THE EFFECT OF REPEATED LISTENING EXPERIENCES ON UPPER ELEMENTARY STUDENTS' TOLERANCE TOWARD NON-WESTERN MUSIC

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ABSTRACT

This study examined the effect of repeated listening experiences on upper elementary students' tolerance toward non-western music. Intact music classes were randomly assigned to control and experimental groups. During the pretest, students indicated their degree of liking for non-western musical excerpts. Following the pretest, experimental subjects (n=303) received twenty-two repeated listening experiences of the same non-western examples employed on the pretest. Control subjects (n=279) received regular music instruction. Following the treatment, all subjects were administered a posttest.

An analysis of covariance determined significant gain differences between groups. Overall, results indicate highly significant ($p=.05$) gain differences between groups toward all styles of non-western music. Analysis by grade indicates that fourth- and fifth-grade experimental subjects significantly improved, while sixth-grade students realized positive, but insignificant gains. Analysis by genre indicates that all experimental subjects significantly increased tolerance toward African and East Indian styles, but obtained insignificant gains toward Japanese music.
Chapter I

INTRODUCTION

As music educators implement a comprehensive music program, they are responsible for developing a curriculum that increases student understanding and appreciation of music while encouraging student interest. A comprehensive program in music education will encourage student development in the psychomotor, cognitive, and affective domains through the use of sequentially planned objectives that utilize a variety of developmentally appropriate methods. Both western and non-western music materials are used.

Many elementary music programs include psychomotor activities such as performance on classroom instruments, singing and movement to help students gain a better experience and a deeper appreciation for music. Active participants in the process of making music or responding to music through movement may find they have greater interest in pursuing further study in music.

Performance on classroom instruments may help students understand basic musical elements of rhythm, melody, expression, form and harmony. Some learners, particularly
younger students, respond more effectively when they are physically involved in the learning process. As students mature and musical performance skills increase, many students are challenged by the almost limitless possibilities for excellence through performance. Many teachers find students willingly engaged in music activities when they are allowed to participate in a wide variety of suitable performance possibilities.

Singing is another psychomotor skill in which many students find great pleasure. Many music programs use singing extensively not only because of its immediate accessibility, but because it actively involves students in the learning process. A variety of musical concepts, such as an understanding of melodic, harmonic and metric principles, diction, and expression can be addressed through singing.

Additionally, movement, through the use of eurhythmics, ethnic dance, and/or choreography, adds an exciting element to music classes and helps create a willingness in students to participate. Students involved in music classes that incorporate instruction through movement may find they are more interested in learning and have a greater understanding of musical concepts.

In addition to developing students' progress in psychomotor skills, music educators have the responsibility of encouraging students' cognitive growth in the areas of music literacy and the basic musical elements of rhythm, melody,
harmony, form, and interpretation. A variety of methods ought to be employed to accomplish such growth. Students who understand the elements of music are likely to appreciate music more fully.

Learning to read music encompasses much more than learning note names and rhythmic values. Musically literate students will be able to connect musical symbols with sound and be able to translate notation into music through instrumental and/or vocal performance. Instrumental performance is a helpful approach to the attainment of musical literacy and motivates students to further study.

The use of vocal sight-reading activities will provide meaningful avenues toward literacy for students. Students who understand musical notation learn to sing more independently, and without the support of previously heard musically examples. Students who read music independently find greater enjoyment as they sing music that is more challenging and aesthetically pleasing.

Additionally, written notation accompanying listening examples should help students discover the relationship between symbol and musical sound. The provision of notation for listening examples focuses attention on the listening experience and give students a specific purpose for listening. By providing notation, students can visualize what they listen to thereby promoting a greater understanding of music. Musically literate students are more self-motivated toward
music as they are enabled to explore music on their own terms while fulfilling desires for new and different music.

Cognitive development in each of the elements of music is critical to the musical growth of children and should be encouraged in music programs. Rhythm is often addressed early in music instruction because it is basic to virtually all musical compositions. Even the youngest child responds to rhythm and begins to distinguish steady beat patterns and meter groupings. Students demonstrate cognitive growth in rhythm as they begin to differentiate dissimilar rhythms. Further development is evident as students apply their knowledge about meter signatures, rhythm values, rest, dotted rhythms, and syncopated rhythms to performance situations. Additionally, students may demonstrate creative uses of rhythm through performance of their own compositions and accompaniments. Students who understand this element feel more musically competent and motivated to explore further rhythmic complexities in music of a variety of styles.

