by Jack Burnham, is responsible for causing inhibited interpretations and responses from viewers because he believes formal environments create a “false sense of physical and sensual isolation [which have unfortunately become] the prerequisites for aesthetic valuation” (Skewbowski, 2006). In Burnham’s *Open systems: Rethinking art* (1970) he claims, “art does not reside in these [formal] material entities, but in the relationships between people and between those people and the components of their environment.” Investigating and expressing our relationship to contemporary culture is an effective way to develop the critical strategies from “meta-cognition to imagination, and from meticulous observation to the processes of rethinking” (Stout, 1995, p. 173). Understanding and interpreting contemporary art and culture today relies on these types of higher-order thinking skills to help students construct their own personal and collective meanings based on their own aesthetic responses.

### *Values*

My action research project was designed to help students discover the skills that involve looking and interpreting contemporary art and visual culture. Students could learn these skills by describing a relationship between themselves and the contemporary objects being studied. In addition, students could analyze how those objects function within culture and how they, as individuals, respond to them (Berger, 1990, p. 9).

Through group discussions and art production activities, students can engage in art criticism where conversation and questioning is the primary learning tool (Stout, 1995, p. 175). Students learned that conversation does not involve defensive behavior, but interaction that is

“circular in form, cooperative in manner, with a constructivist intent [...] to exchange ideas, listen, and learn from each other” (Martin, 1985, p.10). The students will realize the importance of learning higher-order thinking skills and how open discussions assist criticism by helping develop “cognitive traits and strategies,” which will “enable [students] to make sense of and judge the value of art [and culture] for themselves” (Stout, 1995, p. 172).

Teaching students about contemporary visual culture is naturally suited to a qualitative approach in the classroom because conversation has the potential to produce cognitive and imaginative responses. These responses can reflect the presence of raised higher-order thinking skill levels (Stout, 1995). As an organic and flexible model, group criticism and critical thinking exercises become a dynamic processes whereby students can mold and shape meaning through observation, and listening to and collaboratively exchanging in peer conversations (Stout, 1995). As students continue to engage in open group discussions, research has shown that they acquire more interest in their own process of thinking creatively, they use more rational and multiple perspectives, and then refrain less and less from making impulsive aesthetic judgments not supported by careful evaluations (Stout, 1995).

A “hands-on” approach using contemporary objects as tactile instruments would assist students studying contemporary issues about visual culture. Many art education curriculums use art reproductions and two-dimensional images as learning tools, which are necessary and unavoidable practices. On the other hand, research has shown that these reproductions lower our expectations by neutralizing the ability to experience objects three-dimensionally, obscuring details and surfaces for us to see, which makes it difficult to investigate the endless possibilities of meanings (Berger, 1990). Teaching with contemporary objects as instruments is one of the primary instructional tools in my research and personal philosophy for teaching art. I have read

that repetitive lower-order thinking patterns within art education curriculums is a concern, as some programs never engage students beyond the traditional identification of materials and technical processes, artists, dates, and simplistic historical details (Kleinbauer, 1987).

I designed my action research project to include:

1. Instruction using contemporary objects as instruments for analysis and inspiration.
2. Allowing verbal interactions during art making and guiding open group discussions for the purpose of developing student vocabulary and meta-cognitive thinking skills.

I want students to learn more about the dialogue of contemporary art criticism by incorporating postmodern theory and vocabulary into classroom discussions. Overused descriptive terms that define beauty, truth, intelligence, status, and taste (Berger, 1990) should be substituted for a more contemporary dialogue. When discussing visual culture today I would use more terms like “bold graphic lines,” “contrasting colors,” “stylized forms,” and “rhythmic patterning.”

A contemporary dialogue, as described by Roland Barthes in his article, *From work to text* (1971/1984), involves dissecting or extracting meaning through an open and de-centered process which “makes and re-makes new and inventive meanings (Barthes, p 171). Allowing the student’s “risky” ideas to fuel open discussions, and combining them with direct guidance from the art educator, is precisely the process Barthes describes. This process encourages open classroom discussions and creative thinking, striving towards the discovery of making and re-making new meanings from objects and text.

This unit will achieve the following Tennessee Standards and Performance Indicators for the first grade: 1.0 (1.1, 1.2, 1.3), 2.1 (2.1, 2.2, 2.3), 3.0 (3.1, 3.2, 3.3), 4.0 (4.1, 4.2), 5.0 (5.1, 5.2, 5.3), 6.0 (6.1).



This unit will achieve the following Tennessee Standards and Performance Indicators for the second grade: 1.0 (1.1, 1.2, 1.3), 2.1 (2.1, 2.2, 2.3), 3.0 (3.1, 3.2), 4.0 (4.1, 4.2, 4.3), 5.0 (5.1, 5.2), 6.0 (6.1).

- 1.2 Demonstrate an understanding of how to use selected tools and materials to create a work of art.
- 1.3 Explore a variety of techniques and processes to produce original works of art that reflect personal experiences, imagination, and observation.

### Review of Literature

“Looking is easy, but seeing is not” is a quote by artist and art educator Jefford

Horrigan (2004). Fuirer (2005, Tate Papers) explains:

Learning to look with a purpose and with understanding is a skill and can therefore be taught, practiced, revised, reviewed, and developed over time. Looking is an active process that intersects with talking, questioning, listening, and reflecting as an interconnected mode of response to the object in question.

Charman and Ross wrote a paper, *Ways of looking*, that documented the experiences at the Tate’s Teacher Summer Institute. The primary methodology used in the summer institute incorporated learning through an active questioning process, which analyzed an objects’ depth and scope, and discussed plural meanings. Questioning became an active process that engaged and provoked responses from students. Teachers and students experienced listening to different views, which expanded each person’s relativity and base knowledge, allowing them to draw more conclusions from the group’s multiple interpretations. For Charman and Ross, “Generating plural meanings from artworks is a challenging concept that ‘does away with’ the idea of a single truth and thereby creates a richness of experience. The discovery of the true meaning of a text or

work of art is never finished: it is in fact an infinite process” (Charman & Ross, 2004, Tate Papers).

Many artists and art educators believe there is an intimate relationship between children making art and conceptualizing art. Beginning from the ages of 8 to 9 years old, children inherently have expanded belief systems and knowledge of themselves and the world around them, and can use those values in cognitive ways while viewing or making art. In contrast, many art education curriculums teach students to understand the formalities of good design, but rarely are students challenged to learn the analytical skills that would help them arrive at interpretive meaning, the meaning of contemporary art and culture based on the student’s actual experiences and relationship to their contemporary world (Charman & Ross, 2004).

A guided dialogue by the artist educator would move the student learners gradually from images, words, gestures, objects, and materials to newly-discovered meanings within their own consciousness. Berger writes, “The relationship between what we know and how we see is never settled” (Berger, 1990, p. 8). There are gaps between what we see and the words we use to verbalize those thoughts. Conceptually, we need to be reminded that contemporary art and culture is more than fact or description, but the manifestation of society and/or an artist’s creative consciousness that we, as viewers, process in a social and personal context (Berger, 1990).

Mind mapping and brainstorming of ideas, in the beginning, by an artist educator would help students graduate to more open and analytical group discussions. As Dewey wrote, “Works of art, like words, are literally pregnant with meaning.” Dewey defines “meanings” as originating from past experiences, which guide our levels of creativity (Dewey, 1934, p.118).

In Stout’s article, *Critical conversations about art: A description of higher-order thinking generated through the study of art criticism*, she lists the traits of a critical thinker that can be

developed through open group discussions (Stout, 1995). While some of these concepts are too advanced for the student 8 to 9 years of age, I believe most of these traits could be modified and applied to most students in open group discussions. The author, Raul, published these traits in his book *Critical thinking: How to prepare students for a rapidly changing world* (1993).

Historically, the application of these traits were practiced within an art education program by Josef Albers, the former Bauhaus master, who taught his students to engage in good design, but insisted, “what counts is not the so-called knowledge of so-called facts, but vision and seeing” (Saletnik, 2007, Tate Papers). In 1933, Albers came to the United States and began teaching Bauhaus theories of a process-oriented and material-based mode of instruction. Albers taught his students to experience “visual empathy” within their environment and to discover their creative potential through diverse materials. These materials physically represented the artist’s direct interaction with life and the ability to learn about art making through cognitive applications (Saletnik, 2007).

American art education was strongly influenced by European Modernism, early in the 20th Century, and American Abstract Expressionism, during World War II. European Modernism guided the formalities of good design through schools like the German Bauhaus, while the Abstract Expressionist Movement reinforced the spontaneous and energetic impulse of American culture with a more improvisational line and composition. Children can effectively learn the making of art through these two influences, and I believe that both of these influences have strongly influenced American art education curriculums. Yet, it is my opinion that children lack the interpretive skills necessary to place themselves experientially within today’s contemporary art world. Bauhaus instruction promoted problem solving through design activities and

approached art making through diverse modes of flexible thinking. Thinking included the artist experiencing and manifesting themselves through the materials used (Krauss, 1979, p. 28).

My action research project pushes art education curriculum past teaching children the basic fundamental skills of traditional art making. My philosophy of art education guides children towards thinking about how art exists in every discipline, how it functions in society, how the media capitalism and politics, and for students to discover and invent new forms of artistic expression through their own ideas and experiences. Paul, (1993, p. 173) lists the strategies for a critical thinker.

### *Focus of my Research*

In 2000, the Tate Museum of Modern Art in London began conducting art educational research through the Tate Modern School Program. In the summer of 2002, Tate hosted its first summer institute for teachers who wanted to add interpretive skills to their classroom curriculums. The summer institute focused on informing teachers how to broaden their students' understanding of contemporary art and culture by acquiring these interpretive skills. Learning these interpretive skills was achieved at Tate by openly discussing ideas and probing questions, through student and teacher activities (Charman & Ross, 2004). Teachers left the summer session able to impart to their students the following skills (Fuirer, 2005).

### *Looking is a Skill*

Looking and perceiving is a cognitive function of the mind that is equivalent to art making and other creative experiences. Students find, through classroom discussions, that the act of looking and perceiving results in individualistic interpretations and broad definitions. While

listening to each other's ideas, students discover that meanings are constantly expanding and that the possibilities for investigations multiply during open problem solving activities.

### *Learning is a Social and Dialogical Process*

Students engage in dialogue with each other and their art educator through the process of comparing and breaking down common ideas and interpretations. Through dialogue, students experience other perspectives, how multifaceted a piece of artwork can be, and how layers of meaning can exist without a single truth. This process helps develop a student's interpretive skills by promoting more mature and complex modes of thinking. Group dialogue encourages a student's self-confidence through self-expression by developing a more advanced range of vocabulary.

### *The Value of Experimentation*

Developing interpretive skills teaches students that defining and analyzing involve taking imaginative leaps, making bold guesses, and carefully observing. Fluid thought provokes ideas that can come from hidden places, which can reveal unknown aspects of our individual thinking. Experimentation sharpens perception and intuition. Students are invited to take risks and think verbally, reflecting on past experiences for their interpretive ideas. Experimentation is an important part of the learning experience and helps define meaning and interpretation.

### *Interpretation as a Creative Act*

Problem solving is a creative act and thinking creatively challenges students to exert themselves mentally and reach for new ideas, to search for a different hypothesis, to apply imagination, and look for innovative solutions. Interpretation is a creative act all by itself, and, like art making, it can help the student discover a deeper sense of self.

### *Engaged Responses*

When a student becomes actively engaged in developing interpretive skills, he or she becomes a self-motivated learner. Students can participate in activities from mind mapping to copying works of art and objects within our culture. Mind mapping can document a student's immediate ideas about a particular piece of art or object, and reveal personal meaning. Mind mapping and copying provides an interaction between word and image and exposes visually how we think and see ourselves within our world.

### *Student Engagement with the Artist Educator*

The artist educator facilitates the interpreting process by guiding dialogue through an open group discussion. This interactive discussion is similar to the thought process an artist uses while making a work of art. An artist might begin with a simple idea, but through problem solving, the idea grows during art, making into a concrete manifestation of thought and feeling. Through this dialogue, students learn art making by experiencing the mutable process.

Art educators should carefully guide dialogue by promoting the questions that teach students how to develop interpretive skills. Guidance, with less direction, helps students achieve a better sense of self-confidence and ownership in their learning process. The goal is for the students to graduate to the same level as the artist educator by the end of the interpretive process. Students have an opportunity to engage in dialogue with a specialist who can demonstrate how a higher level of creativity operates. Therefore, students can gain a better understanding of an artist's intention, personal information about an artist, how the artist directly relates their works of art to culture, and any art historical influences.

### Data Collection and Results

### *Proposed Methodology*

My research project investigated the elementary art student's comprehension of contemporary art and culture through an experiential approach. The success of my research project relied on evidence that children would learn to look and interpret contemporary art objects, and analyze cultural issues in intelligent ways, using their own personal experiences. I wanted for my research to conclude with the students seeing themselves as functioning artists and art critics within the larger cultural context of the contemporary art world.

The fundamental research questions for elementary art students in first through fourth grade are:

1. Can these students begin to define and analyze contemporary art and culture through creative educational activities?
2. Can these students project their ideas and experiences within a finished art production activity and verbally express their ideas and experiences metacognitively?

This experiential approach develops a student's thinking skills through the constructivist practices found in Bloom's Taxonomy. Social interaction and language development occur from group problem-solving activities. An activity might emphasize how a contemporary object is or is not aesthetically pleasing; involve modeling by the art educator as to how the object functions within culture; and allow students the opportunity to place contemporary objects in a cultural context to increase their base knowledge about art and culture, and to experience how both relate to their individual lives. My research process gives students the opportunities to verbalize their own personal experiences, and learn the creative motivations that a professional artist would also experience during art making.

### *Setting*

My action research project took place at a museum magnet elementary school while I was student teaching. The school has maintained a strong academic presence in the North Chattanooga community by offering 374 students a quality, standards-based public education with a “hands-on” focus. Students are placed in classrooms ranging in size from 16 to 23 students, and are taught by a strong staff, which, as a team, have lead the school to receive national awards for one of the country’s top, academically-performing magnet schools.

### *The Classroom*

My student teaching placement as an art educator gave me the opportunity to conduct my research over a 2-week period with students enrolled in the Art Enrichment Program. I conducted my research in the art classroom, which is quite large, measuring approximately 22 feet by 36 feet, with extensive storage installed around the perimeter of the room. There are large windows facing south, supplying plenty of necessary natural light, six large working tables and sturdy stools for student art production, and a utility sink, conveniently installed for clean-up.

### *Intervention*

My research investigated the creative cognitive levels of students ages 7 to 11, and how well they could describe, analyze, compare, and interpret contemporary visual culture in the United States and Japan. I designed two separate lesson plans, one for the first- and second-grade students, and another for the third- and fourth-grade students. Each academic year, the second grade curriculum begins teaching the history and culture of Japan, and the timing of this unit strongly influenced the inspiration for my research. I took into account that many of the third and fourth graders, who attended the school previously, had already been taught the curriculum on Japan, but the first graders had not yet been introduced to this information. Therefore, I taught



the first graders as though they had not acquired a base knowledge of Japan, and I modified their lesson. For these first grade students, I abbreviated a majority of the information given in the slide presentation, and focused my instruction on the aesthetics of Japanese consumerism and their production activity.

The primary objectives were consistent with all of my students:

1. Students will design an original candy invention inspired by examples of Japanese candy packaging seen during the slide presentation and from the tangible Japanese snacks I purchased and brought to class.
2. Students will use their project sheets to guide the development of their candy inventions. Students will gradually design their original candies by focusing on the six design elements that will be incorporated into their packaging design: flavors, colors, shape and size, name of candy, character used to market their candy, and the expressive words that the students chose to describe the way their candy tastes.
3. Students will have an opportunity to give a presentation and explain the entire design concept for their original candy invention to practice and display evidence of metacognitive thinking skills.

My action research project was designed to gradually take students through a six-step process of designing an original candy invention. My goal was to help students discover the skills that assist in cultural criticism, which would require one to look and compare the contemporary visual cultures of the United States and Japan, while interpreting the packaging designs from both countries. I wanted the students to learn these skills while designing and creating a production activity. My research concluded with a collection of data that proved students developed or activated a level of these skills. At the conclusion of the lesson, students

had an opportunity to verbalize the entire concept for their original candy invention. The video taping of student presentations revealed evidence that the students comprehended the entire lesson plan, step-by-step, as well as the entire concept for their inventions. Evidence from video showed students' raised metacognitive skill levels at the completion of the project. Students enthusiastically described their designs, which acknowledged marketing strategies and a relationship between themselves and aspects of their own visual culture. Student responses were aesthetic and enthusiastic to the examples of Japanese candy packaging, compared with more common American products.

### *The Subjects*

The subjects for my action research project were 39 male and female students, ranging in age from 7 to 11 years old, who attended first, second, third, and fourth grades, and were comprised of the following: (a) first grade, 5 girls, 3 boys, 1 African-American/Minority student, 7 white students; (b) second grade, 5 girls, 3 boys, 1 African-American/Minority student, 7 white students; (c) third grade, 10 girls, 7 boys, 1 African-American/Minority student, 16 white students; and (d) fourth grade, 3 girls, 3 boys, 1 African-American/Minority student, 5 white students.

### *Recruitment and Selection Plan*

All of my students were selected by their teachers and enrolled into the Art Enrichment program by their parents. Not all of my students are gifted, but all of them displayed to their teachers a desire to learn more about art. I maintained a consistent teaching method with each grade level of students, and instructed them to self-direct their candy designs by reflecting on actual personal experiences when selecting specific flavors, colors, and other elements of their inventions.

*Data Collection*

Each of the first-, second-, third-, and fourth-grade classes met with me twice, once per week for 1 hour over a consecutive 2-week period. I administered a pre-vocabulary test to each student, and I designed a test for the first and second grades, and a different test for the third and fourth grades. The tests determined how much base knowledge the students had prior to the information I prepared for them in the lessons. The vocabulary tests for the first and second grades covered six fundamental terms, and students were instructed to circle the correct identification for a geometric shape, an organic shape, a diagonal line, balance, a central figure, and an ancient object (see Appendix A). The third and fourth grades covered 10 fundamental terms, and, in addition, they were asked to circle the correct identifications for the following concepts; asymmetrical, Modern Pop Culture, modeled forms, and primary colors (see Appendix B). Each of these terms were described several times in the slide presentation. After I collected the pre-tests, I began the slide presentation and lecture.

The PowerPoint presentation and the script I designed contained 23 slides that lasted approximately 12 minutes for the first graders, 15 minutes for the second graders, and 20 minutes for the third and fourth graders. I began my slide lecture with images of Mount Fuji in Japan and Lookout Mountain in Chattanooga, and I explained how visual culture is influenced by the geographical landscape in which we live. I then began to talk about consumerism, and how companies are inspired by visual culture and how companies will develop and name new products that contain the names of Mount Fuji or Lookout Mountain. I continued talking about the influences on visual culture, showing them a slide of the Spaceship House from Signal Mountain, Tennessee and how the design for the home was inspired by American space

exploration. American space exploration and NASA have inspired countries like Japan to create sci-fi movies about space travel and develop imaginative toys that mimic space discovery.

For the remaining two-thirds of the slide show, I talked to the students about how traditional characters and historical themes still influence Japanese modern popular culture today. I showed them images of ancient Haniwa sculptures and contemporary examples of handmade Haniwa dolls. We talked about the characteristics of 200-year-old Hokusai block prints and how Japan's contemporary artists are still inspired by the shapes, colors, and forms that originated from the country's rich art historical past. I concluded my slide show with 10 images that displayed how Japanese aesthetics, past and present, still influence, heir visual culture including food design, contemporary art, packaging design, and consumer merchandising of toys and household objects.

Japanese snacks and candies are packaged with very colorful and graphic lettering, forms, and bold lines. Japanese designs incorporate adorable faces and expressive characters on packages that evolved from the Haniwa and other theatrical personalities like the Samauri and the Geisha. Actual examples of candies and snacks purchased from a local Asian market were placed on student worktables as inspiration. Like the Japanese examples, students looked to these inspirations to design a candy and packaging that would be aesthetically pleasing to buyers in Chattanooga and around the world.

After thoroughly discussing the visual examples of Asian packaging, I began to instruct the students about beginning their production activities. At this time, I showed the students my original candy invention that is called a "Rasa-Nana." My Rasa-Nana is a bubble gum that contained raspberry and banana flavors, a cute Koala bear as the character on my packaging design, and descriptive words that say, "My gum tastes fruity and delicious!" I selected hot pink

and yellow clay as the colors for my candy sculpture, and hot pink, yellow, and turquoise as the colors for my packaging designs.

Students were each given a project sheet to help them design the concept for their original candy inventions. Each project sheet listed the six elements necessary for the completion of their original candy inventions; included were a flavor combination, colors, shape and size, name of candy, marketing characters, and expressive words describing the way their candy invention tastes. The project sheet functioned as a visual aid to take the students, step-by-step, through the process of gradually designing their original candy concept from start to finish.

Once the students decided on flavors and colors, then they needed to decide on their candy's shape and size. A bubble gum design was the only option for first and second graders, while third and fourth graders could create either ,gum or a sucker design. Essentially, the students were creating a non-edible candy invention out of molding clay that could be mounted on a 6-inch x 8-inch card. The student's miniature candy sculptures varied in size, but averaged about 1-inch square for each gum design and 2 1/2 inches in diameter for each sucker design. Students chose from 12 different clay colors, which could represent a variety of original flavor combinations.

Students completed the execution of their candy sculptures at the end of the first day of their two-day lesson. Many of the students had already named their candy inventions or written a possible logo. I reminded them to think of marketing strategies to make their inventions more appealing to someone who might want to buy their candy. I asked the students to imagine their candy invention hanging in the checkout lane of a grocery store. I collected the project sheets at the end of the first class and redistributed them with the candy sculptures and at the beginning of the second lesson.

The second lesson began with a 3- to 4-minute review of the production activity and fundamental terms. Student project sheets and candy sculptures were set out on tables, along with examples of Japanese products. Students were instructed to find their work and begin. Colorful cards and labels were distributed on tables, and students selected a front card for their packaging design, with a 3-inch, pre-cut hole. Students began making their candy labels, drawing characters for their packaging designs, and deciding on expressive words to describe the flavors of their original candy inventions. Students could initially draw their designs in pencil, but finished designs had to be bold and colorful, made from a variety of markers that were available.

I videotaped the students, one at a time, after they finished their candy projects, while other students worked, watched, and listened. I was hoping for more time at the end of the second lesson for group discussions, but the teachers asked to have the students return back to their classrooms, as scheduled. During the *slice-of-life* videotaping, students had 2 to 3 minutes to describe their candy concept on digital video. Discussions and open communications were a vital tool during the creative process, as student-to-student and student to teacher interactions filled the entire 2-hour, two-lesson event. Worktables were the location for constant comparisons, questions, and expressive *peer debriefing* between students. As soon as the students finished their video interviews, they took the vocabulary post-assessment test before returning to their classrooms.

### *Results*

The first- and second-grade students were given the same vocabulary pre-assessment test to determine if they were familiar with the six terms covered in the production activity. The pre-assessment scores helped me to create a more effective PowerPoint presentation that emphasized the vocabulary terms that the students missed the most. First-grade students' scores ranged from

two to five incorrect answers and second grade students' scores ranged from zero to two incorrect answers (see Appendix C). The terms organic line, balance, and central figure reflected the weakest student comprehension. I reinforced those terms through visual imagery in the presentation and during the production activity instruction. In addition, the terms were repetitively explained as the students worked and focused on their project sheets. Results for the post-assessment tests reflected higher scores in both first and second grades (see Appendix D). The first-grade students' scores improved, ranging from zero to two incorrect answers, and zero to one incorrect answer for the second graders. The students also displayed metacognitive comprehension when explaining these terms during their individual video presentations. This confirmed to me that the students better understood the new materials better after the completion of the lesson.

Third and fourth graders were each given the same vocabulary pre-assessment test to help determine if their base knowledge of the 10 terms and concepts was adequate enough for the production activity. The data collected from the pre-assessment test helped me structure the Power-Point presentation to better define terms like modeling, graphic line, and mass production. Third-grade students' scores ranged from one to five incorrect answers and fourth-grade students' incorrect scores ranged from zero to two incorrect answers (see Appendix C). The slide presentation script emphasized these terms and the definitions were repeated during the production activity. Students' project sheets served as an ongoing formal assessment to check for comprehension. As a result, students scored higher on the post-assessment vocabulary test. Third-grade scores ranged from zero to two incorrect answers and fourth-graders scores ranged from zero to two incorrect scores, as well (see Appendix D). Students verbalized these terms and displayed metacognitive skills during their individual video presentations. Like the first and

second graders, this confirmed to me that students comprehended the vocabulary terms better after the initial pre-assessment test and at the completion of the lesson.

I collected all of the project sheets to determine how well the students used the handout as a visual aid and rubric to assist them in the progress of their candy inventions. The first grade students scored an average of 1.0, on a scale of 1.0 to 3.0, with 1.0 being the highest score (see Appendix E). The second graders also scored an average of 1.0 for their project sheets (see Appendix F). The third graders scored an average of 1.12 (see Appendix G). The fourth-grade students scores averaged to 1.25 (see Appendix H).

For the finished student candy inventions, the first grade students scored 1.375 (see Appendix E). The second graders scored 1.0 on their finished work (see Appendix F). The third graders scored 1.53, which was slightly lower because they were the largest group of students (see Appendix G). The fourth graders scored 1.0 with their finished candy products (see Appendix H).

## Conclusions and Recommendations

### *Conclusions*

Overall, I was pleased with the enthusiasm displayed by all of the students from every grade level. Student interest was strong, in the beginning, during the PowerPoint presentations, and I began my lessons feeling like I “hooked” their attention early. Student responses were equally as high, with regard to the questions I asked them during each presentation, while working on their candy inventions, and presenting their original concepts to classmates during videotaped interviews.



I photographed all of the students' original candy inventions, which documented the entire collection of completed candy design concepts and evidence of the six necessary elements listed on their project sheets. I collected data from the digital video to document the students' verbal explanations of their candy concepts, which reflected the development of metacognitive thinking skills.

I think it was very important that I followed the basic guidelines of the Tate Summer Institute, and applied the same variables and investigative processes to help gauge the development of each student's interpretive skills. I also tried to apply the various concepts which covered the traits and strategies of a critical thinker.

I felt like my research applied all of these skills:

1. Description - familiarizing students with visual culture and thinking about how contemporary objects look and function socially.
2. Analysis - introducing new vocabulary and postmodern terms; relating the terms, to the instrumental examples of contemporary visual culture, applying the terms to the discussion of aesthetics and visual culture.
3. Interpretation - first person, "I," signifying ownership to the student's ideas and incorporating those ideas into an original production activity.
4. Evaluation - the verbal expression of those ideas, which applies ownership to the creative voice; listening and processing multiple perspectives; rethinking and incorporating empathetic thinking to peer insight.

### *Recommendations*

The artist educator should help students examine in detail and organize their thoughts into a resolved concept. In addition, students should use journals, project sheets, and/or rubrics to give

them the opportunity to synthesize sketches of ideas and log descriptive words that assist in concept development. Research shows that, through teacher scaffolding and modeling, students start discerning their impulsive thoughts from critical thinking processes, and begin to “generate [their] own definitions of art and offer evaluations that are significant” (Stout, 1995, p. 184).

I do not think that art educators should look for student responses such as, “I really like this poster and would hang it in my room” (Hurwitz & Day, 2007, p. 215). These types of responses and ideas are reflected in culturally acceptable codes and conventional ideas seen in generalized art curriculums (Charman & Ross, 2004).

Conducting critical learning opportunities for students elicits more personal and experiential responses such as, “This Russian poster by Rodchenko reminds me of one of my own because I used the same kinds of bold shapes,” or “The geometric shapes in my painting reminds me of a modern sculpture by Sol Lewitt that I saw once.” I want to continue challenging students to verbalize their personal expressions and experiences, and their individual thoughts and unique ideas, which reflect risk-taking and a desire to understand new concepts and associations.

I would like to incorporate the procedure of evaluating two contrasting works of art, simultaneously, which is supposed to reduce the need to judge a work of art too quickly. Instead, students focus on comparing and contrasting the various elements, and teachers should guide this process by keeping the cognitive ideas flowing and open to endless possibilities. I would use images in my pre- and post-assessment tests, in the future, to visually stimulate my students’ stored base knowledge.

And finally, defining the worth of an object is not the goal for group discussion, but rather determining the cultural value of the object in question and thinking about its cultural

significance. With time, there should be fewer value judgments and stronger substantial inferences.

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## Appendix A

1<sup>st</sup> grade VocabularyAppendix  
A

geometric shape



organic shape



diagonal line



balance



central figure



a very old object

ancient

contemporary

## Appendix B

Appendix B 3<sup>rd</sup>/4<sup>th</sup> Vocabulary

mass produced      original object

ancient      contemporary

organic      geometric

modeled      stylized

focal point      Central figure

asymmetrical      balance

graphic lines      blurred lines

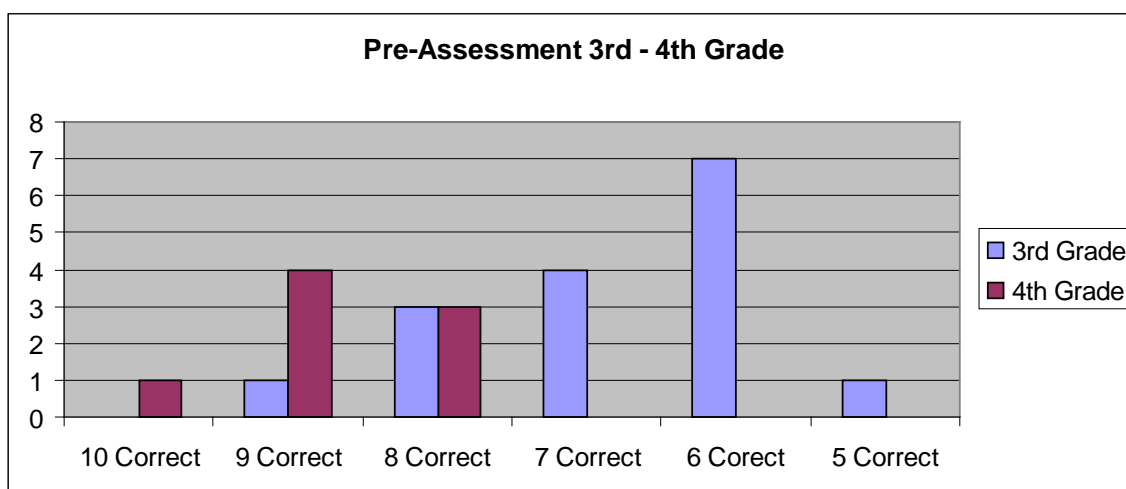
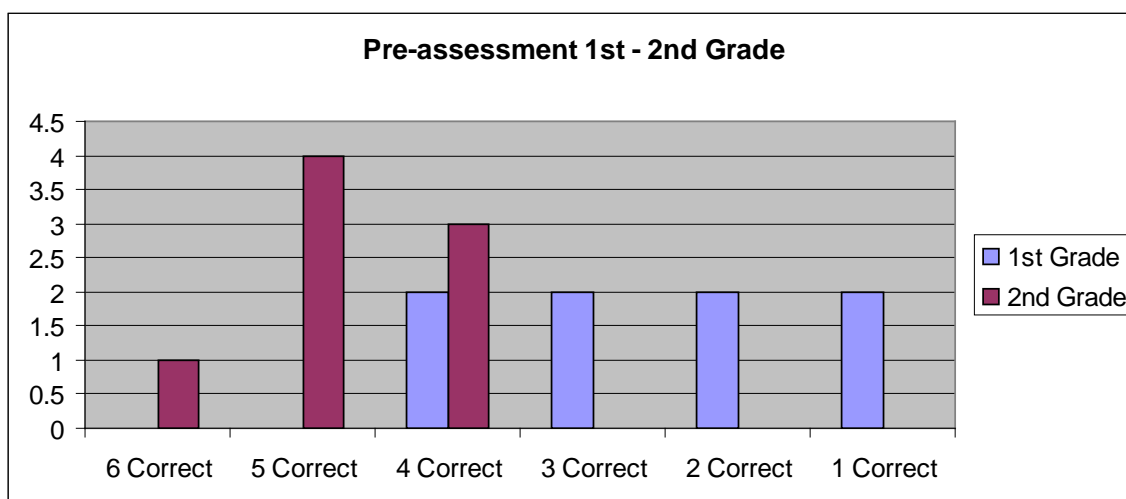
\_\_\_\_ Modern Pop culture / Anime'

\_\_\_\_ composition / primary colors

\_\_\_\_ horizontal / diagonal

## Appendix C

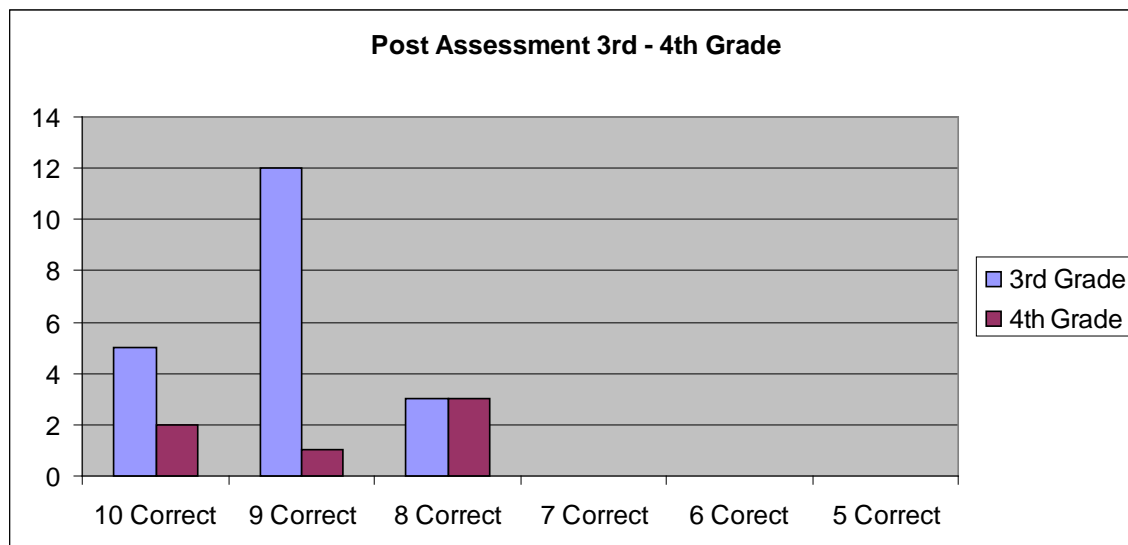
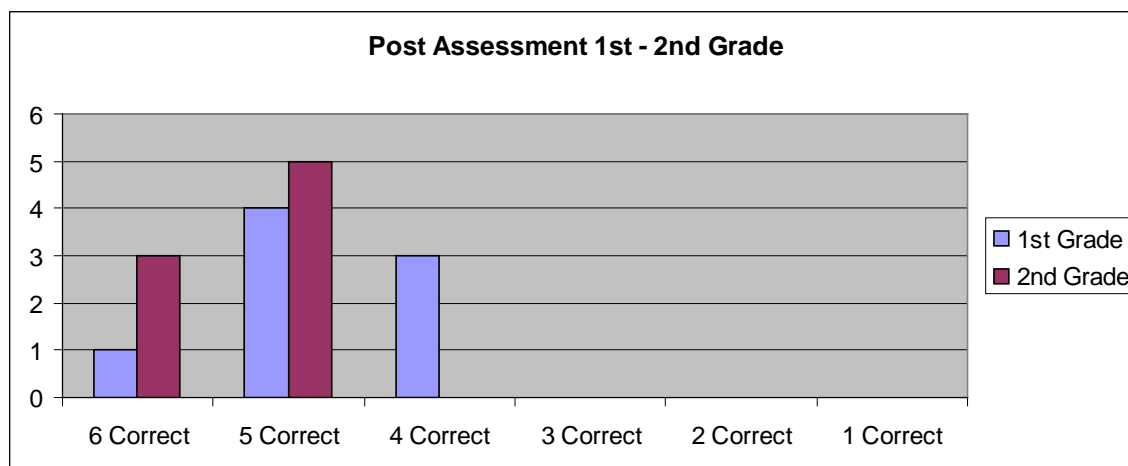
Pre-Assessment score	1st Grade	2nd Grade	Pre-Assessment score	3rd Grade	4th Grade
6 Correct	0	1	10 Correct	0	1
5 Correct	0	4	9 Correct	1	4
4 Correct	2	3	8 Correct	3	3
3 Correct	2	0	7 Correct	4	0
2 Correct	2	0	6 Correct	7	0
1 Correct	2	0	5 Correct	1	0





## Appendix D

Post-Assessment score	1st Grade	2nd Grade	Post-Assessment score	3rd Grade	4th Grade
6 Correct	1	3	10 Correct	5	2
5 Correct	4	5	9 Correct	12	1
4 Correct	3	0	8 Correct	3	3
3 Correct	0	0	7 Correct	0	0
2 Correct	0	0	6 Correct	0	0
1 Correct	0	0	5 Correct	0	0



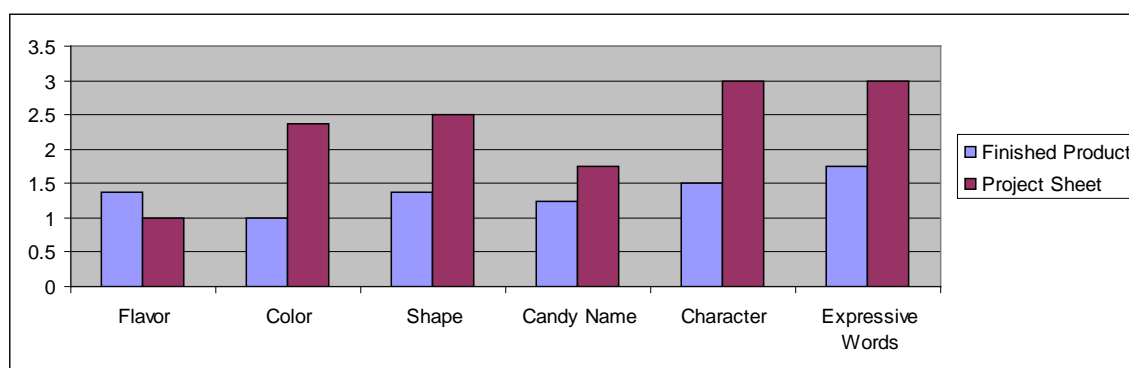
## Appendix E

All values are on a 1 to 3 scale. The number 1 being the best score.

