THE EFFECTS OF "MOZART" AND "BLACKHAWK"
ON THE WRITING PRODUCTIVITY OF
JUNIOR HIGH STUDENTS

A MASTER'S STUDY

Submitted to the School of Education,
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CHAPTER ONE
INTRODUCTION

Music surrounds us wherever we go, in automobiles, homes, elevators, offices, shopping malls and restaurants. Music is there to motivate, as in a gym setting; it is there to comfort the soul, as in a church setting; it is there to celebrate, as in a party setting; and it is there to relax tensions, as in the daily drive to and from work. Often times the first music heard in the mornings remains in the memory of the brain for the entire day. It is a part of life that all Americans of all ages are exposed to each and everyday.

Health clubs have found music to be a valuable addition to the atmosphere. The high level rhythmic music played in the work out areas helps to motivate and stimulate people to push themselves to the limit, while the soothing tones of classical music played in the saunas and locker rooms help them to relax and unwind after a rigorous workout.

Medical professionals such as doctors, dentists, chiropractors, and surgeons continually play soothing background music in their offices and during procedures to help patients relax under normally high anxiety situations. Psychologists use music to help their patients overcome serious emotional problems, and music has recently been used successfully with seriously ill patients on their road to recovery.
Still other types of businesses have found that music helped their employees to become more productive and efficient. Assembly lines across the country are now influenced by an atmosphere full of background music.

If music surrounds us daily, and has been a successful addition to the business and medical world, why hasn't the educational world embraced it as well? Is education fearful of bringing in outside influences such as music into the school environment? Is the playing of background music during regular instruction too progressive an idea for the educational norm?

These questions represent a dilemma in the educational world. What role should music play in education other than its traditional role in the band and choral areas? As a language arts teacher, the researcher was interested in the role that music could play in the process of writing.

Many times, junior high students have difficulty getting started or writing enough to fulfill the assignment requirements. They seem to be looking for or waiting to hear something that will spark their imagination and help them to become more productive in their writing. This researcher believes that music may be an element missing in this equation.

When music has been allowed into the classroom it is often times in those classrooms, such as art or the physical education areas, where it is most used. Music used in these situations is there to help in the creative process and the motivational
process. This researcher is intrigued by the question of whether music can do the same for students in the language arts area.

Creativity and motivation play a large role in the way that young writers are able to be productive in their written assignments. Productivity is an integral part of success in writing at the junior high level. The researcher is then interested in whether or not music, specifically classical music, and country music effect the students' ability to be productive when writing to a prompt.

Purpose of the Study

The purpose of this study was to compare one group of eighth grade student writers who were exposed to either "Mozart" or "Blackhawk" or not exposed to any music while writing to a prompt. The study looked at the productivity of the groups of students involved when given a prompt and whether "Mozart" or "Blackhawk" effected the students' productivity overall.

Hypothesis

Students exposed to "Blackhawk" (Treatment C) while writing to a prompt will show a significant difference in their writing productivity as compared the same group of students who responded to a given prompt in a "No Music" (Treatment T) or a "Mozart" treatment (Treatment M).
Definition of Terms

For the purposes of this study the following operational definitions were used:

1. Writing prompt - A statement written on the blackboard that the students were asked to respond to.

2. Classical music - The music used in the study came only from the composer Mozart.

3. Productivity - The number of words written by the student in response to the prompt.

4. Writing period - Refers to the amount of time given for the students to respond. In this study the amount of time was twenty (20) minutes.

5. Country Music - The music used in the study came only from the group known as Blackhawk.

Limitations

It was not the purpose of this study to evaluate on-task behaviors, creativity, or motivation of the student to write. It was not the purpose of this study to look at any of the other factors involved in writing. For example, grammar, sentence structure, paragraph form, or spelling were not evaluated or considered to be a part of the students' final product.

The researcher acknowledges that the study done here was limited to two groups of eighth grade students in a rural school setting and may not apply to those students in a larger more
urban or inner city setting. The researcher realizes the many differences in the culture and musical influences between rural students and students in larger settings.

Significance of the Study

Music is an important part of all of our lives and especially the lives of our students. Therefore, researchers and teachers of junior high level students must begin to realize the impact music has on students and how productive they become in their school work. The study conducted here was an important one because it examined the effect of two different types of music on junior high level students' writing productivity.

The researcher conducted this study in order to help other junior high language arts teachers to find new ways of helping their students become more productive writers. The study will interest language arts teachers at this very challenging and sometimes difficult point in their students' lives.