Another element that is basic to most musical compositions is melody. Children respond to melody from the time they are infants; they can be soothed by repetitive melodic structures or agitated when exposed to unfamiliar melodic contours (Chang and Trehub, 1977). A music educator not only helps children to learn to sing or play melodies on instruments, but hopes that students will recognize melodic characteristics such as contour, length of phrase and function
within a composition. Students may demonstrate higher order thinking skills when they create their own melodies. An understanding of melody may inspire further independent study of more complex melodic structures.

Form is yet another element that must be addressed. Students use skills of analysis and synthesis to discern formal structures in music. As a deeper understanding of this element is realized, students will be able to identify same and different phrases and their place within a composition. Students who recognize and understand formal structure are likely to develop a greater interest in music as they begin to appreciate the inherent designs found in musical compositions.

Musically trained students must display an understanding of the harmonic element in music. An understanding of harmonic principles within musical compositions helps students identify and appreciate harmonic progressions. A working knowledge of harmony makes music more exciting to listen to and is likely to create a desire in students to explore more fully the music being performed.

Finally, the element of interpretation is part of what makes music come alive and must be included in music programs. Well-educated students need to understand how symbols of expression translate into musical sound. The ability to discriminate expressive sounds, add expression to performances, and imagine how a composition will sound when performed with appropriate interpretation can benefit students. Students
having a well-developed understanding of expression are likely to find music to be more enjoyable.

While it is understood that music has much potential for growth in the psychomotor and cognitive areas, educators would be amiss if they failed to include the affective domain in their teaching objectives. Teachers of music programs have a responsibility to deepen students' appreciation for music and to encourage an affective response that allows for the formation of intelligent value judgements.

The broad category of music appreciation includes the affective response, or an appreciation of the beauty inherent in music which students listen to or perform. The aesthetic response can be seen in the smile of enjoyment, the sigh of beauty, or the wide-eyed look of amazement. Movement, instrumental and/or vocal performance, and listening experiences may prove to be successful avenues in aiding the development of students' affective response. Because music reaches profound human feeling in an incomparable way, students who undergo an aesthetic response are likely to seek other experiences that will reach their deep feelings. Students will want to re-experience music that invites such a response.

Affective response also includes making appropriate value judgements. Teaching students to value music is a worthy goal of dedicated music teachers. Educators allow for experiences of evaluating music when they encourage the expression of a student's feeling about music and the justification of his or
her opinions. Students given the opportunity to discuss their opinions about music find their views validated and may be stimulated to further explore music.

Music educators have a considerable responsibility to encourage musical experiences that are appropriate for maximum student growth in the psychomotor, cognitive and affective domains so that each student is prepared to enter adulthood with a broad base of musical knowledge. Students who hope to attain optimal growth in these domains need curricula that creatively utilize a variety of methods and materials. Recognizing that most students receive frequent listening experiences in popular music through the media, a teacher who hopes to broaden appreciation for a variety of music must include, and perhaps focus on, non-popular music in his or her selection of teaching materials. Music educators must provide experiences for students that will allow for growth in non-pop areas and help foster improved attitudes toward classical music.

Music teachers who include classical music will insure exposure to music that has been valued for centuries. Classical music is admired and appreciated by those who have much experience in the field of music. Students deserve an opportunity to learn about this genre of music.

Classical music provides a means of exposure to all the musical elements mentioned earlier: melody, harmony, interpretation, rhythm and form. Classical music has been used
historically as a means of improving performance skills of serious music students. It is of value for its intrinsic beauty and its reflection of the cultural and historical periods of its origin. Students given the opportunity to study classical music are likely to gain an appreciation for it and develop a greater desire for its performance.

Students need to become better acquainted with classical music. Teachers allowing only listening experiences and performance options in popular music limit student experiences to music favored by the media. Teachers deprive students the privilege of an educated choice if they ignore classical music in their curriculum.

Similarly, teachers who ignore non-western musics in their selection of teaching material severely limit students' education in music. Non-western music also effectively promotes growth in the psychomotor, cognitive and affective domains. Because it facilitates the study of different cultures, it is particularly appropriate as a means of preparation for students who will function in the global society of the future. Additionally, non-western music provides an avenue of unusual and challenging music that may appeal to many students. The study of non-western music belongs in well-structured music programs.