<b>Project Sheet 1st Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>Grade Avg.</b>
<b>Flavor</b>	1	1	1	1	1	1	1	1	1
<b>Color</b>	1	3	2	3	1	3	3	3	2.375
<b>Shape</b>	3	3	1	3	1	3	3	3	2.5
<b>Candy Name</b>	1	1	1	3	1	3	1	3	1.75
<b>Character</b>	3	3	3	3	3	3	3	3	3
<b>Expressive Words</b>	3	3	3	3	3	3	3	3	3

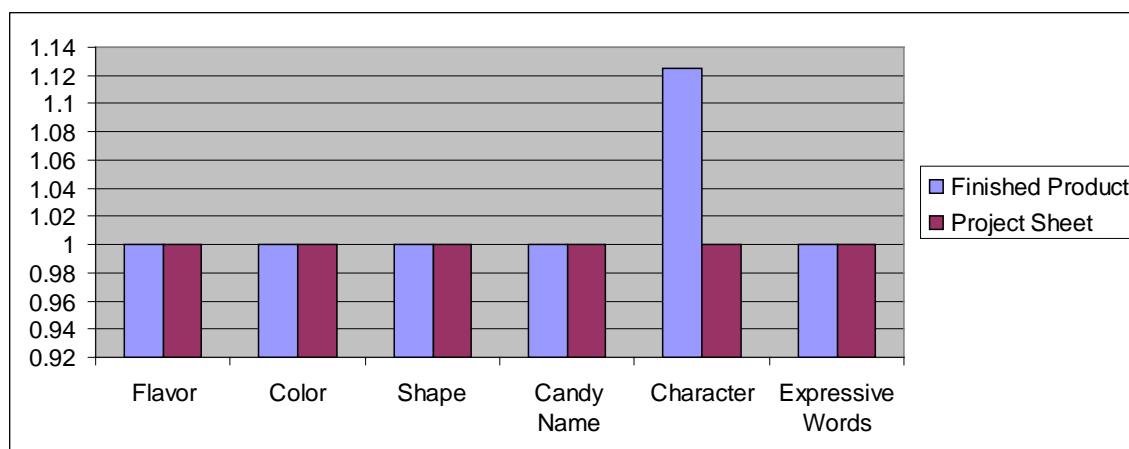
<b>Finished Product 1st Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>Grade Avg.</b>
<b>Flavor</b>	3	1	1	1	1	1	2	1	1.375
<b>Color</b>	1	1	1	1	1	1	1	1	1
<b>Shape</b>	2	3	1	1	1	1	1	1	1.375
<b>Candy Name</b>	3	1	1	1	1	1	1	1	1.25
<b>Character</b>	1	3	1	1	1	1	3	1	1.5
<b>Expressive Words</b>	3	3	1	1	1	1	3	1	1.75



## Appendix F

<b>Project Sheet 2nd Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>Grade Avg.</b>
Flavor	1	1	1	1	1	1	1	1	1
Color	1	1	1	1	1	1	1	1	1
Shape	1	1	1	1	1	1	1	1	1
Candy Name	1	1	1	1	1	1	1	1	1
Character	1	1	1	1	1	1	1	1	1
Expressive Words	1	1	1	1	1	1	1	1	1

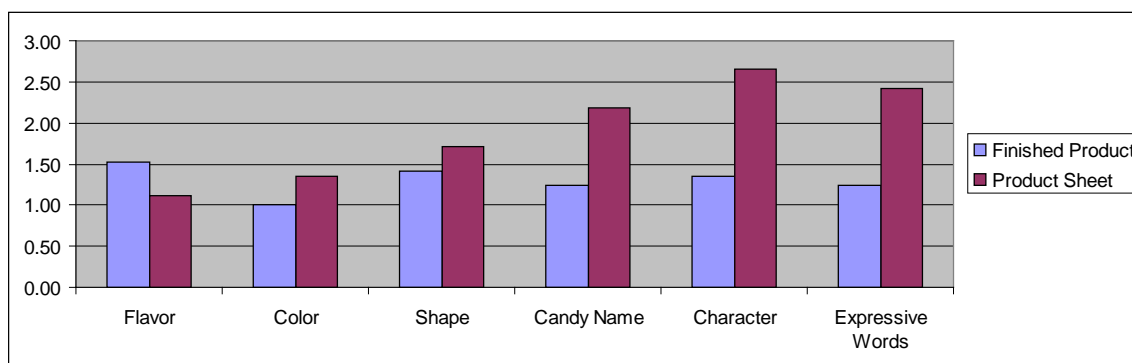
<b>Finished Product 2nd Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>Grade Avg.</b>
Flavor	1	1	1	1	1	1	1	1	1
Color	1	1	1	1	1	1	1	1	1
Shape	1	1	1	1	1	1	1	1	1
Candy Name	1	1	1	1	1	1	1	1	1
Character	1	1	1	1	1	2	1	1	1.125
Expressive Words	1	1	1	1	1	1	1	1	1



## Appendix G

<b>Project Sheet</b>																		<b>Grade</b>
<b>3rd Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>O</b>	<b>P</b>	<b>Q</b>	<b>Avg.</b>
<b>Flavor</b>	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1.12
<b>Color</b>	3	1	3	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1.35
<b>Shape</b>	1	3	3	1	3	1	3	1	1	1	1	1	1	1	1	3	3	1.71
<b>Candy Name</b>	1	3	3	1	1	3	3	1	1	1	1	1	1	3	1	1	1	2.18
<b>Character</b>	3	3	3	3	3	3	3	3	3	3	3	3	1	1	1	3	3	2.65
<b>Expressive Words</b>	3	3	3	3	3	3	3	3	3	3	1	1	1	1	3	3	1	2.41

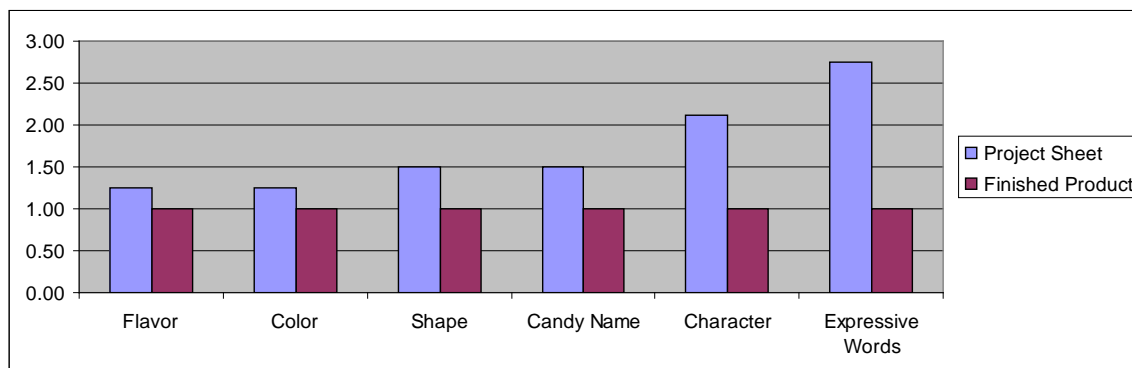
<b>Finished Product 3rd Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>O</b>	<b>P</b>	<b>Q</b>	<b>Grade Avg.</b>
<b>Flavor</b>	1	1	1	1	3	2	2	2	1	1	1	1	3	3	1	1	1	1.53
<b>Color</b>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.00
<b>Shape</b>	1	1	1	3	1	1	1	1	2	3	1	1	1	1	3	1	1	1.41
<b>Candy Name</b>	1	1	1	3	1	1	1	1	1	3	1	1	1	1	1	1	1	1.24
<b>Character</b>	1	1	1	3	1	1	1	3	1	3	1	1	1	1	1	1	1	1.35
<b>Expressive Words</b>	1	1	1	2	1	1	2	2	1	2	1	1	1	1	1	1	1	1.24



## Appendix H

<b>Project Sheet 4th Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>Grade Avg.</b>
<b>Flavor</b>	1	1	1	1	1	1	1	3	1.25
<b>Color</b>	1	1	1	1	1	3	1	1	1.25
<b>Shape</b>	1	1	1	1	1	3	2	2	1.50
<b>Candy Name</b>	1	1	1	1	3	3	1	1	1.50
<b>Character</b>	3	1	3	3	1	3	2	1	2.13
<b>Expressive Words</b>	3	1	3	3	3	3	3	3	2.75

<b>Finished Product 4th Grade</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>Grade Avg.</b>
<b>Flavor</b>	1	1	1	1	1	1	1	1	1.00
<b>Color</b>	1	1	1	1	1	1	1	1	1.00
<b>Shape</b>	1	1	1	1	1	1	1	1	1.00
<b>Candy Name</b>	1	1	1	1	1	1	1	1	1.00
<b>Character</b>	1	1	1	1	1	1	1	1	1.00
<b>Expressive Words</b>	1	1	1	1	1	1	1	1	1.00



Gettin' 'Em 2 Write Rite: Addressing Writing Proficiency

John Millard

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-158.

### Introduction to the Problem

Rays of sunlight raced through broken blinds revealing a dust that filled the air as I walked in the room. Tables, chairs, and desks were caked with grime. File cabinets filled with antiquated documents lined a wall. A broken-down bookshelf strained to remain upright on its three good legs. To the casual observer, I had walked into a disaster. There was too much to clean. There was too much to sort. There was too much to discard. But I was right where I was supposed to be. I had stepped into my classroom. I was beginning my journey as a teacher.

I had little clue what to expect from this new environment. I was unsure how I would receive my students, or how they would receive me. I had no idea what these teenagers' expectations would be from their English teacher. What had they achieved, thus far, in their young academic career, and what did they want to continue to achieve in the coming weeks, days, and months of this new school year? I was in for quite the shock. It was clear on my first day that too many kids had been over looked, passed on, or completely forgotten. So many students had so little ambition and so little confidence. They struggled with their time management. They struggled with their classroom behavior. They struggled with their organization skills. They struggled to read. And they struggled to write.

All these deficiencies concerned me a great deal. But paper after paper convinced me that I had to begin somewhere, and this deficiency in writing was the specific place to start. They needed to learn to write, and write well.

In compliance with the federal initiative, No Child Left Behind, the state of Tennessee charges its public schools to administer end-of-year assessments to students. These assessments are done in a variety of content areas. Eleventh-grade English students must complete a writing test at the end of their English course. This test is scored holistically. Holistic scoring refers to a

completed essay being scored as a whole rather than examined and scored for specific, individual writing traits. The students must score at least a four (4) out of six (6) on this end-of-year writing assessment to receive a passing grade on the test. Any student who does not pass the test receives a failing grade for the English course. Holistic scoring is as follows:

6 - Outstanding	3 - Limited
5 - Strong	2 - Flawed
4 - Competent	1 - Deficient

Additional information regarding the holistic scoring method used in Tennessee can be found at <http://tennessee.gov/education/assessment/tswritingscore.shtml>.

The latest information from the Tennessee education Web site reports that the average writing score for students at the school in which I conducted my study was 3.7 in 2006 and 3.8 in 2007. It is worth emphasizing, again, that a score of a four (4) is considered competent and passing. The problem is that half of students in a focus group are writing below a competent level (4) on the end-of-year writing assessment.

### Review of the Literature

State-mandated accountability tests have placed an even greater emphasis on the writing ability of students (Saddler & Andrade, 2004). This measure to create accountability has left many educators seeking a better method of writing instruction. An immediate challenge can be found with the scoring method of the state. Because the state scores student essays holistically, it only shows the relative strength or weakness of a student essay. It does not inform us about the specific aspect of writing that is weak or strong (Shapiro, 2004). Research reveals this to be a widespread problem. There is a writing crisis in our state and in our county. A wealth of information can be found on the subject and there are varying opinions regarding the steps to



take to address the problem. Several educators and researchers voice their concerns surrounding the problem, as well as solutions. While numerous solutions can be found for this problem area, three actions are consistently offered as significant measures to be considered. My literature review suggests that significant progress can be made with students with the implementation of one of the following approaches:

- Providing sample essays to students.
- Providing a rubric with each essay assignment.
- Utilizing the six traits writing teaching strategy.

Reading strong and weak pieces of writing for assessment practice and revision is a necessary step in writing instruction (Shapiro, 2004). Sample essays go beyond a rubric, showing students a thorough example of what a quality finished product looks like, and, conversely, what a poor essay looks like. Rubrics, however, should not be tossed aside. When thoughtfully and intentionally created, rubrics are a wonderful scaffolding tool. Students will have a clear picture of expectations. Rubrics will force educators to go deeper into a piece of writing and serve as a guide to students for revision (Spandel, 2006). In order to successfully teach students to write well, it is crucial to have an established foundation upon which to build. This foundation will guide a teacher's points of instruction and emphasis. The six traits writing model is an excellent foundation upon which to build a writing curriculum. Doing so will address the challenges that many students face as young writers. This model, according to Culham, represents a language "that empowers students and teachers to communicate about qualities of writing – ideas, organization, voice, word choice, sentence fluency, (and) conventions" (2006, p. 53). Using this model will give me a common language and a well-established ground from which quality rubrics and excellent sample essays can be created for students.

After reviewing the literature determining what variables affect my problem and what other people have done to address this problem, I chose to use a six traits writing scoring rubric, as well as provide some students with sample essays and rubrics. All students in the focus group will be guided through a writing curriculum that stresses these six writing traits. All writing efforts will be graded twice, once holistically, based on the state's method of assessment, and once according to a rubric that emphasizes specific ingredients in the essay. In order to isolate individual variables, the scoring rubric and the sample essays will be given to only half of the focus group. Isolating these two strategies will allow one to see if marrying these two strategies within a new writing curriculum will best suit the context of my classroom.

### *Research Question*

The literature review provided a plethora of material and proposed a number of theories. Several questions were raised as a result of the review, as well – questions that did not readily have answers. But one question was the primary impetus for this study and demands further research. Below is the initiating question for this study:

- What are effective strategies to increase students' writing ability?

### *Purpose*

The purpose of this study is to describe the impact on students' writing abilities when the teacher implements a new writing curriculum that concentrates on the six writing traits and stresses the use of rubrics and sample essays.

## Data Collection and Results

### *Data Collection*

### *Methodology*

My method for obtaining the data is based on the literature review. All students will be given a pre-test writing activity at the beginning of the semester. Because the state-mandated test is graded holistically, this writing pre-test will be graded holistically, as well. However, this writing pre-test will additionally be graded against a scoring rubric emphasizing specific ingredients in the essay. I will grade each essay. An anchor essay will be available for each writing prompt. These anchor essays will be examples of strong efforts for each writing prompt. When grading the writing exam, use anchor essays in the same way. If questions arise during the scoring of essays, the head of the English department will be utilized. These pre-tests will reveal where students are the most challenged, and, therefore, what aspects of the six traits writing model will need a greater amount of emphasis.

Students will be guided through the six traits writing model over 6 weeks, with one trait being taught each week. In this manner, the writing curriculum will progress through small units. Unit one will cover idea development. Unit two will cover organization. Unit three will cover voice, and word choice will be covered in unit four. Units five and six will cover sentence fluency and conventions, respectively. However, allowances will be made to combine two traits when possible, thus reducing the total time needed to conduct the research. This combining of traits may depend on the information gathered from the students' writing pre-tests.

Data will be collected a variety of ways as students are taught the six traits (see the Data Collection section for more details). Essays will be used regularly as teaching tools in class, but these teaching tool essays will not be the same as the sample essays that are given to a portion of the students. Henceforth, teaching tool essays will refer to those essays used by the teacher during class, and sample essays will refer to those essays that are given to some of the students to refer to as they respond to interim writing testing. Again, not all students will be given sample

essays. Both the teaching tool essays and the sample essays given to individual students will highlight the writing trait that is the focus of the current unit. The procedure for using sample essays will be as follows: using unit one as an example, two essays will be given to half of the students, with one essay displaying strong writing skills with regards to idea development. The other essay will be an example of a weak essay in this particular area. This will be done so that students can compare and contrast the two essays with one another. Ideally, a student's pre-test essay, showing strength in the particular writing trait, will be used. Permission will be gained from the student before it is used. If a strong example cannot be found among students' work, I will provide an essay to be used in class. Teaching tool essays will be copied and placed on an overhead projector so that the class can be shown and guided through what one looks for in an essay as it pertains to a particular writing trait. Essays used in class as teaching tools may be strong or weak in a particular writing trait area. I will always write this weak, teaching tool essay. A student's paper will not be used.

Questionnaires will be used at the beginning and at the end of this research. This will allow students to self-assess. The initial questionnaire will make me aware of areas that might need particular attention. This questionnaire will also give students the opportunity to allow the teacher to use their essays as teaching tools. The final questionnaire will serve as an additional means of assessing how well students understand the material covered.

When the class has successfully covered a writing trait, students will respond to a writing prompt. Each of these interim-writing assessments will be graded both holistically and using a scoring rubric that emphasizes the writing trait or traits that have been covered thus far, as well as other stock ingredients in the essay. As the students progress through the material, the rubric will contain more components to aptly reflect the material covered. All interim testing will be

given back promptly so students may examine their work before moving on to the next unit.

These graded efforts will then be stored in the student's portfolio. Students will have open access to their writing portfolio. This will provide students with the opportunity to track their own progress as the material is covered.

The independent variable for this process will be the writing curriculum. The dependent variable during this process will be the students' scores.

### *Description of Data Collection*

The method of triangulation will be used to strengthen the breadth of this action research. The first aspect of the method of triangulation, experiencing, will be carried out on a regular basis. I will be an active participant observer each day as units are taught. As writing traits are being taught, I will be constantly observing and assessing students. As the adage goes, a picture paints a thousand words. The looks on students' faces will reveal a good deal as they are taught the material. Any information I gather through in-class observations will be recorded in field notes. When used in conjunction with student questionnaires and formal assessments, these field notes – to be stored on the Integrate software system - will reveal where students may need more attention. Informal interviews will be conducted with students on an informal basis and at the student's request.

The second aspect of the method of triangulation, enquiring, will also be utilized. Questionnaires will be used at the beginning and at the end of the research. The purpose of these questionnaires is to ascertain how well students understand the strengths and weaknesses within their own writing. Informal interviews with students throughout the semester will be conducted as needed, and at the student's request. Information gathered as an active participant observer and information collected through the use of questionnaires will be used to determine which

students, if any, need informal interviews. Information gleaned from these informal interviews will be kept in field notes.

In the last examining stage of this method, archival documents will be used to collect data. When available, previous years' writing scores and writing efforts will be collected. Additionally, all written work completed during the implementation of this new writing curriculum will be kept in student portfolios. As previously mentioned, these portfolios will be used so that the students may look back at their work and assess how their writing is progressing throughout the course of the semester. Periodic writing assessments and interim testing, will be administered throughout the curriculum. It bears repeating that all writing will be scored twice. One score will be based on the holistic, scoring as done for the state-mandated test, and an additional score, based on a rubric, will be determined. Again, only half of the students will be given these rubrics, and the same students given rubrics will also be given the sample essays.

#### *Position of Data Collection*

The position of the data collection is crucial to this research. Formal assessment data will be collected at three general points in time.

*Pre-test of writing skills.* Writing scores of students will be collected and recorded before the curriculum begins. This assessment will be scored twice, as described above. Gathering data at this position is important; it will reveal to me where more emphasis should be placed during the implementation of the writing curriculum.

*Interim testing of writing skills.* Writing scores of students will be collected and recorded throughout the intervention. These various assessments will be scored twice, as described above. Gathering data during the intervention is crucial, as it will reveal to me how well students understand each unit.

*Post-test of writing skills.* A concluding writing prompt will serve as a final assessment of students' writing skills. Writing scores of students will be collected after the intervention. This writing assignment will be scored holistically, as well as with a rubric. The data collected from this test will be used to determine the effect of the writing curriculum on students' scores. All data collected will be recorded, but the holistic score will be emphasized in my analysis, as this is the only scoring method used by the State of Tennessee when students take their end-of-course writing assessment.

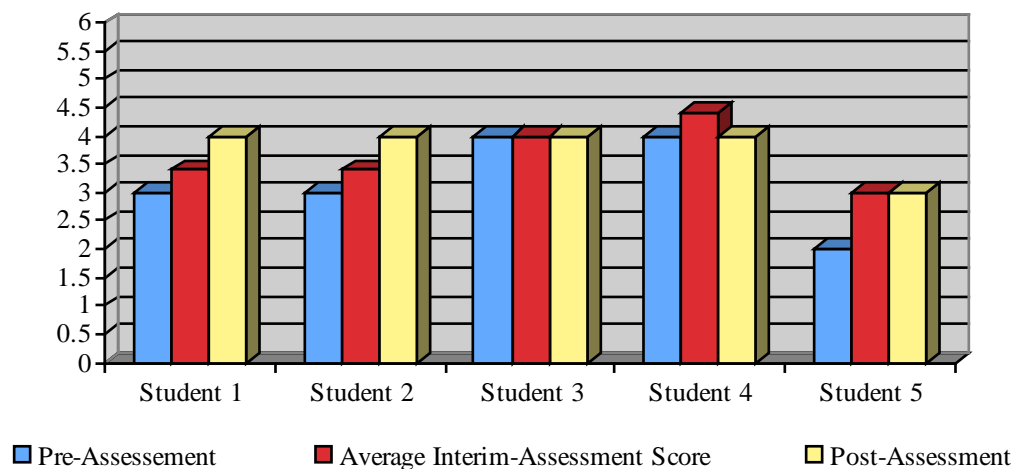
#### *Needed Resources*

A number of resources must be available in order to conduct this action research. Resources for this action research will include time to implement this new writing curriculum, time to collaborate and consult with colleagues, *Elements of Literature* textbooks, access to the State of Tennessee education home page on the Internet, copy machine access, and paper. No financial resources will be needed for this action research.

#### *Results*

As previously mentioned, this data consists of information collected as a result of the writing pre-test administered before the writing curriculum was implemented, the on-going or interim writing assessments which stressed a specific writing trait, and a post-test of writing skills administered at the end of the writing unit. These on-going assessments were crucial for making adjustments. All students in the focus group received the same writing prompts and were graded using the same writing rubrics. Scoring on the y-axis represents holistic scoring only. The data collected for all five interim tests was collected, and an average was determined for each student. This average is reflected in the results, as well as each student's pre-test score and post-

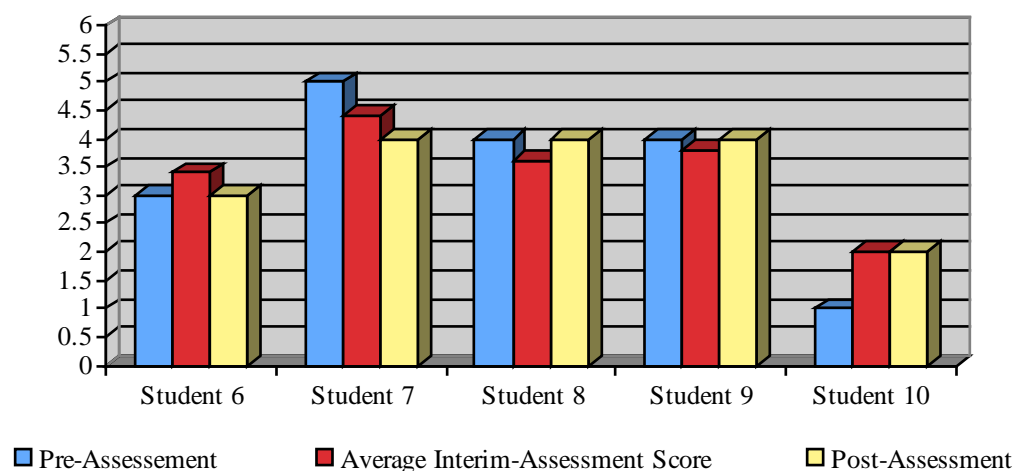
test score. See Figure 1 for the results of students who were given rubrics and sample essays during the implementation of the writing curriculum.



*Figure 1.* Results of students who were given rubrics and sample essays during the implementation of the writing curriculum.

Data was also collected for students who took part in the writing curriculum but were not given sample essays or rubrics prior to the on-going assessments. The findings for these students are presented in Figure 2.





*Figure 2.* Results of students who took part in the writing curriculum but were not given sample essays or rubrics prior to the on-going assessments.

All students were guided through the same writing curriculum. The significant factor to note was the amount of improvement students with rubrics and sample essays made compared to improvement that students made who were not given sample essays or rubrics. When one takes the average score of each groups' writing pre-test and compares it with the average post-test writing score, the evidence is quite compelling. Every student given rubrics and sample essays showed positive gains on their average interim writing assessments. The mean score on the writing pre-test for students 1-5 was 3.2 while the mean for students 6-10 was 3.4 on this same writing pre-test. The mean score on the post-test was 3.8 for students 1-5, an improvement of 18%. The mean score on the post-test for students 6-10 remained unchanged at 3.4.

Questionnaires, prompts, and rubrics are located in Appendices A through F.

## Conclusions and Recommendations

### *Conclusions*

Students' writing abilities continue to be a deficient area in their academic development. I have more questions than answers, as a result of this research. One immediate generalization discovered as a result of this research is that students are simply not motivated to write. But to succeed in life after high school, students must be well-equipped to write. More work must be done. Through the course of my study, it became clear that other variables play tremendous roles in student writing achievement.

Another generalization that can be made is the impact that rubrics and sample essays have on students' writing efforts. Students given rubrics and sample essays showed marked improvement. But it is not clear if one helped students more than the other. Additional research would be needed to better isolate the effects of each of these variables on student writing achievement.

Other questions remain. How much emphasis had been placed on writing in the student's past? What feedback on their work had students received in the past? What variables exist when we discuss a student's motivation to write? I found myself asking these questions on a consistent basis during this process.

However, remaining proactive should be the educator's posture and is my organization's mentality. Due in part to my desire to tackle this research, the state's emphasis on this development in our students, and our English department's discussions regarding this subject, our school has four writing prompt days throughout the year in which all teachers administer a writing prompt during their second block class. This is a start, but more attempts to address the challenge are needed.

The task of tackling students' deficiencies in writing is daunting, given the resources at the average educator's fingertips. These resources are limited. New teachers walk into ill-equipped

classrooms. Theories abound on the best way to improve students' writing scores. And while it is overwhelming, this research does reveal that rubrics do help students if the educator takes the time to fully explain each criteria of that rubric. Sample essays, too, make a significant difference. Student after student commented on their questionnaires that having good essays and poor essays as examples helped initiate their own writing process.

### *Recommendations*

More needs to be done. This has already been stated, but is worth repeating. Our students' scores not only lag behind the average, but, also, continue to get worse. There are resources available for teachers to utilize, if the desire is there. Making headway in this area will cost money. But progress is not only effected by the available finances, but, also, is directly effected by the amount of time educators are willing to invest. Grants are available, if teachers are willing to take the time to write a proposal. Many educators are intimidated at the prospect of writing a proposal. But professional development can tackle many of the hurdles that educators face in addressing this challenge. Professional development seminars are available that teach educators how to better prepare a grant proposal, though more efficient communication to teachers could bring more numbers to such meetings.

More professional development that is specifically devoted to the area of writing is needed, as well. I had more than one informal conversation with colleagues regarding my research, and the overwhelming response from teachers was a willingness to invest in students and a desire to see students' writing scores increase. However, these same educators expressed a frustration that, while the state set a standard for teachers to meet, they did little to enhance the training educators received to better prepare them to meet this challenge.

One immediate advantage that is at every educator's fingertips is technology. Technology continues to have a more distinguished role in our curriculum. While financial hurdles do exist for the average teacher desiring a more technologically-equipped classroom, grant money is available for this, as well. And technology could certainly be one answer to help motivate a generation of students who come to school equipped with the latest i-pods, mp3 players, and cell phones. Technology's place in a writing curriculum now goes beyond Microsoft Word. It would behoove the educator to find a way to implement technology in the writing curriculum in some form or fashion.

The last recommendation may be the most important. Educators are not paid for it, but the time invested in individual students makes a difference. This seems to be especially true of that student who is in the middle of the pack, scoring just below passing with each initial effort. Throughout the semester, I made note of those students who stopped in to inquire about their essays. The one-on-one time I had with these students was time well-spent, and has inspired me to continue my research into the next semester.

While I feel there are still many questions left to answer, there is hope. There are educators in our schools who want students to write well. There are students in our schools who see writing as a crucial element in their academic journey. Success is within our grasp when these two groups come together seeking a way to overcome the challenge before our educational community.

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## Appendix A: Initial Student Questionnaire

Student Identification Number:

Approximately how many papers did you write in English I (Ninth grade English) class?

Approximately how many papers did you write in English II (Tenth grade English) class?

What is a particular strength in your writing?

What is a significant weakness you see in your writing?

Through the course of the semester we will cover six specific writing traits. Our objective will be that your writing skill is positively affected, that your confidence in your ability to write increases, and that your writing score goes up. The six writing traits are listed below. During our class discussion today, write down a brief definition for each and then continue to answer the questions at the bottom of the form.

1. Ideas
2. Organization
3. Voice
4. Sentence Fluency
5. Word Choice
6. Conventions

Which trait is presently well represented in your writing?

After looking at these six traits, which one is not well represented in your writing?

Can your essay(s) be used as teaching tools for class discussion?

## Appendix B: Writing Prompts for Assessments

### Pre-Assessment Writing Prompt:

A school board is considering keeping school in session all year. Instead of a long summer vacation, there will be many shorter breaks throughout the year. Think about the effects of a 12-month school year. Do you agree or disagree that schools should be in session all year?

### Interim-Assessment 1 Writing Prompt:

Imagine that your school district has proposed saving money by eliminating extracurricular sports from the high school program. Think about the possible effects of cutting sports from the school program. Decide whether you are for or against this proposal.

### Interim-Assessment 2 Writing Prompt:

Current research suggests that because teenagers have different sleep patterns, they would benefit from beginning the school day at a later time. Suppose your Board of Education has proposed that all high school schedules begin at 9:30 a.m. and end at 4:30 p.m. Do you agree or disagree that this later schedule would be beneficial?

### Interim-Assessment 3 Writing Prompt:

Due to potential problems, many school systems have adopted a policy that bans cell phones and pagers on school grounds. However, some parents have provided these items out of concern for safety. Do you agree or disagree that cell phones and pagers should be banned on school grounds?

Interim-Assessment 4 Writing Prompt:

At the present time, young Americans volunteer to enlist for military service. To maintain our present military operations, more people may be needed. Do you agree or disagree with the opinion that all Americans, both men and women, should be required to perform 2 years of military service?

Interim-Assessment 5 Writing Prompt:

In some countries, students are responsible for the basic daily cleaning of their school buildings. Fifteen minutes are set aside each day for all students to sweep, dust, and clean their classrooms and corridors. Think about how you would feel if students were responsible for cleaning your school. Do you agree or disagree that American schools should adopt this policy?

Post-Assessment Writing Prompt:

Adults have influence on young people's lives. Think about the qualities demonstrated by adults that you admire. Write an essay explaining the most important qualities demonstrated by adults that you admire.



## Appendix C: Standard Writing Rubric for Initial Writing Score

	1	2	3	4	5
<b>Current Writing Trait</b>					
<b>Essay Thesis Statement</b>	No thesis statement is present in the essay	Very weak thesis not appropriately placed and/or not underlined	Thesis present but it is not strong	Strong thesis present but is not appropriately placed/underlined	Essay contains a strong and appropriately placed thesis and it is underlined
<b>Essay Structure</b>	Essay contains only one well developed paragraph	Essay contains only two well developed paragraphs	Essay Contains three-four well developed paragraphs	Essay contains five paragraphs	Essay contains at least five well developed paragraphs
<b>Paragraph Structure</b>	Neither topic sentences nor examples/evidence are present	Topic sentence(s) are present but no supportive evidence/examples is provided	One topic sentence is supported well with evidence/examples	Two topic sentences are present and well supported with evidence and examples	Each body paragraph has a topic sentence and it is well supported with examples/evidence
<b>Essay Neatness</b>	Large portions of the essay are illegible	Hand-written essay with three or four areas that are difficult to read	Hand-written essay with one or two small areas that are difficult to read	The essay is hand-written but is without blemish	The essay is typed

## Appendix D: Six-Trait Writing Rubric (First Three Traits)

<b>IDEAS AND CONTENT</b>	<b>WORD CHOICE</b>	<b>CONVENTIONS</b>
<p><b>5</b></p> <p><b>Focused, clear, specific. It keeps the reader's attention.</b></p> <p>a) I know a lot about this topic and added interesting tidbits.  b) I showed what was happening instead of telling.  c) My topic was small enough to handle.  d) I can easily answer the question, "What is the point of this paper/story?"</p>	<p><b>5</b></p> <p><b>Extremely clear, visual, and accurate. I picked the right words for the right places.</b></p> <p>a) My words are colorful, snappy, vital, brisk and fresh. You won't find overdone, vague or flowery language.  b) All the words in my paper fit. Each one seems just right.  c) Look at all my energetic verbs!  d) Some of the words and phrases are so vivid the reader won't soon forget them.</p>	<p><b>5</b></p> <p><b>Mostly correct. There are very few errors in my paper.</b></p> <p>a) My spelling is accurate.  b) I have used capitals correctly.  c) Every paragraph is indented to show where a new idea begins.  d) Periods, commas, exclamation marks, and quotation marks are in the right places.  e) My grammar/usage is consistent and shows control.</p>
<p><b>3</b></p> <p><b>Some really good parts, some not there yet.</b></p> <p>a) Some things are new, other things everyone else already knows.  b) Details are general (nice, fun, some, good).  c) I'm still thinking aloud on paper. I'm looking for a good idea.  d) Maybe I'll write about this or maybe I'll write about that.</p>	<p><b>3</b></p> <p><b>Correct but not striking. The words get the message across, but don't capture the reader's attention.</b></p> <p>a) I used everyday words pretty well but I did not stretch for a new and better way to say things.  b) Most of the time the reader will figure out what I mean even if a few words are messed up.  c) My words aren't real specific. Better, juicy details.  d) I used tired out clichés or phrases.</p>	<p><b>3</b></p> <p><b>About halfway there. A number of bothersome mistakes need cleaning up.</b></p> <p>a) Spelling is correct on simple words. It may not be right on harder words.  b) Most sentences and proper nouns begin with capitals, but a few have been over looked.  c) At least one paragraph is present. Others might not all begin in the right spots.  d) Problems in punctuation make the reader stumble and pause now and then.  e) Several grammar problems are evident.</p>
<p><b>1</b></p> <p><b>Just beginning to figure out what I want to say.</b></p> <p>a) I haven't shared much information. I don't seem to know much about this topic.  b) My details are so vague it's hard to picture anything.  c) I'm still thinking aloud on paper. I'm looking for a good idea.  d) Maybe I'll write about this or maybe I'll write about that.</p>	<p><b>1</b></p> <p><b>Confusing. The reader is often asking, "What did they mean by this?"</b></p> <p>a) A lot of words and phrases are vague—"We were friends and stuff."  b) My words don't make pictures yet—"It was awesome."  c) Some of my words are misused.  d) Over and over I used the same words over and over, until my paper was over.</p>	<p><b>1</b></p> <p><b>Editing not under control yet. It would take a first reading to decode and a second reading to get the message.</b></p> <p>a) Spelling errors are common, even simple words.  b) Capital letters are scattered all over or not at all.  c) I haven't got the hang of paragraphs.  d) Punctuation is very limited and makes reading this paper difficult.  e) Frequent grammatical errors, I haven't spent much time editing.</p>

## Appendix E: Six-Trait Writing Rubric (Second Three Traits)

ORGANIZATION	VOICE	SENTENCE FLUENCY
<p style="text-align: center;"><b>5</b></p> <p><b>Clear and compelling. I have chosen an order that works well and makes the reader want to find out what comes next.</b></p> <p>a) My beginning grabs the reader's attention and gives clues about what is coming.  b) Every detail adds a little more to the main idea or story.  c) My details are in the right place.  d) I ended at a good spot. I have a strong conclusion or ending.</p>	<p style="text-align: center;"><b>5</b></p> <p><b>Really individual and powerful. My paper has personality and sounds different from the way anyone else writes.</b></p> <p>a) I have put my personal stamp on this. It's me!  b) Readers can tell I'm talking right to them.  c) I write with confidence and security.  d) Paper is full of feelings and the reader will know how I feel.  e) Nobody else sounds like this.</p>	<p style="text-align: center;"><b>5</b></p> <p><b>Varied and natural. The sentences in my paper are close and delightful to read aloud.</b></p> <p>a) Some are long and stretchy. Some are short and snappy.  b) It's easy to read my paper aloud. I love the sound of it!  c) Sentence beginnings vary.  d) Good sentence sense. My sentence flows.  e) All excess baggage has been cut out.</p>
<p style="text-align: center;"><b>3</b></p> <p><b>Some really smooth parts, others need work. The order makes sense most of the time.</b></p> <p>a) I have a beginning but it doesn't really grab you or give clues about what is coming.  b) Sometimes it is not clear how some of the details connect to the story or main idea.  c) Some of the details should come earlier or later. I may have lingered too long in some areas and sped through others.  d) I have a conclusion, but it is ho-hum.</p>	<p style="text-align: center;"><b>3</b></p> <p><b>Individuality fades in and out. What I truly think and feel only shows up sometimes.</b></p> <p>a) Although the reader will understand what I mean, it won't make them feel like laughing, crying, or pounding on the table.  b) My writing is right on the edge of being funny, excited, scary, or honest—but it is not there yet.  c) My personality pokes through here and there but gets covered up again.  d) My writing is pleasant, but cautious.  e) I've done more telling than showing.</p>	<p style="text-align: center;"><b>3</b></p> <p><b>Routine and functional. Some sentences are choppy and awkward, but most are clear.</b></p> <p>a) Some of my sentences are smooth and natural, but others are halting.  b) When I read my paper, most of the sentences have the same patterns.  c) Many sentences begin the same way.  d) My paper shows some interesting sentences.  e) I have used more words than necessary.</p>
<p style="text-align: center;"><b>1</b></p> <p><b>Not shaped yet. The order of my paper is jumbled and confused.</b></p> <p>a) There really isn't a beginning or introduction to my paper. It just takes off.  b) I'm confused about how the details fit with the main idea or story line.  c) My ideas seem scrambled, jumbled and disconnected.  d) Conclusion! Oops, I forgot.</p>	<p style="text-align: center;"><b>1</b></p> <p><b>Not me yet. I'm not comfortable or don't know what I truly think or feel yet.</b></p> <p>a) You might not know who wrote this paper.  b) I'm not comfortable sharing. I've taken the safest route by hiding my feelings.  c) I sound like a robot.  d) My paper makes the reader yawn.  e) All telling and no showing.</p>	<p style="text-align: center;"><b>1</b></p> <p><b>Paper needs work because there isn't enough sentence sense yet.</b></p> <p>a) As I read my paper I have to go back and read over, just to figure out the sentence.  b) Sentence patterns repetitive.  c) I'm having a hard time telling where one sentence stops and another begins.  d) Much oral editing needed to help the reader get the meaning.</p>

## Appendix F: Final Student Questionnaire

Student Identification Number:

What has been your favorite writing prompt?