The study was of importance to the researcher because of the amount of writing that was not being completed by the group studied. The group studied had not been productive in their writing, and the researcher was interested in using music to try to influence the students to relax and let their ideas flow, thus making them productive in their writing.

This study could be a contribution to all language arts teachers at all levels. The study could enable language arts
teachers to conduct a similar study of their own in their own classrooms and adapt it for their particular grade level. The study could be easily replicated and results would be quickly available.

At an even higher level this study could be applied to the use of music in all of the areas of the school environment. It could be used to evaluate productivity of students in all of the content areas as well as providing some insight into how students react to having background music during lunch, during study hall, or in the hallways during classroom changes. The areas suggested could all be viable to the school environment and the educational process.
CHAPTER TWO
REVIEW OF LITERATURE

The purpose of this chapter was to review the literature concerning the use of music in the educational, work, social and health environments. This chapter is divided into five sections: How Music Influences People; How Music Effects the Brain; Physical and Emotional Response to Music; Music for Health Care; and, What Does All of this Mean for the Classroom Setting?

How Music Influences People

Over the centuries, we have recognized the power of music to arouse or relax us, to make us happy or sad, and even to change our breathing rate, heartbeat, and blood pressure. Today psychologists use music to help people overcome emotional problems, while business and medicine use it in fitness and wellness programs. Appropriate background music can calm dentists' patients, help office workers perform more efficiently, and even encourage shoppers to buy more (Giles, 1991). However, most of the time the music we hear goes unnoticed. Without noticing, unless the experience is very unpleasant, we are bombarded with music and other sources of noise (Trapp, 1991). We continue in our daily lives without even giving another thought to the background music
being played. We might even leave a restaurant or grocery store humming a tune we've heard over the sound system. Music influences our emotions, our brain and our moods depending upon the type of music we listen to and the reason for listening to it.

Many employers believe that music can influence both the worker and the consumer when they are exposed to it. Some studies have been conducted to see how different genres of background music would effect their workers. A study done at the College of Business at Florida State University compared the productivity of three groups of workers, doing the same task of solving mathematical calculations (Feldman, 1991). The groups were exposed to rock music, slow piano instrumental music and no music at all. The researchers found that the group listening to rock music had increased adrenaline and the largest increase in productivity, followed by the group working in silence (Feldman, 1991). The workers listening to the piano music experienced a calming effect and lowered activity. The researchers also found that while the rock music increased productivity, it added increased amounts of stress. In the final analysis the researchers suggested that businesses who used music could in fact increase office productivity, but that they may be stressing out their employees.

As in businesses, schools have been doing experiments to see if music can be a positive effect on their students. Carroll,
Wong-Kam, Chang, and Jacobson have found that music used in conjunction with language arts provides alternative pathways for students to become better communicators (Carroll, Wong-Kam, Chang & Jacobson, 1994). Similarly, Baechtold and Algier discuss a recent study that confirms the hypothesis that music has a potential for enhancing reading and language in first graders (Baechtold & Algier, 1986). Still other teachers have found music to be a motivating addition to the classroom environment that teachers can try when they sense students are getting tired of the routine (Stewart, 1991). Music influences us in a variety of different ways, and it first begins by affecting the brain.

How Music Effects the Brain

Music can be used as a means for relaxing and quieting the mind (Richards, 1984). There are numerous amounts of audio products on the market that claim to be able to effect the brain in one form or another by using music to help people lose weight, control an obsessive form of behavior or even to be successful in your career. Scientists have found that both the left and right hemispheres of the brain are involved in the creation and appreciation of art and music (Levy, 1983).

Boehm discusses the fact that there are two different types of writers who use only one or the other of the hemispheres of the brain. She defines them as Beethovenian writers, who use the only the right hemisphere, and the Mozartians, who use only the left
hemisphere of the brain (Boehm, 1993). Boehm states that if we are to become effective teachers of writing, we must teach to both the Beethovians and the Mozartians. By using background music during writing, we are effecting both sides of the students' brains and causing them to build connections within the brain that will promote whole-brain thinking (Boehm, 1993).

A study done in 1985 concluded that music had different effects on the relationship between cognitive style and imagery. Imagery and right hemisphere scores were negatively correlated when music was used with repetition, but positively correlated when music was used with imagery instructions (Stratton & Zalanowski, 1985). Music then has been found to effect the brain, both hemispheres, and elicits a response either physical or emotional.