Non-western music addresses the psychomotor domain while strengthening performance skills. Movement can be naturally introduced through non-western ethnic dance because movement
and music are closely intertwined in many non-western musics. Experiences in choreography set to non-western music allows opportunities for creative and expressive movement. Because of the rather exotic nature of non-western music, students become aware that appropriate choreography is an intriguing learning experience unlike any other previous activity.

Singing is also an integral part of many non-western genres. Learning to change vocal qualities to correspond to specific non-western music provides opportunities to expand repertoires of vocal techniques. Students may find such experiences appealing because singing non-western music is different from usual music activities. While beginning students might feel more comfortable with texts in English, more experienced students may find that verses written in foreign languages are a delightful challenge.

Some non-western music lends itself particularly well to performance on instruments. For example, African, Indonesian gamelan and many Japanese compositions are easily adapted to performance on Orff instruments. Many students seen to enjoy experimenting with the unusual instrumentation, rhythms and melodic possibilities offered in world music. Well-structured music programs utilizing non-western music include varied and interesting performance opportunities for students.

While non-western music provides a stimulating means for improving psychomotor skills, it also effectively promotes growth in the cognitive domain. Such growth might encourage
further study of non-western music. Non-western music provides opportunities to teach the same basic elements considered important by music educators. Non-western music readily offers unconventional meters and a rhythmic diversity that challenges and attracts many students. Harmonies and melodies constructed on unusual scales and modes present interesting listening and performance options. Non-western music offers formal designs that may be as familiar as the simple call and response pattern easily mastered by young children, or may extend to the exotic progressive designs such as those found in East Indian music. Multicultural music employs many different means of expressiveness to achieve its unique and intriguing sound. Particularly noteworthy is the use of timbres found in different instrumentations, and the variety in vocal productions.

Non-western materials permit the examination of fresh examples of musical elements unencumbered by familiar contexts. Students may find that new combinations of sound found in non-western music are both interesting and pleasing. Such a conclusion will encourage students to listen to and perform non-western music again.

Music literacy skills can be reinforced while exploring non-western music. Notation, which accompanies listening experiences, encourages reading skills by providing listening goals and visual examples of the unusual sounds found in non-western music. Students who can read western and non-western
music progress beyond rote learning to more independent singing and instrumental performance.

Students displaying literacy in western and non-western music have the opportunity to demonstrate a working knowledge of the cultural context from which the music comes. Students who possess an understanding of a particular composer's background are likely to perform his or her music more authentically. Similarly, knowledge of the cultural background of certain world musics may prove helpful in the attainment of an authentic non-western music performance. The study of non-western music allows for greater insight into cultures other than one's own.

Non-western music allows for new musical experiences. Students will be exposed to unusual scales, rhythmic groupings, timbres, form and textures. Such experiences allow for greater student intellectual stimulation that potentially may broaden musical possibilities (Dodds, 1983). The use of non-western music provides an attractive format for students desiring a meaningful approach to music and may enhance student interest in future music activities.

In addition to providing opportunities for growth in the psychomotor and cognitive domains, non-western music also offers a worthwhile means for growth in the affective domain. Non-western music is valuable for its inherent beauty. Just as classical music has been valued over time for its beauty, many non-western musical compositions have been admired for virtues
of beauty and function within indigenous cultures. The unique qualities found in non-western music, its variety and richness of sound and its aesthetic value demand that responsible music educators expand their curricula to include study of non-western music. Students not exposed to non-western genres will never learn to appreciate the intricacies and breadth of variety found in ethnic musical styles.

A comparison of many types of music, including non-western genres, affords students additional opportunities to make value judgments about music. It is likely that students given such an advantage will make intelligent value judgements established on a broad foundation of musical knowledge. It is important that students be given musical experiences in a variety of styles so that they can make educated choices in their listening and performing options.

Non-western music may also provide a means to aid in the development of a flexible attitude toward music, an important factor in the expansion of a student's performance and listening base. Shehan (1986), confirms the need for students to have rich and varied experiences so that they will be better able to make intelligent value judgements concerning future listening choices. Anderson (1983), speaks of the benefits of musical examples that are representative of world musics. Students given such exposure may gradually develop an appreciation for music from a variety of cultures.
And yet, while many music educators strive to include classical music among their resources of teaching materials, non-western music may not be a readily utilized. Hesitancy to use non-western music materials may be due to many factors. Two main factors are 1) an individual teacher's lack of training and experience in non-western genres, and 2) a lack of materials (recordings, instruments, notated music) necessary to study multicultural music.