What helped you the most as you ventured through this writing curriculum? (circle one)

Six Writing Traits Curriculum

Rubrics

Sample Essays

Explain your choice?

Where do you still see deficiencies in your writing?

Where have you seen significant improvement in your writing?

Optimizing Students as Teachers

Julie Norton

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-.

### Introduction to the Problem

After nearly three semesters of teaching a computer intensive course, called Digital Media, an observation sparked the topic of this research. While in the classroom, students were observed utilizing their classmate's knowledge and understanding to aid both students in performing tasks required for the class. The help that was afforded to many of the students had effects on the dynamics of the class.

As a springboard to the research, comments made by students who received help from peers were encouraging because of the timeliness of the help that they received. In conjunction with teacher instruction, peer instruction allowed many students to move more quickly on required tasks. The end result was a better understanding of the concept by both students. Understanding of the required material was further heightened for those students who were peer coaching in the classroom. They were able to translate the task, in some cases into a language or demonstration, that allowed another student to also accomplish the required task. The time and extra instruction that the students were receiving was invaluable to the class, as a whole.

### Review of Literature

The topic of peer teaching has a wealth of published work that addresses the topic. Language, an area that was not considered in the initial problem statement for research, became an important part of why peer teaching in the digital media classroom had some effectiveness. Many students in the class are English Language Learners, and find the advanced vocabulary that is part of the course difficult to translate in order to understand the concept. Green (2000) states that interaction of participants within an activity allows those who do not understand fully to pick up on verbal and nonverbal cues from others to gain understanding. Language and cultural barriers exist in the classroom, but with help from student translators, classmates are able to hold each other accountable for the material being presented.

Curriculum for the course is advanced, with a wide base of mathematical and scientific concepts needed to truly master the tasks for the course. In a study by Kamps, Greenwood, Arreaga-Mayer, Veerkamp, Utley, Tapia, Bowman-Perrott, and Bannister (2008), with students

in an urban middle school, researchers found proof that students learn and retain more from class-wide peer tutoring. This study encouraged students to hold others accountable for classroom curriculum. Whole-class teacher instruction was used but through peer teaching students worked through more material with corrective feedback from trained students. Similar uses of students as teachers helped the class become more efficient.

Efficiency is important in any classroom. State standards dictate what needs to be learned, but not how it needs to be learned. Team teaching with group work is one effective method according to Vermette (1998). In the Learning Together model, teams are important. Time is of the utmost importance to students and teachers. This model encourages students to ask other students before asking teachers about a question that they have. The effectiveness of a classroom relies on the help that students provide to others. The highlights of teams in a collaborative classroom also depend on student being the learner and the teacher.

## Data Collection and Results

### *Data Collection*

Collection of information was done through a series of two surveys given to the subjects (see Appendices A and B). One survey was based on prior experience in the class with peer teaching. Students responded with their thoughts of how peer teaching worked in their educational experience.

Next, an exercise was done to see how the class might push the limits of peer teaching. A portion of the class left the room for a short time to allow volunteers who stayed to learn how to specifically create and animate a camera in the three dimensional software that the class was using for a larger project. Nine students volunteered to be peer teachers while 15 students went to another classroom. The teacher who supervised the students was interviewed about student comments and actions during this short study. While the groups of peer teachers and students were separated, the smaller group that volunteered to be teachers were shown how, by means of demonstration, to create and animate a camera for their current project. These nine students were given ample time to ask questions and to get clarification about the task before the other students returned to the classroom. The peer teachers were instructed to ask any and all questions prior to the other students coming back, as they would only be allowed to ask other peer teachers questions for the remainder of the class. They were to teach the other students what they

had just learned. Following the peer teaching exercise, all students were asked to fill out a survey in response to the exercise.

Lastly, a great deal of observation was done over the next several days. Informal interviews were administered to students who were observed taking part in peer learning. Notes were taken based on the responses of the students. Questions were asked about their feelings during the experiences, what worked best in peer teaching, and how they felt after participating in peer learning. Two students were absent the day the class took part in the peer teaching exercise, but responded to the first survey and took part in the informal interviews.

### *Subjects*

The subjects for this study included 20 males and 6 females. The students were in grades 9-12. Students were from one class of Digital Media and Animation. The class is taught at a career and technical charter school. Students that attend are either full-time or part-time students at the career and technical school.

### *Methodology*

In this study it was important to first establish if students were receptive to teaching by peers. In giving the first survey, student thoughts were noted, and the positive effects of peer teaching were confirmed. The goal of the survey was, not only to see how students had already responded to the act of peer teaching, but to optimize its positive aspects through the duration of the class.

Observations were the basis of deciding on this topic of research. Influence of professional development that had taken place as a part of the Working on the Work framework, developed by the Schlechty Center, which encouraged the research. Research is seen as a benefit for students involved, especially as the framework had been adopted by the Whitfield County School System, where the study was taking place. In this format, lessons are designed for students, based on student characteristics and how they best learn the class material. While each class may vary in content and have different dynamics, it is important for the instructor to recognize the nature of all the learners (Schlechty, 2000). Lessons are designed and delivery is tailored to maximize student learning and engagement in the material.

The study was important in identifying problem areas that can hinder peer teaching in the classroom. Also, through surveys and interviews, students helped to identify why peer teaching had any effectiveness and how those characteristics might be further improved. In addition, through research of documented materials, other successful peer teaching activities and methods that were used could be implemented in the Digital Media classroom.

### *Results*



The results of the study, including the surveys and interviews, proved to be helpful in identifying areas where students rely on peer teaching. Students also identified positive and negative effects of peer teaching.

The first survey identified if students had taken part in peer learning and in which capacity: teaching, learning, or both. All but one of students who were surveyed had been helped by another student at one time during the class. Students responded with many positive aspects about peer teaching in conjunction with regular classroom instruction. Some responses included the ease of asking for help from a peer because of the timeliness and/or proximity of other students seated next to them.

The other portion of the first survey inquired as to whether students had ever been a peer teacher. The results confirmed that 75 percent of students had participated in peer teaching prior to the study. In most cases, students wrote that they felt proud or felt good about themselves after having taken part in helping a classmate. The peer teachers were encouraged by how quickly they had mastered understanding of the task. Subsequently, expression of the learned task was demonstrated through peer teaching of the same concepts to aged and graded academic peers.

During the peer teaching exercise, students volunteered to be teachers, while several knew that they did not want to be teachers, students and chose to be. The individuals who volunteered to be peer teachers were, in some cases, hasty, and in others, not so hasty, to be responsible for the class learning. There was no resistance to this exercise. During the peer teaching, students listened well and peer teachers answered questions that were asked. Students who were peer teachers even used other peer teachers to help their group answer difficult questions. The atmosphere was relaxed and encouraging for all groups. Prior to whole-class, regular teacher instruction, successful demonstration of creation and animation of cameras by

students displayed competence in their knowledge of the task. A follow-up refresher by the classroom teacher followed the completion of the study, and confirmed that mastery of concepts had occurred.

The interviews and second survey revealed that confidence was definitely a factor in many areas of the exercise. Many students developed confidence through demonstrating the task to their classmates, and seeing the results of their teaching, as shown by the successful completion of the task by their tutees. The responses most common from verbal interviews included great feelings about what the peer teachers had done. They were ultimately very proud of their teaching and independence from the regular classroom teacher. Students who were learning only from classmates were confident in their peer teachers, but had some prejudices as to whom they wanted to be their teacher, based on who had helped them before and who they knew in the class. The teacher who supervised responded to comments that were made during the short study. She spoke with students who knew that they did not want to be teachers and were more than satisfied with being a student in the peer learning process. The survey revealed that students also had confidence in their peer teacher's knowledge, enough so that they learned how to complete the task with teaching only from their peers.

Throughout academia, peer teaching is objectively documented in multiple content areas with numerous methods. The methods that have been used in alternate content areas vary, based on the student, the teacher, and the content area. It is important that findings for each peer teaching success be objectively documented with reasonable validity and reliability.

## Conclusions and Recommendations

### *Conclusions*

Peer teaching is definitely beneficial to the Digital Media class. Students are receptive to peer learning in the Digital Media class environment. The surveys that were administered helped students become aware of what peer teaching was and that it was benefiting them in multiple ways.

Through teacher encouragement to students and reassurance for their peer teaching/learning, an environment was created to allow for comfortable and efficient classroom learning. Many of the students responded well to encouragement for peer teaching, but, mostly, students were excited about the tasks at hand and wanted to master them individually, as quickly as possible. By using large classroom demonstration, students were able to first listen to what the teacher was saying, and then supplement their learning by working together with a classmate. While some students were able to master the task with only one demonstration, others found it easier to watch a student do the task and ask how they completed the task. This teamwork does not always happen. It is often discouraged in other classrooms.

Students must feel comfortable in both the classroom and with their peer for this to work. In this study, a forced peer teaching exercise at the beginning of a semester probably would not work as the students would not know each other, and, therefore, may be uncomfortable asking others for help. Also, students in the school where the study occurred were probably more willing to try this because of the dynamics of the school. Students are free to work in teams, and, in fact, encouraged to investigate answers as groups.

The time involved in peer teaching is minimal as compared to waiting on one instructor to help individuals. Students are able to move to more complex tasks more quickly if the class teams up to work as students understand the material more quickly. Often, teachers decide on how quickly to move, based on the slowest learning students in the course. With peer teaching

implemented in any classroom, students can learn in other ways, and move more quickly and efficiently to new material because of using more than one source, the regular classroom teacher, for their instruction. This relieves some time stresses of the teacher by allowing students to be aided by their peers. This type of environment reinforces the concept of See One, Do One, Teach One.

Characteristics of students who should take part in peer teaching naturally appear if students are encouraged to help one another. In the same respect, students who respond well to peer teaching as a learner are also revealed through close observation and in an environment that is conducive to the practice of peer teaching. Lastly, students find rewards to be intrinsic, more so than extrinsic. Teachers are rewarded with the pride that the students feel and the learners are rewarded with the independence that they acquire through peer teaching.

### *Recommendations*

At the conclusion of the study of Optimizing Students as Teachers, three basic recommendations can be made in an effort to improve this process with little effort and no cost to the school. First, the comfort level of the students must be high and there are a few ways that it can be aided. Teachers must be extra cautious in seating arrangements to help students feel comfortable with whom they are seated near. The classroom teacher must make sure that students know that team learning is permitted. Students must be allowed to move about the room to help others and to ask questions of their classmates. The teacher should create a classroom environment that makes students feel comfortable in their surroundings and with their teacher and classmates.

Next, determine if students have leadership characteristics that are needed for peer teaching. Students that are identified as having a motivation for peer teaching need to be asked to

use their gifts for assistance to the teacher and classmates. They will, more than likely, find it rewarding, and will develop a greater understanding for the class material.

Overall, encouragement for peer teaching is of the utmost importance. Teachers must give students reasons to help and receive help from one another. This is not always a natural process for students in high school. The peer teaching and learning must be cultivated by the appointed leader of the class, the regular classroom teacher. The energy that the teacher puts forth in the beginning can and will be rewarded by learning. The excitement from the participants in peer teaching will be evident through the interactive dialog observed throughout the learning experience.

The GACTE is the professional organization of which instructors at the school are members. It does not have any specific guidelines other than those that point to Georgia state curriculum standards. The standards include job readiness skills such as effective communication and cooperation among students. These skills are learned and perfected through peer teaching. As in many states, Georgia has open grants that can fulfill a wide range of needs. The school is a charter school, and falls under a different set of rules. The charter school mission statement is as follows: The mission of the Georgia Public Charter Schools Program is to increase student achievement through academic and organizational innovation by encouraging local school districts to utilize the flexibility offered by chartering. The flexibility of charter schools allows new ideas of student learning especially in teams or by means of peers to be encouraged.

As one final recommendation, students have opportunities to use the Internet and other technology to aid in the peer teaching process. Students who attend the school where the study occurred have access to a computer in nearly every room. They access the Internet numerous times each day. With this availability to computers, students could easily create tutorial with

voice commands to be created as videos to show other students how they can complete tasks.

This option would allow students who are absent for a day to review a tutorial when they return, or even use the Internet to chat live, from home, with students about questions that they might have. This accessibility may not be as readily available for all schools, but as students learn to use the equipment and understand the concepts that are presented in class, they can further demonstrate a vastness of knowledge by participating in peer teaching.

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## Appendix A

**Student survey 1 (Please do not put your name on this survey)**

1. Have you ever helped another student to learn in Digital Media Class? \_\_\_\_\_

**\*\*\*If you answered no to question 1 please skip to question 5**

2. If so, how? \_\_\_\_\_

3. Does helping your classmates give you any intrinsic rewards? Please

explain. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Do you think your peers appreciate your help?

5. Have you ever received help from another student in Digital Media Class? \_\_\_\_\_

6. If so, how?

7. Is it easier or harder to ask a peer for help than the teacher? Please explain.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Appendix B

**Student Survey 2 (Please do not put your name or your partner's name on this survey)**

1. Were you a peer teacher or a student? \_\_\_\_\_

\*\*\*\*\*If you answered teacher please answer questions 2-5

\*\*\*\*\*If you answered student please answer questions 6-8

**Everyone please answer questions 9 and 10**

2. Were you able to show the someone else how to do the task asked of you after one demonstration? \_\_\_\_\_
3. Did you work together with the other student to better figure out the task that was asked of you? If so, how?

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4. What techniques did you use to teach? (Demonstration, oral instructions, etc.)

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5. Do you think that by teaching this student, you gained a deeper understanding of how to complete the task? Please explain.

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6. Does learning from another student make you feel more comfortable than waiting for teacher individual instruction? Please explain.

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7. Did you have confidence that your peer (student) teacher understood well enough to teach you the task? \_\_\_\_\_ Please explain how you came to this conclusion?

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8. Do you think if you had a different peer teacher that you would have had a different experience with this exercise? How? \_\_\_\_\_

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9. Which job do you feel that you are better suited for, student or peer teacher, why?

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10. Do you think that it is important that a classroom teacher be open to this process of peer teaching?

Assessing and Improving Teacher Morale in the Local School Building

Stephanie R. Parrott

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149)  
has approved this research project 08-201.

### Introduction to the Problem

Recent developments outside of the local education agency continue to impact and erode teacher morale. Reports of liquidation of jobs, school closures, and uncertainty regarding administration, adversely impact the morale of teachers all over the county, and in our school building. Specifically, the school is often under the threat of closure, and has had frequent administration changes. This action research is to identify and pursue strategies to increase teacher morale at our local level, with the hope of counteracting some of the outside pressures affecting morale and for faculty and staff to effectively utilize the resources available in our building.

### Review of Literature

Interest in teacher morale, and the attitude that teacher morale affects student performance, is ever increasing. A 2009 article cited observations of teachers as including “heavier workloads, curtailed research opportunities, and vanishing colleagues” (Shieh, 2009). Associate professor of political science, Michael Lyons, states in this article, “If they face budget cuts over the next two to three years, then the relatively optimistic spin that I put on things will no longer apply at all. Morale will plunge” (Shieh, 2009, p. 53). Other issues facing today’s teachers, in this article, include working on furlough days, even when prohibited; taking extra jobs to support their families; anticipated job cuts; and unfilled jobs vacated by retirees (Shieh, 2009). In the midst of these crises outside of the individual schools, how is morale maintained in the local school building? A 2006 article asks what principals can do to create an environment where teachers feel productive, supported and appreciated while having little control over factors that would make the teacher’s jobs more manageable, such as teacher pay and class sizes (Protheroe, 2006). The article further identifies strategies, behaviors, and attitudes from

principals that teachers identify that will nurture an environment that produces high levels of student success and high teacher morale. A 2004 report to the Governor on the working conditions of North Carolina's schools makes the statement that school leadership is at the heart of teacher working conditions (Hirsch, 2005). A Public Education Network (2003) publication indicated accessibility of the principal as being the number one attribute needed for high teacher morale--the idea that teachers were welcome to go to a principal with a problem, and work with administration to resolve or improve the matter at hand. Second to accessibility, the presence of the principal in the classroom, making observations, and giving immediate feedback and guidance were crucial to high teacher morale.

Charlotte Advocates for Education (2004, p. 8) found other ways principals could demonstrate support for teachers. These include:

- Demonstrate to teachers that they work for them, not vice versa;
- Provide resources-often creatively- needed for teachers to be successful;
- Keep stressors such as extra duties and paperwork, to a minimum; and
- Publicly support teachers and recognize them for a job well done.

Research supports that teachers want to work in schools where they have the time and opportunity to work with other professionals, and where they feel supported and appreciated by their principals (Protheroe, 2006).

A 2007 article indicates eight, specific internal states which influence a teacher's work, and, ultimately, student learning: individual sense of professional efficacy, collective sense of professional efficacy, organizational commitment, job satisfaction, stress and burnout, morale, engagement or disengagement (from the school and/or profession), and pedagogical content knowledge (McAdie & Leithwood, 2007). Further this article identifies four sets of working

conditions that influence teacher internal states: school cultures, school structures, community relations, and school operating procedures (McAdie & Leithwood, 2007).

Optimal school cultures are such that all teachers know and understand what is expected in their daily tasks. In the optimal school culture, there is little conflict among teachers as to what they are expected to do. There is a positive and friendly atmosphere in the building, and student discipline is under control. The school culture is such that collaboration among teachers is encouraged. A positive school culture can help teachers find their work to be meaningful and productive (McAdie & Leithwood, 2007).

Often, little can be done about school structure. The work of teachers is most likely to be enhanced in small, suburban schools rather than in urban locations. This is the case with the school under study. It is a small, suburban school, but better defined as a rural school. School structure that lends itself to positive, teacher internal states includes the ability for teachers to collaborate, work in small teams, access ongoing professional development, and participate in school level decisions (McAdie & Leithwood, 2007).

The school abounds with connections to the community. A community surrounds the workings of the school. It is noted that, when the efforts and direction of the school enjoys the support of parents and the wider community, this influences job satisfaction, and the probability of teachers remaining in the school and profession.

School operating procedures enhance and influence a teacher's sense of individual and collective efficacy, as well as job satisfaction and organizational commitment. Teachers evaluate the quality of communication in the school, how well the school improvement plan matches their professional desires for the school, and the feedback that comes from within the school. Their perceptions give an increased sense of stability (McAdie & Leithwood, 2007).

## Data Collection and Results

### *Data Collection*

#### *Subjects*

All members of the faculty at the school were asked to participate in the completion of a survey (see Appendix A). The faculty consists of 13 grade-level teachers, 2 part-time music teachers, 1 full-time librarian, 1 part-time guidance counselor, 2 full-time exceptional education teachers, 1 part-time physical education teacher, 1 principal, and 1 part-time psychologist, for a total of 22 faculty members. The school is a rural, K-5 school, located in Hamilton County, TN.

#### *Methodology*

Faculty members were provided with a survey addressing their personal perception of the morale of the school, as a whole, and the faculty, and their personal morale level. The survey asked individuals to use a Likert scale of 1-10 to rate the perceived level of morale for the school, and the faculty as a whole, and their personal level of morale, with 10 being the highest level of morale and 1 being the lowest level of morale. The survey then asked the faculty to rate possible strategies for increasing teacher morale. Teachers were to rate items on a Likert scale of 1-5, with 5 indicating the teacher agrees this item would strongly affect their level of morale, and with 1 indicating the teacher strongly disagrees that this item would affect their level of morale and/or the level of morale for the school or faculty. Strategies included small rewards, extended lunch time, extended planning time, student assistants, extended vertical planning time, and the aesthetics of the building and grounds. Teachers were also asked to identify areas that may also need to be addressed, to facilitate an increase in teacher morale, by writing these ideas in on the survey.

#### *Areas Identified in Survey Defined*

The items listed as possibly affecting morale were worded as follows: to receive unannounced small rewards; to receive an extended lunch, occasionally; to receive additional planning time, occasionally; to have student assistants in the classroom, regularly; to have regular vertical planning times; and improved aesthetics and cleanliness of the school building.

Small unannounced rewards would include various items left in mailboxes by the Parent Teacher Association (PTA) or by the administration. These would include any items teachers would use in the everyday classroom, e.g., markers, pens, and post-it notes.

Teachers generally eat in a period of 30 minutes that includes taking students to lunch, sometimes assisting students in the line, and returning to take the students to the classroom. Often, this whittles the 30-minute time period to a brief 15 to 20 minutes to prepare and eat lunch, as well as take a break. Occasional extended lunches would give grade levels time to discuss current focuses in the classroom and school.

Additional planning time and regular vertical planning times could be viewed as the same basic idea, but they are different in several ways. Vertical planning can exist when the teachers of adjacent grades or several grades meet to discuss trends in standards, or strategies for enhancing background knowledge for scaffolding for future grades. Often, grade levels get a maximum of 45 minutes per day to set classroom focuses, plan field trips and activities, and other grade-level duties. Again, this time is whittled away by the time taken to accompany students to their activity slated for the 45-minute planning time.

Student assistance can be provided from local colleges or parent volunteer hours. Many school outsiders view this as a much-needed area for teacher assistance. Often, teachers are reluctant to relinquish responsibilities from their classroom to another individual, and having

persons in the room, helping and desiring guidance on how they may help, may be viewed as distracting and counterproductive.

The aesthetics and cleanliness of the building not only affect teacher morale, but affect the morale of the building, as a whole. This would include regular daily cleaning, and an overall sense that the building is clean and being maintained.

#### *Instructional Plan and Involved Entities*

Ideally, identifying the areas the school faculty believes may enhance their teacher morale, and utilizing our local resources to address these areas, is the instructional plan. The PTA is active in the school, and desires guidance as to how parents might better serve the faculty of the school. This, in turn, gives them assurance that their children are receiving the best possible education. Currently, the school has a Reading Buddy program in place that is served by adults in the school community. Additionally, members of a local church seek ways the congregation may be of use to the school. Of the areas surveyed, all of the items could be provided to teachers, if carefully scheduled with the community organizations already in place, to assist in the day-to-day workings of the school. The church members and PTA could be advised of small items that could be used to reward teachers on a regular basis. The church members and school parents could be scheduled to assist with extended lunches and increased planning time. Faculty, students, administration, and the aforementioned entities could develop a plan for increased attention to school grounds and cleanliness. Assistance needed by teachers in the classroom could be better coordinated through the PTA program.

#### *Results*

##### *Morale Surveys*



The perceived morale of the school, as a whole, averaged 8.92, with 1 being low morale and 10 being the highest possible morale. The perceived morale of the faculty averaged 8.92, with 1 being low morale and 10 being the highest possible morale. The morale represented as individuals averaged 8.46, with 1 being low morale and 10 being the highest morale. There was one outlier in this portion of the survey, with all others representing their personal morale in the range of 8 to 10.

#### *Items Likely to Increase Morale Surveys*

The item in the survey rating the highest as possibly affecting morale, with 1 being strongly disagree this would affect my morale, and 5 being strongly agree this would affect my morale, was extended lunch occasionally, with a 4.69 average. Ranking second was occasional, extended planning time, with an average of 4.53. The third and fourth ranking possibilities for affecting teacher morale were unannounced small rewards, with an average of 4.38, and improved aesthetics and cleanliness of the building, with an average of 4.36. All four of these items are perceived as likely or highly likely to increase teacher morale. The items found less likely or unlikely to affect teacher morale were extended vertical planning, with an average of 3.92, and the use of student assistants, with an average of 2.62.

### Conclusions and Recommendations

#### *Conclusions*

It is perceived by the faculty at the school that the faculty, the school, as a whole, and each member of the faculty has a high level of morale, despite the changes in administration and the looming threat of closure of the school. The most satisfied teachers view their schools as supportive, safe, autonomous environments. It is not surprising that the items voting as likely to increase teacher morale stem from issues of time. Teachers are pressed for time, each day, in the

average classroom, and in the best of situations. Teachers consistently take work home, and work hours that extend well over a 40-hour work week, planning and preparing for the classroom. Some estimate that teachers work 50 to 53 hours per week, in their classroom, during the school year. Teachers want to work in schools where they have the time and opportunity to work with other professionals. The faculty members at the school found that the items most likely to improve teacher morale were an occasional, extended lunch, and regular, extended planning time. The item least likely to affect teacher morale is student assistance in the classroom. Often, this type of help is counterproductive because valuable time must be spent evaluating which activities might be assigned to another individual, without concern. Open-ended items written at the bottom of the survey, that are controlled at the local level, included the following: uniform curriculum and discipline across all grades; increased discipline for students; increased personnel for supervision duty positions, e.g., car duty, cafeteria duty, bus duty; more opportunities to interact with staff members and/or adults; and being treated with respect by administrator and parents.

### *Recommendations*

After having identified items teachers feel could improve their level of morale, it is the desire of this research that the individual entities supporting the work of the school develop an implementation plan for the following items in the 2009-2010 school year:

- Utilize parent volunteers to offer each grade level an extended lunch period, twice per month, as directed by the school administrator.
- Utilize parent volunteers to offer a half-day planning time for each grade level, once per month, and a half-day opportunity for vertical planning, with all grade levels, once per quarter, as directed by the school administrator.

- Have teachers form a wish list of small items, that might be bought in bulk, that teachers use regularly and in volume, in their classrooms. This list could be given to the PTA and other local agencies inquiring about opportunities to help the local teachers in their classrooms.
- As a faculty, under the guidance of the administrator, develop a plan to improve the cleanliness and aesthetics of the school building and grounds.
- Develop a school wide discipline plan, under the direction of the current administration.
- Establish a parent volunteer coordinator to coordinate work times for volunteers to complete tasks that are beneficial to teachers, but that can be completed outside of the classroom during the school day. Scheduled days for these tasks are helpful for allowing teachers to “gather” work that can be completed for the next week’s instruction.

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## Appendix A

Teachers:

If you will please answer the following questions and return this to the box provided in the office, I would appreciate it. Do not identify yourself. I will pass along results as they are prepared. There will be a follow up survey, at a later time.

On a scale of 1-10 with 1 being lowest and 10 being highest, rate the morale:

Of our school, as a whole - \_\_\_\_\_

Of the staff and faculty of our school - \_\_\_\_\_

Of yourself, personally - \_\_\_\_\_

Rate the following items based on how each item may affect your morale, personally, according to the following scale:

1 - strongly disagree this would affect my morale

2 - disagree this would affect my morale

3 - I do not know if this would affect my morale

4 - I agree this would affect my morale

5 - I strongly agree this would affect my morale

To receive unannounced small rewards: \_\_\_\_\_

To receive an extended lunch, occasionally: \_\_\_\_\_

To receive additional planning time, occasionally: \_\_\_\_\_

To have student assistants in the classroom, regularly: \_\_\_\_\_

To have regular vertical planning times: \_\_\_\_\_

Improved aesthetics and cleanliness of the school building: \_\_\_\_\_

Please add any other items - under the control of the local school building - that might affect your personal morale, or the morale of the school or faculty, as a whole.

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Quit Writing and Talk: The Effect of Verbal Debate and Pre-Writing Strategies on Persuasive  
Writing in High School English Class

Laura Tatum Pearman

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149)  
has approved this research project # 08-140.

### Introduction to the Problem

Persuasive writing is an important type of writing for students to learn since it is used throughout our society. It is the language of business, politics, and advertising. Yet, persuasive writing is one of the most difficult genres of writing for students to master and is an integral part of the standardized writing tests that take place in the Tennessee and Georgia school systems. Persuasive writing is a logical and methodical type of writing that most students are unfamiliar with and find difficult to master.

The goal of learning persuasive writing is to teach students to be aware of the writing in the world around them. In turn, students have an integral voice in their community and the world. Businesses require it from employees who want to contribute to advance in their careers, but the majority of businesses complain that students are unable to compose coherent, logical, and simple writing. If students are not convinced that they will ever use persuasive writing in the workplace, then they need to be aware there may be an occasion when they will need it to voice and convince their opinions within their community. The importance for all members of society to have a say in their community, local issues, or any other myriad of reasons goes without saying, and students need to be able to write their opinions in a logical and methodical manner. Students need to be prepared, not only for the standardized testing that occurs within the school system, but, also, to express their view in a thoughtful, supported, and well-organized manner. In researching the area of persuasive writing, I found a number of teachers who used verbal debate within the classroom as a way to scaffold the concept of argument and support their written arguments with the a verbal experiences that would, hopefully, transfer into the student's written work.

My action research was centered around verbal debate, pre-writing strategies, and graphic organizers as a scaffold to written papers prior to writing the first word on a piece of paper, and ultimately, helping students hear the components of an argument and then organize what they need to write.

### Review of Literature

Persuasive discourse has been an integral part of our country since its founding and one of the principal parts of our political system. We teach our children that, in American, everyone has the right to speak his or her mind, but we are failing on how to teach them to write these same opinions. According to the 2002 National Assessment of Educational Progress (NAEP), 17% of 12-grade students are considered “skilled” in the genre of persuasive writing, and that there must be a different approach to assist students in learning to write in a way that allows them to express and support their opinions in a logical way (Felton & Herko, 2004).

In researching persuasive writing, two themes became apparent: there is not an overwhelming amount of educational research dedicated to this topic, and argumentative and persuasive writing are considered to be one genre of writing (Dickson, 2004). Like argumentative writing, persuasive writing uses a position, a claim, reasons, explanations, and evidence, but argumentative writing goes a step further to add counterarguments and opposing side claims (Petit & Soto, 2002). It is easy to meld persuasive and argumentative writing together since argumentative writing deepens persuasive writing by thinking through a complete argument and acknowledging the other side’s beliefs. A student who has mastered argumentative writing will be able to write a well-structured and deeply-supported persuasive essay. As the emphasis on standardized testing within the schools increase; so will the emphasis on of research and ideas on how to teach persuasive writing to students.



My literature review suggested several strategies to assist students in learning how to write persuasively such as reading and discussing persuasive writing, incorporating more nonfiction into the curriculum, and introducing persuasive writing into the school curriculum, as early as possible (Crowhurst, 1990). More recent articles suggest that model essays and graphic organizers are not enough to teach students how to write persuasively, but teachers must employ additional techniques such as think aloud demonstrations and oral debate (Gleason, 1999). From the most recent articles, I have chosen to perform a 4-day workshop within a 10<sup>th</sup>-grade honors class which utilizes the ideas of verbal debate and a pre-writing scaffolding strategy which will assist the students to become more effective persuasive writers.

Dickson, Felton, Petit, and others work under the premise that students are able to verbally persuade from a very early age through their spoken words – even if they are unaware that the structure of their conversation mirrors that of persuasive writing that they will be asked to master later in life. My writing workshop allows students to move from the concepts of verbal debate to writing well-organized and supported persuasive essays.

## Data Collection and Results

### *Data Collection*

#### *Methodology*

I decided to implement a short mini-lesson on general persuasive writing skills. My thought was that students within a 10<sup>th</sup>-grade honors English class should have had multiple exposures to both the terminology and how to write an effective persuasive paper, so they would have a high pre-test grade. The definitions are basic persuasive writing definitions while including a prompt for a written essay with a rubric that explains the expectations for scoring (see Appendix A).

After the pre-test, which gave me an idea of the prior knowledge of the students, I moved onto the verbal debate portion of the exercise. The verbal debate was informal in that students were not declared winners or losers. The debates were based on splitting the class into four-person teams that had the opportunity to randomly draw an index card with a pre-written pro or con side to a specific debate topic, and then prepare their argument (see Appendix B). They had 10 minutes to construct their argument for their specific prompt. They were called in sequential order to debate against the other team that was arguing the opposing side. During these 10 minutes of brainstorming, they were provided with pre-writing graphic organizers to assist in constructing their individual arguments (see Appendix C). Students were also provided a graphic organizer to use to take notes during the process of the debate (see Appendix D). The notes taken on the graphic organizers used during the debate were to be used during the rebuttal phase of the debates. The students had approximately 3 minutes to look over their notes and the other side's arguments. After this final brainstorming session, they returned to complete a 2-minute rebuttal process to any counterarguments made from the other side. After the rebuttal phase, the debate was complete. No winners or losers were declared, but, instead, we used time to discuss the process of individual arguments, and the importance of evidence and support in their particular argument and rebuttal.

After two class periods, the students finished the verbal debate portion of the lesson. We then summarized what we learned about the basics of arguments. In summary, good arguments are ones that have sound support and evidence to back their claim on the next day, I lectured on the organization of an essay and how to effectively construct a persuasive essay. With verbal practice of the terminology and skills used to write a persuasive essay and a pre-writing graphic

organizer, students then completed a post-test. The post-test included the same vocabulary words as the pre-test, and another written essay prompt with the same rubric.

## *Results*

### *Pre-test Analysis*

The results of the pre-test confirmed that the majority of the students did not have a good grasp of the skills needed to write a marginal persuasive essay. The grades ranged from the lowest grade of 46 out of 100 to the highest grade (by two students) of 77 out of 100. The mean score for the pre-test was 61 out of 100 (see Appendix E). While a 77 is a passing grade, it requires a general and a closer look where the students lost the majority of their points.

On the pre-test, students lost a majority of their overall points on the definitions of terms that drive the understanding of writing a persuasive essay such as logical appeal, emotional appeal, claim, ethical appeal, etc. If students have a firm grasp of these specific definitions, then they are well on the way to understanding the basics of writing a persuasive essay. While many of the students made very good guesses at the definitions, they were incomplete or wrong, at the heart of the definition. This is where the majority of the class lost points on their pre-test, but the issue was addressed during 1-one day lecture of information about the how's and why's of persuasive writing.

For the most part, the essays were not where students lost the majority of the points. There were common errors that were addressed, with lecture information given to the students on addressing counterarguments, laying out a strong thesis statement, and providing logical evidence to back up their specific argument concerning the prompt.

### *Post-test Analysis*

The post-test on persuasive writing was much more successful academically than the pre-test, which is the ideal situation of pre-test and post-test. The post-test was given to 19, 10th-grade honor students after a 2-day lesson which included two main activities to build on the basic knowledge that the students had already encountered in previous classes.

The same test was given to the students with different writing prompts for the essay portion of the test. They were also able to use a graphic organizer supplied by the State of Georgia to help them pre-write. To my knowledge, this is a strategy none of them use on their pre-test.

The mean score for the post-test was 87 of 100. The posttest revealed a range of grades with the highest of 94 being earned by two student. The students were much more able to provide working definitions of the key terms associated with persuasive writing, and their essays improved, also. The lowest of the grades was 77 out of 100 (see Appendices F and G). This grade was scored by a student who did not participate in the lesson between the pre-and post-test. I am not sure if this is what led to his lower grade, but he was almost 10 points lower than the rest of the class.

Obviously, there was a great, over-all improvement from pre-test to post-test with this group of students.

### *Reflection*

I chose persuasive writing because of its importance in our society, as well as in our daily lives: presidential elections, advertisements, and business writing are all infused with persuasion. Not only is it important for students to learn about it for testing, but, also, for them to be able to recognize it and understand the specific structures of successful writing.

For the most part, the students within this class were compliant with this mini-lesson on persuasive writing. Although, the majority of them voiced that they were more than capable of performing this sort of writing in a sufficient manner, despite their dismal pre-test scores. After the pre-test, I was not so sure that they were as prepared as I had expected them to be, especially being an honors class of English students. The pre-test results were dismal at best, but most of the really low scores (47, 46, and 49) were due to the lack of persuasive writing vocabulary knowledge combined with the lack of writing skills (argument, counterarguments, claims, evidence, and appeals) that are specific to persuasive writing.

Due to the short time period that I had to work with this group of students, the time to reflect between the pre-test and post-test was minimal, at best. I knew, from glancing at the pre-test, that the students and I needed to review and discuss the vocabulary included in persuasive writing, since that is where the majority of points were lost in the pre-test, and then gained in the post-test.

The lesson was spread out over 4 days. First, the students were administered the pre-test, which took a whole, 90-minute block. On the second day, the students participated in a verbal debate to help them understand that arguing verbally is similar to the written version of arguments. The debate activity was most beneficial to illustrate arguments, counterarguments, and rebuttals. The third day consisted of a discussion of the vocabulary associated with persuasive writing; sometimes, it was as simple as defining the term in a more understandable way, but we did take more time with the three appeals present in most persuasive writing. We also used this class time to cover organizing and pre-writing a persuasive essay, which seemed to trouble most of the students on the pre-test. This took an entire class period. On the final day of the lesson, the post-test.

### Conclusions and Recommendations

Overall, the process of introducing verbal debate was helpful to the scores on vocabulary and writing associated with the persuasive genre of the post-test scores. In general, the workshop had a positive impact on the students' understanding of argument and persuasive writing. Specifically, debate allowed students to understand the verbal process of argument (something had been doing since age 2) and to apply it to the writing process.

Since I am in the M.Ed. initial licensure program, I performed this action research project in the classroom of the cooperating teacher. At the end of my student teaching at the school, she asked me to forward her the workshop so that she could include the activities in her future lessons on persuasive writing. The literature cited in my literature review supported the fact that this was an excellent opportunity for students to scaffold the ideas of argument from a verbal situation into a high-stakes, written situation.

In this individual study, I would put more emphasis on counterarguments, which the majority of students still had trouble organizing into their writing. They did not seem sure where to place or how to address counterargument. Most students felt like they were taking away from their own argument by addressing the opposing argument, despite the fact that an address of any counterarguments inherently strengthens their claim.

In an informal poll of the students, most of them felt that the workshop was helpful, but it was difficult for them to see the connection of the verbal debate to the writing process. However, in reflection, it is obvious that they gained insight into arguments, and shaping them throughout the process, by their increase in testing scores. I do think students could use more real-life examples to understand the debate situation.

One way that technology could be incorporated into this workshop would be to allow students to view presidential or other debates, while pointing out the fallacies that also accompany the debate process. I would recommend doing this prior to their individual debates to allow them a deeper understanding of the process. Teachers could also create a multi-media presentation of the fallacies that are often inherent within arguments.

