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THE EFFECTS OF KINESTHETICALLY-BASED LISTENING
MAPS ON THE ATTITUDE OF ELEMENTARY STUDENTS
TOWARD ORCHESTRAL MUSIC

A Thesis

Presented to the

University of Nebraska at Omaha

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

Of the Requirements for the Degree

Master of Music

University of Nebraska at Omaha

by

Rebecca Gibson

July, 2004

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THESIS ACCEPTANCE

Acceptance for the faculty of the Graduate College,
University of Nebraska, in partial fulfillment of the
Requirements for the degree, Master of Music Education,
University of Nebraska at Omaha.

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ABSTRACT

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University of Nebraska, 2004

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The purpose of this study was to examine the effect of kinesthetically based listening lessons on the attitudes of elementary students towards orchestral music. Students in grades three through six (N=89) who attended a multiage school were used as subjects. For a pretest, subjects were asked to listen to three orchestral pieces, after which they were asked to fill out a ten question survey to determine their attitude toward each piece. Subjects were then taught listening lessons utilizing the three following teaching strategies: 1) a Kinesthetically/Visually based listening map lesson; 2) a Kinesthetically based listening lesson; and 3) a Passive listening lesson. When all the lessons had been taught, students were again asked to listen to the same three orchestral pieces, filling out a posttest survey to determine if their attitude toward any of the pieces had changed. Results indicated that there was not a significant difference between pre and posttest comparisons.

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Chapter I

Introduction

Educating about listening has always been a challenge in music education. Because music is an aural art, the development of acute listening skills in students is an important task for music educators (Baltzer, 1996; Zalonowski, 1986). The National Standards for Music Education (MENC, 1994) recognize the importance of being able to critically listen to music if one is to successfully achieve all music standards. While listening is the focus of a separate standard, all nine emphasize how crucial listening is to the achievement of other musical skills. If students are not taught to be careful listeners, they may not be able to successfully meet the remaining standards. For example, the first standard emphasizes the skills of singing. To sing well students must hear well. In order to sing accurately, one must constantly be listening carefully in order to adjust to the correct pitch. When singing expressively, dynamics must be constantly gauged right along with pitch. Singers in a group setting must listen to make sure they are consistent with other parts and blending with those around. A singer who is not taught to listen attentively will often struggle with pitch accuracy. Pitch accuracy will not be the only problem. To perform expressively, listening must be acute in

order to respond to intensities, timbre, and dynamics. The skills of performance, improvisation, and composition are part of other national standards. It is also imperative to performance and practice that performers listen closely to identify their own mistakes. A student who practices incorrectly for a week may do more harm than good. Trained and attentive ears will help students to identify problem areas and become well trained musicians.

Other specific skills identified for listening and analyzing music relate to describing music. First of all, students should be able to identify different formal structures. This can be achieved by experiencing, seeing, touching, and performing the structures. In a music class, this is achieved through active learning experiences such as, playing instruments, singing, moving, or discussing the structures. After students have been able to have that active experience, they are more ready to receive vocabulary that will help them describe the musical form. The ability to speak in musical terms is also an important part of a musical experience (MENC, 1994). The music vocabulary is immense and can be overwhelming for new students until they experience the meanings first hand. With a better understanding of what they are hearing, students can better understand the emotional effect which in itself generates

further involvement and understanding (Hoffren, 1968). Action in music can also deepen the students' understanding of a musical concept. Not only can this lead to an understanding of music but to a greater enjoyment of music, a greater ability to identify good music, and ultimately, an aesthetic experience (Hackett & Lindeman, 1997). The joy and fulfillment that music can bring to any life must first start with an understanding and a knowledgeable ear. With this understanding, better informed patrons and supporters of public performances and music education will be able to uphold high standards.

Research has examined the skill of listening and techniques to enhance students' ability to listen effectively (Anderson & Lawrence, 2001; Baltzer, 1996; Campbell & Scott-Kassner, 1995; Granlie, 1999; Hackett & Lindeman, 1997; Hoffren, 1968; Meyer, 1956; Miller, 1986; Sims, 1990; Zalonowski, 1986). It is first necessary to understand the complexities of the listening process before it can be applied to a teaching situation.

Listening to music involves more than passively allowing sound to enter the ear canal. In the American culture, music has become a background for shopping, dining, riding elevators, reading, and working. With this constant inconsequential music being placed in the background, a new phenomenon has arisen and has been labeled as audiothrombosis (Sims, 1990). Audiothrombosis

occurs when a listener is so use to hearing music in the background that it becomes easy for the listener to tune the music out and treat it as “white noise.”

With regard to music listening, many researchers examine the process of active listening. Active listening is using energy or applying thought processes while focusing on music being played (Oxford, 1996).