Despite these limitations, it is important to include non-western as well as classical music in music curricula. Conscientious teachers try to equip their students with skills that will prepare them for the future. Faced with an ever interdependent world made smaller through the use of technology and high-speed transportation, students must be ready to function in a global community. It is quite likely that students will be involved with non-western cultures in the future. Given this situation, it is important for students to possess an open and tolerant attitude toward the music and cultures of other people. An education that includes opportunities to understand non-western people and their music is one way for students to prepare to function effectively in a global world.

Non-western music belongs in music programs not only because it encourages growth in students' psychomotor, cognitive, and affective domains, but because it assists students to become productive citizens in a global community.
In order to encourage greater student interest in non-western music, an effective and accessible means of increasing student tolerance toward world music is desirable.

NEED FOR THE STUDY

It is apparent that there is a need to create a tolerance in students for, and a desire to study non-western music so that they will willingly accept the pursuit of further study. Therefore, it is necessary to examine various approaches that may effectively increase tolerance for multicultural music.

Teachers believe that by choosing and advocating certain styles of music, student preferences will be positively directed toward the selected genres. Teachers need to be selective in their listening examples chosen for instruction. Research indicates that careful consideration of the complexity level of the music in relationship with student experience and developmental stage should be made. According to Shehan (1986), planning listening experiences and performances which include music that is fairly repetitive in nature, utilizing exotic timbres and lacking excessive vocal trills and vibrato will allow students a chance to become more interested in an unusual genre. Research has indicated that students prefer listening to music which uses instrumental mediums and utilizing faster tempi (LeBlanc 1981, LeBlanc 1983). Therefore, teachers desiring to positively influence preference for non-western
music may want to select fast, instrumental music for initial listening experiences.

Performance-oriented instruction might positively affect student interest in non-western music. Through this approach, students are given an opportunity to sing and play non-western melodies, rhythms and harmonic accompaniments. A greater appreciation for and understanding of non-western music may be realized as students perform ethnic music and increase their familiarity with it. Because playing instruments is a favorite activity for many students, preference may be heightened by this enjoyable activity.

Non-western ethnic dances also expand psychomotor skills. Choreography allows students to experience world music in their movement activities. The affective domain may also be addressed as students are given opportunity to fully immerse their feelings in the music through movement. Presented in attractive, sequential steps, non-western ethnic dance may help students view non-western music more favorably.

Teachers are likely to find that students' increased understanding of multicultural music creates an appetite for future study of this type of music. Background information concerning cultural/historical contexts, and the applications and use of the music within indigenous cultures should prove interesting to students. Additionally, listening guides provide students with listening goals. Guided listening programs may increase critical listening skills and help focus
attention on discrete musical events, thereby increasing student interest.

Positive comments directed toward non-western music from disc jockeys, parents, youth leaders, and other teachers could be helpful in creating a greater tolerance for non-western music. In many instances, authority figures can positively influence preference levels of students. Likewise, positive comments from a peer group can also be helpful in positively influencing tolerance for non-western music. Peers advocating a particular style of music may encourage student interest in that genre.

Teachers who have access to live performances of non-western music should make these available to students. Live performances allow for visual stimulus and accuracy of sound, thereby promoting students interest. Live performances may also afford greater opportunity for a listener's affective response to music. Live performance, especially by native performers, provides a window into different cultural backgrounds by exposing students to authentic musical interpretations. Additionally, live performance provides opportunities for students to experience music that is currently used by people from around the world. According to Gamble (1963), students who seek music which relates to them, find that contemporary non-western music satisfies their desire for relevance more than music that was written for another era.
Although live performances are desirable, some teachers find that video-taped or televised music lessons are valuable avenues of instruction. Students who enjoy watching television may be positively influenced toward music presented through this type of instruction. This medium also affords students the opportunity to view a professional performance.