Ironically, if I were implementing this workshop, and needed funding through grants to enhance or purchase materials, I would need to have a firm grasp of persuasive writing since I would be convincing a group or foundation why I should be awarded money to fund my work. There are a multitude of grants that are available for inspiring students to write such as The Bob Costas Grants for The Teaching of Writing, which rewards teachers who inspire students by using new approaches to write a (\$3,000 award). Harvard University also has a grant program that reaches out to teaching professionals who are using innovative approaches to teaching writing in their classroom. Not only can you receive money to assist with the implementation of a writing workshop, but also participate with other teachers to organize your writing workshop (Teachers Network, n.d.).

Overall, there is a broad range of financial support for writing within the classroom. This support speaks volumes to the importance of writing within the education of children in today's technology-based classroom. While it is important to include technology when possible, it is also important to remember that persuasive writing is an important part of our society. It is a form of writing that students need to learn and understand to have an active voice in society.

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## Appendix A

### Pre-Test for Persuasive Writing Knowledge

#### Pre-Test for Knowledge on Persuasive Writing

Vocabulary: Define or give a description of each term used in persuasive writing.

1. Persuasive Writing:

2. Thesis:

3. Logical Appeals:

4. Emotional Appeals:

5. Ethical Appeal:

6. Claim:

7. Evidence:

8. Audience:

9. Position:

10. Personal Anecdote:

## II. Sample Persuasive Essay. Pre-Test Question.

*Writing Situation:* Many celebrities-such as actors, musicians, models, or athletes-make a great deal of money. Some people think celebrities make more money than they deserve. Other people think celebrities' wealth is deserved because of the enjoyment they bring to the public.

Do you agree or disagree that celebrities make more money than they deserve?

*Directions for Writing:* Now, write an essay in which you persuade the reader that your side of the issue is correct. Use facts and examples to support your argument.

The supplied rubric will be used to evaluate your success on this part of the test.

## Rubric Used for Grading Persuasive Essay:

<b>STUDENTS NAME:</b>		
<b>DOMAIN</b>	<b>POSSIBLE POINTS</b>	<b>POINTS EARNED</b>
<i>Content/Organization:</i> <ul style="list-style-type: none"> <li>• Thesis statement is apparent with two to three reasons to back up the statement</li> <li>• Identification of counter arguments</li> <li>• Clearly developed supporting ideas</li> <li>• Possible objections and responses</li> <li>• Logical organization and transitions</li> <li>• Sense of completeness to the essay</li> </ul>	<b>30</b>	
<i>Style:</i> <ul style="list-style-type: none"> <li>• Effective diction (word choice)</li> <li>• Varied sentence structure</li> <li>• Tone is consistent with topic and purpose</li> <li>• Sense of audience within the essay</li> </ul>	<b>10</b>	
<i>Conventions:</i> <ul style="list-style-type: none"> <li>• Appropriate usage</li> <li>• Appropriate mechanics (grammar, spelling, punctuation, etc.)</li> <li>• Complete sentences or functional fragments</li> </ul>	<b>10</b>	
	<b>Possible Points: 50</b>	<b>Points Earned:</b>

## Appendix B

### Selected Verbal Debate Questions

1. Suppose your school district has proposed saving money by eliminating extra curricular activities/sports programs such as cheerleading, football, baseball or band) from the high school program. What are the effects of cutting these programs from school? Argue your side (pro or con) as indicated on the index card, and give reasons and specific examples.
2. In some countries, students are responsible for the basic cleaning of their school building. Fifteen minutes are set aside each day for all students to sweep, dust or clean their classrooms and hallways. How would you feel if students were responsible for the cleaning of your school? Argue your side (pro or con) as indicated on the index card, and give reasons and specific examples.
3. Current research suggests that because teenagers have different sleep patterns, they could benefit from having school start at a later time in the morning. Suppose your school started at 9:30 a.m. and ended at 4:30 p.m. Consider carefully the advantages and disadvantages of a later starting time. Argue your side (pro or con) as indicated on the index card, and give reasons and specific examples.
4. The school board is considering keeping school in session all year. Instead of a longer break in the summertime, there would be many shorter breaks throughout the year. Think about a 12-month school year – Is this a good idea? Why or why not? Argue your side as indicated on the index card (pro or con), and give reasons and specific examples.
5. A law has been passed that requires students to pass an exit test before they graduate from high school. Consider the advantages and disadvantages of passing a required exit test. Argue your side as indicated on the index card (pro or con), and give reasons and specific examples.

## Appendix C

### Pre-Writing Graphic Organizers

Pre-Writing Organizers to use in Persuasive Debate and Writing Activity:

Persuasive Writing Outline

Opening: (Ask a question, state an interesting fact, share a short personal event.)

Position or Opinion Statement: (This is how you see things or feel about things.)

Reasons: (Provide 3 to 4 reasons, based in facts, to support your position. Remember to respond to any possible counterarguments that a reader could make to your reasons.)

1.

2.

3.

4.

Closing: (Restate your position and make a proposal: What do you want done?)

Georgia Department of Education  
Kathy Cox, State Superintendent of Schools

Appendix D  
Graphic Organizer for Use During the Debate

POSITION: WHAT IS YOUR POSITION ON THIS ISSUE?

I believe

The graphic organizer is a three-level pyramid structure. The top level is a triangle with two boxes for notes. The middle level is a rectangle with a question prompt and a large box for notes. The bottom level is a rectangle with a question prompt and a large box for notes. The levels are connected by lines forming a pyramid shape.

REASON: What is your reason for this position?

CRITICISM: How did your opponent criticize your reason(s)?

RESPONSE: How did you or could you respond to these criticisms?

## Appendix E

### Post-Test of Persuasive Writing

#### Post-Test for Knowledge on Persuasive Writing

Vocabulary: Define or give a description of each term used in persuasive writing.

1. Persuasive Writing:

2. Thesis:

3. Logical Appeals:

4. Emotional Appeals:

5. Ethical Appeal:

6. Claim:

7. Evidence:

8. Audience:

9. Position:

10. Personal Anecdote:

## II. Sample Persuasive Essay. Post-Test Question.

*Writing Situation:* Due to potential problems, many school systems have adopted a policy that bans cell phones and pagers on school grounds. However, some parents have provided these items out of concern for safety.

Do you agree or disagree that cell phones and pagers should be banned on school grounds?

*Directions for Writing:* Now, write an essay in which you convince the reader of your opinion. Support your position with specific reasons and examples.



## Rubric Used for Grading Persuasive Essay:

<b>STUDENTS NAME:</b>		
<b>DOMAIN</b>	<b>POSSIBLE POINTS</b>	<b>POINTS EARNED</b>
<i>Content/Organization:</i> <ul style="list-style-type: none"> <li>• Thesis statement is apparent with two to three reasons to back up the statement</li> <li>• Identification of counter arguments</li> <li>• Clearly developed supporting ideas</li> <li>• Possible objections and responses</li> <li>• Logical organization and transitions</li> <li>• Sense of completeness to the essay</li> </ul>	<b>30</b>	
<i>Style:</i> <ul style="list-style-type: none"> <li>• Effective diction (word choice)</li> <li>• Varied sentence structure</li> <li>• Tone is consistent with topic and purpose</li> <li>• Sense of audience within the essay</li> </ul>	<b>10</b>	
<i>Conventions:</i> <ul style="list-style-type: none"> <li>• Appropriate usage</li> <li>• Appropriate mechanics (grammar, spelling, punctuation, etc.)</li> <li>• Complete sentences or functional fragments</li> </ul>	<b>10</b>	
	<b>Possible Points: 50</b>	<b>Points Earned:</b>

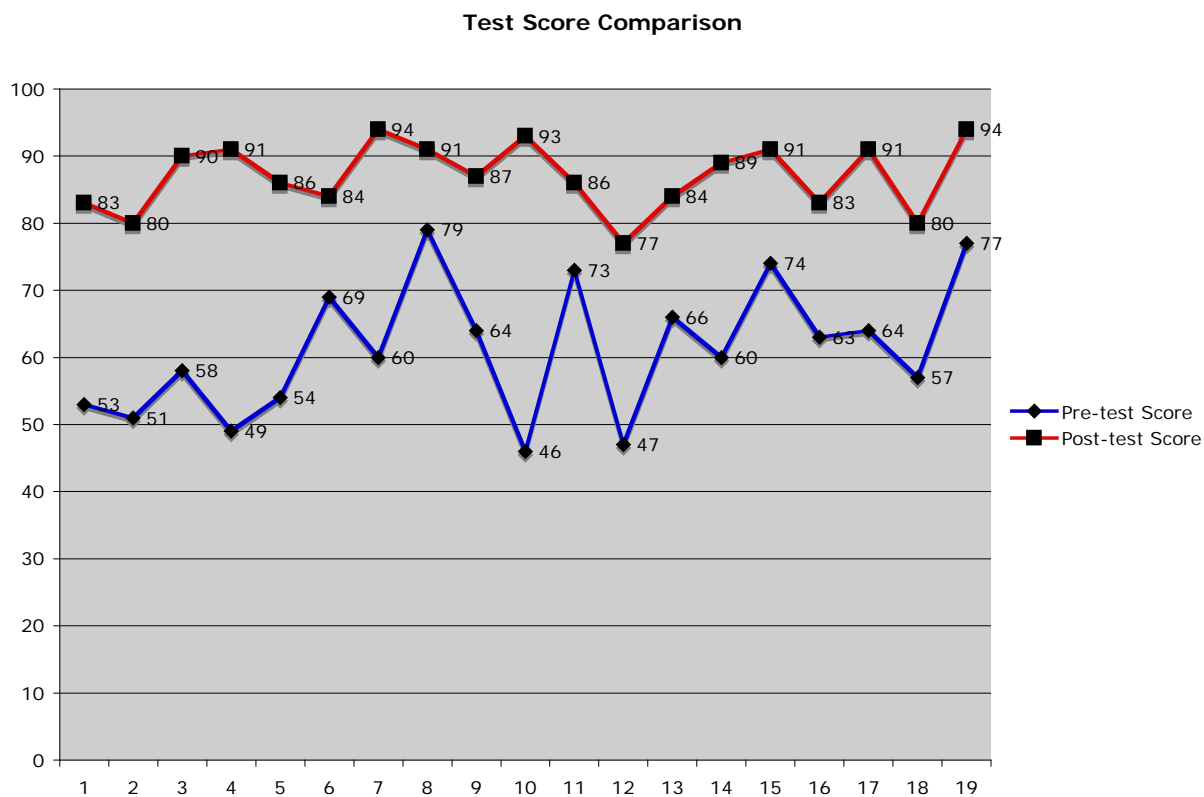
## Appendix F

## Scores for Students on Pre-Test and Post-Test

<b>Student</b>	<b>Pre-test Score</b>	<b>Post-test Score</b>
st 1	53	83
st 2	51	80
st 3	58	90
st 4	49	91
st 5	54	86
st 6	69	84
st 7	60	94
st 8	79	91
st 9	64	87
st 10	46	93
st 11	73	86
st 12	47	77
st 13	66	84
st 14	60	89
st 15	74	91
st 16	63	83
st 17	64	91
st 18	57	80
st 19	77	94

## Appendix G

## Comparison of Pre-Test and Post-Test Scores



Positive Effects of Parental Involvement on a Child's Education

Lydia Rawlings

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-130.

### Introduction to the Problem

School-aged children spend 180 days a year and 7 hours per day per school. However, it has long been accepted that education must expand beyond the school and the classroom. Parental involvement in a child's education has consistently been a popular topic of research, and the general consensus is that the involvement of parents in education has a strong positive correlation with a child's academic success. One Chattanooga School is among many magnet schools with a parental involvement requirement in order for students to attend. As a public school that serves a very diverse population of students, around one in five of which are economically disadvantaged, the school's success, in comparison to other schools within Hamilton County is something to be noted; on the 2008 state report card, the school was one of seven Hamilton County schools to receive straight As in academic achievement and value-added score. Though the school's success cannot be attributed solely to one aspect of the school, the success that this school has experienced is clearly a product of the time and commitment that the parents put into the school. However, exactly how and why this parent involvement positively affects the success of the students was not clearly defined.

### Review of Literature

Many have drawn a correlation between declining success of public schools and the many significant changes in the demographics of families in the United States in recent years, which, Fishel and Ramirez (2005), report has caused the issue of parental involvement in education to become a main concern. Conducting a study that reviewed 24 studies taking place between 1984 and 2003, Fishel and Ramirez attempted to find how parental involvement truly affects a child's educational success. As is widely used by many researchers of the topic, Fishel and Ramirez defined parental involvement using Epstein's classification of six involvement

categories: parenting, communicating, learning at home, volunteering/attending, decision making, and community connections. No conclusive evidence was found in this study that parental involvement has a positive effect on a child's educational success; however, certain specific activities were found to impact a child's learning, such as involvement in learning at home.

Another study, conducted on the effects of parental involvement on a student's success in the specific area of mathematics, found evidence of the strong role parents play. Sheldon and Epstein (2005) focused primarily on parental involvement promoting math achievement, and they found that the type and quality of parental involvement is very important. To promote this kind of involvement, schools need to offer a variety of opportunities for parents to become involved. This allows all parents to become involved in the school and their child's education, despite challenges some parents might face with time or level of commitment, as well as involving parents throughout many aspects of the educational process; one kind of involvement from one group of parents cannot ensure success. Sheldon and Epstein found that parental attitude toward their child's education and parent training made a strong impact.

Ingram, Wolfe, and Lieberman (2007) stated that, though there is great motivation to involve parents in education, many schools have not ascertained how to do so effectively. Surveying parents of low-income and at-risk children in high-achieving schools, and using Epstein's categorization of parental involvement, the study found that parenting and learning at home were the categories in which parents were most often involved. Though many of these parents were given opportunities by schools to volunteer, many were unable to participate. Ingram, Wolfe, and Lieberman suggest that schools provide parents with details about how they can work with their children at home to assist in the education process. It is also important for

schools to provide their faculty with appropriate training on how to interact with parents and get all parents involved.

Christenson, Rounds, and Gorney (1992) found that student achievement is linked to parental expectations for their children, the learning environment and encouragement of learning at home, and parental involvement in each of Epstein's categories. When parents have realistic and positive expectations for their children, the parents' attitude toward the child's education can positively reinforce the child's attitude toward learning, leading to greater success. Reinforcing and encouraging learning at home incorporates the use of homework as a connection between school and home. Christenson, Rounds, and Gorney emphasize that learning at home cannot improve a child's success without parental involvement at school, as well; parents must be involved at every level of their child's education. It was also seen that parents who were involved at their child's school had a more positive attitude toward the school, and their child's education there.

In a study of 41 elementary schools, Griffith (1996) found that schools with a great degree of parental involvement showed significant success in standardized test scores. This occurred throughout both urban and suburban schools, with varying levels of resources and a broad student population. These schools attempted to suit the needs of parents when getting them involved; this helped parents have an assured opinion of the schools and the education their children were receiving, and in turn, encouraging parental involvement more.

## Data Collection and Results

### *Data Collection*

#### *Participants*

Participants in this study are parents or guardians of children attending kindergarten through fifth grade at a Hamilton County magnet school. Every parent/guardian of students in these grades was asked to participate, totaling 360. All teachers in the elementary grades were also asked to participate in this study. This totaled 18 members of the faculty.

### *Instruments*

Two surveys were created for this study to be distributed to participants. The first survey was created for the parents/guardians of students at the school. This survey includes 10 multiple-choice questions about the involvement of the parent/guardian in his or her child's schooling, focusing, mainly, on four categories: amount of involvement, type of involvement, continuing education outside of school, and attitude toward their child's education and the school. The survey questions ask specifically about the amount of time that the parent/guardian spends each year volunteering at the school or at school events and the kind of activities in which they participate. The activities listed on the survey were taken from the section of the school's parent handbook that lists possible volunteer activities for parents. The survey includes questions about the time the parent/guardian spends on school or academic-related activities outside of school hours (at night, on the weekends, or during school holidays). The survey asks parents to express their beliefs on the importance of education for their child, and the level of comfort and connection they feel with the teachers and administration at the school. The survey concludes with a section for comments. (See Appendix A for the parent/guardian survey.)

The survey created for the teachers includes seven questions about parent volunteers and parent involvement. It asks the number of parents that participate and volunteer each year and the types of activities in which they participate. It asks the teacher's opinion on the active interest of parents in their child's education, the ways in which parents supplement learning, and the



importance of parental involvement in education. The survey concludes with a section for comments. (See Appendix B for the teacher survey.)

### *Procedures*

One teacher survey and twenty parent/guardian surveys will be placed in an envelope; the envelope will also include a letter of introduction and explanation from the researcher, the participant consent forms, and instructions about completion and collection of the surveys. The instructions will ask teachers to send a parent/guardian survey home with each student and place completed surveys back in the envelope as they return, ensuring the anonymity of the person completing the survey from the researcher. The envelopes will then be collected by the researcher on the date prescribed—1 week after the distribution of the surveys.

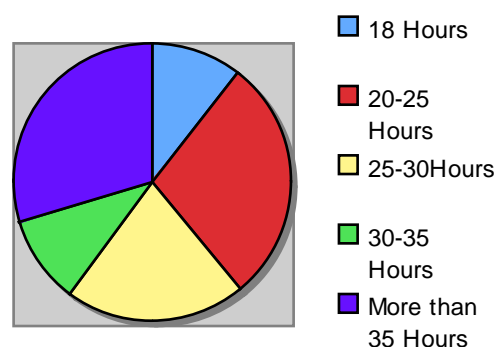
Surveys will then be organized into eight categories—one per grade level, one multi-grade for surveys completed by parents of more than one child at the school, and one for surveys completed by teachers. Once categorized, the data from the surveys will be analyzed.

### *Results*

#### *Data Analysis*

One hundred and fifty-three of the 360 parent/guardian surveys (42.5%) were returned: 33 from kindergarten parents, 32 from first-grade parents, 35 from second-grade parents, 13 from third-grade parents, 10 from fourth-grade parents, 14 from fifth-grade parents, and 16 from parents with students in more than one grade. Focusing on the four categories specified in the procedures--amount of involvement, type of involvement, continuing education outside of school, and attitude toward their child's education and the school—these surveys were analyzed and results recorded.

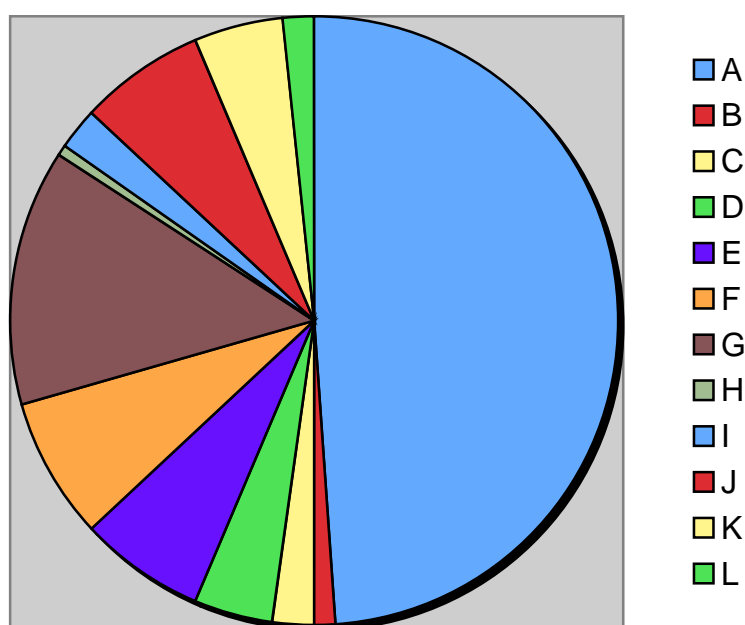
Questions 2 and 3 of the survey questioned parents on the amount of time they usually spent volunteering with the school and the amount of time expected to volunteer this year. Parents of students that were in their first year the school, including kindergarten students, did not answer question 2, about prior volunteering. Of the 130 answers received, the most frequent answers were “20-25 hours” (38.5%), “more than 35 hours” (21.5%), and “25-30 hours” (20.8%). Only 12.3% listed the minimum requirement of 18 hours as their typical time spent volunteering, and 6.9% said that they usually spend 30-35 hours volunteering. One hundred and fifty-one answers were received for question 3, the expected amount of volunteer time to be spent this school year. The answer received most often for this question was “more than 35 hours” (29.8%). Other responses included the following: 28.5% listed “20-25 hours,” 21.2% listed “25-30 hours,” 9.9% listed “30-35 hours,” and only 10.6% listed the minimum requirement of 18 hours (see Figure 1).



*Figure 1.* Answers to Question 3: Time parents expect to spend volunteering this year.

Questions 4 and 5 focused on how parents volunteer with the school, asking about specific activities in which they participate. In question 4, parents were asked to indicate all areas in which they participate. Every activity listed was chosen as an activity in which parents

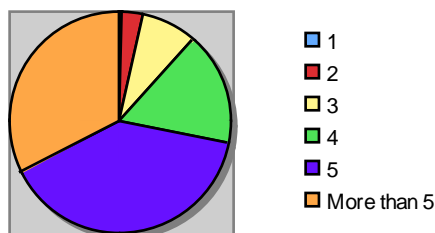
participate; the activity indicated least was attending parent classes, which was chosen by only 28 parents. The activities indicated most frequently were attending parent/teacher conferences, chosen by 146 parents, chaperoning field trips, which was chosen by 141 parents, and bringing food and drinks for events, which was chosen by 122 parents. When looking at question 5, how parents spend a majority of their volunteer time, every activity was, again, indicated. For answers given the most often, 54% of parents listed chaperoning field trips as an activity in which a majority of their volunteer hours are spent, and 15% listed helping teachers in the classroom. Most parents indicated more than one activity for this answer (see Figure 2).



*Figure 2.* Answers to question 5: How do parents spend their time volunteering? Letters coordinate with the letters of answers on the parent survey (see Appendix A).

Questions 6 and 8 questioned parents about the continuing of students' education outside of school. When asked the number of nights per week that parents assist their child in school-

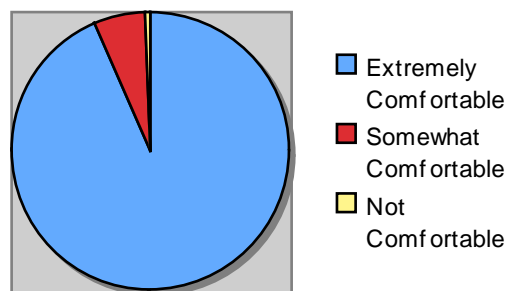
related activities (question 6), 39.8% said that they help their child 5 nights per week, 32.7% said that they help their child more than 5 nights per week, and only 1 parent said that they help their child 1 night per week (see Figure 3).



*Figure 3.* Answers to question 6: The number of nights per week parents help children with school-related activities.

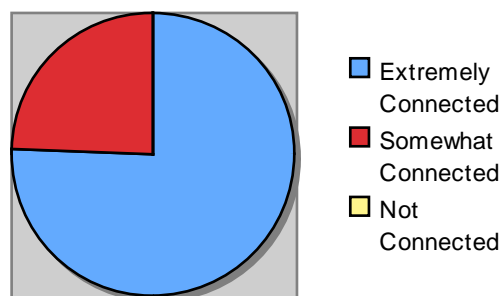
When asked, in question 8, whether or not parents participated with their children in academic activities on the weekends and during the summer, 148 parents (96.7%) answered that they did, while only 5 parents answered that they did not.

The remainder of the questions on the survey, questions 7, 9, and 10 asked parents about their attitudes toward their child's education and school. In question 7, parents indicated that education is extremely important for their child, no parents indicated that education is somewhat important, and only 1 parent indicated that education is something that is required. Questions 9 and 10 asked parents about how comfortable they are toward the school and how connected they feel to the school. In question 9, 92.8% indicated that they felt extremely comfortable with the teacher and administration at the school, 5.8% indicated that they felt somewhat comfortable, and less than 1% indicated that they did not feel comfortable (see Figure 4).



*Figure 4.* Answers to question 9: How comfortable do parents feel with the teachers and administration?

When asked, in question 10, how connected they felt to the school, 75% of parents indicated that they felt extremely connected to the school, 25% indicated that they felt somewhat connected, and no parents indicated that they did not feel connected at all (see Figure 5).



*Figure 5.* Answers to question 10: How connected do parents feel to the school?

Of the 18 surveys that were sent to teachers, 5 surveys were returned; teachers from kindergarten, first grade, second grade, third grade, and fourth grade completed and returned a teacher survey. In response to the first question that asked about the number of parent volunteers the teacher has, each teacher provided a different answer: kindergarten has 20+ volunteers, first grade has 10 volunteers, second grade wrote that all of the parents participate in the required

activities, third grade has 25 volunteers, and fourth grade has 3-5 volunteers in the classroom and 15-20 total.

Question 2 asked about the type of activities that teachers see parents participating in most often. All five teachers indicated chaperoning field trips, parent/teacher conferences, and bringing food/drinks for events. Four out of five teachers indicated assisting in the classroom and organizing special events. When asked to list other activities in which parents frequently participate, the kindergarten art show and attending parent workshops were listed.

Four out of the five teachers answered that almost every parent displays an active interest in their child's education, on question 3. The fifth teacher answered that some of the parents in my class display an active interest and are active. No parents chose the option of very few of the parents show an active interest. All five teachers indicated parent involvement plays an integral role in student success, in question 6.

When asked if and how parent involvement supplements learning at school, in questions 4 and 5, all five teachers indicated that parental involvement does supplement learning. The teachers listed many ways, including helping with homework, chaperoning field trips, volunteering with in-class activities, taking children to the library, reading at home and practicing sight words, reviewing skills learned at school, being a team player, discussing curriculum and life knowledge with their child, and getting a tutor for their child, if needed.

## Conclusions and Recommendations

### *Conclusions*

After reviewing the results of the surveys given to parents and teachers, it is clear that the parental involvement at the school plays an integral role in the success of the school's students due to the amount of time each parent spends, the broad range of activities in which parents are

involved, the amount of time spent continuing education at home, the positive attitude toward education and high expectations the parents hold, and the partnership that exists between the school and parents. Though every parent is required to have 18 volunteer hours, the surveys revealed that 90% of the parents planned to participate for more than that requirement. The majority of parents marked that they are planning to serve for more than 35 hours, or twice the requirement. Because the parents are willing to spend this amount of time at the school, great amounts of progress can be made; their presence can truly be taken advantage of, and they can be used to assist the students to the fullest extent.

The surveys revealed that parents are participating in every activity that is offered by the school. In concurrence with the research, the school has parents involved in activities that range across each of Epstein's categories of parental involvement; parents are involved in learning at home, as revealed by the amount of time parents spend assisting their children in school-related activities, and educational activities during the summer or on weekends, they are involved in volunteering at school through the many different volunteer opportunities, and they are helping to make decisions about the school, as revealed in the number of parents who participate in the PTSA. Parents have been provided many opportunities to participate in volunteer activities, and the school has tried to suit the needs of the parents when planning activities such as Saturday workdays.

When asked about how parents play an integral role in education, the teachers listed activities such as homework, practicing skills, reading with children, taking children to the library, and learning at home. In their surveys, parents revealed that they spend a great amount of time working with their children on school-related activities; almost 40% of the parents surveyed said that they worked with their children 5 nights per week, and 30% said that they worked more

than 5 nights per week on school-related activities. Almost 97% of parents said that they participate in academic activities during nonschool days/nights, such as the summer or weekends. This type of commitment to continuing education at home allows students to constantly be learning and is reinforcing everything the students are learning at school.

Research has shown that parents' attitudes toward school and education, and expectations, are very influential on a child's success. Parents showed strong feelings about the importance of education, with 99% of parents answering that education is extremely important for their child. The amount of time the parents spend continuing education at home is also indicative of the importance placed on learning. Parents also showed a positive attitude toward the school, itself, indicating in 93% of cases that they felt extremely comfortable with the teachers and administrators at the school. Seventy-five percent of parents said that they felt extremely connected to the school and what was happening there. This positive attitude, comfort, and connection allows for communication between the home and school that, as one teacher stated in the teacher survey, allows for a partnership and a team toward each student's success.

Overall, it seems that the school has created the opportunity for each parent to participate and be involved in many different activities, and for a significant amount of time. This has allowed parents to feel connected and comfortable with the school and the faculty there, which allows for communication and a partnership toward the success of the students. Parents are committed to continuing the education of their children outside of school hours, and their attitudes toward the school and education have a positive influence on how their children view education and work toward it.



### *Recommendations*

Because this study was conducted at one school with a parent volunteer requirement, it is recommended that this study be repeated at other schools to reveal the universality of the findings. Implementing the aspects of this school's parent volunteer program at another school that does not have parental involvement, before repeating this study, would reveal a great deal about the effects of parental contributions to education. It would also be beneficial to repeat this study at this school, toward the end of a school year, to see if the findings are similar.

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Appendix A  
**Parent/Guardian Survey**

**1. What grade is your child currently in?**

- a. Kindergarten b. First c. Second d. Third e. Fourth f. Fifth

**2. If you are a returning parent, approximately how many hours do you spend volunteering at CSAS each year?**

- a. 18 b. 20-25 c. 25-30 d. 30-35 e. more than 35

**3. How many hours would you like to spend/plan to spend volunteering this year?**

- a. 18 b. 20-25 c. 25-30 d. 30-35 e. more than 35

**4. What activities have you/will you participate in as part of your volunteer hours? (circle all that apply)**

- a. Chaperoning field trips
- b. Attending parent classes
- c. Attending the 2 mandatory Parent/Teacher conference
- d. Bringing food or drinks for events
- e. Serving on PTSA Board, working PTSA events, or working athletic events
- f. Completing tasks in a parent/teacher workroom
- g. Assisting a teacher in the classroom
- h. Acting as a monitor in hallways, cafeteria, car line, etc.
- i. Improving school building/grounds
- j. Saturday Workdays
- k. Organizing special events
- l. Completing assigned tasks at home with specific instructions

**5. If more than one activity was picked in question 4, please indicate the activity through which a majority of your time is spent. \_\_\_\_\_**

**6. How many nights a week do you assist your child in school-related activities?**

- a. 1 b. 2 c. 3 d. 4 e. 5 f. more than 5

**7. How important do you consider education to be for your child?**

- a. Extremely important b. Somewhat important c. Something that is required

**8. Do you and your children participate in academic events on the weekends/in the summer? (reading together, visiting museums, camps, etc.)**

- a. yes b. no

**9. How comfortable do you feel with your child's classroom teacher and administration?**

- a. Extremely comfortable: I could approach them with any concerns or thoughts that I have.
- b. Somewhat comfortable: It might be difficult for me to approach them with concerns.
- c. Not comfortable: I would not feel comfortable approaching them with concerns.

**10. How connected do you feel to the school?**

- a. Extremely connected b. Somewhat connected c. Not very connected at all

**11. Any additional comments:**

Appendix B  
**Teacher Survey**

**1. About how many parent volunteers do you have help in or with your classroom each year?**

\_\_\_\_\_

**2. What activities do parents/guardians typically participate in? (circle all that apply)**

- a. Chaperoning field trips
- b. Parent/Teacher conferences
- c. Bringing food or drinks for events
- d. Assisting in the classroom
- e. Organizing special events
- f. Other: \_\_\_\_\_

**3. Do you feel the parents in your classroom take an active role and are actively involved in their child's education?**

- a. Yes, almost every parent displays active interest
- b. Yes, some of the parents in my class display an interest and are active
- c. Very few of the parents in my class show an active interest

**4. Do you feel their involvement supplements the learning at school?**

- a. Yes
- b. Somewhat
- c. Not really

**5. If so, please list a few ways in which parents supplement learning:** \_\_\_\_\_

\_\_\_\_\_

**6. In your opinion and from your experiences, how important is parental involvement to a student's success at school?**

- a. Parent involvement plays an integral role in student success
- b. Parent involvement helps, but is not crucial
- c. Parent involvement is not really that important

**7. What grade do you currently teach?**

- a. Kindergarten      b. First      c. Second      d. Third      e. Fourth      f. Fifth

**8. Any additional comments:** \_\_\_\_\_

\_\_\_\_\_

**Thank you for your help!**

Efficacy of Contracts On High School Students' Performance in a Computer Laboratory

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Education 590, Spring 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-153.

### Introduction to the Problem

The incorporation of computers into classroom curriculums is steadily increasing. As an example, four computer labs have been added in my high school during the last 3 years. These labs are only a few of the math labs that have been implemented by the local department of education. On a national scale, the NCTM encourages technology initiatives in its Principles and Standards for School Mathematics. “The Technology Principle unequivocally states the importance for all students to have access to a full range of technological tools” (National Council of Teachers of Mathematics, 2000, p. ). These technological tools include calculators and computers.

Teachers are challenged to motivate and guide students to use these computers in order to achieve lesson and curriculum objectives. If not properly managed, classroom computers can become a hindrance to learning and lead to classroom management problems. Classroom management issues can be very frustrating to teachers and are frequently cited as a reason for teachers leaving the profession (Malmgren, Trezek, & Paul, 2005). Initial research into this area finds several published articles related to this topic and discussions of various strategies that can be applied. A few such strategies are teaching computer ethics (Chmura, 2000), and teaching time management skills (Davis, 1998). However, my research found no articles that specifically address the use of behavior contracts in high school computer laboratories.

### *Area of Focus*

As a high school computer lab teacher, I have observed that computers can become a major distraction to the learning process. Easily accessed games and Web sites entice students to use the computers for activities unrelated to class objectives. Students using valuable computer time

for their own amusement may lead to lower grades, reduced learning experiences and, possibly, harmful psychological effects.

The area of focus for this action research project is to try one technique, a contract, to motivate the students to resist the temptation of inappropriate computer use and stay focused on lesson objectives. This contract was developed with student input. The contract details the benefits of staying focused on the lesson, names the harmful effects of inappropriate use, lists appropriate and inappropriate computer use, and explains the rewards and punishments that are involved. The students and teacher have signed the contracts. The contract is explained in more detail in the intervention details.

### *Research Questions*

There are four research questions associated with this action research project:

1. Is the nonacademic use of computers commonly observed by other teachers? When any of my students are habitually off task entertaining themselves with nonacademic computer activities, I become extremely frustrated in my teaching efforts. The intent of the first research question is to determine if other computer lab teachers are experiencing similar frustrations from student misuse of computers.
2. What percent of time on computers is academic? The answer to this research question will quantify how well my students are using technology in my classroom. The way I chose to measure this variable was to use Classroom Spy software to capture an image of what was on each student's monitor. These images were a snapshot in time of what each student was doing on their computer. I collected three snapshots per day, at random, from each of three classes for 3 days before the intervention and for 3 days after the intervention.

3. What is the relationship between grades and percent of time computers are used for academics? I will be comparing the overall grade average for project participants before and after the intervention.
4. How do students feel about this specific contract? The learning environment should be nurturing and not a conflict zone between teacher and students. Will the students be accepting of the contract and be encouraged to spend more time on task? Students were encouraged to provide verbal or written responses to the contract.

### *Hypothesis*

The hypothesis for this project is expressed in the null form: The contract will have no impact on student performance.

### *Assumptions*

There are five basic assumptions I've made with regard to this project:

1. The majority of parents will sign the parental consent form and be supportive of this project. I realize there may be some parents or guardians who choose not to sign any kind of release. In that case, their child's performance will be excluded from this study.
2. Students are able and willing to exercise some control over their own behavior. I believe the vast majority of my students will be positively influenced by the contract, if they understand the consequences.
3. Administration will support the contract. I need to verify that the language and requirements of the contract are something that the principal and his staff are in agreement with and will assist me in enforcing.



4. Appropriate use of computers will improve grades. My assumption is that time spent on academic tasks is related to academic performance and learning (Albright, Panos, & Mundo, 1995).
5. Grades are a reflection of learning. The assumption is that the quizzes and other graded assignments are a reliable assessment of learning.

### *Limitations*

The limitations I face are time and resources. The data collection phase of this project will need to be planned and implemented well to be successfully completed in a 6 to 9-week period. I am a limited resource. I need to continue to fulfill all of my regular teaching responsibilities during this project and carry out the tasks related to this project.

The other limited resource is the students. For this project, the only students I have access to are those assigned to my classes. I have no control of the assignment of students to my classes. Those students that provide the appropriate consent forms are the participants of this project.

### Review of Literature

Books, articles, and Web sites have been used to expand my understanding of the issues related to this project. The concept of action research being performed by teacher researchers and that action research is a cyclical process of continued improvement (Mills, 2007) was a new concept for me. What contracts are and how they can be used to modify student behavior (Salend, 2005) was a concept that could be applied in my classroom. Two articles, in particular, relating to behavior problems in computer labs gave me the insight that teaching students appropriate and ethical behavior (Chmura, 2000) and setting study skill and behavior expectations (Davis, 1998) are important. Three additional articles were influential in the formation of this project. One was a case study of high-performing, high technology schools that

found several common factors for success, including high rate of time on academic task. This case study also identified these schools as instilling self-discipline and a strong work ethic in their students (Sweet, Rasher, Abramitis, & Johnson, 2004). The second was an action research project with the stated goal of reducing student “off task behavior” using a dot/point reward system. This approach to improving student performance was unlike mine in that it used a complex charting system targeting specific behaviors (Butera, Giacone, & Wagner, 2008). However, the dot/point reward system provides the students with rewards and consequences for their behavior, as does the behavior agreement. This study claimed a 19% reduction in the targeted “off task behavior,” but admitted that some of the reduction resulted in shifts to nontargeted “off task behavior.” A third article I reviewed was an action research project that included the use of behavior agreements with third graders. The researchers concluded that encouraging responsible behavior is a critical component of the learning experience (Dodge, Nizzi, & Rudolph, 2007).

Regarding the legal rights of a teacher to restrict or monitor a student’s use of the Internet, one research paper examined three key legal cases addressing this issue. These cases are *Tinker v. Des Moines Independent Community School District* (1969), *Bethel School District No. 403 v. Fraser* (1986), and *Hazelwood School District v. Kuhlmeier* (1988) (Russell & Waters, 2008). The finding was that the legal system upholds the legal rights of a teacher to restrict or monitor a student’s use of the Internet under the following conditions: (a) Internet use is on school equipment and could substantially interfere with the learning environment, or (b) Internet use could infringe on the rights of other students. Furthermore, school policy needs to contain a detailed description regarding appropriate use of the Internet and the punishment students receive

for violating the policy. The behavior agreement described in the following section provides these descriptions.