Research on attention describes listening to music as a “special type” of attention which is important to physiological arousal. Applying one’s mind to the music must happen if the full effect of the music being heard is to elicit any emotional, intellectual, or physiological response. When this focused attention is utilized, pulse changes, respiration changes, metabolism is affected, and psychogalvanic reflex may be felt. This is not the case in all acts of attention. Before listening occurs, there is a mental preparation in anticipation of what is to be heard. This preparation affects the central nervous system and motor attitudes (Meyer, 1956).

Development of active listening can occur at an early age. A child developing listening skills is a child learning to perceive sounds and then form conscious thought about those sounds. Receptive skills precede language skills and are necessary for language development (Sims & Nolker, 2003). The auditory sense is well developed at an early age, from birth; infants can identify

their mothers' voice by identifying her voice pitch and soon begin to imitate the sounds they perceive. From preschool to age eight, children are very open to experiencing music and are able to develop a vocabulary of what they are hearing. When they reach eight or nine years old, their perceptiveness begins to level out until they are older and able to apply a wider range of concepts to music.

This attention to and preference for all music should be taught at an early age; young children can be taught to actively listen to music, or focus on the repeating or contrasting patterns, the use of tone colors, the phrasing and the dynamic shaping. The ability of children to identify broader concepts is based on previous foundations and early exposure (Campbell & Scott-Kasner, 1995). Knowing this, it is imperative to expose children to all genres of music at an early age. Young children are more likely to be open to a wider range of listening experiences. By the time students reach nine or ten, their peers and the media have a stronger influence on their likes and dislikes.

When utilizing music to relay concepts, it is important to link the music being heard with information about the music. When information is linked to the actual sounds being heard, active listening is taking place (Anderson & Lawrence, 2001).

Challenges to active listening have increased with the technology of our age. With the bombardment of images, icons, advertisements, and special effects, attention spans have shortened. This begins in early childhood so paying attention and listening have become activities in which children must be taught to actively engage. With competition from music videos, special effects, and any other activity designed with the fractional attention span in mind, teaching active listening can be challenging. The key is to get the students' attention and help increase the time that they can focus.

There are many ways to teach listening skills to the young student. Strategies for increasing student attention to music include adding movement activities, requiring students to signal different formal structures, using upbeat music, and having the teacher model appropriate listening behavior (Anderson & Lawrence, 2001; Campbell & Kassner, 1995; Hackett & Lindeman, 1997; MacMillan, 1991; Silver Burdett Ginn, 1995). Research by Sims (1990) suggests the following ways for teachers to set listening standards: 1) allow no talking; 2) focus attention; 3) maintain eye contact with students; 4) provide a goal or response; and 5) provide the best sound possible.

In addition to the aforementioned teaching techniques, Hedden (1990) offers guidelines for choosing parameters. These include quick tempos, a good

beat, instrumental music, familiar melodies, little vibrato, male voices, and popular music. Taking parameters into account will help the teacher plan more effective listening lessons.

Miller (1986) utilizes listening maps, a visual representation of musical events that help to identify relationships. These listening lessons initially begin with visual representation, once students have made the connection with the implied form indicated by visual cues; the visual is taken away and the activity focuses solely upon aural perception. Some researchers feel (Granlie, 1999) that music is an aural art and therefore visual representations of sound must be reduced to enforce aural perception. While this may be more applicable in an older student population, this is not generally accepted in the elementary grades.

Musicians and teachers may combat passive listening by taking ample time to teach listening and attention skills which may then lead to a greater understanding and openness to accepting various types of music. In order to preserve and ensure the continuation of symphonies, concerts, musicals and other listening-intensive activities, students must be exposed to various genres and venues of music so that they may continue to appreciate music long after their school years. This, in itself, can preserve a musical heritage. Without

learning to listen attentively, students will not seek out more genres as they grow and there will be fewer patrons to support the arts. In effect, preservation of music in all its forms is dependent upon intelligent and informed patrons.

The purpose of this study was to examine the effects of kinesthetically based listening maps on the attitude of elementary students toward orchestral music.

This study was designed to answer the following questions:

1. Does a Kinesthetically-Visually based listening experience effect the attitude of elementary students toward orchestral music selections?
2. Does a Kinesthetically based listening experience effect the attitude of elementary students toward orchestral music selections?
3. Does a Passive listening experience effect the attitude of elementary students toward orchestral music selections?

Definitions

The following definitions will provide clarity and promote a better understanding of selections used in this study.

1. Listening map – A visual representation of choreographed movement to be performed while listening to an orchestral composition.
2. Passive listening – Sitting with hands in lap while listening to an orchestral composition.
3. Active listening – Performing choreographed movement while listening to an orchestral composition without visual stimulus.