Physical and Emotional Response to Music

Frank Olrich developed a plan to increase the spelling abilities of nine high school special education students. In this plan, he implemented a step that involved the use of music. After he had had the students working on spelling words, he then allowed them relaxation time. During this time, he played background music and instructed the students that they were to get as comfortable as possible and use this time for relaxation and enjoyment. Although this was one of six steps in the process, Olrich concluded that the step involving the music seemed to be a
key part of why his students were able to relax and remember more clearly their spelling words (Olrich, 1983).

Along with relaxation goes anxiety reduction. Lori Russell, an Assistant Professor at Bradley University, conducted a study designed to investigate the effectiveness of imagery, music and cognitive therapeutic techniques in the reduction of anxiety in university students (Russell, 1992). The results of this study suggested that the music plus imagery treatment could be helpful in teaching students to reduce state and trait anxiety. The researcher also found that familiar - sedative music plus imagery was the most effective technique in reducing university students' anxiety. Other researchers, such as Reynolds, found music and autogenics to achieve a significant difference in anxiety, and Peach used guided imagery and music and found that skin temperature and perceived relaxation increased during a twenty minute session (Russell, 1992).

Another study conducted in 1979, tested the effect of music on pulse-rate, blood-pressure and final exam scores of university students. The study, conducted by Everard Blanchard, focused on 254 students, divided into three groups, namely, a control group, which was administered a traditional final exam; an experimental group, administered an examination accompanied by Rock and Roll music as a background; and finally, a second experimental group taking an examination while accompanied by classical music (Blanchard, 1979).
All three groups were administered the same examination and had their blood-pressure and pulse-rate taken by a nurse before, during and after the examination. The results of the study were: 1) Music acts as a general factor in critical thinking by coordinating the thinking of students; 2) music tends to minimize the nervous states of students while taking the examination; 3) colleges and universities may be breeding grounds for the socially emotionally maladjusted and the neurotic; and 4) institutions of higher education may be a risk as far as health factors are concerned in traditional examinations (Blanchard, 1979). Blanchard stated, "the traditional examination should be eliminated promptly" (Blanchard, 1979).

The aforementioned studies all indicate either an emotional or physical response to music on the part of people performing a task. Because of studies like these, the health care field has also been conducting experiments to help their patients with both the emotional and physical parts of dealing with their illnesses.

Music for Health Care

A study conducted in 1981 investigated the response of patients with stress problems to one of five genres of music during biofeedback training (Marshall & Tomcala, 1981). The researchers exposed patients who were in psychotherapy, self-help counseling, physical fitness and biofeedback training to rock, jazz, minimalism, classical and silence (the only sound was the
biofeedback tone). Results indicated no difference in stress reduction among the various types of music. The researchers presented the music only once and were to engage in a second study where all subjects would receive all five treatments.

In contrast, a 1986 study showed that music therapy was a valuable technique in dealing with pediatric cancer patients (Pfaff, 1986). Music therapy, the application of music and musical activities to elicit specific changes in emotional, physical or social behavior, helped pediatric cancer patients to decrease their anxiety and cope with hospitalization. For many of the patients who were unable to communicate verbally, music provided a means of nonverbal expression of their emotions. Music created an atmosphere of play, in which tension was released, stress reduced and self-expression occurred (Pfaff, 1986). Although music therapy is still an uncommon service in pediatric hospitals, the benefits of music therapy are becoming more known to health care professionals.

What Does All of this Mean for the Classroom Setting?

Music is a powerful medium that educators can and should incorporate into their classrooms (Langfit, 1994). Music soothes students into effortless timed writings, sets a tone for the day's activities, or excites listeners to discover the drama in literature ("Words and Music in the English Classroom," 1991).
Dethier states that music is a logical way to interest students and help them to make the connections and understand new material as quickly, efficiently and pleasantly as possible (Dethier, 1991), and Murphy believes that writing is primarily an auditory skill (Murphy, 1989). If this statement is true, then it would seem that music and writing would naturally go together.

Why then have there been few studies on the use of background music in school settings? The few studies that have been reported show positive results:

"A pattern of inappropriate student behavior on a school bus was changed by playing music. A study of the reading comprehension of 278 eighth and ninth graders showed that students in study halls with background music had substantially more improvement in reading comprehension than those who studied without music. Another study of first and second graders' preferences for relaxing background music showed that children responded most positively to the familiar music played for five minutes after recess. The program known as Accelerated Learning uses softly played background music to slow the heart rate and relax minds and bodies of students at work. (Giles, 1991)."