### *Data Collection and Results*

The intervention chosen to reduce the problem of students using their classroom computers for nonacademic purposes is the implementation of a contract. This contract is a behavior agreement between the students and the teacher (Salend, 2005). Student participation in contract development is important for the contract to be effective. High school students respond more favorably when given behavior choices, as opposed to forced environments. The contract performs the following functions: (a) clarifies expected behavior, (b) identifies unacceptable behavior, (c) lists rewards, and (d) lists punishments. An example of each of these four functions will follow:

- Expected Behavior = Stay on task until assignment is complete.
- Unacceptable Behavior = Playing violent, first shooter games, such as Halo.
- Rewards = Better grades and more freedom in using your assigned computer.
- Punishments = Loss of right to use classroom computer.

These are just a few of the highlights addressed by the contract. A copy of the contract is included in Appendix C.

Enforcement of the contract terms is a very important aspect of the intervention. Without a strict and consistent application of the rewards and punishments, the contract would be of little value. It was impressive how quickly the marginally-performing students increased their effort after losing the use of their computer for a day because they failed to submit an assignment.

### *Project Population*

The participants in this project were three classes of 10-and 11-grade CAD1 students. Each class has 20 to 24 students, with boys making up 70% to 75% of the class. CAD1 is an elective subject, meaning most students choose to be in the class. The minority representation, at 18% is lower than that of the school population. The classes contain approximately 27% gifted students and 9% special education students. Students have a range of computer application skills from very low to very high. Many of these students are driven to get high grades, an A or B. These students are generally well-behaved and respectful of their teachers, and have avoided significant disciplinary actions such as suspension.

#### Variables Identified

The independent variable, which I control, is the contract or behavior agreement. Ultimately, I will be responsible for its content, form, and implementation.

The dependent variables I intend to measure are quiz grades, completion level of daily assignments, and observed inappropriate use of classroom computers.

Quizzes are given weekly and have been developed by me to assess how well the students have learned the week's material. The daily assignments are developed around the lesson learning objectives. The effectiveness of the daily assignments is determined by the completion rate, an indication of student effort and quiz grades.

Appropriate use of classroom computers will be determined by teacher observation and captured snapshots of what is on each student's computer monitor at appropriate times during the class.

#### Research Design

This is a mixed method action research project. There are seven different sources of data for this project. Four data sources are qualitative and three are quantitative. It is a comparative

study that will compare a baseline measurement of the dependent variables to these same variables after the intervention has been implemented. The same intervention will be applied to all three CAD1 classes, at the same time. All students are on a 90-minute block schedule and will be exposed to the intervention for the same time duration.

### Data Collection Methodology

The seven sources of data are (a) student survey – qualitative, (b) teacher observation – qualitative, (c) grade records – quantitative, (d) screen shot – quantitative, (e) bar graph – quantitative, (f) small group student interview – qualitative, and (g) teacher email survey – qualitative. To enhance validity, a data triangulation matrix was developed (see Figure 1).

Research Question	Data Source		
1) Frustration	7		
2) Academic Use	1	2	4
3) Relationship	3	4	5
4) Attitude	1	6	

*Figure 1.* Data triangulation matrix.

To enhance reliability, a teaching peer who teaches the same subject will be asked to evaluate how well my assessments are actually measuring the intended variable. Teaching peers will also be asked to review my study and surveys for any signs of bias.

### Data Analysis

SPSS and SYSTAT statistical software were used to calculate the statistical attributes of the collected data. The software was used to calculate means, and to perform paired t-tests on the means, to determine if a statistically significant shift had occurred between the before and after data. The statistical software was also used to generate bar graphs of the data. A striking visual

difference in the appearance of the bar graphs also indicates the effects of the contract on student use of computers, and, to a lesser degree, the effect on grades. This statistical data is displayed in Figure 2 and in Appendices A and B.

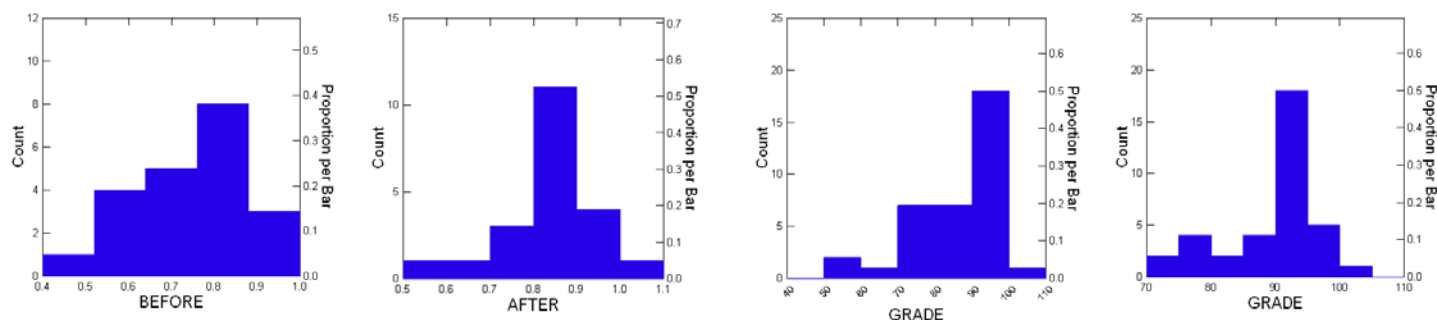
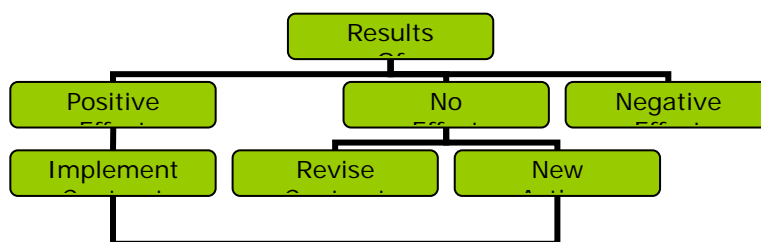


Figure 2 – Bar graphs, left two are percent academic use of PCs, right two are before and after grades.

### Action Plan

Once the data had been analyzed, the decision/concept map, shown in Figure 3, was

followed.



*Figure 3. Concept map.*

It is important to note that, regardless of the result of data analysis, the cycle of action research will be repeated. Action research will be used as a tool to continually improve the learning that takes place in my classroom.

The main goals of this action research project were to reduce my frustration with inappropriate student computer use and to improve student learning. This project was successful in reducing my frustration and enabled me to have a positive experience with a new tool for ongoing improvement, i.e., action research (Mills, 2007). My action plan is to continue to use and refine the contract and to use action research to improve the effectiveness of my classroom.

#### Project Time Line

The time line for this project began at the beginning of spring 2008 semester with Education 500. It was during this class that the project proposal was developed. The summer 2008 semester was spent doing independent research and developing the student and teacher surveys, as well as the contract. This research project was concluded during the fall 2008 semester with Education 590.

#### Results

The main goals were to reduce the frustration in teaching and improve student learning. Based on my own lower level of frustration and the statistical analysis of the before vs. after data on how students were using their computers, I was fortunate to achieve the first part of the ultimate goal. The average academic computer use by students was 76.5% before implementing the contract. This percentage increased to 83.6% after implementing the contract. A paired t-test of the average/mean data showed that the improvement was statistically significant with a 95%

confidence level (see Appendix B). Another observation that helped verify this lower level of frustration is that, during the “before” data collection, there were 11 incidents of students not submitting their daily work. This number dropped to four after implementing the contract.

The second main goal was to improve learning. Average grades were used as a measure of learning. Grades improved from 86.4 to 89.7 after implementing the contract. I was pleased with this improvement, but it was not statistically significant with a 95% confidence level (see Appendix A). The lack of a statistically significant improvement in grades suggests that additional variables are affecting grades. These variables could include intelligence, prior learning, level of difficulty of the lessons, and validity of the assessments. Another factor affecting average grade improvement was the bias in population selection, which is discussed in detail in the reflection section. The lack of a statistically significant improvement in grades does not preclude the fact that improved academic use of computers can improve grades. Documents are presented in Appendices A through H.

### Reflection

I had not anticipated how difficult and time-consuming it would be to get the parental consent form signed and returned. I sent forms home with students, mailed forms home, and gave students many reminders to return forms. Of my 59 students, I received only 39 (66%) of the parental consent forms. The extra effort to collect these forms added a week to the project. Student consent forms were much easier to collect. On 1 day, I had 52 (88%) of the forms signed. Once I had 35 (59%) students with both consent forms signed, I felt I could proceed with this project knowing I had a statistically significant sample size ( $>30$ ) to evaluate the effects of the behavior agreement.



However, the 35 students that provided both forms were not a random cross-section of the student population. The students who provided both forms tended to be the more responsible students that were less likely to misuse their lab computers. This situation may have caused the project to understate the benefits of the contract.

The response rate to the teacher survey was disappointing. I received a total of 26 surveys from two groups. The response rate was approximately 10%. The two groups sampled were (a) 100+ teachers in my high school, and (b) 100+ high school career and technology teachers in my school system.

In the student survey and teacher survey, respondents were asked to pick the percent of time computers were not being used for academic purposes. However, most students and some adults do not have a good understanding of percentage. It would have been better to use minutes.

Midway through the process of collecting the “after” data, the Classroom Spy software I was using to capture the snapshots was upgraded. The new version has a few bugs in it that make it much more difficult to collect the snapshots. I was concerned that this problem would sabotage my project. Fortunately, I was able to work around the problems. In retrospect, I should have delayed the upgrade until after my data was collected.

Note: Dr. Hinsdale Bernard was consulted to validate the statistical findings.

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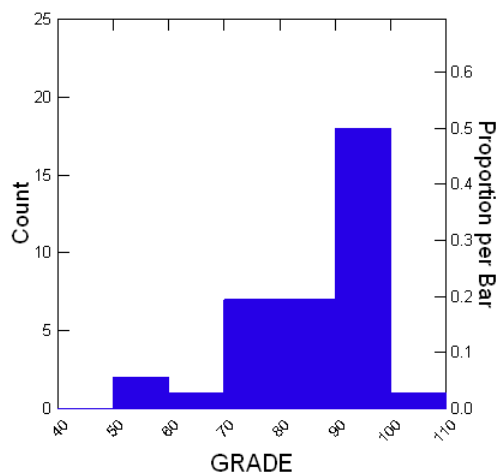
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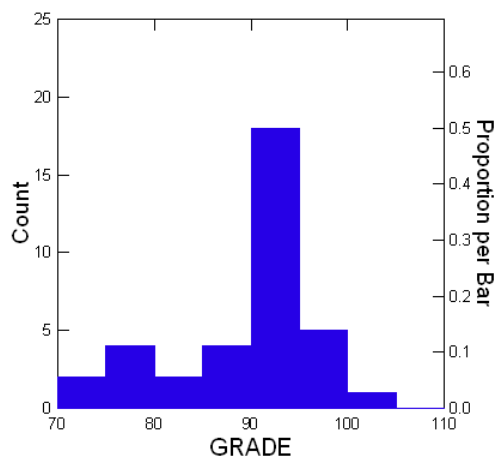
## Appendix A: Statistics – Grades Before vs. After

GRADE ANALYSIS▼ Variable Statistics: BEFORE

GRADE	
N of Cases	36
Minimum	50.000
Maximum	101.300
Median	91.250
Arithmetic Mean	86.389
Standard Deviation	12.279

▼ Variable Statistics: AFTER

GRADE	
N of Cases	36
Minimum	71.800
Maximum	100.200
Median	92.100
Arithmetic Mean	89.686
Standard Deviation	7.446

▼ Hypothesis Testing: Paired t-test

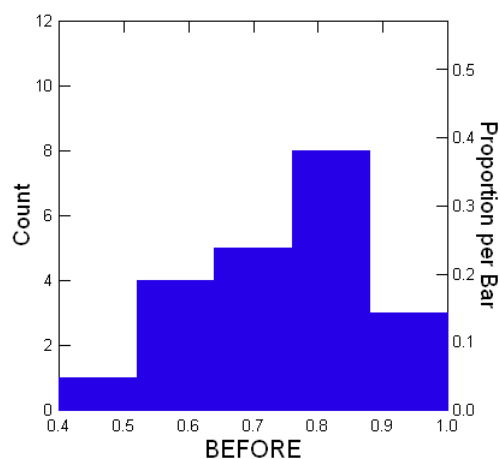
Mean Difference : -3.297  
 95.00% Confidence Interval : -6.908 to 0.313  
 Standard Deviation of Difference : 10.670  
 t : -1.854  
 df : 35  
 p-value : 0.072

p-value > .05  
 Not Statistically  
 Different

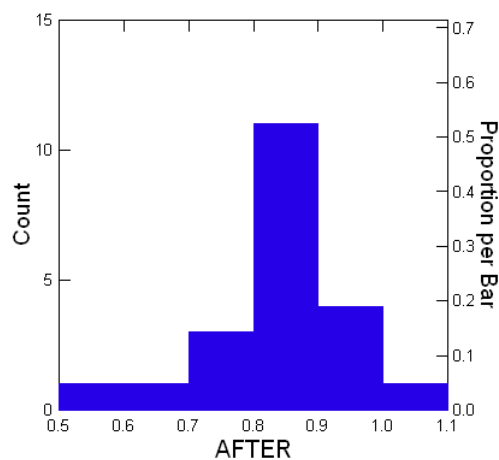
## Appendix B: Statistics – Academic Use of Computers Before vs. After

ACADEMIC COMPUTER USE ANALYSIS▼ Variable Statistics: BEFORE

PC USE	
N of Cases	21
Minimum	0.500
Maximum	0.938
Median	0.765
Arithmetic Mean	0.744
Standard Deviation	0.134

▼ Variable Statistics: AFTER

PC USE	
N of Cases	21
Minimum	0.533
Maximum	1.000
Median	0.850
Arithmetic Mean	0.836
Standard Deviation	0.105

▼Hypothesis Testing: Paired t-test

Mean Difference : -0.092  
 95.00% Confidence Interval : -0.175 to -0.009  
 Standard Deviation of Difference : 0.183  
 t : -2.308  
 df : 20  
 p-value : 0.032

p-value < .05  
 Is Statistically  
 Different

## Appendix C: Contract/Performance Agreement

### PERFORMANCE AGREEMENT

This document will serve to detail the desirable and undesirable activities that students perform on school computers in Mr. Rice's computer lab, room 405. This document will also list the rewards and benefits for students performing desirable activities as well as the penalties and disadvantages for performing undesirable activities. These lists will be developed with student participation with the expectation that students will sign this agreement and comply with its terms.

#### Desirable Activities

- 1) During class lectures or teacher-led discussions, turn off monitor if instructed to do so by your teacher. (Black Screen Time)
- 2) Focus your computer efforts on completing teacher-issued assignments before using computer for other activities.
- 3) Share your computer expertise with other students who may need help.
- 4) Do all your computer assignments on the computer assigned to you.

#### Undesirable Activities

- 1) Do not abuse, damage or mishandle computers.
- 2) Do not touch or play with someone else's computer.
- 3) Do not download any software onto your or anyone else's assigned computer.
- 4) Do not play violent or gory computer games. (No Guns or Killings)
- 5) Do not visit inappropriate or sexually explicit web sites.
- 6) Do not interfere with teacher's effort to project his screen on your monitor.

#### Rewards / Benefits

- 1) Better grades.
- 2) Develops your self control, which will when you start college or a career.
- 3) Free time after the daily assignment is completed with satisfactory effort.
- 4) Celebrate, when a class has a significant reduction in misuse of computer, with Pizza.

#### Penalties / Disadvantages

- 1) Verbal or Texted warning from the teacher
- 2) Computer restarted or shut down by teacher. (Your work may be lost.)
- 3) Teacher frequently monitoring your computer activity.
- 4) Seat / computer reassignment.
- 5) Loss of computer privileges. (Expect this, if daily work is not submitted.)
- 6) Suspension from School.
- 7) Removal from class.
- 8) Restricted from enrolling in other computer lab classes.

---

I understand the activities I am expected to perform in Mr. Rice's computer lab and agree to comply with the terms of this Performance Agreement.

---

Student Signature & Date

---

Teacher Signature & Date

## Appendix D: Student Survey

### Student Survey

The primary objective of this survey is to answer the following research question. What % of students' time on computers is academic? Non-academic use refers to activities that are unrelated to any teachers' lessons. The survey will also seek to identify the frequency and type of some non-academic activities.

**Q1** Are you a high school student?

☐ Yes      ☐ No (If No, stop here. Your survey is complete.)

**Q2** Does at least one of your high school classes meet in a computer lab at least 1 day per week?

☐ Yes      ☐ No (If No, stop here. Your survey is complete.)

**Q3** Have you used the lab computers for activities unrelated to a teacher's lesson or assignment? (For this survey, these activities are considered non-academic use of computers.)

☐ Yes      ☐ No (If No, stop here. Your survey is complete.)

**Q4** Have you intentionally or unintentionally caused damage to lab computers?

☐ Yes      ☐ No

**Q5** Have you played games on lab computers?

☐ Yes      ☐ No

**Q6** Have you played 1<sup>st</sup> shooter / violent games on lab computers?

☐ Yes      ☐ No

**Q7** Have you tried to access personal emails for personal reasons while on lab computers?

☐ Yes      ☐ No

**Q8** Have you downloaded programs or music using lab computers?

☐ Yes      ☐ No

**Q9** Please estimate the % of computer time spent on non-academic activities, such as those in questions Q4 → Q8.

☐ 0% → 10%,   ☐ 11% → 20%,   ☐ 21% → 30%,   ☐ 31% → 40%,   ☐ 41% +%

## Appendix E: Teacher Survey

**Teacher Survey**

The primary objective of this survey is to answer the following research question. Is the non-academic use of classroom computers a problem experienced by other teachers? Teachers in this case refer to high school teachers that have students working on computers at least 1 day per week. Non-academic use refers to activities that are unrelated to any teacher's lessons.

A secondary objective is to help answer the following research question. What % of students' time on computers is academic? The survey will also seek to identify the frequency of some non-academic activities.

**Q1** Are you a high school teacher?

☐ Yes ☐ No (If No, stop here. Your survey is complete.)

**Q2** Do you teach in a computer lab or take your students to a computer lab at least 1 day per week?

☐ Yes ☐ No (If No, stop here. Your survey is complete.)

**Q3** Have any of your students used the lab computers for activities unrelated to a teacher's lesson or assignment?

☐ Yes ☐ No (If No, stop here. Your survey is complete.)

**Q4** Have any of your students caused damage to lab computers?

☐ Yes ☐ No

**Q5** Have any of your students played games on lab computers?

☐ Yes ☐ No

**Q6** Have any of your students played 1<sup>st</sup> shooter / violent games on lab computers?

☐ Yes ☐ No

**Q7** Have any of your students tried to access personal emails on lab computers?

☐ Yes ☐ No

**Q8** Have any of your students downloaded programs or music using lab computers?

☐ Yes ☐ No

**Q9** Please estimate the % of computer time students spend on non-academic activities, such as those in questions Q4 → Q8.

☐ 0% → 10%, ☐ 11% → 20%, ☐ 21% → 30%, ☐ 31% → 40%, ☐ 41% +%



Appendix F: Computer Use Data  
**Summary Results of Snapshots – On Task Computers**

BEFORE

Snapshot #	Task Status	
	On	Off
1	9	7
2	10	5
3	11	4
4	16	4
5	16	2
6	14	3
7	13	2
8	10	8
9	7	6
10	12	4
11	11	5
12	7	7
13	13	2
14	10	5
15	13	4
16	14	2
17	18	2
18	14	3
19	13	3
20	15	1
21	9	6
<b>Total</b>	255	85
<b>% On</b>	75%	

AFTER

Snapshot #	Task Status	
	On	Off
1	13	3
2	15	1
3	14	2
4	11	6
5	8	7
6	15	2
7	13	1
8	14	2
9	10	4
10	12	2
11	15	1
12	17	3
13	17	3
14	12	1
15	17	0
16	14	3
17	15	2
18	16	3
19	14	4
20	14	4
21	14	3
22	10	3
<b>Total</b>	300	60
<b>% On</b>	83%	

## Appendix G: Snapshot of Student Computer Screens – Example

**Example Snapshot of Student Computer Screen**

2nd #3



## Appendix H: Grade Data

**Student Grade Comparison**

		Before Grades					After Grades				
	PC	SC	Tue	Wed	Thu	Avg		Tue	Wed	Thu	Avg
1	X	X	100	98	95.5	97.8		90	95	FT	92.5
2	X	X	50	87	91	76.0		84	98	95.5	92.5
3	X	X	100	85	88	91.0		90	100	92.5	94.2
4	X	X	100	95	85	93.3		98	94	98	96.7
5	X	X	100	100	99	99.7		97	100	101.5	99.5
6	X	X	100	85	93	92.7		89	95	50	78.0
7	X	X	100	80	89.5	89.8		77	90	80.5	82.5
8	X	X	100	80	82	87.3		82	50	91	74.3
9	X	X	100	97	101.5	99.5		86	100	98	94.7
10	X	X	ROTC	98	92	95.0		79	94	85.5	86.2
11	X	X	100	50	93.5	81.2		77	88	77.5	80.8
12	X	X	100	87	39	75.3		87	100	89	92.0
13	X	X	100	98	93.5	97.2		83	97	84.5	88.2
14	X	X	50	80	92	74.0		90	50	89	76.3
15	X	X	92	92	95	93.0		94	96	86.5	92.2
16	X	X	100	A	85	92.5		103	99	98.5	100.2
17	X	X	89	93	92.5	91.5		95	97	92	94.7
18	X	X	92	98	95	95.0		91	94	98	94.3
19	X	X	100	100	104	101.3		100	100	83.5	94.5
20	X	X	50	50	80	60.0		92	97	79	89.3
21	X	X	91	50	94.5	78.5		100	97	77	91.3
22	X	X	96	95	85	92.0		89	65	74	76.0
23	X	X	50	40	89	59.7		70	91	77	79.3
24	X	X	50	50	50	50.0		88	50	77.5	71.8
25	X	X	75	60	89	74.7		86	91	89	88.7
26	X	X	100	95	102	99.0		98	99	98	98.3
27	X	X	81	97	101.5	93.2		88	A	97.5	92.8
28	X	X	90	95	95.5	93.5		98	93	87.5	92.8
29	X	X	83	87	92	87.3		90	94	90.5	91.5
30	X	X	82	87	79.5	82.8		100	89	85.5	91.5
31	X	X	99	88	78	88.3		97	94	88.5	93.2
32	X	X	50	88	85.5	74.5		93	95	83.5	90.5
33	X	X	60	87	77.5	74.8		87	96	89	90.7
34	X	X	90	92	83	88.3		100	99	91	96.7
35	X	X	91	95	97	94.3		100	FT	86.5	93.3
36	X	X	96	90	102	96.0		100	100	90	96.7

Daily Work Not Submitted:

11

vs.

4

Motivated by Choice: Will Allowing Fifth-Grade, Visual Art Students a Choice in Their  
Assignment Increase Motivation and Enhance Learning?

Melissa Jarvis-Saunders

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149)  
has approved this research project # 08-178.

## Introduction

This study was designed to investigate whether offering fifth-grade students a choice in a visual art assignment would increase their motivation and enjoyment of creating art in the classroom setting, and whether that choice would also aid in increasing student learning. The intent was for fifth-grade students to become more actively involved in their own education through making a conscious choice in a particular assignment. This opportunity would, ideally, cause an improvement in the fifth graders' motivation to stay focused on their work during class time, resulting in an improvement in knowledge gained about the styles of art studied. The results of this study will be used to determine if students felt more involved in, and satisfied with, their projects, when given the opportunity to make some educational choices for themselves.

## Review of Literature

There are many factors, including rewards or consequences, student attitude about school or a specific subject, self-perception of skills and talents, and the learning environment, itself, that influence a student's motivation to learn (Cao, 2004; Cluck & Hess, 2003; Ediger, 2001; Klopick, 1998; Kohn, 1994; Komarchuk, Swenson & Warkocki, 2000; McGlinn & McGlinn, 2003; Mitchell & Christenbury, 2000; Oginsky, 2003). To cultivate positive motivation, "the instructor should seek to understand the needs of each student" (Cao, 2004, p. 94). While it may seem impossible in a typical school with many classes, each with 20 - 30 students, to have a firm grasp of every student's personal interests, as Cao suggests, a teacher can surely work toward motivating a majority of students by appealing to their individuality and their sense of control and freedom. Klopick (1998) has developed some techniques to improve student motivation, which include some already existing concepts of allowing student involvement in their own

learning process. Oginsky (2003) further proposes allowing some choices in assignments, including deciding which assignments to complete, in preference to extrinsic motivators. She believes that teachers have the responsibility to help foster a student's desire to seek learning for learning sake. Giving students choices, and allowing them a sense of accomplishment, can get us closer to this goal than handing out candy, stickers, or excessive praise. In fact, studies have shown that such extrinsic motivators may actually do more harm than good (Cluck & Hess, 2003; Kohn, 1994; Oginsky, 2003). The so-called reward systems many teachers utilize sometimes, as a last resort for a few unmotivated students, actually cause students to "lose interest in whatever they were rewarded for doing" (Kohn, 1994, p. 3). Ultimately, the rewards will not only fail to compel the few unmotivated students to learn, but they may actually deter the previously-motivated students from continuing with the work they had already been completing. If, as Kohn suggests, we change the way we teach, rather than relying on reward systems to influence behavior, perhaps students will continue to be interested in learning for learning sake.

Research shows that planning an engaging curriculum (Cluck & Hess, 2003; Kohn, 1994), creating an opportunity for students to socialize while working (Komarchuk, Swenson, & Warkocki, 2000), and allowing some student choice and control in assignments, will entice students to be more creative, cause students to complete assignments more regularly, and cause students to be intrinsically motivated to do their work (Cluck & Hess, 2003; Ediger, 2001; Kohn, 1993 cited in Komarchuk, Swenson, & Warkocki, 2000; McGlinn & McGlinn, 2003; Mitchell & Christenbury, 2000; Oginsky, 2003). If teachers consistently rely on extrinsic rewards, how can we determine if a student wants to learn what the assignment was designed to teach or whether he just wants candy at the end of the day? What does the future hold for such a student who

never learned the value of learning?

According to the guidelines set forth in the Tennessee Visual Art Standards for Fifth Grade (Tennessee Department of Education, 2008), a typical visual art assignment is based on the following: (a)the principles and elements of art and design; (b)the use of at least one medium (for example, pencil, acrylic paint, clay); (c)the study of either an art style or a particular artist's style, at one point in his or her body of work; and (d)its place in historical context. There is, generally, a lecture and/or reading and writing assignment introducing the artist or style, of art to be studied, the specific principles and elements most easily built into the project, and some technical demonstration of the medium used. The assignment culminates in students creating an original work of art in the manner of the artist or style utilizing the teacher-chosen medium.

Based on personal observation, this is the method currently used by many art teachers, and it seems to work fine. This begs the question: Is fine good enough? Many students are enrolled in art class only because it is required. Once they are in the class, though, would it not be better for all class participants, including the teacher, for those not-so-motivated students to want to be there? One assumption of increasing motivation is that, if students are motivated to learn, they will be far less disruptive in class and far more respectful of the other students and the teacher (Komarchuk, Swenson, & Warkocki, 2000).

I believe it is extremely important for students who already love art and want to create to be given the opportunity to exercise choice in their work. This will help prepare them for further work in a visual art career and will develop critical thinking skills necessary for any line of work. In other words, art teachers have an obligation to, not only help students learn the subject, but also how to approach the subject, on their own, outside of school. Some students who create technically phenomenal works of art during school may graduate only to become unsuccessful as

practicing artists, or take unsatisfying jobs, simply because what they really learned in school was not how to create or think for themselves. Much like students who only learned “how to get rewards” (Kohn, 1994, p. 3), they learned only how to be good students.

Still, despite the clear importance of intrinsic motivation, basic skills are an absolute necessity for students to feel competent enough to make their own choices. All the motivation in the world is not a replacement for ability. If a student is very motivated in the beginning, a lack of ability, coupled with too little guidance, will, undoubtedly, lead very quickly to frustration, and undermine much of that prior motivation. Therefore, students need to be confident in their abilities and have the opportunity to use their existing strengths in a task (McGlinn & McGlinn, 2003; Mitchell & Christenbury, 2000; Oginsky, 2003). As a teacher, the goal should be to capitalize on already existing strengths to make student work stronger (Komarchuk, Swenson, & Warkocki, 2000; Mitchell & Christenbury, 2000; Oginsky, 2003), to motivate students to learn, and to add new techniques to a student’s existing abilities. An effective teacher should provide guidance and enough structure so that students do not flounder or have the belief that they are not doing well, regardless of what they actually are capable of doing (Cluck & Hess, 2003; McGlinn & McGlinn, 2003).

In an ideal situation, students will develop thinking skills to apply elsewhere in their education and lives. One simple method of reaching a majority of students of all motivational levels is to offer them a choice in what they do in class. By offering students choices, a teacher demonstrates confidence and trust in the students, allows them to develop their own decision-making ability and thinking skills, and feeds the individual student’s need for personal achievement. By supporting students with basic skill instruction, the teacher also ensures that students will have the ability and confidence necessary to keep trying, even in the face of



adversity, and not lose that well-earned confidence.

## Data Collection and Results

### *Data Collection*

#### *Subjects*

This subjects used in this project consisted of 46 students, 29 females and 17 males, enrolled in fifth grade at a local K-8 magnet school. All students in fifth grade are enrolled in one of two visual art classes, each of which meets for the duration of 45 minutes, one time per week. The results include data gathered from 17 females and 9 males from both classes, as all students did not return parental consent forms to complete a survey and include their test results in this study. All students were included as a general, anonymous whole in student teacher and teacher observations, as their level of participation during class was of vital importance to the study, and impossible to separate from entire class participation.

#### *Instruments*

*Pre-test: rainstick project.* A pre-test (see Appendix A) was administered to students before any instruction occurred. Questions were based on facts about rainsticks, and Kuna Indians and Australian Aborigines, and their respective signature artistic styles. I explained the concept of pre- and post-tests to students to alleviate any test anxiety and procure more reliable results. After grading the pre-tests, I determined that there were not many changes to my planned instruction, however, I did reword some of the questions for the post-test (see Appendix B).

*Post-test: rainstick project.* Following three class periods of instruction, I reworded some questions on the post-test to more accurately reflect actual classroom discussion and practice.

*Student attitude survey.* At the conclusion of the unit, students who returned consent forms completed a student attitude survey (see Appendix C), which aided in determining student

interest in all projects, and included some valuable student comments about the projects, in general.

### *Procedure*

During my placement as a visual art student teacher at a local K-8 magnet school, I taught a multicultural art unit that included the unique mola designs created by Kuna Indians of the San Blas Islands of Central America, the x-ray style of art developed by Australian Aborigines, and rainsticks, which originated in South America. Prior to any instruction, students in each class completed a pre-test, which included information about all three subjects. Next, I introduced the first of the two control assignments used in this study. I led an inquiry-based lecture about the Kuna Indian people and the mola designs that are unique to their tribes. Following a demonstration, students began a project based on the mola designs (see Appendix D). During the next class period, I led a similar, inquiry-based lecture about the Australian Aborigine people, and the x-ray style of art they developed thousands of years ago, and still use today. Then, students began work on a project based on the Australian Aboriginal culture (see Appendix E). Although students were allowed to choose which type of animal they would cut out of paper or draw, respective to each lesson, they were given no choice in whether to complete either project.

I introduced the topic of choice during the third class period, in which students constructed their own rainsticks, following a demonstration and discussion using an authentic rainstick. Students eagerly completed the rainsticks, and were then given the opportunity to exercise the option of which style of art – Kuna Indian or Australian Aborigine – to use to decorate their rainsticks (see Appendix F). This gave students a choice while still building on recently gained knowledge of particular art styles. Some students were not finished with the style of art they chose, so they used the remainder of class to finish. During all classes, I reviewed information

about all art they were studying to informally assess student understanding. Students showed high interest in each style by asking lots of questions and remaining focused on their work. At the end of the third class, I reminded them of their test the next week and gave them a teacher-made study guide (see Appendix G).

Students used the fourth class period to finish the remainder of either assignment, complete decorating their rainsticks, and take the post-test. Students who had turned in parental consent forms also filled out the attitude survey.

### *Results*

Students completed a survey indicating prior interest in art, self-perception of already developed talent, and self-perception of knowledge gained. Students were also given space for additional comments regarding personal opinion about the project. The results were largely positive. Of the 26 students surveyed, 19 strongly agreed that they liked having a choice of style of art on their rainstick. Eighteen students indicated they somewhat or strongly agreed that they would like to have more choices in future art projects, when answering question number three. Interestingly, 19 of them made the same claim on question number eight, which was inadvertently repeated from question number three. One student also indicated a strong disagreement the second time the question was answered. It is possible the question was misread. Twenty-two somewhat or strongly agreed that they worked harder on their rainsticks due to the choice in style of art they were allowed to use. Personal observations support these statements, as well, although, it appeared that student interest in constructing rainsticks would have still been high, regardless of the final design. Twenty students wrote that the rainstick was their favorite project to make with the Australian Aborigine project as second, with four, and the Kuna Indian mola having only two people choose it as the favorite. Only 11 students thought the rainstick

actually turned out to be the best of the three projects they completed, though, with the Kuna mola design close behind with seven votes and the Australian Aborigine design having six votes. Most students strongly disagreed that they do not work as hard on some projects as others because they do not like them, although seven of them indicated this was true. Nineteen students either somewhat or strongly agreed that they believe their artwork is good, which is reassuring. Three students indicated that they somewhat disagreed that their artwork is good. If I were to continue teaching these particular students, the next issues to address would be student perception of talent and building skills to raise self-confidence in student ability.

Figure 1 illustrates the comparison of pre- and post-test results from fifth-grade students, prior to, and following, instruction in rainsticks, Kuna Indian molas, and Australian Aborigine x-ray art. Although there was a vast improvement of questions answered correctly, overall, there were still some low grades, which indicate students did not learn quite as much as I had hoped, during the unit of study. A comparison of test scores with student surveys indicates that students were aware that, while they did learn about Kuna Indian art and Australian Aborigine art, they did not learn “a lot.” One student even included in her survey, “more time” as a factor she would change about the projects. Her observation is valid and appreciated. I agree that at least one more class period would have been very useful to student learning. Student teaching is short-lived, though, especially when teaching a related arts class.

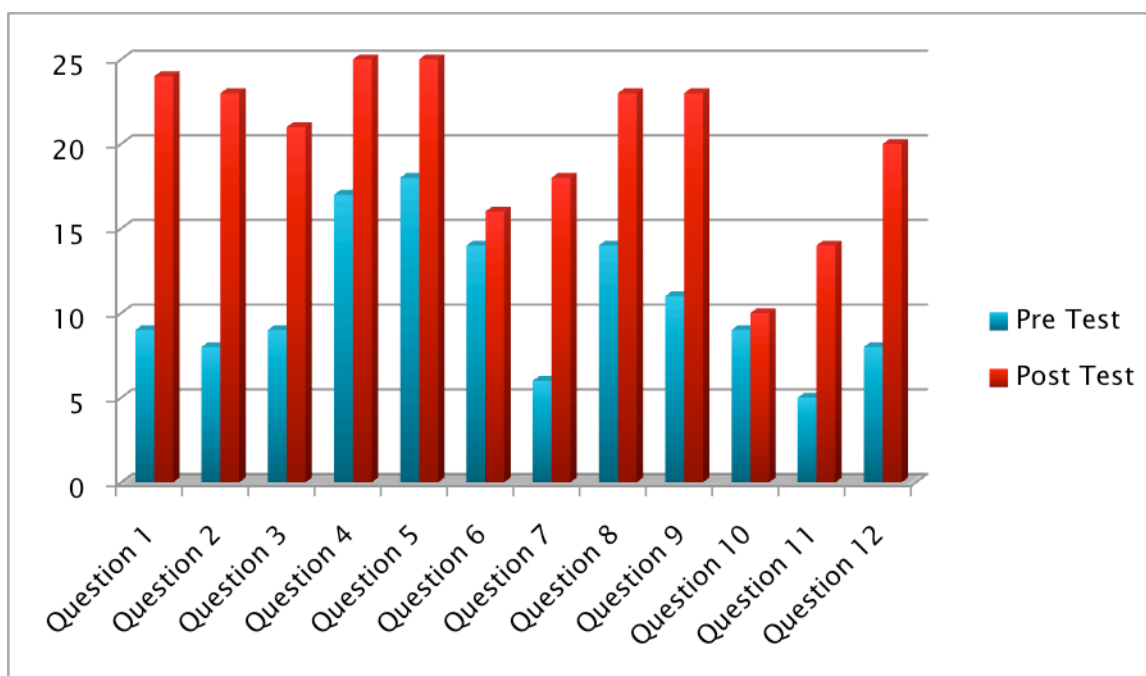


Figure 1. Pre- and post-test scores reflecting correct responses to questions.

## Conclusions and Recommendations

### *Conclusions*

Pre- and post-test scores indicate an increase in knowledge gained during the course of the unit. Students missed question number 10 so frequently that I re-read the study sheet, and realized that two answers could be considered correct. I also could not honestly recall reviewing that particular topic very well during class discussions, so I deemed the question invalid when scoring their tests, although I included it in the graph. Observations by both the student teacher and the regular classroom teacher note that most students remained focused during the mola and x-ray drawing assignments, but all students were on-task during the rainstick assignment, and interest level remained especially high. In fact, class ran over time during both days that students worked on their rainsticks. Most comments on student surveys and in class were positive, with a few students indicating satisfaction in being allowed to choose their rainstick design, rather than being assigned a particular theme.

Fifth-grade students need enough structure to stay on task, so the choice in rainstick design was limited to only two options. Linking the three assignments together, rather than having students choose an entirely different style of art, provided students enough guidance to complete the rainstick with success, while not having to worry about mastering yet another style of art. However, once they began work, some students asked if they could combine styles. This additional step, created entirely by students, showed me that they were motivated enough with the project to do extra work, and advanced enough in critical thinking skills to move on to the next step in decision-making, which is to devise solutions to their own problems, rather than only satisfy minimal teacher-assigned tasks. Approximately one third of all students from each class embellished their rainstick designs by adding construction paper and marker designs to ends, by adding color to areas they felt needed more emphasis, and by combining the Kuna mola and Australian Aborigine x-ray designs. This is a great indicator of student involvement and motivation in the project, and an unexpected student-created option I gladly approved.