Chapter II

Review of Literature

Development of Listening: Musical Elements

There have been many studies done on various aspects of listening (Andrews, 1962, Bradley, 1971; Flowers, 2001; Rasmussen, 1970; Greer, Dorow, & Randall, 1974; Hedden, 1980; Madsen, 1997; Madsen, Geringer, & Fredrickson, 1997; Rodriguez, & Webster, 1997; Sims & Cassidy, 1997; Sims, 1986; Sims, 1995; Yarbrough & Price, 1989; Zalonowski, 1986). Many of these studies have focused on isolating various musical elements in many styles and genres of music in order to determine students' perception of these elements for listeners of all ages. Sims and Cassidy (1997) examined whether or not young children prefer instrumental or vocal music and found there was not a significant indication either way, in fact, attention spans varied among children regardless of style and listening tendencies were found to be idiosyncratic. In a previous study, Sims (1995) had indicated that specific musical elements are learned by young students in a specific order. The order Sims identified was dynamics, timbre, rhythm, melody, form, texture, and harmony. Sims also found that students can better learn to discriminate between these elements by engaging in an activity to produce these elements rather than by passively

listening for them. Students in second and third grade were found to be in a more transitional developmental stage when it came to learning these elements. Perhaps increasing attention and therefore familiarity with music will enable students to become better at learning the various elements by reception as well as production.

In 1997, Madsen attempted to isolate which elements subjects would focus on while listening to the music from Act I of Puccini's *La Boheme*. One group was given a Continuous Response Digital Interface (CRDI) which identified melody, dynamics, timbre, rhythm and everything as five elements for subjects' focused listening. Subjects were asked to turn the dial to the element which commanded their attention. Five other groups had dials but they were labeled with everything and only one of the five elements. Madsen found that most subjects focused on the melody whether they were in a group with five choices or two; dynamics received the second highest focus followed by everything.

In a follow up study designed to examine students' attention to elements, Madsen conducted another study along with Geringer and Frederickson (1997). Two groups of students (N= 18) were asked to listen and respond to what they heard by turning a CRDI dial to the element they thought

to be the most prominent. One group had five different dials. They were labeled melodic, timbral, dynamic, rhythmic, and everything. The other group had only one dial labeled melody with "less attention" written on the left and "more attention" written on the right. After listening, students were asked to indicate how many, if any, aesthetic experiences they had while listening.

While no consequential differences were found between the two groups, this study did lead to an insight to listening and aesthetic responses. Since subjects were given a task directly related to listening, their concentration was focused on the music for a significant amount of time. With this increased concentration on the music, more students reported an aesthetic experience.

This led researchers to believe that when given a task, concentration may increase, leading to a greater chance for an aesthetic experience (Madsen, Geringer, & Fredrickson, 1997). Working with Continuous Response Digital Interface (CRDI), Madsen and Geringer (2000-2001) developed a "Model for Meaningful Listening". Essentially, they have determined that in order for students to obtain a heightened listening experience, they must participate in an activity that keeps the person listening to music; the key is to actively engage students, thus prolonging interest. Perhaps using listening maps with orchestral music presentations will increase the likelihood students will remain

engaged therefore increasing meaningful listening and an increased positive attitude towards orchestral music.

Flowers (2001) compared sixth grade students' and university professors' ability to focus their attention on music. Subjects were asked to listen to music and tap a computer key every time their mind wandered. They were also asked to indicate what they thought their level of attentiveness was, if they liked the piece, and their level of concentration for the day. Sixth grade subjects listened to two pieces; professors listened to six pieces. Flowers found that despite the variety of music styles presented, the sixth graders showed similar amounts of distractions as the professors. More important to this study is that many of the sixth graders indicated a positive response to the music despite it being outside the popular style. This leads Flowers to the belief that adolescents may be more accepting of different styles of music if the listening conditions are conducive to prolonged attention. Furthermore, the research concluded that classroom environments have too many social distractions which lead to an inability to sustain concentration. This is in line with previous studies that indicate engagement, concentration, and a task may lead to increased attention and therefore an increased enjoyment of any music.

Development of Listening: Attention

In 1986, Sims examined attention, preference, and teacher affect of preschool students (N=100) to determine how students respond and develop attitudes toward music. Sims focused her study on the effects of teacher affect and student activity while listening. She specifically examined attention span, piece preference, time spent listening and piece recognition. Each group had four, fifteen to twenty minute lessons over four consecutive days. Two listening activities were done followed by a singing activity and then by two more listening activities. During the lessons, two variables were employed: affect and activity. Affect was either high or low. High meaning teacher maintained eye contact and utilized facial expressions consistent with happiness and excitement; low, meaning no contact and a bored expression. The activity consisted of active lessons, small hand movements designed to correlate with the music, and passive lessons, hands placed folded in the lap. The results indicate that teacher affect and activity does have an influence on attention students give to music. The findings related to activity emphasis a response or task when listening to music increases attention span.