The most recent study of music and its effect on students in an educational setting was conducted by Ben Smith and Charles Davidson and its purpose was to assess the effects on student achievement of three types of background music present during independent study (Smith & Davidson, 1991). The types of music used were rock, easy listening and classical. The length of each treatment was twenty minutes and each subject used headphones and listened to the music from an audio tape player. The students'
attitudes towards music were assessed before and after the treatment period.

The results of the study showed a small or trivial difference in any of the three types of music (Smith & Davidson, 1991). The researchers concluded that the experiment had some problems and some potential. They sighted the time of year the treatments were given, at the end of the school year, the number of subjects used, thirty-seven, and the treatment length, twenty minutes, as possible problems. However, they also stated that there are potentially important ramifications from investigations into background music in classroom environments (Smith & Davidson, 1991).

Another study conducted on the use of music in the classroom as a background stimulus for writing measured the quantity of writing. This study found that the quantity of students' spontaneous writing is affected by music as a stimulus. It also found that music that is vocal and unfamiliar appears to have an inhibiting factor on student writing (Ebisutani, Donlan & Siebers, 1991).

With all of this in mind, where does music fit into the language arts classroom? Ebisutani, Donlan and Siebers believe that there are three benefits of having music in the language arts classroom: 1) music provides an artificial environment that can stimulate creative expression; 2) music can be studied as a form of literature; and 3) music can be used as a student's personal medium for self-expression (Ebisutani, Donlan & Siebers, 1991). Basile
sees a natural integration in language arts between music and poetry (Basile, 1994). Likewise, Szustak has found Rhythm and Blues to be a natural connection when used in conjunction with poetry or as poetry (Szustak, 1993). Winans has found the exercise of writing to music to be a successful strategy that stimulates freedom of thought and of imagination in his students (Winans, 1987), and Karnowski has found that young children enjoy using the sounds of music to make meaning by humming, singing or writing to the music (Karnowski, 1986).

All of the aforementioned research then suggests that there is indeed a natural connection between the use of music in the language arts classroom and the positive effects of music on students. The important thing then is to remember that most students function very well with music in the background, and that the right music at the right time can make them less stressed, more relaxed, happier, and more productive (Giles, 1991).
CHAPTER THREE

METHODOLOGY

The purpose of Chapter Three is to describe the methodology employed in the completion of this study. In this chapter the researcher describes the subjects and setting, the research design, the instrumentation used, and the data collection and analysis procedures.

Subjects and Setting

The school community is composed of rural families with predominantly middle class economic status. A small town surrounds the school and the families who live inside the town limits range in economic status from lower level income to upper middle class. The school district is economically sound due to the Honda of America plant that is located in the district. The school district has two buildings--the middle school/high school and a brand new state of the art elementary school.

The students who participated in the study were selected by the researcher because of their equality in ability and the fact that they were already an intact group. The students were the third period, eighth grade English class of the researcher. The students were assigned to this class by the guidance counselor of the middle school at the beginning of the school year.

Nineteen students were involved in the study, six males and thirteen females. The students ranged in age from thirteen to fifteen and the average age was fourteen years and two months. The
grade point averages in this group ranged from 3.0 to 3.9 overall and a 3.5 grade average in the researcher's English class through the first three nine weeks of the school year.

Research Design

The research design used here was Quasi-Experimental. The group of students used was intact and selected by the researcher because of their equality in ability. The group was exposed to "No Music", "Mozart", and "Blackhawk" when writing to one of three different prompts. The researcher was interested in the productivity of each of the students in response to their environmental differences. This information was determined by counting the number of words written by the students.

Instrumentation

The researcher was interested in productivity, the number of words written in a controlled amount of time. Therefore, for the purposes of this study, the term productivity will be used in referring to the students' writing.

In order to begin the experiment, the researcher first had the students respond to a survey (Appendix A) that asked what music they would prefer to listen to in the classroom. Seventy-five percent of the class responded that "Blackhawk" would be their choice.
The researcher then decided on a prompt to be used in the experiment. The prompt was as follows: describe any memorable or important event or experience that occurred in your home or school life in the last week. The researcher then used this prompt with all three stimuli.