### *Recommendations*

Upon review of supporting literature, test scores, direct observation during instruction time, and student surveys, my recommendation is for any teacher to make deliberate attempts to allow students some choice in their assignments. The lessons in this study are art-based, however, they have cross-curricular components in music, geography, sociology, and literature. I believe this is a fair indication that choice can reasonably be included in subjects other than visual art. A school-wide workshop could include teachers from each grade level sharing a future unit of study. Teachers could collaborate in small groups about the purpose of a selection of lesson plans, and then brainstorm ways to ensure student choice is included in at least some portion of learning or assessment strategies. Participants would need to make concerted efforts to

implement choice in the assignments discussed once they returned to their classroom settings. A follow-up meeting would be ideal to discuss positive and negative outcomes of the school-wide study, and determine what, if any, changes this experiment might bring to the school.

Although there appear to be several grants available for studies in the arts, the only ones I could find were specific to individual doctoral fieldwork. Perhaps a person more skilled with locating funding and grant-writing would be able to find sources to finance materials that teachers may need to make more choices available to students. A grant for technology use may be suitable, provided enough students choose to use it.

For example, a science teacher may need to purchase supplies to allow students to choose between building a DNA model with craft items and rendering a 3-D computer model of DNA. Or an English teacher may not have supplies readily available for students to present a book report through a storyboard, rather than a typical oral recitation. Students should also be encouraged to use technology in their projects, as available, and when it appears that doing so would enhance their learning. Some examples of appropriate use of technology are conducting research for a project online, designing a web site to display knowledge of a subject, creating a brochure to present information gathered about a topic studied, or using spreadsheet software to show data gathered in an experiment.

The National Art Education Association appears to support the use of student choice, as indicated through several articles in a recent issue dedicated to the study of contemporary art (Black & Smith, 2008; Graham, 2008; Hafeli, 2008; Mayer, 2008; Poser, 2008; Wilson, 2008). While art has choice built into the curriculum through exploration the practice of emphasizing contemporary art in curriculum (Erickson & Villeneuve, 2008; Graham, 2008; Hafeli, 2008; Lampert, 2008; Mayer, 2008; McKay, 2008; Poser, 2008), or allowing students to choose from

many options or create their own project for completion (Black & Smith, 2008; Wilson, 2008) is a natural extension of a simple choice in an art assignment, like the choice presented in this study.

While it is not always feasible for students to make decisions in all aspects of every assignment, teachers and students would likely benefit from student input in portions of assignments that lend themselves well to choice. This study supports the view that, when students are given the opportunity to become more actively involved in the direction of their own education, they will gladly rise to the occasion, and their motivation will increase, as will their gain of knowledge.



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Appendix A

5<sup>th</sup> Grade Art

Pre-test/Post-test

Rainstick Project

Directions: Circle the letter of the correct answer for each multiple choice question.

- 1) A rainstick is usually made from \_\_\_\_\_.
  - a) paint and glitter
  - b) rain and cardboard
  - c) a cactus or bamboo
  - d) a tree or tall grass
- 2) The Aborigine people are from \_\_\_\_\_.
  - a) South America
  - b) Alabama
  - c) Australia
  - d) Canada
- 3) The close-knit tribal society living on an island chain near Panama is named the \_\_\_\_\_.
  - a) Confederates
  - b) Cuna Indians
  - c) Asian-Americans
  - d) Aborigine Tribe
- 4) One reason people may have made rainsticks is: \_\_\_\_\_.
  - a) to freeze the planet
  - b) to reduce the plant overgrowth in the region
  - c) to make the sun come up
  - d) to remind the gods to make it rain
- 5) Now, rainsticks are most commonly used for \_\_\_\_\_.
  - a) musical instruments
  - b) straws
  - c) dog training devices
  - d) decoration
- 6) The X-Ray style of art, that includes showing bone structure or even baby animals inside of other animals, is attributed to the \_\_\_\_\_ people.
  - a) Aborigine
  - b) Asian-American
  - c) Cuna
  - d) Canadian

- 7) A \_\_\_\_\_ is an appliqué design made by sewing together several layers of cloth and cutting through the top layers to show the colors underneath.
- a) cuna
  - b) cola
  - c) mola
  - d) molar
- 8) Symbols most commonly used in Cuna designs are \_\_\_\_\_.
- a) from cartoons on TV
  - b) themes from nature combined with geometric patterns
  - c) geometric only with no recognizable subject matter
  - d) of the ocean and people
- 9) Ancient Aboriginal art was mainly created on \_\_\_\_\_ or in \_\_\_\_\_.
- a) bark or in cities
  - b) canvas or in caves
  - c) clothing or in cities
  - d) bark or in caves
- 10) The heavy use of dots and lines characterize \_\_\_\_\_.
- a) Colonial American art
  - b) All art
  - c) Aboriginal art
  - d) Cuna Indian art
- 11) Bright colors made available with commercial fabrics can be found in \_\_\_\_\_.
- a) Colonial American art
  - b) All art
  - c) Aboriginal art
  - d) Cuna Indian art
- 12) What makes the sound in a traditional rainstick?
- a) cactus needles and pebbles
  - b) aluminum foil and rocks
  - c) nails and beads
  - d) cactus needles and beans

## Appendix B

5<sup>th</sup> Grade Art  
Pre-test/Post-test  
Rainstick Project

Directions: Circle the best answer for each multiple choice question.

- 1) A rainstick is usually made from \_\_\_\_\_.
  - e) paint and glitter
  - f) rain and cardboard
  - g) a cactus or bamboo
  - h) a tree or tall grass
- 2) The Aborigine people are usually associated with \_\_\_\_\_.
  - a. South America
  - b. Alabama
  - c. Australia
  - d. Canada
- 3) The close-knit tribal society living in the San Blas Islands near Panama is named the \_\_\_\_\_.
  - a. Confederates
  - b. Kuna Indians
  - c. Asian-Americans
  - d. Aborigine Tribe
- 4) One reason people may have made rainsticks is: \_\_\_\_\_.
  - a. to freeze the planet
  - b. to reduce the plant overgrowth in the region
  - c. to make the sun come up
  - d. to remind the gods to make it rain
- 5) Now, rainsticks are most commonly used for \_\_\_\_\_.
  - a. musical instruments
  - b. straws
  - c. dog training devices
  - d. decoration
- 6) The X-Ray style of art, that includes showing bone structure or even baby animals inside of other animals, is attributed to the \_\_\_\_\_ people.
  - a. Australian Aborigine
  - b. Asian-American
  - c. Kuna
  - d. Canadian

- 7) A \_\_\_\_\_ is an appliqué design made by sewing together several layers of cloth and cutting through the top layers to show the colors underneath.
- a. kuna
  - b. cola
  - c. mola
  - d. molar
- 8) Symbols most commonly used in Kuna designs are \_\_\_\_\_.
- a. geometric only with no recognizable subject matter
  - b. themes from nature combined with geometric patterns
  - c. from cartoons on TV
  - d. of the ocean and people with no shapes or patterns
- 9) Ancient Aboriginal art was mainly created on \_\_\_\_\_, \_\_\_\_\_ or in \_\_\_\_\_.
- a. bark, clothing or in cities
  - b. canvas, shoes or in caves
  - c. clothing, cars or in cities
  - d. bark, sand or in caves
- 10) The heavy use of dots and lines characterize \_\_\_\_\_.
- a. Colonial American art
  - b. Australian Aboriginal art
  - c. All art
  - d. Kuna Indian art
- 11) Bright colors made available with commercial fabrics can be found in \_\_\_\_\_.
- a. Colonial American art
  - b. Australian Aboriginal art
  - c. All art
  - d. Kuna Indian art
- 12) What makes the sound in a traditional rainstick?
- a. cactus needles and pebbles
  - b. aluminum foil and rocks
  - c. nails and beads
  - d. cactus needles and beans

## Appendix C

5<sup>th</sup> Grade Art -- Attitude Survey

Please answer each question honestly. Your answers and/or comments will not affect your grade.

1) I liked having a choice of style of art to use on my rainstick.

1	2	3	4	5
Strongly	Somewhat	Don't Know	Somewhat	Strongly
disagree	disagree		agree	agree

2) I learned a lot about Kuna Indian art.

1	2	3	4	5
Strongly	Somewhat	Don't Know	Somewhat	Strongly
disagree	disagree		agree	agree

3) I would like to have more choices in art projects.

1	2	3	4	5
Strongly	Somewhat	Don't Know	Somewhat	Strongly
disagree	disagree		agree	agree

4) I learned a lot about Australian Aborigine art.

1	2	3	4	5
Strongly	Somewhat	Don't Know	Somewhat	Strongly
disagree	disagree		agree	agree

5) My favorite project to make was:

1	2	3
Rainstick	Kuna Design	Aborigine Design

6) I worked harder on my rainstick than my other project (Kuna or Aborigine) because I was able to decide what style of art to use.

1	2	3	4	5
Strongly	Somewhat	Don't Know	Somewhat	Strongly
disagree	disagree		agree	agree

7) I believe we have a lot of choices in the kind of art we do in class.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Don't Know	Somewhat agree	Strongly agree

8) I would like to have more choices in art projects.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Don't Know	Somewhat agree	Strongly agree

9) Sometimes I don't work as hard on my art projects because I don't like the style of art we are doing.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Don't Know	Somewhat agree	Strongly agree

10) In general, I believe my art work is good.

1	2	3	4	5
Strongly disagree	Somewhat disagree	Don't Know	Somewhat agree	Strongly agree

11) The project I think turned out the best looking was my:

1	2	3
Rainstick	Kuna Design	Aborigine Design

12) Something I liked about the rainstick, Kuna Indian or the Australian Aborigine project was:

13) Something I would change about the rainstick, Kuna Indian or the Australian Aborigine project is:

14) Are there any other comments you would like to share?



## Appendix D

### Kuna Indian Molas, Construction Paper, 5<sup>th</sup> Grade

#### GOAL

Students will be introduced to the artwork of the Kuna Indians of the San Blas Islands of Central America.

#### OBJECTIVES

- Students will learn about the Kuna Indians in the Panama area
- Students will make a piece of art similar to a mola using construction paper
- Students will learn related vocabulary
- Students will complete a pre/post test on the same topic

#### INSTRUCTIONAL CONSIDERATIONS

Students are fifth graders who attend art class one time per week for 45 minutes. Each student works to the best of his or her ability with the teacher making assessments, taking into consideration individual readiness levels.

#### VOCABULARY AND RELATED CONCEPTS

- Kuna Indian
- Panama
- Mola
- Pattern
- Geometric vs. organic
- Pattern
- Simplified form
- Contrasting colors, hot colors

#### INTRODUCTION

- Look at works by Kuna Indians via computer and print-outs found online, an authentic mola and in books

#### INSTRUCTIONAL STRATEGIES

##### PRIOR TO CLASS:

- The teacher places several sheets of varying colors of construction paper, pencils, erasers, and scissors at each table

##### DURING CLASS:

- Pre-test on Kuna Indians
- Class discussion about Kuna Indians of the Panama region
- Discussion relating hot colors to tropics and places students have visited
- Look closer at examples, discuss how molas are made through inquiry
- Teacher explains assignment:
  - Choose an animal
  - Draw animal form, cut out
  - Choose a contrasting color, cut out same shape, but larger so that there will be a

- border around the first shape, repeat so that there are at least three layers
  - Glue these onto a solid colored background
  - Using the same technique, create other animals and patterns to fill in all space on construction paper
- Students get to work; may look more closely at examples, as necessary
- After completing the animal, students will glue it onto black paper, then create geometric shapes around their animal

Show students how the mola will wrap around a tube to make a rainstick in a later project to stress the importance of gluing all pieces well

## MATERIALS AND MEDIA

For student use to create molas:

- 9 x 12 construction paper of varying colors
- Pencils
- Erasers
- Scissors
- Glue

For instructional use to explain assignment:

- White board, dry erase markers & white board eraser
- Book about molas and Kuna Indian civilization
- Online examples, shown via iPhoto
- Mac Powerbook laptop to show examples
- Authentic mola

## STUDENT PRACTICE

Teacher will use direct observation during class activity to determine student understanding, reteaching as necessary. Students will also be encouraged to look at examples more closely and to look at each other's work for ideas.

## SUPPLEMENTAL ACTIVITIES

Students who say they are "finished" early will create geometric and organic patterns to fill in all negative space around their animals. Then they may add smaller shapes and details inside their animals. Some may also use markers to embellish their designs, similar to the way the Kuna people use thread for the same purpose.

Once their individual projects are complete, students will complete one animal each, in the Kuna Indian mola style, to add to a large posterboard for a class project. Students may also add other embellishments to the posterboard, such as more geometric and organic shapes or color in details with markers. This should resemble the way Kuna Indians use thread in their designs.

## EVALUATION

Students will be evaluated on participation and proper use of materials.

Did students use at least 3 colors in at least one part of their design?

Did students include an animal, as well as surrounding patterns?

Post-test to determine retention of inquiry lecture information.

## Appendix E

### Australian Aborigine X-Ray and Dot Design

#### GOAL

Students will be introduced to artwork of the Aborigine people of Australia.

#### OBJECTIVES

- Students will learn about the Australian Aborigine people
- Students will make a drawing in the X-ray style and the dot painting style of Australian Aborigines
- Students will learn related vocabulary
- Students will complete a pre/post test on the same topic

#### INSTRUCTIONAL CONSIDERATIONS

Students are fifth graders who attend art class one time per week for 45 minutes. Each student works to the best of his or her ability with the teacher making assessments, taking into consideration individual readiness levels.

#### VOCABULARY AND RELATED CONCEPTS

- Aborigine
- Australian Aborigine
- X-Ray art
- Dot painting
- Symbols/symbolism
- Alternative art media

#### INTRODUCTION

- Look at works by Australian Aborigine people via computer and print-outs found online, teacher's didgeridoo, boomerang, and bark painting (similar to the style we are discussing)

#### INSTRUCTIONAL STRATEGIES

##### PRIOR TO CLASS:

- Pre-cut manila paper to appropriate size and place at tables with pencils and erasers
- Place sheets with assorted Australian Aborigine symbols and sheets with line drawings of various animals from Australia at tables
- Hang posters and print-outs, write information on board

##### DURING CLASS:

- Pre-test on Australian Aborigines
- Class discussion about Australian Aborigines, X-ray style, Dot painting and related symbols
- Instructions to complete the project
  - Students must include one animal
  - Students must include dot patterns and symbols that can tell a story about the

animal included in their drawing

- After completing the basic drawing, students may begin creating their dot patterns with color pencils

## MATERIALS AND MEDIA

For student use to create aliens:

- Manila paper
- Pencils, erasers
- Colored pencils

For instructional use to explain assignment:

- Prints or slideshow of pieces of art showing X-ray and dot painting
- White board, dry erase markers, eraser
- Hand-outs with symbols
- Prints of basic animal drawings

## STUDENT PRACTICE

- Teacher will use direct observation during activity to determine understanding
- Teacher will give individual help and encouragement as needed

## SUPPLEMENTAL ACTIVITIES

Students who complete the activity may explain their stories to others, fill in backgrounds with dot patterns or add other animals. If completely finished, students may assist classmates with their symbol stories.

## EVALUATION

Students will be evaluated on participation, working on assignment and correct use of tools.

Did students include an animal and its bone structure?

Did students include some symbols from dot painting?

Did students explore a new way of depicting animals?

Post-test

## Appendix F

### Rainsticks

#### GOAL

The goal of this lesson is for students to create a rainstick with either a Kuna or Australian Aborigine design. These will be made from cardboard tubes, aluminum foil, and paper clips or other small objects that will make a rain-like noise.

#### OBJECTIVES

- Students will learn vocabulary and history related to rainsticks
- Students will create a rainstick
- Students will choose either a Kuna mola or Australian Aborigine X-ray design
- Students will create a pre- and post-test

#### INSTRUCTIONAL CONSIDERATIONS

Students are fifth graders who attend art class one time per week for 45 minutes. Each student works to the best of his or her ability with the teacher making assessments, taking into consideration individual readiness levels.

#### VOCABULARY AND RELATED CONCEPTS

- Rainstick
- Transferring a 2-D design into a 3-D object
- Kinetic art
- Utilitarian objects as art
- Mythical beliefs about forces of nature

#### INTRODUCTION

- Remind students that next week there will be a post-test
- Show students authentic rainstick plus a home-made one similar to what they will be creating

#### INSTRUCTIONAL STRATEGIES

##### PRIOR TO CLASS:

- Place objects necessary to create rainsticks at tables – cardboard tubes, aluminum foil, paper clips, round cardboard, scissors, glue, pencils, erasers

##### DURING CLASS:

- Pre-test - attached
- Informational lecture and class discussion with props about rainsticks
- The teacher will explain the assignment and demonstrate construction techniques
- Students will create their rainsticks
  - Should take one class period; if time, they may complete their Kuna or Aborigine designs
- Visual reinforcement – posters of styles of artwork they may use, images on computer, examples available for students to view for the duration of the assignment

## MATERIALS AND MEDIA

For student use to create rainsticks:

- 12 inch long cardboard tubes
- Aluminum foil
- Masking tape
- Glue
- Cardboard pieces (for ends) cut into circles
- Paper clips or other filling materials
- Completed Kuna and Aborigine projects from previous class periods

For instructional use to explain assignment:

- Authentic rainstick
- Decorated didgeridoo, posters, computer images
- White board
- Dry erase markers
- White board eraser
- Computer with digital examples
- Pre-Post-Test
- Step-by-step instructions written on board or hand-outs

## STUDENT PRACTICE

Supervised practice during class involves students taping and gluing ends to the cardboard tube (students will glue the ends, but use tape to hold the cardboard until the glue dries), filling the tube with aluminum foil and small objects (probably paper clips) and checking for desired sound effect, putting the last end piece on to finish the rainstick. Also includes students wrapping their rainsticks with either their Kuna Indian or Australian Aborigine inspired work. Independent practice includes students studying for the post-test.

\* Students who are participating in the UTC project will complete an attitude survey regarding their choice in the assignment.

## SUPPLEMENTAL ACTIVITIES

Students who complete the activity may create a handle for their tube by weaving yarn and beads together and attaching them to their rainstick.

## EVALUATION

Students will be evaluated on meeting the criteria for the design motif, as outlined on the first day of the assignment, following instructions to create the sound in their rainsticks, and their post-test.

## Appendix G

*Study Sheet for Your Post-test Next week  
Take this home and study it!*

A rainstick is traditionally made from a hollowed out cactus that is filled with cactus needles and pebbles. They may also be made from bamboo. In the past, people may have made rainsticks to remind the gods to make it rain, but, now, rainsticks are commonly used for musical instruments.

Aboriginal art is usually associated with Australia. Ancient Australian aborigines created their artwork on bark or in caves, which we can still see today, or in the dirt or sand, which lasted only until the end of their ceremonies or until the wind blew it away. Australian aborigines enjoy drawing animals in the X-ray style, which means that they drew animals showing their bone structure or even smaller animals inside. Because of the tradition of “painting” in the sand, Australian Aborigines today use many dots in their paintings. The dots look similar to berry juice that has been dripped on the ground in patterns.

The San Blas Islands in Central America, near Panama, are home to the Kuna Indians. Sometimes Kuna is spelled, “Cuna.” They are a close-knit tribal society whose most famous art is a “mola.” A mola is made to be part of a woman’s or girl’s blouse. It is an appliqué design made from sewing together several layers of cloth and cutting through the top layers to show the colors underneath. Their designs are usually themes from nature combined with geometric patterns, similar to the ones you created in class. They use brightly-colored cloth that shows up really well in the tropical sunlight and does not fade.

Bigger, Faster, Stronger, Better: An Investigation of Best Practices to Improve Students'

President's Challenge Fitness Scores

Daniel Scoggins

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-139.



### Introduction to the Problem

In today's physical education classroom, childhood obesity has skyrocketed to public enemy number one. Anderson and Butcher (2006) explained that childhood obesity is on the rise in the United States. Their explorations acknowledged many causes for the epidemic, but focused on energy intake versus energy expenditure. The United States Department of Health and Human Services (1996) stated, "physical activity appears to improve health-related quality of life" (p. 14). The U.S. Department of Health and Human Services (1996) continued, "interventions targeting physical education in elementary school can substantially increase the amount of time students spend being physically active in physical education class" (p. 14).

The increase in obesity due to sedentary lifestyles is a major challenge for a physical education teacher. Exploring several methods of exercise to determine the most effective one toward fitness for students could enhance classroom instruction. This study has significant, potential implications for the physical education classroom. Specifically, the researcher could use student test scores to determine the dominant method of exercise used for all classes in the future. The social significance would be the improvement in health and quality of life for students who will continue to benefit from results of this study.

### Review of Literature

In reviewing literature for this study, the researcher sought current sources of data and research related to specific areas within the field of physical education, and education, in general. This review of literature provides an account of the importance of this topic within an elementary school physical education classroom, and relates exercise to a healthier lifestyle within a broad spectrum. The researcher establishes a rationale for this topic of study by reviewing childhood

obesity, followed by synopses of both student-centered learning and direct instruction, and ends with the implications of these issues within a physical education classroom.

### *Childhood Obesity*

Recent studies have shown that, “obese children as young as 10 years old had the arteries of 45-year-olds and other heart abnormalities that greatly raise their risk of heart disease” (Marchione, 2008, ¶ 1). Statistics such as these enrage and inspire physical education teachers to have more of an impact on the students’ fitness levels. Sibley and LeMasurier (2008, p. 65) explained that childhood obesity has been on the rise since 1999. Their research revealed that the number of obese female children has risen from 13.8% in 1999-2000 to 16.0% in 2003-2004, while frequency of obesity in male children increased from 14.0% to 18.2 % over the same period. Childhood obesity has been labeled “the most significant health crisis affecting children today” (Lewis & Filipes, 2008, p. 243). Biscaglie (2008) continued this notion by insisting that, if something is not done about the lack of activity and poor nutritional habits in children, the effects will negatively influence future generations. It is imperative that educators institute a plan of action for the future health of children.

Stock, Miranda, Evans, Plesis, Ridley, and Yeh (2007) claimed, “Intervention in elementary school-aged children can impact critical periods for obesity onset” (p. e1060). The authors continued to explain that trends in lifestyle and eating stabilize as students approach adolescence, adding urgency to the search for a solution to this problem. With an increased focus on academics, schools have cut back on physical education in order to raise their test scores (Sibley & LeMasurier, 2008). Under the guise of “too many priorities and too little time,” (Biscaglie, 2008, p. 34) schools, in essence, ignore the growing problem of childhood obesity rather than directly addressing it.

### *Student-Centered Learning*

One potential teaching strategy to combat the obesity epidemic is student-centered learning. Relying upon the foundations of constructivism, Burns, Burniske, and Dimock (1999) explained student-centered learning as learning environments with various tools, experience, and resources for the highest learning potential. Brown (2008) phrased the same idea in different words: “Students learn more by doing and experiencing rather than by observing” (p. 30). Schumacher and Kennedy (2008, p. 102) revealed that teaching by group is a well-received form of student centered learning. According to Stock et al. (2007), “interventions using peer-teaching models for health promotion have shown positive effects” (p. e1060). By working together with peers, students could begin to appreciate the indirect social aspects of adopting a healthy lifestyle. In turn, the motivation of being part of a team and taking responsibility for self-improvement could lead to increased student performance on a fitness test. In summary, these ideas about student-centered learning, applied within a physical education classroom, carry both social and physical implications for the well-being of students.

### *Direct Instruction*

Another potential teaching strategy to aid in the battle against obesity would be direct instruction. Al-Shammari, Al-Sharoufi, and Yawkey (2008) wrote that a time-efficient way of introducing new methods is direct instruction. Through guidance, students can progress to new developmental stages (Keaton, Palmer, Nicholas, & Lake, 2007). Importantly, as Keaton et al noted, the systematic approach of direct instruction is successful across all academic areas. One observation of direct instruction resulted in improved cooperation during a competitive game with children (Al-Shammari et al). With direct instruction, perhaps students would gain deeper understandings about specific exercises, and their usefulness both inside and outside of school.

That possibility leads into the typical physical education scenario where the battle against obesity takes place.

### *Implications in Physical Education Class*

Lewis and Filipes (2008) proposed that schools are the ideal place for monitoring and reversal of the growing obesity epidemic. Other research proved that quality physical education and health programs positively influence physical activity and fitness, and combat the overweight condition or obesity in children (Sibley & LeMasurier, 2008). These researchers expressed the importance of higher fitness levels and physical activity to increase the rate in which students burn calories. The President's Council on Physical Fitness and Sport (2008) explained that controlling weight is achieved by balancing energy intake with energy output. The President's Council also asserted, "Lack of physical activity causes muscles to get soft, and if food intake is not decreased, added body weight is almost always fat" (p. 5). Anderson and Butcher (2006, p. 27) correlated sedentary activities, most specifically watching television, with obesity. Through interventions in physical education, teachers can encourage healthy lifestyle changes. In this study, the researcher sought to discover the most effective method for improving student health, as measured by fitness test scores.

## Data Collection and Results

### *Participants*

Fifty, fifth-grade students volunteered to participate. All participants submitted parental consent and student assent forms prior to experimentation. The population was from a rural elementary school in Walker County, Georgia. Most subjects were Caucasian, but were diverse in gender and ability.

### *Materials*

The researcher noted pre- and post-test results on one completed form. The form listed all five tested events: crunches, shuttle run, endurance run, push-ups, and sit-n-reach. The crunch test used four exercise mats. The shuttle run used two plastic shuttles and a stopwatch. The endurance run utilized eight clipboards, pencils and paper, and an electronic scoreboard clock. A sit-n-reach box was used for obtaining that event's scores. The researcher, to record and calculate the scores, used Microsoft Excel. The usage of typical physical education equipment occurred during the experimental phase.

### *Design and Procedure*

A pre-test began the experiment to provide baseline data that would be compared with future results. The students were familiar with the testing format through years of previous experience. The pre- and post-tests took two class periods for all groups tested. After pre-testing, the trial exercise routines began. All groups performed different exercise routines and then participated in the same lesson. The students were given the treatment every third school day, which coincided with their normal activity schedule. The experiment consisted of a 6-week experimental phase and concluded with post-tests for all groups. The student-centered group involved 15 students. The direct instruction group included 17 students. The control group was comprised of 18 students. The researcher administered the testing. The procedure for the testing followed the guidelines set by the President's Council on Physical Fitness and Sport.

*Crunch test.* The crunch test required the students to lie on their backs with their arms straight and hands on their quadriceps. The students then raised their heads and shoulders off the mat and touched their knees with their hands. The students continued to perform crunches until they could do no more in rhythm or had reached the set amount. The set amount was 80 crunches.

*Shuttle run.* The shuttle run required the students to run between two parallel lines positioned 30 feet apart. On the signal, the students ran and picked up one shuttle located on the opposite line. Then the students raced to place it back on the start line. After that, the students ran to pick up the second shuttle and return it to the start line. The students completed the task as fast as possible, and the test administrator used a stopwatch to measure each student's time.

*Endurance run.* The endurance run required students to run one mile as fast as they could. The students ran the mile inside the gymnasium, which transitioned into 20 laps. Each runner's partners counted their laps using tally marks to indicate each lap. The partners measured the time with the upward counting electronic scoreboard clock.

*Push-up test.* The push-up test required students to position their bodies with straight back and legs. The students' elbows only could bend at a 90-degree angle. A partner monitored the form of the participants and counted the complete push-ups. The participants had to maintain a rhythm with the test administrator's cadence. The students performed push-ups until they could do no more in rhythm or had reached the set amount. The set amount was 30 push-ups.

*Sit-n-reach test.* The sit-n-reach test required the students to remove their shoes, sit on the ground with their feet straight in front of them, and stretch forward on the sit-n-reach box. The test administrator held the students' knees flat while they stretched. The students reached as far as they could, and measurements were calculated using the marks on the sit-n-reach box.

After the pre-testing, treatment for each group began. The first group manipulated, the student-centered group, started the class period with a 12-minute, student-centered exercise routine. The design for exercises focused on events from the students' test. The routine had six, independent, small group stations that the students would rotate through in 2-minute intervals. The stations were running in the track around the gymnasium, a flexibility station with various

stretches, a lower-body station to increase leg strength and stamina, a climbing wall for muscular strength and endurance, a core station to increase muscular endurance, and an upper-body station to increase muscular strength. When the station time was complete, the students participated in the regularly scheduled game.

The second group manipulated began the class with a 12-minute direct instruction exercise routine. The design for exercises focused on events from the students' test. These were the same exercises as those performed by the student-centered group, with the exception of the climbing wall. The difference was that the researcher led and enforced the performance of the exercises with the second group. When the exercise time was complete, the students participated in the regularly scheduled game.

The third group was the control group. This group participated in no exercise routine. When the class period began, the group immediately played the game. At the conclusion of the experiment, the researcher used Microsoft Excel to analyze data for each subsection of the President's Challenge Fitness Test.

### *Scoring*

*Crunch test data.* After recording scores for the crunch pre-test, the researcher added students' individual test scores for a sum of crunches for each class. After recording scores for the crunch post-test, the researcher performed the same operation. The researcher then subtracted the pre-test sum from the post-test sum to determine the gain or loss per group. The researcher then divided the gain or loss by the total number of students in each group to determine the class average gain or loss per student. The crunch test analysis showed that the student-centered class averaged a gain of 14.7 crunches. The direct instruction class averaged a gain of 10.2 crunches. The control group averaged a gain of 1.1 crunches (see Figure 1).

Class	Pre-Test Avg.	Post-Test Avg.	Gain/Loss Avg.
Stu.-Cen.	58.5	73.2	Gain 14.7
Dir. Ins.	48.6	58.8	Gain 10.2
Control	55.1	56.2	Gain 1.1

*Figure 1.* Class averages for pre- and post-crunch tests.

*Shuttle run test data.* After recording scores for the shuttle run pre-test, the researcher added students' individual test scores for a sum of seconds for each class. After recording scores for the shuttle run post-test, the researcher performed the same operation. The researcher then subtracted the pre-test sum from the post-test sum to determine the gain or loss per group. The researcher then divided the gain or loss by the total number of students in each group to determine the class average gain or loss per student. The analysis of the shuttle run test showed that the student-centered class lost an average of 0.05 seconds. The direct instruction class lost an average of 0.04 seconds. The control group lost an average of 0.13 seconds (see Figure 2).

Class	Pre-Test Avg.	Post-Test Avg.	Gain/Loss Avg.
Stu.-Cen.	11.39s	11.44s	Loss 0.05s
Dir. Ins.	11.94s	11.99s	Loss 0.04s
Control	11.31s	11.44s	Loss 0.13s

*Figure 2.* Class averages for pre- and post-shuttle run tests.

*Endurance run test data.* After recording scores for the endurance run pre-test, the researcher added students' individual test scores for a sum of minutes and seconds for each class. After recording scores for the endurance post-test, the researcher performed the same operation. The researcher then subtracted the pre-test sum from the post-test sum to determine the gain or loss per group. The researcher then divided the gain or loss by the total number of students in each group to determine the class average gain or loss per student. The endurance run analysis showed that the student-centered class lost an average of 17 seconds. The direct instruction class lost an average of 24 seconds. The control group averaged a gain of 26 seconds (see Figure 3).



<b>Class</b>	<b>Pre-Test Avg</b>	<b>Post-Test Avg</b>	<b>Gain/Loss Avg.</b>
Stu.-Cen.	10m 38s	10m 55s	Loss 17s
Dir. Ins.	10m 58s	11m 22s	Loss 24s
Control	11m 7s	10m 41s	Gain 26s

*Figure 3.* Class average for pre- and post-endurance run tests.

*Push-up test data.* After recording scores for the push-up pre-test, the researcher added students' individual test scores for a sum of push-ups for each class. After recording scores for the push-up post-test, the researcher performed the same operation. The researcher then subtracted the pre-test sum from the post-test sum to determine the gain or loss per group. The researcher then divided the gain or loss by the total number of students in each group to determine the class average gain or loss per student. The push-up test analysis showed that the student-centered class averaged a gain of 1.5 push-ups. The direct instruction class averaged a gain of 2.9 push-ups. The control group lost an average of 1.6 push-ups (see Figure 4).

<b>Class</b>	<b>Pre-Test Avg.</b>	<b>Post-Test Avg.</b>	<b>Gain/Loss Avg.</b>
Stu.-Cen.	11.3	12.9	Gain 1.5
Dir. Ins.	11.9	14.8	Gain 2.9
Control	13.4	11.7	Loss 1.6

*Figure 4.* Class average for pre- and post-push-up tests.

*Sit-n-reach test data.* After recording scores for the sit-n-reach pre-test, the researcher added students' individual test scores for a sum of centimeters for each class. After recording scores for the sit-n-reach post-test, the researcher performed the same operation. The researcher then subtracted the pre-test sum from the post-test sum to determine the gain or loss per group. The researcher then divided the gain or loss by the total number of students in each group to determine the class average gain or loss per student. The sit-n-reach test analysis showed that the student-centered class lost an average of 1.7 centimeters. The direct instruction class averaged a gain of 1.1 centimeters. The control group lost an average of 0.72 centimeters (see Figure 5).

<b>Class</b>	<b>Pre-Test Avg.</b>	<b>Post-Test Avg.</b>	<b>Gain/Loss Avg.</b>
Stu.-Cen.	26.8	25.1	Loss 1.7
Dir. Ins.	22.9	24	Gain 1.1
Control	18.8	18.2	Loss 0.72

*Figure 5.* Class average of pre- and post- sit-n-reach tests.

## Conclusions and Recommendations

The results from the case study displayed different strengths and weaknesses of all the experimental methods. The method with the largest gains in the most fitness tests was the direct instruction method. These results lead to the conclusion that students will improve their fitness when a teacher is leading the students with their exercises. However, from an instructor's standpoint, having the students work independently on their exercises reduces the stress and exhaustion levels of the teacher. In general, all three methods were effective in one or more of the testing categories. These findings suggest that more time is needed to study the issue, or that teachers can utilize differentiated instruction in order to appeal to all learning styles. A mandatory increase in physical education time would likely lead to increased scores on the fitness tests.

The school principal has been a strong proponent of physical education and health. The need for physical education is evident within the student population. The teachers at the school strongly supported the search for the best method to improve fitness.

The researcher recommends professional development for regular education teachers about a daily physical fitness program. Some suggestions would be establishing a pre-recess routine where all students had to accomplish certain exercises before free play. Another suggestion would be for the students to complete a daily activity log signed by the parents. The previous suggestions may not cure obesity, but could raise awareness within the school and community.

Many grant programs have the potential to further research in the problem studied. One program, in particular, is the Robert Wood Johnson Foundation. It offers a variety of educational grants. One grant offered is for developing programs and policies that promote physical activity

(2008). This would be an excellent grant for the researcher to apply for in order to better fund the physical education program.

Advancements in technology could prove to be invaluable resources for a physical education program focused on increased fitness scores. The students could benefit from pedometers to measure the steps they take per day. Utilization of muscle specific equipment could enable the students to focus more on their weaknesses in fitness. Additionally, exercise-centered video games are one of the most influential forms of technological advancements that would assist in future implications of this study, and have become popular within many physical rehabilitation programs.

The encouragement of independent activity in order to combat obesity is the reasoning behind physical education. Through fitness testing, students get to see a measurement of their fitness level compared to their peers. Ultimately, the goal is to give students the tools they need to establish their own exercise routine and continue a life of fitness.

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Effects of Integrating Music with a High School Literature Unit

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The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-134.

### Introduction to the Problem

Today's high school English teacher is faced with challenges presented by highly diversified classrooms, mass marketing and consumerism, and the competition of ever-changing technology. Many teenagers are not able to appreciate the life lessons and valuable insights that classic literary works have to offer because they consider classic literature uninteresting, irrelevant, or difficult to understand. One of the most challenging goals for me, as a future English teacher, is to make classic literary works understandable and enjoyable to my students. When subject material becomes meaningful and relevant to them, I will have done my job effectively. My desire is to create literature units that will be viewed as valuable experiences rather than required drudgeries. I long to hear my students eagerly discuss ideas about a text and to see their proverbial light bulbs illuminate with understanding.

The purpose of this study is to determine whether or not integrating music into the literature classroom will positively affect students' understanding, enjoyment, and appreciation of classic literary works. The following questions will be addressed in my study:

1. Will the students appear to have a better grasp and understanding of the literary work when music is included?
2. Will the classroom dynamics be affected when music is incorporated?
3. Will the class be more enjoyable for the students and the teacher?
4. Will class discussions be affected? Greater participation? Deeper discussions?
5. Will the students be more likely to discuss the literature outside of class with their peers when music is included?
6. Will the students' writing projects reflect greater insight or emotional connection to the literature/music selection?



7. Will quiz and test scores be consistent with those of the control group, or will they be higher?
8. Will the overall experience of the teacher and the students be improved?

### Review of Literature

Music is said to be the universal language, and a growing body of research indicates that combining music with the teaching of language arts and literature enhances a student's learning experience. According to Fay (2001), music enables individuals to identify and preserve a common humanity. She describes music as a "fundamental pulse liv[ing] within all of us, within our bodies, no matter who we are, no matter where we reside" (p. 377), and she explains that people share experiences through music, in a world that is characterized by competing interests, personal isolation, and the dehumanizing effects of technology. Music affects our emotions, and reminds of youth, sentimental moments, and significant life events. It is personally familiar and comfortable because it exists in nearly every facet of life. Companies often use music when advertising their products, and consumers, in turn, associate those products with that music. Television programs and movies include a broad genre of musical selections. Restaurants, market areas, professional offices, and other public venues play a large variety of music for their clients and patrons. The classroom is yet another likely place for music. Rubin and Melnick (1998) suggest that music can be used as an entrée to talk about written works, and that it helps teachers transfer a sense of cultural ownership to their literature classrooms. They have noticed that books seem more approachable and lively with an accompanying soundtrack. Furthermore, Towell (1999/2000) explains that music triggers emotional responses that connect readers with their text. When students become engaged with a text, they will be more motivated to read and may continue a life-long enjoyment of reading.