Classroom environment can affect attention span. The question still remains as to how to teach developmentally appropriate, interesting, and aesthetic response stimulating music. Andrews (1962) attempted to answer this by presenting one group of students with a lecture and listening and another group with a self-paced center. Students at the center were equipped with headphones, composer and composition notes, and extended activities. Both groups learned the same information but the experimental group showed an appreciation and positive attitude toward the music leading Andrews to state, "ability to appreciate is educable," (62). Andrews further implies that selection is more important than teacher presentation and that achievement and attitude are not clearly differentiated, these areas must be interrelated.

In 1986, Zalanowski examined the effect of pairing learning styles with listening instructions to enhance attentiveness. Different instructions were given according to cognitive styles. While imagery instructions seemed to be more beneficial to right hemisphere subjects, analytical instructions were more beneficial for left hemisphere learners. This information can be utilized to devise multiple strategies for teaching orchestral music as it may lead to more students responding with an increased positive attitude toward orchestral music.

Some researchers have focused on the sequential aspects of teaching listening in order to increase student attentiveness (Rasmussen, 1970; Hedden, 1980; Rodriguez & Webster, 1997). Rodriguez and Webster (1997) simply studied children's responses to music they were repeatedly exposed to. Their responses were recorded and many judges categorized the responses. The experimenters believe that from this extensive compilation of responses and their classification, a developmental pattern of how children understand and value music emerged. Also, how previous experiences affect children's responses and ability to infer relationships emerged. More specific findings indicate older subjects were not concerned with properties of sound but with emotion. They moved from concrete thinking to more abstract global comments. Comments by children also showed a tendency for older students to view music from the composer's point of view and younger students to view music from the performer's point of view. Teachers, guided with this information of students' response to music, will better be able to create listening lessons that capture attention.

Development of Listening: Preference

Many studies done on music listening have focused on the preferences for various types of music. Bauman (1969) set out to create a device for

sampling music preferences. Specifically, he was interested in determining musical preferences, as well as, variations in preference among different age groups and socioeconomic levels. As a result, Baumann's Music Preference Inventory (MPI) was created. The MPI consisted of 50 pieces that represented pop, folk, traditional, classical, and other genres. Sixteen hundred teenagers and 59 junior college students filled out a social status inventory and then listened to the selections in a random order and rated them as "Like," "Most Like," and "Like Least." In all groups, the strongest implication for preference is the familiarity with a musical idiom. Bauman also found that with increasing age, students indicated an increased liking of classical selections. It was also found that students of higher socioeconomic status were more inclined to prefer more classical selections. From this study, teachers who know their students could be more inclined to make selections based on their students' age and socio-economic status. It is also very possible that teachers can influence this trend by utilizing effective teaching strategies to engage all students. This exposure would help to close the gap between students who have been previously exposed to orchestral music and those who have not.

A study done by Greer, Dorow, and Randall (1974) also sought to answer the question of musical preferences. Their study focused on students

preschool through grade six and their grade level preferences, changes in preferences as grade level changed, listening attention span as correlated to grade level, and preference for rock or non-rock music styles based on choices.

The researchers tested students individually. Students were able to change music they heard by depressing a key. The three choices they had were rock (top twenty from a rock radio station), non-rock (symphonic, classical piano, and Broadway show tunes), or white noise. In order to hear the same selection, the subject had to find its new key location. They found that as students advanced in age, they had a higher preference for rock music and a lower tolerance for anything non-rock music. There was not a difference between rock and non-rock for the preschool and first graders but upper grades were consistently showing a preference for the rock music. They also found that between third and fourth grade there seems to be a turning point at which acquisition of other music occurs. These students were from a predominantly middle to low income neighborhood. In terms of attention span, there was a positive correlation between increased length and increased choice for rock.

The results of this study are aligned with previous research. It is interesting to note that from the aforementioned two studies there seems to be a normal curve of preferences for popular/rock music. Sims and Cassidy (1997)

found that variations in style, tempo, medium, and vibrato were not a factor in children's listening choices. At an early age, students seem open to more genres but as they enter fourth grade and continue to early junior high, their preference seems to focus on what is most widely accepted and popular. Past junior high, there seems to be another shift where preferences begin to become more accepting.

Bradley (1971) examined the influence of repetition on the musical choices children make. Operating under the idea that adequate repetition to induce familiarity would increase the preference subjects had for music, he studied middle school students. Fourteen seventh-grade classes listened to contemporary art music repeatedly over a fourteen-week period. Bradley determined that repetitive listening increases the likelihood of a favorable response to music and serves as a useful pedagogical tool in a listening program.