The researcher then wrote "No Music", "Mozart", and "Blackhawk" on three slips of paper and put them into a basket. The researcher then randomly drew out the slips to determine their order in the experiment. The stimuli were chosen and used in the following order;

"Mozart" - week one

"No music" - week two

"Blackhawk" - week three

Each experiment was conducted on Wednesday of each week for three consecutive weeks. The prompt was written on the chalkboard and the music was playing as the students walked into the classroom. The researcher instructed the students to take out a piece of notebook paper and a writing instrument and to remove all materials from their desks except what was needed. The researcher then read the prompt aloud and informed the students that they had twenty minutes to respond to the prompt and that they could begin.

During the writing period, the researcher was not involved in any way. The researcher simply sat quietly and watched the amount of time remaining. At the end of the twenty-minute period, the researcher instructed the students to stop writing and to pass
their essays forward. The researcher then counted the number of words written at the end of each experiment period to determine the amount of productivity by each student.

After the third experimental period, the students were asked to respond to a five-item Likert type questionnaire designed by the researcher (Appendix B). This survey asked for the students' opinions of how they were or were not affected by the presence of "No Music", "Mozart" or "Blackhawk" while responding to the prompts.

Data Collection and Analysis

The data for this study were collected by asking the participants to respond to a given prompt. The participants responded to three different prompts: one without any background music, "No Music", one with "Mozart" playing, and one with the country music group, "Blackhawk", playing in the background. The same prompt was given during three timed writing periods, on Wednesday, for three consecutive weeks. The researcher collected the students' writing at the end of each of the writing periods and totaled the number of words written by the students both individually and as a whole in order to determine their amount of productivity per writing period.
The results of the writing productivity will be shared in table form. The number of words will be shown for each writing period and discussed in chapter four.
CHAPTER FOUR
RESULTS

After the three writing periods were completed, the researcher gathered information on the group of students as a whole and also as individuals. The researcher counted each subject's total number of words for each of the three treatments.

Treatment Totals and Averages

Each student's writing productivity (words per twenty minute period) was recorded and the total number of words produced by the group as a whole was calculated. Treatment M, the "Mozart", had a total number of 3323 words, Treatment T, the "No Music", had a total number of 5035 words and Treatment C, the "Blackhawk", had a total number of words of 4940. Each of the figures were divided by the number of individuals involved in the experiment. As shown in Table 1, Treatment T out performed the other two treatments overall. Treatment T averaged 265 words, while Treatment C was second with a 260 word average and Treatment M averaged 175 words.

The researcher hypothesizes that Treatment T and Treatment C average results were within five words because of the fact that the students are most familiar to these situations. The subjects are either in an educational setting where there is no music or in a comfortable setting when doing homework or writing and listening to country style music.
### Table I
Comparative Word Productivity for Treatments M, T, and C

<table>
<thead>
<tr>
<th>Students</th>
<th>Treatment M</th>
<th>Treatment T</th>
<th>Treatment C</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>135</td>
<td>199</td>
<td>202</td>
</tr>
<tr>
<td>SA</td>
<td>202</td>
<td>289</td>
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</tr>
<tr>
<td>CB</td>
<td>201</td>
<td>263</td>
<td>420</td>
</tr>
<tr>
<td>KIB</td>
<td>195</td>
<td>284</td>
<td>275</td>
</tr>
<tr>
<td>KB</td>
<td>306</td>
<td>212</td>
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<td>AH</td>
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<td>SK</td>
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</tr>
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<td>SW</td>
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<td>179</td>
<td>77</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3323</strong></td>
<td><strong>5035</strong></td>
<td><strong>4940</strong></td>
</tr>
<tr>
<td><strong>AVERAGE</strong></td>
<td><strong>175</strong></td>
<td><strong>265</strong></td>
<td><strong>260</strong></td>
</tr>
<tr>
<td><strong>PERCENT</strong></td>
<td><strong>0</strong></td>
<td><strong>68.5</strong></td>
<td><strong>31.5</strong></td>
</tr>
</tbody>
</table>
Individual Results

As shown in Table 1, each individual's number of words was totaled for each writing period. The individuals can then be compared to themselves or to the others in the group in order to evaluate how they were most effected by the varied stimuli. As shown in Table 1, an overwhelming number of subjects involved in the study were more successful with "No Music" as opposed to the other treatments. Sixty-eight and one-half percent of the subjects performed better in the "No Music" writing period and thirty-one and one-half percent of the subjects performed better during the "Blackhawk" period. Consequently, none of the subjects performed better during the "Mozart" writing period when compared to the other two writing periods.

The researcher again hypothesizes that the subjects have been conditioned in either an educational or comfortable setting when writing.