The diversity of today's classrooms presents challenges for teachers in presenting literary material on a level to which all students can relate. According to Copeland and Goering (2003), popular culture can help develop students' skills as classrooms become more diverse. Fay (2001) also discusses the differences of ethnicity, race, and life experiences in today's classrooms. She does not consider diversity a problem, but sees it as representing educational needs. She addresses these classroom complexities by suggesting the combined teaching of literature, language arts, and music. By using music in teaching language arts and literature, a kinship is created between students from various backgrounds. Music enables students to make personal connections with the literature. Listening to music requires engaged attention and concentration, which allows for reflection and the development of imaginative responses to what is heard and read. Reflection and imaginative responses are also important elements in good writing, another major concern of an English teacher.

The research literature discusses an assortment of musical styles (classical, operatic, blues, jazz, 19th-Century minstrel and sentimental song, gospel, spirituals, rap, hip-hop, soul, Chicano punk, Latino, country, folk, rock, and pop) used in teaching language arts. From poetry to prose, including music in the literature curriculum seems to benefit students. According to Oehler (1994), many students actually find it very difficult to discover the emotions in literature when they read literary works silently on the page. His students have experienced less difficulty responding emotionally to both words and music. Jurgella (1998) has found that the best approach to teaching classic literature is by making connections. She goes beyond lessons where students are encouraged to make connections to their own lives, and recommends alliances with art and music, dramatic interpretation, video/technology, and co-literary works, when teaching

traditional literature. She considers music a powerful tool in the literature classroom, since music is such an important part of the lives of young people.

Marchionda (1995) discusses her review of research literature pertaining to the use of song lyrics in the classroom. She found three consistent elements in the literature she reviewed. First of all, there is no research or systematic verification that the use of song lyrics helps to teach reading comprehension or increase vocabulary. Secondly, most of the literature citing positive use of song lyrics is anecdotal. Thirdly, most favorable outcomes of using song lyrics are testimonials of the authors' successes. Marchionda references several reports citing pre-and post-test results that showed improvement when music lyrics were used, but the studies either did not include a control group or did not adequately describe procedures and methods. Thus, the findings of these studies were difficult to evaluate. She concludes that the existing literature provides no quantitative proof that using song lyrics helps to teach reading comprehension or increase vocabulary, however, the research literature she reviewed does present a compelling argument to use music lyrics in the classroom. The literature shows that, by using song lyrics, teachers have seen positive effects in the following areas: (a) teaching reading comprehension, (b) teaching vocabulary, (c) intensifying the range of clues, (d) developing language abilities and reading readiness, (e) teaching literature and encouraging independent reading, (f) teaching poetry, (g) promoting discussion in the classroom, (h) providing motivation and variety, (i) allowing for reading practice, (j) creating a positive attitude toward reading, and (k) creating positive self concepts.

Sullivan (1995) substantiates Marchionda's article by discussing the positive effects of music on poetry units, class discussions, and attitudes toward reading. He saw great benefits when he used rock and pop song lyrics to introduce his students to the language and conventions

of poetry. He and his students enjoyed this experience, and his students actually began to recognize their own preconceptions about poetry. He saw them develop an appreciation for poetic vocabulary, diction, and rhythm. Sullivan believes that using popular themes with classic texts naturally leads to discourse and evaluation that is student-centered. This combination makes it easier for class discussions to be focused on issues related to the students' evaluation and interpretation. With a more enjoyable forum for class discussion, many elements that a literature teacher desires to teach students are brought out naturally in class discussions, and are discovered by the students themselves, rather than imposed by the teacher. Finally, Sullivan corroborates Marchionda's discussion of student attitudes toward reading. He recognizes that there are many students who are not interested in literature and do not enjoy reading. These are the students who are not disposed toward intellectual discussion and can be difficult to reach. He has found, however, that, "framing course reading around issues related to both popular and classic literature can draw these students in, and some become interested and discerning readers" (p. 271).

Including music in the teaching of literature may bridge a gap created by mass marketing and consumerism. Music addresses and helps define personal and controversial themes, as well as social and cultural issues. These themes and issues often include death, love, loss, race and racism, prejudice, gender and ethnic identity, ethical dilemmas, social injustice, immigrant experiences, etc. Rubin and Melnick (1998) discuss the relationship between music and student empowerment. By utilizing music in their classes, students were encouraged to develop confidence and to recognize their individual areas of proficiency. Copeland and Goering (2003) explain that they use the blues to lift their students from an environment of popular culture to a more classical level offered by traditional literature. The blues help present the literary content in

a way the students are able to understand. They believe that, “lessons inherent in the blues and the content teaching that can be bridged with this genre of music offer tremendous potential for teachers struggling to teach traditional literary themes” (p. 441).

According to Donlan (1974), curriculum concerns of the late 1960’s prompted the introduction of pop music into the English classroom. Educators thought that alternate media could help stimulate student response, but many students, surprisingly, complained about overuse of popular music in the classroom. Apparently, students felt that the immoderate use of pop music was too much of a good thing. Donlan stresses that music can be integrated effectively into the curriculum, but the teacher should avoid saturation by excluding selections that are very well known to the students. Sometimes, when a song is too familiar, response is impaired, or, even, impossible. Incorporating music in literature units will require more effort and preparation time for teachers, however, the research indicates that this will be time well spent. Oehler (1994) and Fay (2001) explain that a teacher does not have to have a background in music to incorporate it effectively in the literature classroom, although Oehler does admit that using music is a learning experience for instructors, too. The key is for teachers to keep open minds and remain flexible, as Towell (1999/2000) stresses by saying that “true pedagogy, if we are practicing it correctly, is about delving into and expressing our true natures and ‘obeying our hearts.’ Students, as well as teachers, must keep their minds and hearts open to the kinds of experiences the classroom has to offer” (p. 288).

## Data Collection and Results

### *Participants*

The subjects of this study included students in two, 12th-grade English classes at an urban Hamilton County high school. The control group class (Group A) consisted of 16 students,

10 males and 6 females. Two students were Caucasian, while 14 were African American. Four of these students (25 percent) were classified as exceptional education students and had Individualized Education Plans (IEPs). The other class (Group B) consisted of 23 students, 11 males and 12 females. All students were African American. Four of these students (16.4 percent) were classified as exceptional education students and had IEPs.

## Materials

This study was conducted during a literature unit on Geoffrey Chaucer's *Canterbury Tales*. Students read and discussed "The Prologue," "The Pardoner's Tale," "The Wife of Bath's Tale," and "The Miller's Tale." Alongside this classic literary work, the unit also covered important literary elements including methods of characterization, imagery, atmosphere, tone, metaphor, irony, cause and effect, and satire. Materials included the literature text, music selections on a CD, and a personal computer with classroom speakers.

## Methodology

During my placement as a student teacher for English 12, I taught the unit to the control group (Group A) using traditional methods including lecture, in-class reading, class discussion, group work, and writing assignments. I taught the unit to Group B in the same way, but I added musical selections to assist me in my instruction. Both groups were given identical quizzes, tests, and assignments.

The term, atmosphere, is defined as the mood or feeling in a literary work, created through descriptive details and evocative language. To explain this concept, I played the songs "Coventry Carol" and "Patapan" to the students in Group B. After playing each song, I asked the students to explain what the song made them think and feel. The students in Group A did not listen to the songs. Instead, I explained the term atmosphere to them, and we discussed various examples of moods and feelings.

Musical selections were also included in the lessons on "The Pardoner's Tale" and "The Wife of Bath's Tale." After reading each of these tales with the students, Group B listened to a rapped version of the tales from *The Rap Canterbury Tales* by Baba Brinkman. Group A did not listen to the rapped songs.

### *Data Collection*

To measure the effects of integrating music with *The Canterbury Tales* unit, various types of data were collected: pre- and post-assessments (see Appendices A and

B), a unit exam (see Appendix C), a culminating project, informal observations, anecdotal records, and student surveys (see Appendix D).

### Results

To measure students' prior knowledge before starting the unit, I administered an identical pre-test to both classes. The test included questions about the Middle Ages and Chaucer's *Canterbury Tales*. Students from both classes showed very little prior knowledge on the pre-test. On a 20-point scale, the average score for Group A was 3.5, with eleven students participating. The average score for Group B was 4.6, with 21 students participating. At the end of the unit, I administered the same test. Students showed noticeable improvement on the post-test. The post-test average for Group A was 14.2, with 13 students participating. The average score for Group B was 13.7, with 23 students participating. Consequently, there was only 0.5 point difference between post-test average scores for the two groups. Figures 1 and 2 show the outcome of both tests for each class.

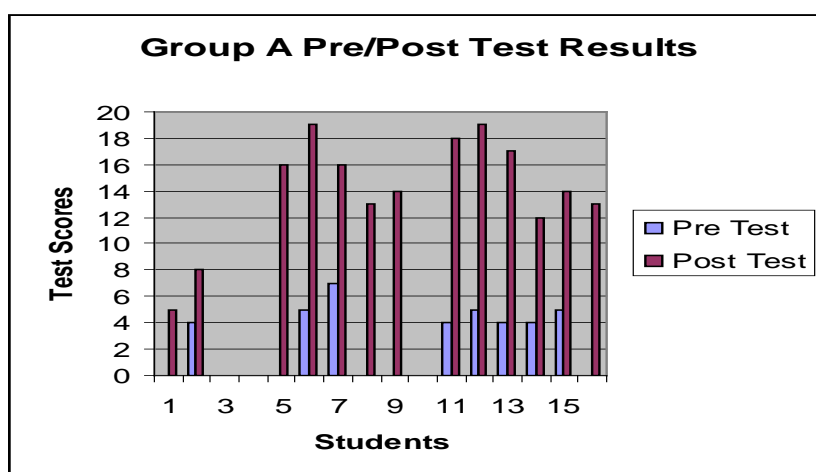


Figure 1. Group A pre- and post-test results.

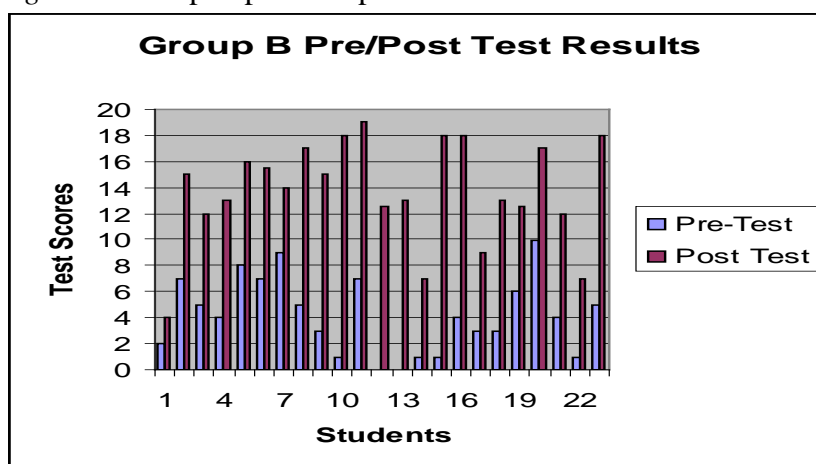
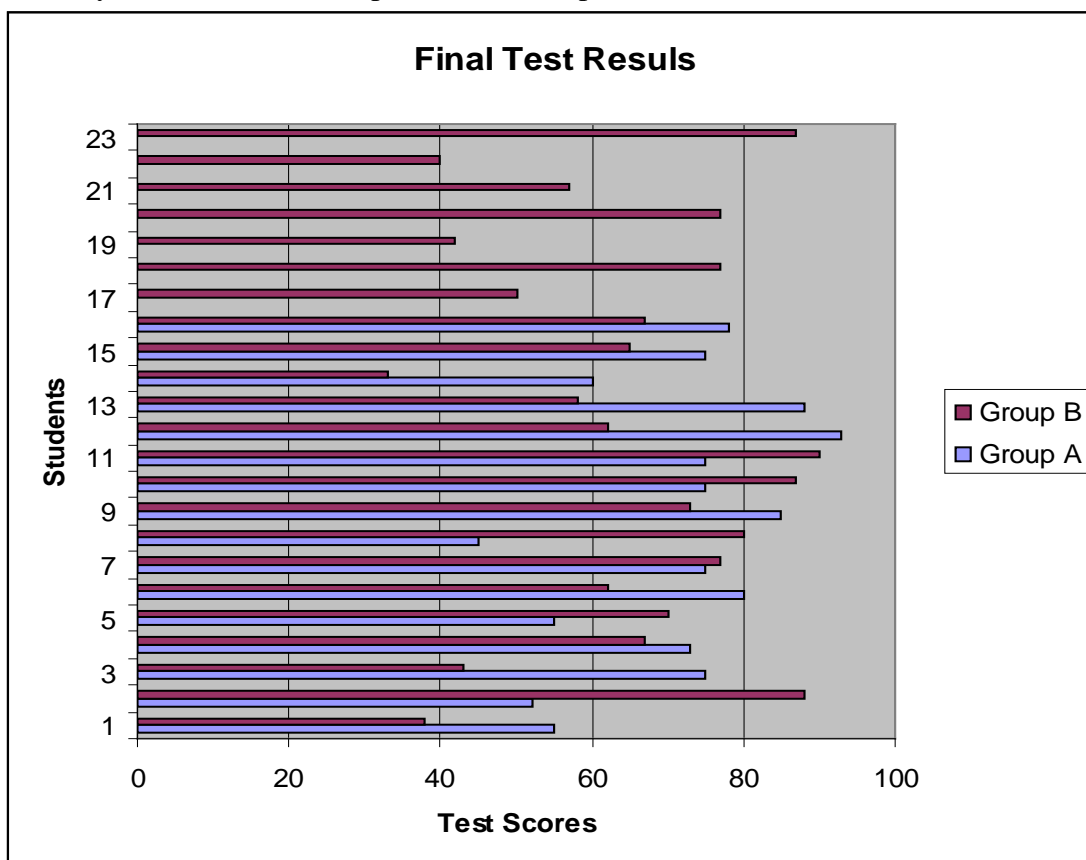


Figure 2. Group B pre- and post-test results.

In addition to various writing assignments and routine quizzes, two major assessments were given to measure students' grasp of the material: a final exam and a culminating project. The final exam consisted of recognizing Chaucer's pilgrims from excerpts of the text, identifying the methods of characterization, answering

comprehension questions, and providing an explanation of Chaucer's use of irony. Based on a 100-point scale, the control group's (Group A) average score was 71.2, and the experimental group's (Group B) average score was 64.8. It is important to note that there were only 16 students in Group A, while Group B had 23 students. The standard



deviation for Group A was 13.8. Group B's standard deviation was 17.3. Figure 3 shows the test results for both groups.

*Figure 3.* Final test results.

The unit's culminating project was a poem about a modern-day pilgrim. The poem was to be written in rhyming couplets and to include a prologue with a minimum of 30 lines and a tale with a minimum of 60 lines. Student participation on this assignment was drastically different between the control group and the group that received music with their instruction. Only seven of the 16 students in Group A (43.8 percent) submitted poems. Sixteen of the 23 students in Group B (69.6 percent) submitted poems. Figure 4 shows students' performance on the poem assignment.



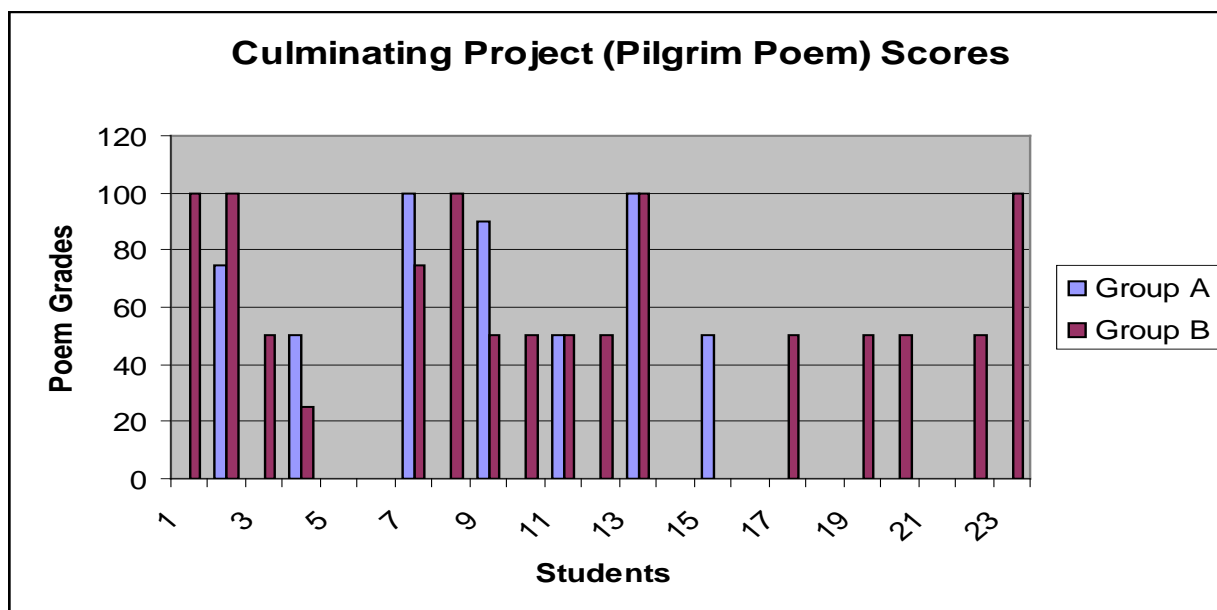


Figure 4. Culminating project scores.

As for my personal observations and anecdotal notes, I noticed that students in Group B appeared to listen closely to the music selections. When we discussed atmosphere and mood with “The Coventry Carol,” one student responded that the song made her think of a murder scene in a movie. I explained that her response directly corresponded with the actual theme of the song, the massacre of the male babies born in Bethlehem by order of King Herod. When the students heard “Patapan,” they expressed feelings of light-heartedness and happiness. It was much easier for me to teach the concepts of atmosphere and mood by using musical examples. When I taught these concepts to Group A, one student asked, “Mrs. Smith, what exactly are you trying to say?” No one from Group B asked such a question. The music conveyed the lesson perfectly.

When I played the rapped versions of “The Pardoner’s Tale” and “The Wife of Bath’s Tale,” most of the students listened closely. Many appeared to enjoy the music, but others talked and looked around. A couple of students covered their faces while the songs played. I did not know if this was because they were trying to concentrate and tune out everything but the music, or if the students were trying to sleep. I am certain that using the music helped me connect with one student, in particular. He was often uncooperative and disruptive in class. Once I introduced the music, however, he became very friendly and even commented on how much he enjoyed the music. He seemed to like me and trust me, after that. He also took a great interest in the poem assignment and did a phenomenal job on it.

Finally, I surveyed the students in Group B for their reactions to the music. Twenty-one students responded to the survey. The results are presented in Figures 5-8.

Did not enjoy them at all.	1 student
Have no feeling (good or bad) about them.	3 students
Enjoyed them a little bit.	7 students
Enjoyed them a lot.	10 students

*Figure 5. Question #1: Did you enjoy the musical selections we heard in class?*

Did not help at all.	0 students
Helped a little bit.	11 students
Helped a lot.	10 students

*Figure 6. Question #2: Did the musical selections help you understand the concepts of atmosphere and mood?*

Did not help at all.	0 students
Helped a little bit.	9 students
Helped a lot.	12 students

*Figure 7. Question #3: Did the musical selections help you understand “The Pardoner’s Tale” and “The Wife of Bath’s Tale?”*

No, I don’t like the music.	0 students
It doesn’t matter to me.	11 students
Yes, I really enjoy the music, and it helps me understand.	10 students

*Figure 8. Question #4: Would you like to hear more music in your literature lessons?*

### Conclusions and Recommendations

As previously stated, the purpose of this study was to determine whether or not integrating music into the literature classroom positively affects students' understanding, enjoyment, and appreciation of classic literary works. The answers to my initial questions are listed below:

1. Will the students appear to have a better grasp and understanding of the literary work when music is included? *According to my observations, they did.*
2. Will the classroom dynamics be affected when music is incorporated? *According to my observations, students concentrated and were more engaged in the lesson.*
3. Will the class be more enjoyable for the students and the teacher? *I thought so.*
4. Will class discussions be affected? Greater participation? Deeper discussions? *I was pleasantly surprised by the discussion that was inspired during the lesson on atmosphere. The participation was enthusiastic and insightful.*
5. Will the students be more likely to discuss the literature outside of class with their peers when music is included? *One student talked about the music with me outside of class. It was not so much about the literature as it was about the music, though. This student also talked to me about his poem. He was very excited about it.*
6. Will the students' writing projects reflect greater insight or emotional connection to the literature/music selection? *A significantly higher percentage of students in Group B turned in poems than did students in Group A. One student, who rarely turned in assignments, made a perfect score on the poem. For some reason, this particular assignment appealed to him.*
7. Will quiz and test scores be consistent with those of the control group, or will they be higher? *Pre-and post-test scores were basically the same. On the unit exam, the*

*average score of the control group was actually higher than the average score of the group that received the musical instruction. Standard deviations, however, are 13.8 for Group A and 17.3 for Group B.*

8. Will the overall experience of the teacher and the students be improved? *My experience was certainly more enjoyable when the music was utilized. Using music helped me convey the concept of atmosphere. I also enjoyed watching the students listen to the rapped versions of “The Pardoner’s Tale” and “The Wife of Bath’s Tale.” Finally, the music seemed to help me make a “break-through” with one of the students. That was one of the most valuable results of this study.*

Based on the post-test scores and the unit exam scores, implementing music with the teaching of *The Canterbury Tales* had no significant impact on students’ test performance. I feel strongly, however, that the music did make a difference with individual students. I, personally, observed a difference in the level of student engagement when the music was utilized. In addition, Group B’s significantly higher percentage of participation on the poem assignment speaks to the positive effects of using the music. I certainly enjoyed incorporating music into the literature unit.

It only makes sense to conclude that, when the teacher enjoys the experience, it’s quite likely that the students will, also. It is important for all teachers and administrators to be open to new ideas and willing to give different concepts a try. With the technology available today, it is relatively simple for teachers to search the Internet for all sorts of music that can be downloaded easily. In my opinion, it is definitely worth the extra time and effort to find music that will make English lessons engaging and relevant. After all, when teachers tap into ideas that reach kids, everyone wins.

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## Appendix A

*The Canterbury Tales* Pre-Assessment

Don't be alarmed! You will NOT know most of the answers to these questions. Please show what you DO know. You will learn the answers to ALL of the questions over the next couple of weeks.

**MULTIPLE CHOICE: Circle the correct answer.**

1. In 1066 \_\_\_\_\_ came from France to defeat England's King Harold.
  - a. Duke William of Normandy
  - b. Geoffrey Chaucer
  - c. William Shakespeare
  - d. Sir Thomas Malory
  
2. \_\_\_\_\_ was a caste system, a property system, and a military system based on the religious concept of hierarchy.
  - a. Chivalry
  - b. Democracy
  - c. Feudalism
  - d. Republic
  
3. Young men in the Middle Ages were expected to serve their lords in military service, so males above the serf class were trained as \_\_\_\_\_.
  - a. dukes
  - b. barons
  - c. lords
  - d. knights
  
4. \_\_\_\_\_ was a system of ideals and social codes governing the behavior of knights and gentlewomen. Among its precepts were adhering to one's oath of loyalty to the overlord and observing certain rules of warfare (like never attacking an unarmed opponent).
  - a. Courtly love
  - b. Fair fighting
  - c. Chivalry
  - d. Respectful combat
  
5. Women had no political rights in medieval society and were \_\_\_\_\_ to men.
  - a. equal
  - b. superior
  - c. subservient
  - d. outspoken

6. The \_\_\_\_\_ was the center of learning during the Middle Ages.
- a. field
  - b. home
  - c. Church
  - d. public school
7. \_\_\_\_\_ was based on the idea that acting on the name of a lady would make a knight better and braver.
- a. Courtly love
  - b. Knightly love
  - c. Lordly love
  - d. Gentlemanly love
8. As the population grew, a \_\_\_\_\_ class emerged in the Middle Ages.
- a. Peasant
  - b. Merchant
  - c. Serf
  - d. Royal
9. The Crusades were a series of wars (1095-1270), waged by European Christians against the \_\_\_\_\_.
- a. Africans
  - b. Americans
  - c. Jews
  - d. Muslims
10. As a result of the Crusades, Christian Europe was exposed to the sophisticated civilization of \_\_\_\_\_.
- a. the United States
  - b. Africa
  - c. the Middle East
  - d. India
11. In 1170 \_\_\_\_\_, the Archbishop of Canterbury was murdered in the cathedral by one of King Henry's men.
- a. Geoffrey Chaucer
  - b. Thomas à Becket
  - c. Sir Thomas Malory
  - d. Pope Gregory

12. A corrupt practice that damaged the reputation of the church was the selling of \_\_\_\_\_, certificates issued by the pope to reduce or cancel punishment in the next life for sins forgiven on earth.
- a. lottery tickets
  - b. indulgences
  - c. trading cards
  - d. forgiveness papers
13. Highly contagious and spread by fleas from infected rats, \_\_\_\_\_, or the bubonic plague, reduced England's population by one third from 1348-1349.
- a. the Black Death
  - b. Mad Cow Disease
  - c. Typhoid Fever
  - d. Tuberculosis
14. The bubonic plague caused a \_\_\_\_\_ shortage, leading to the freedom of the serfs and to the end of feudalism.
- a. food
  - b. land
  - c. water
  - d. labor

**SHORT ANSWER QUESTIONS:**

15. Who wrote *The Canterbury Tales*?
16. What is a story that includes a number of different narratives?
17. Where are the pilgrims in *The Canterbury Tales* going?
18. What Biblical quotation does the Pardoner quote in Latin to express the moral of his tale?
19. According to the Wife of Bath, what do women really want from men?
20. According to the Miller, what does Absalom kiss?



## Appendix B

*The Canterbury Tales* Post-Test

When we first started our *Canterbury Tales* journey, you didn't know the answers to most of these questions. Now, you should know all of them. I enjoyed our time together. Good luck! 😊

Circle the correct answer.

1. In 1066 \_\_\_\_\_ came from France to defeat England's King Harold.
 

a. Duke William of Normandy	c. William Shakespeare
b. Geoffrey Chaucer	d. Sir Thomas Malory
  
2. \_\_\_\_\_ was a caste system, a property system, and a military system based on the religious concept of hierarchy.
 

a. Chivalry	c. Feudalism
b. Democracy	d. Republic
  
3. Young men in the Middle Ages were expected to serve their lords in military service, so males above the serf class were trained as \_\_\_\_\_.
 

a. dukes	c. lords
b. barons	d. knights
  
4. \_\_\_\_\_ was a system of ideals and social codes governing the behavior of knights and gentlewomen. Among its precepts were adhering to one's oath of loyalty to the overlord and observing certain rules of warfare (like never attacking an unarmed opponent).
 

a. Courtly love	c. Chivalry
b. Fair fighting	d. Respectful combat
  
5. Women had no political rights in medieval society and were \_\_\_\_\_ to men.
 

a. equal	c. subservient
b. superior	d. outspoken

6. The \_\_\_\_\_ was the center of learning during the Middle Ages.
- a. field
  - b. home
  - c. Church
  - d. public school
7. \_\_\_\_\_ was based on the idea that acting on the name of a lady would make a knight better and braver.
- a. Courtly love
  - b. Knightly love
  - c. Lordly love
  - d. Gentlemanly love
8. As the population grew, a \_\_\_\_\_ class emerged in the Middle Ages.
- a. Peasant
  - b. Merchant
  - c. Serf
  - d. Royal
9. The Crusades were a series of wars (1095-1270), waged by European Christians against the \_\_\_\_\_.
- a. Africans
  - b. Americans
  - c. Jews
  - d. Muslims
10. As a result of the Crusades, Christian Europe was exposed to the sophisticated civilization of \_\_\_\_\_.
- a. the United States
  - b. Africa
  - c. the Middle East
  - d. India
11. In 1170 \_\_\_\_\_, the Archbishop of Canterbury was murdered in the cathedral by one of King Henry's men.
- a. Geoffrey Chaucer
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12. A corrupt practice that damaged the reputation of the church was the selling of \_\_\_\_\_, certificates issued by the pope to reduce or cancel punishment in the next life for sins forgiven on earth.
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  - c. trading cards
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  - b. Mad Cow Disease
  - c. Typhoid Fever
  - d. Tuberculosis
14. The bubonic plague caused a \_\_\_\_\_ shortage, leading to the freedom of the serfs and to the end of feudalism.
- a. food
  - b. land
  - c. water
  - d. labor

### SHORT ANSWER QUESTIONS:

15. Who wrote *The Canterbury Tales*?
16. What is a story that includes a number of different narratives?
17. Where are the pilgrims in *The Canterbury Tales* going?
18. What Biblical quotation does the Pardoner quote in Latin to express the moral of his tale?
19. According to the Wife of Bath, what do women really want from men?
20. According to the Miller, what does Absalom kiss?

## Appendix C

***The Canterbury Tales Exam***  
**English 12**

**I. Pilgrims:** For Questions 1-25, use the word bank and write the name of the pilgrim described in each statement below. **(You may use a pilgrim's name more than once.)**

**WORD BANK**

The Yeoman	The Friar	The Plowman	The Clerk
The Monk	The Prioress	The Physician	The Sailor
The Wife of Bath	The Pardoner	The Cook	The Parson
The Miller	The Knight	The Merchant	The Squire

1. Religious man who likes women
2. Poor student who spends money on books instead of clothes
3. Churchman who is actually truly religious
4. Married five times
5. Good soldier; committed to his country and duty
6. Steals wine from his own passengers
7. Religious man devoted to hunting and eating, not God
8. Knight's son; pretty boy
9. Can cure illnesses, but is not spiritually healthy
10. A nun who appears to be refined but really isn't
11. "Who, from the moment that he first began  
To ride about the world, loved chivalry,  
Truth, honour, freedom and all courtesy."
12. "And he was clad in coat and hood of green,  
A sheaf of peacock arrows bright and keen  
Under his belt he bore right carefully  
Well could he keep his tackle yeomanly."
13. "She'd been respectable throughout her life,  
With five church'd husbands bringing joy and strife,  
Not counting other company in youth;  
But thereof there's no need to speak, in truth."
14. "And holy though he was, and virtuous,  
To sinners he was not impiteous,  
Nor haughty in his speech, nor too divine,  
But in all teaching prudent and benign."

15. "And never from her lips let morsels fall,  
Nor dipped her fingers deep in sauce, but ate  
With so much care the food upon her plate  
That never driblet fell upon her breast."
16. "Since riding and the hunting of the hare  
Were all his love, for no cost would he spare  
I saw his sleeves were purfled at the hand  
With fur of grey, the finest in the land."
17. "There is no honest advantageousness  
In dealing with such poverty-stricken curs;  
It's with the rich and with big victuallers.  
And so, wherever profit might arise,  
Courteous he was and humble in men's eyes."
18. "There was no one could say he was in debt,  
So well he governed all his trade affairs  
With bargains and with borrowings and with shares.  
Indeed, he was a worthy man withal,  
But, sooth to say, his name I can't recall."
19. "Yet, and for all he was philosopher  
He had but little gold within his coffer;  
But all that he might borrow from a friend  
On books and learning he would swiftly spend."
20. "For in his bag he had a pillowcase  
The which, he said, was Our True Lady's veil:  
He said he had a piece of the very sail  
That good Saint Peter had, what time he went  
Upon the sea, till Jesus changed his bent."
21. "That many a load of dung, and many another  
Had scattered, for a good true toiler, he,  
Living in peace and perfect charity.  
He loved God most, and that with his whole heart."
22. "His mouth was like a furnace door for size.  
He was a jester and could poetize,  
But mostly all of sin and ribaldries.  
He could steal corn and full thrice charge his fees."
23. "And make a good thick soup, and bake a pie.  
But very ill it was, it seemed to me,  
That on his shin a deadly sore had he."  
For sweet blanc-mange, he made it with the best."
24. "And certainly he was a good fellow.  
Full many a draught of wine he'd drawn, I trow,  
Of Bordeaux vintage, while the trader slept.  
Nice conscience was a thing he never kept."
25. "And yet he was right chary of expense;  
He kept the gold he gained from pestilence.  
For gold in physic is a fine cordial,  
And therefore loved he gold exceeding all."

**II. Characterization:** For each line below, choose the method of characterization that Chaucer used.

26. "Nor dipped her fingers in the sauce too deep."  
a. appearance   b. speech   c. actions   d. private thoughts   e. others' reactions
27. "For he was qualified to hear confessions, or so he said, with more than priestly scope..."  
a. appearance   b. speech   c. actions   d. private thoughts   e. others' reactions
28. "He had done nobly in his sovereign's war..."  
a. appearance   b. speech   c. actions   d. private thoughts   e. others' reactions
29. "Bold was her face, handsome, and red in hue..."  
a. appearance   b. speech   c. actions   d. private thoughts   e. others' reactions
30. "Upon his head a Flemish beaver hat and on his feet daintily bucked boots."  
a. appearance   b. speech   c. actions   d. private thoughts   e. others' reactions



40. Which of the following from “The Prologue” is the *best* example of imagery?
- a. “Thinly they fell, like rat-tails, one by one”
  - b. “He’d seen some service with the cavalry”
  - c. “In fifteen mortal battles he had been”
  - d. “Just home from service, he had joined our ranks”
41. Chaucer calls the Parson a shepherd. This is an example of
- a. irony.
  - b. simile.
  - c. metaphor.
  - d. personification.

**IV. “The Pardoner’s Tale:”** Choose the *best* answer for each item below.

42. The Pardoner’s tale deals with the subject of
- a. death.
  - b. revenge.
  - c. greed.
  - d. courage.
43. The Pardoner tells his tale in order to
- a. save souls.
  - b. raise funds for the church.
  - c. improve people’s morals.
  - d. sell pardons to enrich himself.
44. To present the character called Death, Chaucer uses the technique known as
- a. alliteration.
  - b. personification.
  - c. simile.
  - d. suspense.
45. It is ironic that the Pardoner preaches against avarice because he is
- a. especially greedy.
  - b. a religious man.
  - c. a friend of the Summoner’s
  - d. rude to the Host.
46. The pardoner earns money from all of the following activities except
- a. preaching against greed.
  - b. selling relics and pardons.
  - c. begging from church to church.
  - d. making and selling baskets.
47. Which of the following statements best describes the end of the tale?
- a. The rioters become rich.
  - b. Death takes the gold coins.
  - c. The rioters meet death.
  - d. Death takes a holiday.

**V. “The Miller’s Tale:”** Choose the *best* answer for each item below.

48. The poor clerk, Nicholas, specializes in
- a. dermatology.
  - b. geology.
  - c. theology.
  - d. astrology.
49. While living with the carpenter, Nicholas
- a. falls in love with the carpenter’s wife.
  - b. plays a trick on Alison.
  - c. eventually dies in his bedroom.
  - d. becomes too ill to attend church.

50. Absalom attempts to win Alison's affection by
- a. tricking her husband.
  - b. praying for God to make her love him.
  - c. singing to her and giving her gifts.
  - d. writing her love poems.
51. Nicholas tells the carpenter that
- a. a flood is coming.
  - b. his wife is cheating on him.
  - c. Absalom is after his wife.
  - d. he should sit on the window ledge.
52. When Absalom comes to Alison's window hoping for a secret kiss, she
- a. shuts the window on his fingers.
  - b. has Nicholas kiss him.
  - c. calls her husband to make him go away.
  - d. sticks our her behind for him to kiss.
53. When Absalom comes back for another kiss, Nicholas
- a. makes Alison pass gas in Absalom's face.
  - b. makes Alison kiss him.
  - c. gets a hot iron pressed against his behind.
  - d. sticks a hot iron against Absalom's behind.
54. What word causes the carpenter to awaken and leap down from the roof?
- a. "Water!"
  - b. "Ouch!"
  - c. "No!"
  - d. "Husband!"

## VI. Irony

55. Explain how Chaucer uses irony when describing the Monk, the Friar, the Prioress, or the Pardoner.  
(Choose one.)



## Appendix D

**Student Teacher Evaluation**

1. As a teacher, what overall rating would you give Mrs. Smith?

Excellent

Explain:

Good

Average

Poor

Very Poor

2. Was she clear in explaining information and in answering your questions?

Never

Explain:

Sometimes

Usually

Most of the time

Always

3. Was Mrs. Smith enthusiastic about teaching your class?

Never

Explain:

Sometimes

Usually

Most of the time

Always

4. What are Mrs. Smith's major strengths?

5. What are Mrs. Smith's major weaknesses?

6. What would you suggest to Mrs. Smith to help her become a better teacher?

7. Any other comments?

8. Did you enjoy the musical selections we heard in class?

Did not enjoy them at all.

Have no feeling (good or bad) about them.

Enjoyed them a little bit.

Enjoyed them a lot.

9. Did the musical selections help you understand the concepts of *atmosphere* and *mood*?

Did not help at all.

Helped a little bit.

Helped a lot.

10. Did the musical selections help you understand “The Pardoner’s Tale” and “The Wife of Bath’s Tale?”

Did not help at all.

Helped a little bit.

Helped a lot.

11. Would you like to hear more music in your literature lessons?

No, I don’t like the music.

It doesn’t matter to me.

Yes, I really enjoy the music, and it helps me understand.

The Effect of Homework Assignments on the Academic Achievement of Eighth-Grade,

Advanced Placement Students in Spanish I

Ann Martin Souza

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-138.

### Introduction to the Problem

As an eighth-grade teacher of advanced placement students, I have always assumed that high-achieving students are motivated outside of the classroom. I believe that such students study on their own or at the suggestion and request of their teachers. The traditional role that homework plays in schools today has become a battleground for many schools, teachers, students, and families (Silvis, 2002). The questions of my own attitude, and the usefulness of homework with my students, deserve my attention. Could my high-achieving, eighth-grade Spanish students benefit from traditional homework assignments on a daily basis? Would required work outside of the classroom be wasted time?

### Review of Literature

Homework has been a topic of much research (Cooper, Robinson, & Patall, 2006). “Homework can be defined as tasks assigned to students by schoolteachers that are intended to be carried out during non-school hours”. Many questions arise surrounding the benefits of out-of-classroom assignments and academic achievement. Does homework result in higher grades? Do students have assistance with their homework? Does homework contribute to grade inflation? Is homework simply “busywork?” The specific areas of research that have involved homework and its benefits are quite varied. Researchers have focused on comparisons of gender, ethnic background, age, grade level, academic subject area, and parental involvement, to name a few. Knore’s study examined homework and grade inflation (Knore, 1996). The ways in which homework is often disruptive to family life was the focus of a study done by Kralovac and Buell (2001). Diersen explored students as independent learners and the art of organization (Diersen, 2000). I found very little research which addressed the issue of my study: advanced placement students. What effect does homework have on advanced placement students?