Research indicates that still another approach to influence preference is through repeated listening experiences. By listening to selected repeated musical excerpts of non-western music, students will become more familiar with the music. As students become more familiar with a particular genre, they are likely to develop a greater tolerance for it. Although repetition of musical examples is a relatively simple task for music educators, several studies have shown that familiarity with a particular musical style will increase students' liking for it (Mull, 1957; Hornyak, 1966; Getz, 1966; Bartlett, 1973). Teachers allowing opportunities for repeated listening experiences in non-western music may assist students to gain a greater tolerance for world musics.

PURPOSE OF THE STUDY

It seems that non-western music can be an effective means of developing student growth in the cognitive, psychomotor and affective domains. The study of non-western literature will provide insights into other cultures and help prepare students to function more effectively in a global community. In
addition, the study of non-western music will add variety to existing music programs. The inclusion of non-western teaching materials will improve an already effective program.

Recognizing the necessity of incorporating non-western music into comprehensive music programs, the music educator is responsible for the development of an accessible and effective means that will promote a tolerance for performance and listening experiences of non-western musical styles. Teachers may find that repeated listening experiences provide a primary approach toward increased student tolerance of non-western genres that is both effective and accessible. Therefore, the purpose of this study is to examine the effects of repeated listening experiences on upper elementary students' tolerance toward non-western music.

DEFINITION OF TERMS

The following definitions will provide clarity and promote a better understanding of selected terms used throughout this study:

1. Non-western music - operationally defined as music other than European or North American in origin.

2. Tolerance - operationally defined as a degree of liking non-western music, as measured by responses on a student opinionnaire.
Chapter II

REVIEW OF LITERATURE

A tolerant attitude toward non-western music must be developed in students if they are to become motivated to pursue further study in this genre of music. Several studies have examined factors affecting tolerance, degree of liking, or preference for a variety of musical styles. Contributing factors include: 1) music skill level, 2) style, tempo and performance medium, 3) subject attributes, 4) peer group and authority figure approval, and 5) repeated listening experiences.

MUSIC SKILL LEVEL

Several studies examined the effects of improved music skill levels on developing an appreciation for various musical styles. Most studies supported the basic hypothesis that greater understanding and improved performance skills positively correlate with a greater appreciation for music. Zalonowski (1986) found that instruction accompanying listening experiences related with higher scores in music preference for subjects oriented toward either right or left brain hemispheric
orientation. In a later study (1990), she found that right-hemispheric subjects enjoyed higher levels of understanding, enjoyment and attention than left-brain thinkers, and that specific listening instructions positively affected music appreciation. Jenson (1970) also found that listening guides effectively altered preference for contemporary music.

The effect of training on preference for contemporary music compositions was also examined by Archibeque (1966). Results indicated that subjects who studied contemporary music showed a greater preference for, and understanding of, this genre. Bimberg (1987) found that study and evaluation through discussion of contemporary music resulted in greater understanding and improved attitudes. In a study designed to discover the relationship between age, intelligence and training with preference toward classical and twentieth-century music, Rubin-Rabson (1940) found that training and liking were positively related.

The effect of differential teaching techniques on achievement, attitude and teaching skills was examined by Moore (1976). Results indicated a strong correlation between positive attitude and high achievement following contingency-managed instruction.

Birch (1962) examined correlations between formal training and musical taste. Results indicated that students with less than three years of formal musical training were principal supporters of rhythm and blues styles, while those
with formal musical training of at least three years were more likely to support "serious" music.

In a study examining musical style preferences and aural discrimination skills of primary school children, May (1985) found that a small, but significant relationship existed between cognitive abilities and preference. Dorrow, Haack and Kuribayashi (1987) found that American and Japanese subjects with greater musical training exhibited a wider range of music preference.

Britten (1991) investigated the effect of musical training and overt categorization on degree of liking for popular music styles. Additionally, responses made on a Likert-style response form and a Continuous Response Digital Interface (CRDI) were compared. Results indicated that musically trained subjects were more positive toward all styles of popular music, regardless of labeling, than subjects without musical training. The CRDI measurement device yielded more positive responses than the Likert instrument. Geringer (1982) sought to discover the relationship of verbal preferences to operant music behavior in upper elementary and university students. College music majors showed definite preferences for serious composers, while non-music majors and elementary children preferred popular composers. Music majors' verbal responses correlated consistently with operant behavior. However, non-music majors' and elementary students' verbal responses were not consistent with operant behavior. In an
learning experiences, tempo and mode on undergraduates' and children's symphonic music preferences. Results indicated that undergraduates experienced gains in preference between the pretest and posttest for symphonic musical selections after they taught music appreciation courses to elementary children.