As with repetitive listening, sequential instruction has been identified as an effective teaching tool, specifically when the teaching task has been broken down into three components. Yarbrough and Price, (1889) examined effective teaching strategies, specifically the direct instruction approach. This approach consists of three steps: 1) getting the students' attention; 2) presenting the task

in a way that students are taught a task and required to respond to it; and 3) reinforcing correct responses and reassessing incorrect responses. This strategy has been known to be more effective in producing achievement of basic skills, cognitive understanding, and positive attitudes toward learning. Studies that have linked this approach with music teaching have found a higher rate of students' attentiveness and positive attitudes. The use of listening maps lends itself very well to this teaching strategy. Step one, gaining attention is done by drawing attention to the map. It gives students a visual cue so that attention is focused. In step two, the symbols on the map represent a task required of the students. In the final step, students can be positively reinforced or quickly redirected.

Summary

The research presented has demonstrated that there are many ways to teach listening skills that will enhance students' awareness of, attentiveness to and attitudes toward music. The presentation of elements and instruction has been shown to have an effect on students' response to music. The goal of listening lessons is to increase a positive attitude toward music with the ultimate hope that the likelihood of an aesthetic experience is increased. Sequential presentation of elements can have an effect on student listening

acuity. Furthermore, students may perceive certain elements more readily than others.

Once students are made aware of the sound and given specific responses or tasks to achieve while listening, attitude towards the music and understanding of musical elements increases. Increasing familiarity with repetition has also been shown to be an effective teaching strategy to increase attitudes towards listening. It is imperative that music educators continue to investigate strategies for developing effective listening among students.

Chapter III

Methodology

The purpose of this study was to examine the effects of kinesthetically based listening maps on the attitude of elementary students toward orchestral music. This study sought to answer the following questions:

1. Does a Kinesthetically-Visually based listening experience effect the attitude of elementary students toward orchestral music selections?
2. Does a Kinesthetically based listening experience effect the attitude of elementary students toward orchestral music selections?
3. Does a Passive listening experience effect the attitude of elementary students toward orchestral music selections?

Subjects

Subjects (N=89) for this study were enrolled in an elementary school consisting of multiage classrooms. Seven classrooms, were assigned randomly to group A, B, and C with Group A having a third/fourth grade (N=8), a fifth/sixth grade (N=10), and a fourth/fifth/sixth grade (N=11). Group B consisted of two classrooms, a third/fourth grade (N=12) and a fifth/sixth grade (N=10). Group C consisted of two third/fourth grade classrooms (N=14; N=14) and one fifth/sixth grade (N=10).

Dependent Variable

Survey

The dependent variable for this study consisted of a ten-question survey that measured students' attitude toward orchestral music. The researcher developed the survey based on the Music Preference Inventory (MPI) created by Bauman (1969). The MPI was devised for junior high and college students and had fifty listening selections. Students rated the pieces with "Like", "Most Like," and "Like Least." To make the instrument more age-appropriate for elementary students, the researcher limited the survey to ten questions and asked the students to respond to each question with the following scale: 5 = Strongly Agree; 4 = Agree; 3 = No Opinion; 2 = Disagree; and 1 = Strongly Disagree. Before students were asked to complete the survey, they were given four practice questions. This precaution was taken to ensure students fully understood the nature of the survey. To test for grade appropriateness, the survey was piloted with like-aged students at a school with similar demographics. This survey was used as a pre and posttest. A copy of the survey can be found in Appendix A.

Orchestral Selections

Three orchestral pieces were chosen for this study. Research indicated that children have short attention spans so the length of listening lessons should be no longer than two minutes unless used with music listening activities (Greer, Dorow, & Randall, 1974). Because subjects in this study were engaged in activities during much of the listening, 120 – 200 seconds was used as a guideline for the length of each listening selection. This amount of time allowed for students to hear an entire selection or an excerpt from each piece.

The following three pieces from traditional, Western orchestral literature were selected for this study: 1) *Carmen Prelude* (entire); 2) *Marriage of Figaro Overture* (excerpt); and 3) *Candid Overture* (excerpt). These pieces or excerpts represent music from three different stylistic periods spanning the 18th through the 20th century.

Independent Variable

The independent variable was instruction that was intended to effect student attitude toward orchestral music. Three different teaching techniques were used: 1) Kinesthetic/ Visual - listening and moving to music while following a map that represents actions students are to perform; 2) Kinesthetic - listening while performing choreographed movement; 3) Passive - sitting

quietly with hands in lap. The following section provides greater detail for each treatment.

Treatment 1: Kinesthetic/Visual with Listening Map

For this treatment, the researcher designed movement that was performed with each orchestral piece. The movements were non-locomotor such as clapping, marching in place, patting, and bending knees. Each movement was symbolized on a map that the student could follow visually. A list of symbols and copies of the listening maps are found in Appendices B, C, D, and E.

During the kinesthetic/visual treatment, the researcher presented the map and would teach the various movements in sequence. The students practiced without music so that they could learn the choreography at a slower tempo. Once the movements were learned, the students performed with the music. The map was present during the performance, and the teacher modeled the movements along with the students.