Post Survey

The subjects were given a post experiment survey and asked to respond to four questions, by using either "Mozart", "No Music" or "Blackhawk". The survey (Appendix B) asked for the subjects' opinions about the use of the three stimuli during the writing periods.
Question One

Question one asked in the subject's opinion, when they were best able to concentrate when listening to "Mozart", "No Music", or "Blackhawk". Two responded during "Mozart", eight responded to "No Music" and nine responded to "Blackhawk".

Question Two

Question two asked during which writing period did they feel less stress. Eight responded "Mozart", three responded "No Music" and eight responded "Blackhawk".

Question Three

Question three asked the subjects during which writing period they felt most productive. Two answered during "Mozart", eleven answered during "No Music" and six answered during "Blackhawk".

Question Four

Question four asked the subjects to complete a sentence using "Mozart", "No Music" or "Blackhawk". Two wrote in "Mozart", one wrote in "No Music" and sixteen wrote in "Blackhawk".

The researcher suggests that because the post survey results were entirely up to the subjects and their opinions, that the results of the survey may not be concrete. They may be more biased toward the individuals own preference.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

In Chapter One, the researcher provided an introduction to music in the classroom as well as in society. The purpose of the study was presented and discussed. The researcher stated a research hypothesis. Terms such as productivity, writing period and prompt were defined as they pertained to this experiment. The final two sections of the chapter consisted of the limitations for the study and the significance of the study.

In Chapter Two, the researcher reviewed the literature on music and how it has been used in our society and in the educational setting. The review was divided into five sections. The subheadings were as follows; How Music Influences People, How Music Effects the Brain, Physical and Emotional Response to Music, Music for Health Care, and What Does All of this Mean for the Classroom Setting?

In Chapter Three, the researcher discussed the Methodology involved in the study. The subjects were members of one of the researchers eighth grade language arts classes in a school that is located in a rural area. The study was Quasi-Experimental and was based upon the response of the subjects to the same prompt during three different writing periods over a period of three weeks. The subjects were exposed to "Mozart", "No Music" and "Blackhawk" during these writing periods. The data was collected by counting
the words written by each student during each test period and a post survey was given to gather the subjects' opinions to the testing experience.

In Chapter Four, the researcher presented the results which indicated that the majority of subjects performed better with "No Music", than when exposed to "Blackhawk" or to "Mozart". Sixty-eight and one-half percent of the subjects wrote more words during the "No Music" period, thirty-one and one-half percent wrote more words during the "Blackhawk" period and zero percent wrote more words during the "Mozart" period.

Conclusions

Based upon the word productivity during the three writing periods, the researcher concludes that in this rural school district either "No Music" or "Blackhawk" will show improvement in the students' writing productivity. The percentages show an overwhelming response to the traditional "No Music" treatment, but a significant amount of the response showed writing productivity improvement when exposed to the "Blackhawk" treatment. "Mozart" did not motivate one student more than the other two stimuli.

The researcher believes that the reasoning behind what occurred in the results is that the students studied were more familiar with either the "No Music" or "Blackhawk" treatments. The students that were studied were taught under very traditional type educational settings and when they weren't in that setting they were exposed to
country music type groups, such as Blackhawk.

Implications for Practice

The researcher suggest that there were a number of factors that could be changed if this study were to be replicated. The educational setting could be changed to a city school system as opposed to a rural school system. This may cause different results, because some city school students are much more familiar with classical music or they may choose a different type of music as the third type to be tested.

The testing period could be change in length, day of week and time during the school year. The length of the writing period could be either lengthened of shortened, a different day of the week instead of Wednesday may be selected and another part of the school year could be used instead of April.

The researcher also suggests that a larger group of students be involved in the study when possible. The group used in this study was rather small and a larger group may provide a more varied response. The type of music used could also be influenced by a larger group.
Appendix A
PRE-SURVEY

Name________________________________________ Date________________

What type of music do you normally listen to?

If given the choice between the following types of music, which one would be your first choice to listen to? (Circle One).

Country Music       Rap       Heavy Metal
Classical Music     Pop Rock   Alternative
Appendix B
**Survey**

Name_________________________________________ Date________

Please respond to the following statements by circling one of the three answers to indicate your opinions.

I was able to concentrate the best when I listened to

- classical music
- Blackhawk
- no music

I felt less stress when _________ was playing.

- classical music
- Blackhawk
- no music

I was more productive (wrote more words) when _________ was playing.

- classical music
- Blackhawk
- no music

Complete the following sentence.

If I could listen to music in my language arts class when I write, I would choose____________________________________.
References