Although several studies indicated an increased preference for a variety of musical styles following instruction, some studies did not support this basic hypothesis. Price (1988) investigated the effects of a ten week music appreciation course and its resultant cognitive gain on college non-music majors' preference of composers as well as their recording purchases. Results indicated that greater cognitive gains did not increase students' listing of classical composers. Likewise, Williams (1972) examined the effects of musical aptitude, instruction and social status on university students' attitudes toward music. The investigator found that instruction had no significant effect on attitudes toward folk, chamber, and symphonic compositions, although mean scores for popular music declined. University students were exposed to a ten week music appreciation course in a study by Price and Swanson (1990). Following instruction, students realized a significant gain in knowledge from pretest to posttest, however attitudes toward classical music did not improve. In concurrence, Palmquist (1987) found that college students' musical training did not positively influence preference for certain styles of music. Prince (1974) studied the effect of a
twelve week guided listening program on junior high students' preference for certain classical music selections. Results indicated that analytic commentary did not relate to change in preference for the music studied. Geringer and Nelson (1980) examined the effects of guided listening on music achievement and preference of fourth graders. Following a five minute orchestral music excerpt, accompanied by music-related tasks, students in the experimental group did not differ significantly with students in a listening-only control group.

Brown (1978) investigated the effects of televised instruction on first grade students' music selection, music skills and attitudes toward school music. Experimental and control groups received twenty videotaped and twenty experimenter-taught lessons, respectively. Although both groups realized an improvement in cognitive skills, a comparison of the control and experimental groups indicated no significant differences in music selection and attitude.

STYLE, TEMPO AND PERFORMANCE MEDIUM

In addition to musical skill levels, factors which influence students' degree of liking or preference include: musical style, tempo, and performance mediums. A study which sought to form categories of music by preference was conducted by Deihl, Schneider, and Petress (1983). The authors found three emerging categories: high brow/traditional, contemporary progressive, and middle brow/traditional. Denski (1990)
examined popular music preferences of contemporary popular music audiences and found that the term "pop music", while useful as an umbrella term, is too broad a category to apply toward meaningful research. Boyle, Hosterman, and Ramsey (1981) investigated the reasons for pop music preferences in young people. Results indicated that characteristics of melody, mood, rhythm, and lyrics were the most important factors in preference for pop music.

Several studies indicated that subjects preferred rock and popular musical styles. LeBlanc (1979) found that popular music was the preferred generic musical style favored by fifth grade students. Shehan (1979) sought to discover whether the television series, "Music" positively affected preference ratings of a variety of musical styles. Following a ten-week series of programs, results indicated a strong preference for rock music over ethnic music. In a study investigating the relationship between listening time and like-dislike ratings on musical selections, Kuhn, Sims, and Shehan (1981) found that while listening time did not correlate to subjects' indicated preference, rock was preferred over other musical styles. In 1981, LeBlanc studied the effects of style, tempo and performing medium on children's' music preference. Results indicated that popular music was the most preferred style, as well as pieces incorporating fast tempi and instrumental mediums.
Jonas (1990) found that popular music was not most preferred by elderly nursing home patients. Of the four styles examined, nursing home residents most preferred country music. Less favored was traditional jazz, art music and popular music.

In an effort to further determine factors influencing preference, LeBlanc and Cote (1983), found that although faster tempi and instrumental mediums both affected fifth and sixth grade students' preference, tempo was more influential than performance medium. LeBlanc and McCready (1983) studied the effect of tempo on children's music preference and found that students indicated a greater preference for compositions using faster, rather than slower tempos. In an extension of earlier studies, LeBlanc, Colman, McCrary, Sherrill, and Malin (1988) examined the effect of four different levels of tempi on preference rating of students in the third grade through college. Results indicated an overall decline in preference with advancing grade level through the seventh grade. Preference levels increased in subjects older that seventh grade. Every age level preferred examples utilizing faster tempi. Additionally, LeBlanc and Sherrill, (1986) studied the effect of vocal vibrato and gender of performer on children's preference. The study concluded that both female and male listeners preferred examples of music with male performers utilizing low levels of vibrato.
SUBJECT ATTRIBUTES