Treatment 2: Kinesthetic

During the kinesthetic treatment, the researcher presented the various movements in sequence; however, no visual map was used. Again, the students practiced without music to learn the choreography at a slower tempo

and once the movements were learned, the students performed with the music. Although no visual map was present, the teacher modeled the movements along with the students.

Treatment 3: Passive

The intent of the passive treatment was to serve as a control measure. During this treatment, the students were asked to sit quietly with their hands folded in their laps as they listened to the music.

Procedures

Timeline

The study was conducted over nine class periods. The following table identifies the stages as they occurred in the study.

Class One:	Listening Selection 1	Pretest
Class Two:	Listening Selection 2	Pretest
Class Three:	Listening Selection 3	Pretest
Class Four:	Listening Selection 1	First Treatment
Class Five:	Listening Selection 2	Second Treatment
Class Six:	Listening Selection 3	Third Treatment
Class Seven:	Listening Selection 1	Posttest
Class Eight:	Listening Selection 2	Posttest
Class Nine:	Listening Selection 3	Posttest

Pretest Survey

The seven intact classes assigned to groups A, B, and C were asked to sit and listen quietly to the orchestral pieces as they were presented each on a

different day. After listening to each piece, students were asked to fill out a ten-item survey designed to measure their attitudes towards the individual pieces.

To control for an order effect, each group listened to the pieces in a different sequence which is shown below:

- | | |
|----------|---|
| Group A: | 1. <i>Carmen Prelude</i> (Entire) |
| | 2. <i>Marriage of Figaro Overture</i> (Excerpt) |
| | 3. <i>Candide Overture</i> (Excerpt) |
| Group B: | 1. <i>Marriage of Figaro Overture</i> (Excerpt) |
| | 2. <i>Candide Overture</i> (Excerpt) |
| | 3. <i>Carmen Prelude</i> (Entire) |
| Group C | 1. <i>Candide Overture</i> (Excerpt) |
| | 2. <i>Carmen Prelude</i> (Entire) |
| | 3. <i>Marriage of Figaro Overture</i> (Excerpt) |

Application of Treatment

Following the pre-survey listening selections, the subjects listened to the three selections for a second time. During the second listening, each selection was presented utilizing each of the aforementioned treatments (kinesthetic/visual, kinesthetic, passive). All subjects experienced each treatment condition. Table 1 lists the treatment plan for individual groups.

Table 1: Treatment Plan

Car=Carmen Prelude; F= Marriage of Figaro Overture; Can=Candide Overture

	Pre Test	T1 Passive	T2 Kinesthetic	T3 Visual	Post Test
3/4A	Car/F/Can	Car	F	Can	Car/F/Can
5/6A	Car/F/Can	Car	F	Can	Car/F/Can
4/5/6A	Car/F/Can	Car	F	Can	Car/F/Can
3/4B	F/Can/Car	F	Can	Car	F/Can/Car
5/6B	F/Can/Car	F	Can	Car	F/Can/Car
3/4C	Can/Car/F	Can	Car	F	Can/Car/F
5/6C	Can/Car/F	Can	Car	F	Can/Car/F
3/4C	Can/Car/F	Can	Car	F	Can/Car/F

Posttest Survey

Once all groups had been presented with all three formats, subjects listened to all three orchestral pieces for one final time. After each piece, subjects filled out a survey to indicate their attitude toward the orchestral pieces. The same testing procedures were used.

Chapter IV

Results

The purpose of this study was to examine the effects of kinesthetically-based listening maps on the attitude of elementary students toward orchestral music.

Students in grades three through six (N=89) who attended a multiage school were used as subjects. For a pretest, subjects were asked to listen to three orchestral pieces, after which they were asked to fill out a ten question survey to determine their attitude toward each piece. Subjects were then taught listening lessons utilizing three different teaching strategies: 1) a Kinesthetically/Visually based listening map lesson; 2) a Kinesthetically-based listening lesson; and 3) a Passive listening lesson. When all the lessons had been taught, students were again asked to listen to the same three orchestral pieces, filling out posttest surveys to determine if their attitude toward any of the pieces had changed.

The three research questions this study was designed to answer were:

1. Does a Kinesthetically/Visually based listening experience effect the attitude of elementary students toward orchestral music selections?
2. Does a Kinesthetically based listening experience effect the attitude of elementary students toward orchestral music selections?

3. Does a Passive listening experience effect the attitude of elementary students toward orchestral music selections?

Results indicate there was no significant difference in student attitude from pretest to posttest for students listening to orchestral selections coupled with Kinesthetic-Visual teaching technique. Table 2 shows the mean gain scores for each orchestral piece.