In researching advanced placement students, related areas of interest by researchers are quite consistent. Several terms are repeatedly seen in connection with advanced placement students such as organization, motivation, self-regulation, engagement, independence, proactiveness, and responsibility. These terms might well describe high achieving students, but they do not answer questions of whether or not these students benefit from homework assignments. Do these same students devote quality time outside of the classroom, regardless of mandatory assignments? Bembenutty found that students' active and proactive roles in their own learning process are key determinant factors of their academic success (Bembenutty, 2005).

Cooper (2001) finds no differences in the effect of homework based on different intelligence levels. Homework intended for practice and review may actually have no positive effect with the overall grades of advanced placement students. If, indeed, these students are self-motivated, and prepare themselves well for quizzes, tests, and exams, on their own time, independently, homework could even be considered a redundant task. Diersen suggests creating alternatives to traditional homework strategies (Diersen, 2000).

## Data Collection and Results

### *Data Collection*

#### *Membership*

The sample group consisted of 65 middle school students in the eighth grade. The students involved are selected by the administration to take the Spanish I year-long class for high school credit, based on their overall high achievement. Academically, they have the highest standardized test scores of the eighth grade. They represent the top 20% of the eighth-grade class. This qualifies them for the advanced placement, Spanish I class. Approximately 60% of the students are female and 40% of the students are male. These students are considered low-risk

and college-bound. Most of them are involved in school sponsored activities in the afternoons and evenings. The participants are suburban, middle-class, and white.

### *Research Design*

The internal, quantitative side of this project was the adoption of a formal homework policy. The essential questions were: Will advanced placement students benefit from homework assignments? Will their grade point averages increase? No homework was assigned during the first 3 weeks of the term. Nothing more than suggestions and tips were given to the students on how to prepare and study for weekly quizzes and tests. Grade point averages were collected on each participant, as well as a total grade point average for the group. This period was followed by the second, 3-week period in which a formal homework policy was adopted.

The homework period consisted of assignments to be completed outside of the classroom. In addition to homework, participants could access [yourhomework.com](http://yourhomework.com). Each assignment was collected to record verification of completion. No grades were given in order to avoid grade inflation. At the end of the 3-week homework period, grade point averages were again collected and calculated for each participant, as well as for the group. The pre-homework and post-homework averages could then be compared, and the results could be analyzed.

On the qualitative side of the project, the participants responded to a written survey. The survey focused on questions concerning the study habits and beliefs toward homework outside the classroom. The survey was completed by each participant, just prior to the collection of data. The surveys were then tallied and reviewed. In addition to surveys, informal observations were noted. They included, but were not limited to, students' comments, actions, and reactions that involved homework.

### *Results*

After reviewing the grades, the quantitative findings of the study indicated a drop in the overall grade point average. The pre-homework grade point average for the group was 94.30. The post-homework grade point average for the group was 94.05. The decrease was calculated at 0.37%. Further examination showed that 29 students, almost half of the sample group of 65, actually maintained the exact same grade. A minimal decrease in grade was seen by 22 students, and a minimal increase in grade was experienced by 14 students. Based on these results, no significant change was found in the grade point averages of the sample group due to the implementation of the homework assignments.

The results of the surveys revealed the practices and beliefs of the students toward homework. The qualitative findings confirmed that the majority of the respondents always complete their homework (100% completion on all six assignments).

The majority also have help available, if they need it. Only sometimes do the majority “cheat” on their homework assignments and consider the assignments to be easy. A mere three respondents believe that homework actually improves their test scores. Very few claimed to not prepare for class and tests. About half of the 65 students surveyed think that homework is important sometimes. The numbers were equally divided on the issues of being competitive with their classmates, using their agendas, and being rewarded for good grades (see Figure 1).

	<b>Never</b>	<b>Sometimes</b>	<b>Always</b>
1. I complete homework assignments.	0	10	55
2. I have help available if I need it.	2	23	40
3. I use my assignment agenda.	25	23	17
4. Homework is important.	8	37	20
5. Homework is easy.	2	55	8
6. Homework improves my test scores.	14	48	3
7. I prepare for class and tests.	3	30	32
8. I am rewarded for good grades.	14	28	23
9. I am competitive with my classmates.	20	29	16
10. I cheat on homework.	24	41	0

*Figure 1.* Homework survey results.

Informally, I observed the students throughout the research period. An overwhelming number of students would immediately begin the homework assignments as soon as they received them. I observed assignments being completed hastily, for example, in the hall or at lunch. I often saw students completing assignments before the bell would ring, and, even, in other classes. The advanced placement students in this study were completing their homework assignments in the school building and during school hours, not at home as intended.

## Conclusions and Recommendations

### *Conclusions*

The primary interest in this research was to verify if eighth-grade, advanced placement Spanish I students would benefit from traditional homework assignments. No significant change in the student grade point average was experienced. The following should be considered: eighth-grade, advanced placement students may not benefit from homework assignments because they are self-regulated learners, and they take an active role with their own study habits (Bembenutty, 2005). Such students tend to have their own motivation for preparing themselves for academic achievement, thus traditional homework assignments may not be challenging and /or beneficial.

### *Recommendations*



It is quite possible that our view and practice of homework is far outdated. The traditional homework hour before dinner is no longer compatible with the 21<sup>st</sup> Century lifestyle. Today's students might better be served with technology. Most households in the U.S. have computers and Internet access. There are numerous online educational services available, as well as software programs. Technology now gives educators and students a virtual world in which they can connect outside the classroom. Homework should definitely become part of this new and unique way of learning.

As professional educators, we might want to reconsider what place homework has as a teaching strategy. Are assignments meeting the individual needs of diverse learners? Traditional handouts and textbook assignments should be reviewed for their usefulness. Teachers have a wealth of information available today through professional development and through the Internet. Old ideas and methods that are not working must be discarded.

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Vocational Education and English Class

Andrew Virdin

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-182.

### Introduction to the Problem

The notion of vocational education is certainly not new. Various histories on the subject cite the relationship between education and vocation to be nearly as old as civilization, itself. Therefore, it is not difficult to envision the evolution of vocational and technical education with the progression of society, itself.

However, most pertinent to this project is the more recent history (especially in the last 100 years). It is important to mention first the Smiths-Hughes Act of 1917. This proposal federally cemented vocational education in the midst of turbulent conflict. Thompson (1973) notes that the program was designed to boost local creativity and meet local needs. Its main focus was vocational education in secondary schools. The specific measures provided monies for salaries for instruction and implementation of programs.

Another monumental piece of legislation came from the Kennedy era. The Vocational Act of 1963, often referred to as the Perkins Bill, appropriated more monies to vocational schools and the improvement of the existing programs. It is valuable to note that, once again, the legislation was born during, and in the wake of, conflict and international competition (in this case, McCarthyism and the Cold War). However, this time, the grant was much higher. By 1967, the government was giving \$225 million each year to the vocational program. The American government has taken quite an interest in the progress of vocational education, especially within the last 50 years. Now, especially after the No Child Left Behind Act of 2001, public high schools are offering more diversified programs. Although the United States has not enjoyed the success of other countries (such as Germany), programs are constantly developing that provide alternative methods for secondary students. As a part of the No Child Left Behind legislation, the Perkins Bill was extended (despite President Bush's desire to have it overhauled) until 2012, and

it has moved up to a \$1.3 billion law (Cook, 2006). Now, vocational education programs receive more funding than ever before.

I have always been interested in the marriage of school and work. I had a few jobs, myself, throughout high school, but I was never in any vocational programs. However, throughout my time substitute teaching, I have been fortunate enough to observe vocational students at a charter school in north Georgia. I was able not only to observe the myriad of options that the students have for studying (such as culinary studies, hairdressing, and shop), but was also able to interact with the students about their schedules, plans, and lives. From this experience was born an interest in the secondary school vocational programs. Specifically, I am curious about the vocational students' perception of English class, which is one of the universal core classes, no matter the program chosen.

The high school for my student teaching placement provides a unique opportunity for study. Although it is not a vocational school in the strictest sense, it features a myriad of unusual curricular opportunities for the students. Some of its vocational or technical classes (the terms will be interchangeable for the purpose of this study) include cosmetology, automotive technology, health science, Web design, criminal studies, and media concepts. In recent years, the high school has allowed the students to take more of these courses in order to graduate with a technical focus (instead of the "college preparation" route). However, the school currently offers only one diploma. With this point made, it is beneficial to note that the high school offers an unusual amount of vocational courses in order to combat the curricular tedium of traditional and humanities-based requirements.

The primary objective of this proposal is to interact (as candidly as possible) with the older secondary students (juniors and seniors) about their perception of English class. Since the school

no longer divides the students into regular or technical students, it will be helpful on the surveys to see how many of these vocational classes each student has taken in order to get an idea of how much of their time has been taken by this alternative style of classes. Paramount to the study is their honest viewpoint about the role of this discipline in their lives, despite the fact that they may not use it in an immediate setting (such as college, after they finish high school). Any educator knows that there is often a profound difficulty in keeping certain subjects from becoming stagnant and useless if the students see no practical application. It will be interesting to see if, by choosing a certain and set career path during and immediately after high school (whether college, trade school, or immediate employment), the students will still pay the necessary attention to these fundamental subjects.

#### Review of Literature

The literature on the subject points to a wide variety of results. One main thing to remember is that vocational education in America is still evolving, especially in wake of the No Child Left Behind Act. Wonacott notes that, especially throughout the 1990s, vocational education and its options for students have surged (Wonacott, 2000, p. 3). However, the programs still face negative images from many students and parents who find it unorthodox. Wonacott argues that this is unfair; vocational education students enter postsecondary education at nearly the same rate as other high school graduates.

It is important to identify who the students actually are. Levesque notes that “male graduates took more vocational/technical and occupational coursework than female graduates, and students in rural schools took more such coursework than students in either urban or suburban schools (Levensque, 2003, ¶ 22).” In addition, she argues that graduates from

disadvantaged groups who were involved in vocational programs were more likely to pursue jobs in those fields than those graduates from more affluent groups (Levensque, 2003).

The number of these vocational schools is increasing. Recently, in 1999, vocational high schools made up about 10 percent of American high schools (Hudson & Shafer, 2002). These programs, therefore, provide viable alternatives from the norm, and they serve to keep students in school who might otherwise drop out. Studies on dropout rates vary, although some seem more positive than others. For example, the National Center for Educational Statistics reports in its study that, in 2000, the dropout rate was down to 14.3 percent, which is an improvement (Vail, 2004, p. 13). However, these statistics do not elicit agreement from everyone. For example, Robinson points out that the drop-out rate was closer to one fifth in the New York City area in 1999 (Robinson, 2005). Either way, the rise of the vocational programs in secondary school broadens opportunities, especially for disadvantaged youth. These programs appear to be critical alternatives to the traditional high school to college track.

But are vocational programs academically effective? Much conjecture appears when this question is asked. Murray, for example, values vocational programs highly when they place graduates into jobs immediately after high school. He argues that too many Americans are now going to college (Murray, 2007). When this happens, he purports, the job market becomes flooded with more graduates than needed. Now, a degree directly leads less and less to a job right out of college. Therefore, he applauds vocational training in secondary school for its job placement and specific skill building.

Ko undertakes a study that raises interesting questions about the college retention of vocational students. Her study of over 2,000 students found that the college retention rate of vocational students is substantially lower than that of those who did not attend such a high

school, in both two-and four-year colleges (Ko, 2005). However, she notes this is an expected reality, and her study leads one to believe that her only measure of success comes through the college system. Another article calls vocational education “radical,” and notes that the variety in curriculum stigmatizes children as students who are incapable of grasping the more core academic subjects (Graubard, 2004). This idea is part of the thinking behind this proposal. I (and Graubard, as well) am interested in the resulting effects of vocational education on English class.

## Data Collection and Results

### *Data Collection*

#### *Subjects*

The subjects will be teachers and 11th grade students. Participation was optional for everyone. The students agreed to fill out and submit anonymous surveys. The two teachers, for Health Science and for English, World Studies, and Public Speaking, agreed to a brief interview.

#### *Methodology*

The students were given a short survey to complete during class. The survey is presented in Appendix A. The survey attempts to ascertain how the students perceive English class. It allows them to list the vocational classes that they have taken at the high school. I elected to maintain narrative form with the surveys, and resulting report, as many of the responses are unique and specific. Therefore, charts and graphs are not beneficial in this study.

Some sample questions for the two teacher interviews are provided in Appendix B. The description of the interviews will show that other issues arose in the conversation, but the framework was maintained, in both cases. Each interview lasted between 10 and 15 minutes.



### *Results*

The wide diversity in responses from the students dictates the need for a narrative framework. The most beneficial way to present responses from the students is to categorize the responses to the following question (from the survey in Appendix A): Do you think that you should have to take this English class? Although there are a wide variety of answers to this question, the results, generally speaking, were quite positive. For example, a large number of students noted, in some form or fashion, that they recognize the merit of English class whether or not they were on the path to college. In fact, the number of people planning to attend college was much larger than expected at the beginning of the study. As might be expected, most of the positive results came from the students that were planning for college. These results are no surprise. However, their plans in college were quite diverse and they still identified the need and practicality of English literature and grammar. One student bound for school in Graphic and Interior Design found English classes “very important because having good grammar is necessary in the career field.” Another student, one who planned to attend college, but had also taken a wide variety of the technical classes, mentioned that they find the class important, but they wish that they understood it more.

Several students responded with a middle of the road or ambiguous answer. One survey noted that English class is “important, but not vital.” Another student, bound for trade school to become a nurse practitioner, noted that some of the stories are interesting, but, often, the material is unnecessary and irrelevant to their future. One survey showed that they only found the spelling part of the class important. This survey turned out to be helpful because the student intended to work, and save money for college, instead of immediately attending an institution after high school. This answer directly corresponded to the hypothesis that students taking an alternative

route would not find English class as important (but, on a positive note, there were not as many answers like this, as predicted).

The answers that leaned to the negative viewpoint were often more helpful to the study. Quite possibly, one of the more exciting answers came from a student that noted that they wanted to go to Nascar Pit School, upon graduation. Whether or not this answer is a joke is beside the point, since the student probably will not attend college. The student responded that they only found the class important since it helped them learn to read and write well. Other than this aspect, they did not know how the class is helpful. I fully expected more responses of this caliber, but was pleased to find only a small number. It is possible that the students were not truthful. However, the survey explicitly mentioned its anonymous nature so it would seem that the responses are genuine. There were not many wholly negative responses. One student's survey supported the hypothesis; they were set to become a traveling nurse (alternative path with vocational preparation) and they do not feel that they should have to take the class. A few other surveys showed that they did not view the class as important to them or their future. However, responses like these were in the minority.

The two interviews were also quite helpful. The first instructor, for Health Science, not only helped illuminate some of the tendencies and propensities of the students in her technical classes, but she also had many positive things to say about the students in her program. She noted that, while many of her students also pursue a traditional college path and just want the class as elective credit or a starting point for later options, there are, sometimes, students that will go into alternative paths (such as preparation to be a registered nurse or emergency medical service training). Her class, as might be expected, is quite technical and very "hands on." She mentioned that she typically encountered the "higher end kids in health science." Therefore, they

are constantly abreast of their studies in all of their classes and subjects. When asked to guess about her students' perception and performance in their respective English classes, she said that they are held accountable to a high standard and she would guess that they see the practicality and use of the subject, even if they are not bound for college.

The second instructor interviewed was the teacher for English, World Studies, and Public Speaking. Her responses were quite helpful. For example, she reinforced the idea that even the technical teachers help keep the students focused and proficient in their humanities courses. She frequently emphasizes the practicality and usefulness of English class to all her students (including those on vocational paths). She noted that sometimes the message does not stick. However, many students view the English classes in a positive and helpful manner. Regarding college, she noted that, for seniors, "everyone thinks that they are college bound." This label may refer to a traditional four-year college, a junior college, a trade school, or any other variety of learning past high school. The point that she made with this statement is that not as many of the students, as might be expected, that still attend the upper years (as opposed to dropping out early), plan to only work right after school.

### Conclusions and Recommendations

The generalizations that I can make are more positive than expected. I knew that I had to alter my focus a little bit when I did my student teaching at this high school. Its curriculum featured a helpful amount of vocational and technical classes, but adjustments had to be made since the project was written with a vocational school in mind. With this in mind, the results were better than expected. The students' perceptions of English class look better than expected, and the students appear to better understand the application of the discipline. It would seem, therefore, that vocational or technical classes at a school such as this (in an elective setting)

merely help add to the students' portfolio of knowledge. The students that are going to drop out will do so anyway, and these classes, at least, give the students that are not going to college some other options.

From reviewing the high school handbook and Web site, speaking with instructors, and speaking with the students, it becomes quite evident that the school system places an emphasis on these curriculum options. With this noted, it would be possible to blend this mentality and configuration with outside help. There are some options in continued study of this topic (especially through the lens of English class grants). For example, The National Council of Teachers of English is promoting the Edwyna Wheadon Postgraduate Training Scholarship Fund (Mann, 2008). This professional development opportunity provides funding for English/language arts teachers in public educational settings. Although it is not an exorbitant amount of money (\$500, annually), this sum would be a good chance for an English instructor interested in the marriage or competition of English class and vocational/technical classes in a public high school. However, they are issued only to the following: accredited, degree-granting public and private two-year junior and community colleges, four-year colleges and universities, and graduate and professional schools. The money may be used toward degree or nondegree courses. Therefore, this grant would have been quite helpful in a study such as this one.

Regarding technology, it should be quite evident that technology plays a major role in all of these technical classes. Each course offered, whether cosmetology, health sciences, or automotive studies, employs its own list of specific technology options. Therefore, someone wishing to continue this study, or perhaps explore the technological dimension, would have much with which to work. By studying each course's technological tools, a researcher might

better understand the curriculum alternatives provided for a student when he or she decides to take one of these courses.

Overall, the study went well. The results, although certainly not realistic to every high school or vocational high school, painted a nicer picture than expected. The message sent from the students and the teachers gave a bit of hope. I will continue to be interested in the relationship of alternative and vocational classes with my own English classes as my career begins.

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Appendix A  
Student Survey

Dear student,

This is an anonymous survey regarding the courses that you have taken, the English class in which you currently study, and your college and/or career plans after high school. Please, if you choose (as this form is entirely voluntary), answer the questions truthfully as no one will know your identity when reading these surveys.

- 1) What year are you in high school?
- 2) How many technical, elective, or vocational classes have you taken? Please list them.
- 3) What are your plans once you graduate?
- 4) How often do you complete your homework and outside reading in this class?
- 5) Please describe, in a few sentences, how important or unimportant you find this and other English classes to be for you now and in the future.
- 6) If you are going on a more technical career path (other than a traditional, 4-year college choice), do you think that you should have to take this English class?
- 7) List any ways that being in this class so far has helped you as a person.
- 8) List any ways that being in this class so far has hurt you as a person.

Thank you very much for your time and honesty in your answers.

## Appendix B

### Sample Questions for English Teacher Interview

- 1) Thank you for your time. Can you briefly describe the class in question regarding age, number, ethnicity, and gender?
- 2) Can you further describe or tell how many students have taken Career/Technical Education classes?
- 3) From what you can tell, how do these students typically perform in your class that have taken a substantial amount of these classes?
- 4) Have many of these students indicated their college or career selection after their time at this high school?
- 5) Do these students seem to do their homework and outside reading frequently?
- 6) From the clues that you pick up in the classroom, how do these students (those with a technical or vocational background) perceive English class, in general?
- 7) Do you have frequent discipline problems with these students in your class?
- 8) Is it difficult to motivate and/or engage these students in your English class?
- 9) Do you find that these students do not see the universality or practicality of high school English courses?
- 10) If you could generally define these students' attitudes towards English class, how would you do so?



Warm-Ups and Creativity in the Classroom

W. Christopher Williamson

Education 590, Fall 2008

The University of Tennessee at Chattanooga

The Institutional Review Board of The University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 08-131.

### Introduction to the Problem

*It was business as usual in my seventh-grade Visual Art class. Students were entering the classroom, visiting each other, getting their portfolios, sharpening their pencils, and asking me the question, “What do we do?”*

*“Just have a seat and I’ll tell you what to do after I check the roll,” was my answer. It was my second full year of teaching and I was adjusting to classroom management. Little did I know that I was about to do something that would become part of the everyday routine in my class.*

*I had heard of other teachers using warm-ups at the beginning of class to get the students started, but I never bothered to find out why. I gave each student a blank sheet of drawing paper and picked up a board marker. On the white board I wrote, “Draw and color ten things you would find in outer space.” It was the first thing that came to mind.*

*Immediately, to my surprise and delight, the students began to work. They were thinking, drawing, and sharing ideas...quietly. The next day, I tried it again, and found with the same results. I put a tray marked “Warm-Up Paper” on a shelf in my classroom. Students knew to get a sheet of paper and start on the warm-up while I stood in the hall between classes to direct traffic.*

*Not only did the warm-ups keep the students busy for the first few minutes of class, but I soon realized that, if I tied the warm-up to the lesson, the students had an easier time generating ideas. Sometimes, their warm-ups became rough drafts for projects they completed in class.*

*A warm-up in my class is not something that is written on the board to keep the students busy. It has evolved into an important tool used to get the students thinking and prepared for the day’s lesson.*

### *Area of Focus*

Having taught for several years in a middle school setting, I have had many opportunities to try new ways to spark creativity in my Visual Art classroom. When I first began to teach, I would give the students the agenda for the day, and then go straight into the lesson. I never considered that the students may need some sort of mental exercise to get them into the creative spirit.

I started to add a daily warm-up to the agenda for every class. Some of the warm-ups seemed to help spark creativity, while others were duds. Over the years, I have been able to sort through these warm-up activities and select those that I know the students will like.

I give the students two different types of warm-ups. Most warm-ups are drawing exercises. The students really seem to like these. I also give warm-ups that are like writing prompts. Instead of a written prompt, I will use a painting or some other artwork about which the students will have to write. The writing-based warm-ups are not as popular, but I am convinced that they get the “wheels turning.”

I began to wonder what class would be like if I never gave a warm-up. Would the students’ ideas still be as creative as if they had a warm-up? Do they need that extra kick to get their brains going in the right direction? Teaching sixth- seventh-, and eighth-grade classes on 9-week rotations would give me a good chance to find an answer.

The purpose of this study is to determine if a warm-up activity at the beginning of a Visual Art class increases student creativity.

### *Variables*

There are certain to be variables that will affect this study. Some students have previously taken classes from the teacher and will notice that there is no warm-up. Working on a warm-up

at the beginning of class has become so routine that some students do it automatically. Students that have not previously taken a Visual Art class will not miss it.

The study also depends on how well the students receive the warm-ups. As mentioned before, the warm-ups are not all gems. Some warm-ups are more exciting than others and may have different effects on students.

Student behavior is also a variable; it would be nice if students sat in their seats and did their warm-up everyday without problems arising, but this is rarely the case. It will be the teacher's job to make sure the students sit down and begin to work on their warm-ups when they first get to class.

Other variables might be fieldtrips, schedule conflicts such as assemblies, and shortened classes.

### *Research Questions*

- Will an imaginative warm-up activity at the beginning of a Visual Art class generate a more creative atmosphere? If so, which kind will generate the most creative atmosphere: a creative writing assignment or an artistic assignment?
- What effects will warm-ups have on different grade levels?
- How will the classroom react to a lesson without a warm-up?
- Will a warm-up that is related to the lesson increase creativity and understanding of the lesson?

### *Review of Literature*

How a teacher begins class sets the tone for the rest of the class time, and, possibly, the day. The beginning of class is full of distractions. Students are finding their seats. Friends are talking. Materials for the lesson are being gathered. Not only are the students busy, but the

teacher is busy, as well. Roll must be checked and homework needs to be collected. These examples could contribute to “lost minutes of already precious classroom time” (Warmups—They’re not just for gym, 2007, ¶ 1).

Some teachers may have their students work on a warm-up for the first 10 or 15 minutes of class. Is this just busy work for them to do while the class settles down and the teacher prepares for the lesson, or is there more to it? Can a simple warm-up activity before the lesson spark a more creative atmosphere in the classroom? Could a warm-up actually enhance a student’s thinking capabilities?

With all the test scores and curriculum that teachers have to worry about, it is no wonder that creativity is sometimes put to the side or not even considered. Who has time to create a lesson *and* make sure that it involves some creativity? Sometimes, creativity may even be “seen as irrelevant to educational practice” (Kaufman & Sternberg, 2007, ¶ 1). While some think this might be the case, others consider creativity to be beneficial to the teacher.

While the teacher cannot teach creativity, he can teach creatively or teach for a creative outcome (Kaufman & Sternberg, 2007). The teacher’s goal should be to help the students develop their creative ability by modeling good creative skills. Modeling good creative skills can grab the students’ attention and hold onto it throughout the lesson.

One subject in which creativity should abound is Visual Art. Student-driven art courses are designed to allow students to have more of a choice of what direction they want their art lessons to go. This type of course is intended to be interesting to all students, not just to students with artistic abilities. Allowing students to make their own creative choices has several positive results. Students who study all aspects of art are able to tie them into other areas of study. Students are engaged in higher-order thinking and problem solving. Being in control of their own

studies causes students to “become more aware of their learning styles and potential” (Andrews, 2005, ¶ 26).

Another type of classroom that is similar to the student-driven class is the socioconstructivist art classroom. This approach is based on the child’s needs and desires. The student learns by interacting with the environment and other students. The art lessons are built around these interactions. This type of learning is similar because the students have more control over what direction their studies take (Pitri, 2006). In this learning environment, the teacher acts as a facilitator and focuses on the students’ needs. The teacher is performing action research in the classroom. In this type of action research, qualitative methods are used to collect data. “Qualitative research is the collection and analysis of extensive narrative data in order to gain insights into a situation” (Pitri, 2006, ¶ 27). Observation of the students shows the teacher what is successful and what is not. The students learn through experience (Pitri, 2006).

One of the beliefs of this type of learning relates to drawing. Drawing is not only considered art, in this situation, but is also regarded as “visible thinking” (Pitri, 2006, ¶ 12). Important things can be learned about a student through this type of expression. Through their creativity, students can show how they perceive the world. As with a student-driven classroom, a socioconstructivist classroom allows students to make more creative choices (Pitri, 2006).

Another idea in the realm of creativity in the classroom is constructive thinking. Constructive thinking is “the composition and assembly of possible solutions, including some that may need to be invented” (Manzo, 1998, ¶ 1). This type of thinking involves creative and critical processes. To initiate this thinking process, students are presented with activities that get their “creative juices” flowing. For example, the teacher could present a “what if” circumstance (Manzo, 1998, ¶ 10). An example of a “what if” question Manzo uses is, what if “people were

allowed to tell one lie a day?” This sort of question is like a warm-up. It gets the students thinking and could lead to other discussions. Working on imaginary problems such as this can sharpen thinking skills. The student will be better prepared when a real-life situation presents itself (Manzo, 1998).

Another creative process is brainstorming. Brainstorming can be performed as a group or individually. This method of creativity is often used to create ideas and spark the imagination. Brainstorming involves writing down many ideas. The process of writing down many ideas helps students recognize the good ideas (Rayme, 2007). When a student brainstorms, writing or drawing as many ideas as possible, it becomes easier for the student to see the better ideas (Rayme, 2007).

A creative warm-up that is relevant to the day’s lesson could enhance the experience for the student and may lead to a better understanding of the material. A warm-up could be simple or challenging. It could be a review of yesterday’s lesson or a new idea that jumpstarts the lesson. Most teachers that prepare warm-ups for their classes present them as part of the routine of the day (Warmups—They’re not just for gym, 2007). When a student enters the room, he or she knows to get started on the warm-up. In this instance, a warm-up could also be looked at as a “classroom management tool” (Warmups—They’re not just for gym, 2007). If students are in their seats, then there will be fewer discipline issues.

Creativity must be challenged often to strengthen creative thinking. Creativity can be used as a process to problem solve (Demir, 2005). Art education can strengthen a student’s creativity through artistic exercises, but building creative thinking is not limited to the art class. There are other ways to strengthen these skills such as writing, dramatic acting, and imagination (Demir, 2005). Other teachers can also build student confidence in creative skills by recognizing

and encouraging creative thinking (Demir, 2005, ¶ 7). While creativity cannot be taught like math or grammar, it can be “developed and constantly exercised” (Demir, 2005, ¶ 1).

One warm-up exercise used by teachers is having students write in a daily journal. This not only helps students with creativity, but with writing skills, as well (Warm-ups—They’re Not Just for Gym, 2007).

In the article, *Is There a Hemingway in the House?*, Schmidt describes the fears and hatred of writing exercises (2004). She goes on to explain some warm-up ideas that help students overcome their anxieties of writing. One interesting warm-up activity is called “Listen and Draw” (Schmidt, 2004, ¶17). This warm-up is both a writing exercise and an art exercise. The idea of this warm-up is to practice expressing on paper what students see in their minds by drawing pictures during a reading by the teacher. Through this exercise, students are learning to improve their creativity through writing (Schmidt, 2004).

Another way that writing and art can be combined is by using student artwork for writing prompts (Andrews, 2005). Students from the art class paint pictures and display them in the school. Teachers then take their classes on an “art walk” to observe and discuss the works (Andrews, 2005). When the teacher and students get back to the room, the students write stories with ideas inspired by the paintings (Andrews, 2005).

To gain a greater understanding of the art classroom, it is beneficial for the art teacher to conduct action research. Action research will not only help teachers understand their roles in the classroom, but can also help them develop better skills as teachers (Pitri, 2006).

McKay, author of *Living the questions: Action research in art education*, suggests that art teachers and other art educators begin to digitally record art education experiences (McKay, 2006). McKay suggests this type of research because she believes that art teachers are “all



searching for strong methods, excellent evidence, and sound research for better understanding and better practice” (McKay, 2006, ¶ 10). This material can be recorded via computer, camera, or voice recorder. All information would be catalogued and used to research what art education really is. If this is successful, then art educators could possibly decide upon universal terms in art or what art education should be. Sharing action research in art education is essential to moving it toward the future (McKay, 2006).

## Data Collection and Results

### *Method and Design*

The research was conducted over a 6-week period at the beginning of a 9-week rotation; sixth-, seventh-, and eighth-grade Visual Art classes were involved in the study. Each class contained 16-25 students. One Visual Art teacher instructed all grades and was the sole conductor of the research.

During the 6 weeks, each grade level experienced artistic warm-ups or written warm-ups before daily lessons. At times, there was no warm-up. Figure 1 presents the schedule of when each grade was given warm-ups and what type of warm-ups were assigned.

Comparisons were made between grade levels, types of warm-ups, and time of day. Warm-ups were written on the board in the same place at the beginning of each class. When there was no warm-up, the area on the board remained blank. Students were given 15 minutes to work on the warm-up, and then placed it in a basket on the teacher’s desk.

	6 <sup>th</sup> Grade	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade
<b>Week 1</b>	Artistic Warm-Up	Artistic Warm-Up	Artistic Warm-Up
<b>Week 2</b>	Artistic Warm-Up	Artistic Warm-Up	Artistic Warm-Up
<b>Week 3</b>	Writing Warm-Up	Writing Warm-Up	Writing Warm-Up
<b>Week 4</b>	No Warm-Up	No Warm-Up	No Warm-Up
<b>Week 5</b>	Artistic Warm-Up	Artistic Warm-Up	Artistic Warm-Up
<b>Week 6</b>	Artistic Warm-up	Artistic Warm-Up	Artistic Warm-Up

*Figure 1. Artistic and writing warm-up assignments followed a weekly schedule for each grade.*

#### *Data Collection*

The data collection techniques used during this research were primarily qualitative. Since there are no previous studies related to this topic, there are no data to compare with the new research.

Collecting data by qualitative means included a student survey, but was mostly collected by direct observation by the teacher. The teacher used an observation journal to record everything that occurred during the research. Dates, times and student behavior were recorded in the journal, as well.

Surveys asked students how and when they thought of their ideas. They were also questioned on their experiences with the writing warm-ups versus the artistic warm-ups. The survey is located in Appendix A.

#### *Results*

The research yielded different results, as far as grade level was concerned. When used as a review for the sixth-grade students, the results were positive. While working on the warm-up, “Draw a superhero wearing a monochromatic costume,” the students were eager to show the teacher that they knew what monochromatic meant. They were also more excited about finishing their monochromatic paintings. In this instance, the warm-up was used as vocabulary reinforcement, and worked.

Other warm-ups used as review were also successful, such as the sixth-grade warm-up: Draw and color three animals. Color one with primary colors, one with secondary colors, and one with neutral colors. Before drawing a city block, eighth-grade students reviewed what they had learned about perspective the day before by completing this warm-up: Using two-point perspective, draw a skyscraper.

In some instances, the warm-up initiated discussion and questions among the students. For one warm-up, seventh-grade students were asked to draw and color a fall landscape. This raised questions about what a landscape was and what would be found in a fall landscape. When the students got to the project for the day, a fall watercolor landscape, the students were well-prepared for what they were going to put in the paintings. The warm-up also helped them to understand the lesson and cut down on the planning time for the painting. They had more time to focus on technique and staying on task. There were also fewer student questions during the project because students already discussed ideas during the warm-up.

Sometimes the warm-ups were not related to the lesson, at all. These particular warm-ups sometimes created a more exciting atmosphere, but did not carry over to the lesson as much as the warm-ups that were tied to the lesson.

The drawing warm-ups were the most popular. The writing warm-ups were problematic. Students in all grades seemed to react in the same way to the writing warm-ups. They did not want to do them. The least popular of this type of warm-up was one in which the students would have to write a story about a painting shown to them with an overhead projection. Some students wanted to know what writing had to do with art. Some students would write just a sentence or two, then turn in the warm-up. More disciplined students would write a more lengthy and creative story, but most students were not interested in this task.

Student reaction to writing lists was more positive. For example: Look at the painting and write down every object you see. This generated some discussion and questions, but not enough excitement to carry over to the lesson.

Although the writing warm-ups were less successful than the drawing warm-ups, there were a couple of constructive experiences. One of these warm-ups was performed by the seventh-grade students. On the day before the activity, the teacher taught the class how to read credit lines. Credit lines are information located below a work of art in a textbook. They give such information as the artist, the name of the piece, the date of creation, the medium used, and where the art is located. As a warm-up, the students were given a textbook and were to find information from credit lines for certain paintings. They enjoyed finding the information. The atmosphere was like that of a scavenger hunt. Who could find the information first? It was a very positive experience and was connected to the study of Vincent Van Gogh and his famous *Starry Night* painting.

Another writing-based warm-up was performed by students in all three grades on a day the classes were to seminar a work by artist Jacob Lawrence, called *The Swearing In*. In the warm-up, the classes were asked to write what would be most important to them if they were

President of the United States. The students groaned about having to complete this particular warm-up, but it helped with the interpretation of the piece.

There were different reactions to a white board with no warm-up. Some of the students asked what the warm-up was. Other students did not notice. A few students asked if they could make up a warm-up and write it on the board. The main difference with no warm-up was the behavior of the class. With no warm-up, the noise level went up and students wandered around the room.

The results from the student survey coincided with what was observed during class. The drawing warm-ups were the most popular. The written warm-ups, especially story warm-ups, were the least popular. Having been asked to list their favorite warm-up, some students listed warm-ups that were connected to the lesson.

### Conclusion and Recommendations

As a teacher, finding what works is the hard part; tweaking it and trying new things with it, is the fun part. What could make warm-ups better? The obvious job of the warm-up is to start the day with order and routine. Warm-ups can be simple assignments that keep students busy while the teacher is taking roll, but, with more planning, they can be an important tool. Warm-ups can reinforce ideas and vocabulary. They can be used to review lessons that have already been learned. They can lead to discussion about a lesson yet to be learned. They can also serve as a rough draft for a project the student will have to create. Warm-ups in the art classroom do seem to spark more creativity.

Most teachers in my school use warm-ups at the beginning of class. Having observed teachers of different grade levels and subjects, I have concluded that they use warm-ups for the same reason I use them. Warm-ups spark interest and creativity. They start discussions and begin

class time with thinking about what it to be covered in the lesson. Teachers and administrators had positive reactions to my research.

A professional development presentation on the effectiveness of warm-ups would be easy to put together. Administrators at my school are very supportive of teacher-led professional development. I believe the information gathered during this research would be interesting to teachers that have always used warm-ups in the classroom. The information could also be beneficial to new teachers or teachers that have never thought about the positive results they may receive by assigning warm-ups.

While there seem to be no grants available for the research of warm-ups, specifically, there may be some opportunities to research warm-ups as part of a study of a certain subject. The National Art Education Association offers grants that encourage research within art education.

There is no reason that a warm-up activity has to be limited to a piece of paper and a pencil. There are many ways in which technology can be used in designing warm-ups for a class. Warm-ups can be completed using a computer, a scientific calculator, or some other form of scientific research equipment. The use of technology depends on the subject of the class.

In an art class, it makes sense for the warm-up to be an artistic assignment. This type of warm-up seems to boost creativity and excitement about the lesson. Written warm-ups in the art room do not seem to be as effective. While they can cause the students to get their minds moving in the right direction, they do not seem to create the same excitement. The written warm-up may be more appropriate for a language arts class. The written warm-up, though, should not be ruled out, altogether. In some situations, it may be the right warm-up with which to make a point. If using a written warm-up in an art class, it might be a good idea to supplement it with some sort of drawing exercise.

Further study may reveal the most efficient ways to use warm-ups. If this research can be used to determine the effects warm-ups have on student creativity, educators may have a new key to open the minds of their students.

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## Appendix A Student Survey

Student Survey

Williamson-Date\_\_\_\_/\_\_\_\_/\_\_\_\_

What grade are you in? (Circle One)      6<sup>th</sup>      7<sup>th</sup>      8<sup>th</sup>

1. Think of all the warm-ups you completed over the past 9 weeks. What was your favorite warm-up.

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Why was it your favorite warm-up?

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2. What was your least favorite warm-up?

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Why was it your least favorite warm-up?

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3. If you had a choice, which of the following warm-ups would you rather do? (Circle One)

- a. Draw and color the landscape of an unknown planet.
- b. Imagine yourself as an astronaut. Write a short story about exploring an unknown planet.

4. Which of these two warm-ups would you rather do? (Circle One)

- a. Draw and color 10 things you would find in an art supply store.
- b. See how many words you can make out of the letters in "Related Arts."

5. Out of all the projects you completed in Art the last 9 weeks, what was your favorite?

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6. What was your least favorite project?

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