Table 2: Kinesthetic/Visual Mean Gain Scores

Treatment	Piece	Mean	Std. Dev.	N
Visual/Kinesthetic	<i>Candide</i>	.0379	.89379	29
	<i>Carmen</i>	.1091	.70435	22
	<i>Figaro</i>	-.2605	1.05276	38
	Total	-.0719	.91788	89

Results indicate that for the kinesthetic teaching technique, there also was no significant difference in students' attitudes from pretest to posttest for students listening to orchestral selections. Table 3 shows the mean gain scores for each orchestral piece.

Table 3: Kinesthetic Mean Gain Scores

Treatment	Piece	Mean	Std. Dev.	N
Kinesthetic	<i>Figaro</i>	.1931	.76201	.76201
	<i>Carmen</i>	.2545	.58287	.58287
	<i>Candide</i>	-.3789	.87431	.87431
	Total	.0360	.82245	.82245

Pretest and posttest results for the passive teaching technique also indicated there was no significant difference in students' attitude toward orchestral music. Table 4 shows the mean gain scores for the passive technique for each piece.

Table 4: Passive Mean Gain Score

Treatment	Piece	Mean	Std. Dev.	N
Passive	<i>Carmen</i>	-.0241	.74001	29
	<i>Figaro</i>	.6318	.78461	22
	<i>Candide</i>	-.3316	.93725	38
	Total	.0067	.91537	89

To compare the difference between and within each treatment, a repeated-measures ANOVA was completed. Table 5 shows that there was no significant difference between teaching techniques.

Table 5: Repeated-Measures ANOVA

Source	df	Mean Squares	F	p
Treatment	2	.358	.542	.583

Chapter V

Discussion

The purpose of this study was to examine the effects of kinesthetically-based listening maps on the attitude of elementary students toward orchestral music.

Students in grades three through six (N=89) who attended a multiage school were used as subjects. For a pretest, subjects were asked to listen to three orchestral pieces, after which they were asked to fill out a ten question survey to determine their attitude toward each piece. Subjects were then taught listening lessons utilizing three different teaching strategies: 1) a Kinesthetically/Visually based listening map lesson; 2) a Kinesthetically based listening lesson; and 3) a Passive listening lesson. When all the lessons had been taught, students were again asked to listen to the same three orchestral pieces, filling out posttest surveys to determine if their attitude toward any of the pieces had changed.

Results indicated there was no significant difference in students' attitude toward orchestral music regardless of the three teaching techniques utilized.

This study was designed to answer the following questions:

1. Does a Kinesthetically/Visually based listening experience effect the attitude of elementary students toward orchestral music selections?
2. Does a Kinesthetically based listening experience effect the attitude of elementary students toward orchestral music selections?
3. Does a Passive listening experience effect the attitude of elementary students toward orchestral music selections?

Discussion in Relation to Research Questions

This study focused on three different teaching techniques with the goal of determining which of the three most enhanced students' attitude toward orchestral music. There was no significant difference for any of the three teaching strategies studied. Several factors may have contributed to the outcome: 1) selection bias; 2) prior testing, 3) prior experience with the teaching technique, and 4) research design. Although care was taken to insure that subjects' understood that the study was not related to their grade or success in the music classroom and that their honest opinion was what was needed, the subject pool may have been biased due to the relationship with the researcher. Many subjects had been students of the researcher for up to five years and the young-age of the subjects combined with this familiarity could have influenced the way they responded to survey questions.

Second, the effect of prior testing could have had an effect on the validity of this study. The subjects were required to complete the same survey six times (3 pretests, 3 posttests). It could be that the subjects became immune to the importance of the task and did not take care to provide accurate information. Furthermore, although the instrument was piloted to test for clarity, it is possible that many subjects may have had problems comprehending the survey.

Prior experience with the teaching technique could also have played a role in the results. As mentioned previously, many of the subjects had been with the researcher for up to five years. In that time, those who had been with the researcher had been exposed to listening maps used to teach other orchestral compositions. This prior experience made the passive technique difficult to enforce. While students were asked to sit passively and listen, some could not seem to contain themselves. Many subjects were observed to be tapping a foot, bouncing to the beat, or even modeling conducting.

The research design for this study allowed all groups to experience each teaching technique. In hindsight, a cleaner research design might have led to different results. The effects from the third and possibly second treatment may have altered students' perception of all three orchestral pieces regardless of

treatment received for individual pieces. Instead of exposing each group to all three teaching techniques, only one treatment per group for all three pieces might have given a better indication of whether or not treatments were effective.

Discussion Related to Past Research

The results of this study seem to contradict many previous studies that have shown an increase in attitude toward orchestral music with the use of differing strategies. Madsen, Geringer, & Frederickson (1997) have shown an increase in aesthetic experiences when listeners were given a specific task in which to focus on the music. Flowers (2001) also demonstrated attentiveness due to a specific task prolonged attention leading to increased attitudes toward music. Other researchers have found that various teaching techniques used to teach music made a positive difference in how students formed attitudes toward music (Bauman, 1969; Bradley, 1971; Rasmussen, 1970; Hedden, 1980; Rodriguez & Webster, 1997; Yarbrough and Price, 1898; and Zalanowski, 1986). As previously stated, the design of this study allowed for each group to experience each teaching technique. The interaction between the treatments may have effected a significant change in attitude.

In prior research, repetition that builds familiarity was found to be a factor that influenced student attitude. Because students listened to the pieces only four times, this may not have been enough exposure to breed familiarity.

Conclusions

While it cannot be concluded from this study that listening maps which support the use of visual-kinesthetic responses to music increase the likelihood that elementary students will have more interest in orchestral music, there is still a precedent set by previously mentioned research. With the abundance of information indicating teaching strategies can and do influence students' attitude toward orchestral music, the teaching method of combining visual and kinesthetic cues when listening to music is valid.

Implications for Future Research

The most influential factor in the results may have been the design of this study. A design that isolated the various treatments would more than likely produce different results. This study was conducted at a school that consisted of only multiage classrooms. Because research has shown that differences in attitudes arise at various ages, replicating this study using traditional classrooms could give a more accurate result.

The experiment was conducted over a period of five weeks. Studying the effects of teaching methods on attitudes over a longer period of time may prove to be a better indicator of treatment effectiveness.

An alternate form of assessment could be more beneficial to the outcome of future research. Monitoring and recording "time on task" may be a better indicator of students' attitude toward orchestral music. This could be done with a video analysis. Student's behavior could be recorded so behavior could be observed and measured.

The National Standards for Music Education (MENC, 1994) recognize the importance of students' ability to critically listen to music. It is imperative that research continues to explore effective teaching techniques for critical listening. Any technique that can enhance students' awareness of and attention toward music is worth researching and bringing into everyday music lessons. Once critical listening is established and students are able to analyze musical elements, students will have the skills to form more refined attitudes toward all music.

Appendix A
Pretest/Posttest Survey

Please circle the answer that most agrees with your feelings.

1. I think chocolate ice cream is the best flavor.

\$ Strongly Agree Agree No Opinion Disagree Strongly Disagree \$

2. I think sunny days are good for outdoor recess.

Δ Strongly Agree Agree No Opinion Disagree Strongly Disagree Δ

3. I would like pizza everyday for lunch.

! Strongly Agree Agree No Opinion Disagree Strongly Disagree !

4. I would like to have a million dollars.

☺ Strongly Agree Agree No Opinion Disagree Strongly Disagree ☺

Please circle the answer that most agrees with your feelings.

1. I enjoyed this piece

! Strongly Agree Agree No Opinion Disagree Strongly Disagree !

2. I would never buy a recording of this.

? Strongly Agree Agree No Opinion Disagree Strongly Disagree ?

3. I would listen to this at home.

\$ Strongly Agree Agree No Opinion Disagree Strongly Disagree \$

4. I would only listen to this piece if I have to.

** Strongly Agree Agree No Opinion Disagree Strongly Disagree **

5. I would like to buy my own recording of this piece.

☺ Strongly Agree Agree No Opinion Disagree Strongly Disagree ☹

6. I did not enjoy this piece.

■ Strongly Agree Agree No Opinion Disagree Strongly Disagree ■

7. I never want to hear this piece again.

○ Strongly Agree Agree No Opinion Disagree Strongly Disagree ○

8. I would go to a concert to hear music like this.

△ Strongly Agree Agree No Opinion Disagree Strongly Disagree △

9. I would not go to a concert to hear this.


◇ Strongly Agree Agree No Opinion Disagree Strongly Disagree ◇

10. I would like to hear this again

‡ Strongly Agree Agree No Opinion Disagree Strongly Disagree ‡

Appendix B

Listening Map Symbol Guide

	March	X	Clap
— —	Bend Knees	Δ	Jazz Hands
○	Bounce	•	Bend & Pat Knees
\	Nod Head	—	Tip Toe
↗	Arms Up	↘	Arms Down
B	Bow	*	Stomp
~~~~~	Shake Hands	^	Heels Off Ground
	Bring Arm Down Quickly		
— —	Arms and Legs		

### Appendix C

#### *Carmen Prelude* by Bizet

|||||X            X|||||X            X|||||X            XIX|X||| :||

____ ΔΔ    ____ Δ Δ    ____ Δ Δ    ____ Δ Δ

— ^            ∨ ^            — ^            || ^

|||||X            X|||||X            X|||||X            XIX|X|X

○ ○    ○ ○    ○ ○    ○ ○

||: / \            / \            \ /

/ \            — —            / \            — — :||

|||||X            X|||||X            X|||||X            XIX|XXXX

1 2 3 4 5 *







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