Other factors contributing to preference or degree of liking include common subject attributes such as socioeconomic status, race, maturation levels and personality traits. Hicken (1991) examined the relationship between subject attributes and preference for certain styles of music. Results indicated positive relationships between preference levels and subjects' degree of musical training, gender, socioeconomic status and musical aptitude. Nelson, (1985) sought to determine correlations between age, music conceptualization, and years of violin study with aesthetic response. He found that age was the primary influencer in the development of aesthetic response. In a three-year longitudinal study, Farnsworth (1939) sought to discover changes in musical taste of young students and college students. Young students were more likely to change opinions as to what constitutes "bad" music when compared to college students. Also young students and college students disagreed on what constituted "bad" music. Hargreaves and Castell (1987) studied the development of liking for familiar and unfamiliar melodies and found that a positive relationship exists between subjects' preference and increasing age and maturity.

Advancing maturity also seems to affect preference for certain musical styles. Greer, Dorow, and Randall (1974) studied the listening preferences of elementary school children and found that a growing preference for rock over non-rock
music occurred with each advancing grade level. Significant change occurred between third and fourth grade. Sims (1992) investigated the effects of attendance at an in-school opera performance on upper elementary students’ attitudes toward opera. Although fifth and sixth grade experimental group subjects viewed opera more favorably following attendance at the opera, results indicated that both control and experimental groups of fourth grade students viewed opera more positively than the older students surveyed. VanderArk, Nolin and Newman (1980) found evidence suggesting that advancing grade level correlated negatively with student attitude toward musical activities. Singing was a favored activity; music reading received low scores. Additionally, socioeconomic background significantly influenced attitude. Students from middle-class backgrounds were found to have the most positive attitudes toward musical activities. In concurrence, Jones (1992) indicated that advancing grade levels of elementary students correlated with a reduction in positive student attitudes toward music class.

In a study which examined music preferences of upper elementary, junior high and high school aged subjects, Stewart (1984) found that overall preference declined for most styles of music in subjects of junior high age. Preference levels increased in high school students. Rock 'n Roll was the most preferred style for all grade levels. Country-western was the least preferred. Oden-Peace (1989) sought to discover the
relationship between self-esteem and rigidity of music preference in adolescents. Of the two groups of subjects participating in the study, one resided in an inpatient psychiatric facility and the other was comprised of junior high students. Results indicated that a majority of both groups had low self-esteem and appeared to be rigid in music preferences, although each group preferred different styles of music.

Socioeconomic differences were found to correlate with preference in a study by Bauman (1960). He found that students of low socioeconomic classes were more likely to favor traditional compositions rather than the popular and classical compositions favored by students of a higher socioeconomic class. Denisoff and Levine (1972) examined the relationship of subject attributes such as race, age, and social class and found that of the three attributes examined, race was most influential in determining preference for music compositions, followed by age, and social class. McCrary (1990) examined the relationship between music preferences of middle school and college-aged subjects and their expressed preference for social encounters with people of different races. Subjects indicated degree of liking for musical performances by black and white performers, and tried to ascertain the race of the performer. Additionally, subjects responded to an opinionnaire concerning attitude toward social encounter with blacks and whites. Results suggested that subjects preferred same-race social encounters. Afro-American subjects strongly preferred
performances by black performers. White listeners were more flexible, indicating a preference for performances by both white and black performers. Generally, middle school subjects rated all musical examples less favorably than college-aged subjects and were more flexible in attitudes toward performances by white and black performers. While investigating the role of modeling on junior high students' preference for popular music, Killian (1990) compared the gender and race of the subject with the gender and race of the preferred model. Results indicated that, overall, subjects preferred performances by same-gender, same-race models. Boys strongly identified with male performers, while girls identified chiefly with female soloists. Nolin (1973) investigated the effects of frequent versus less frequent music class meetings, age, gender, and socioeconomic class on attitudes of upper elementary children toward school music programs. Although no correlation could be found between frequency of instruction and attitude, children tended to view music programs less favorably with advancing grade level. Additionally, children from lower socioeconomic classes tended to view music more positively than their more affluent counterparts. In a study designed to determine elementary children's' attitude toward music class, Pogonowski (1985) found that attitudes toward music class activities vary according to age, gender and socioeconomic level.
Smith (1989) examined the relationship between college students' music preferences and level of music involvement, uses of music and subjects' personality factors. Results indicated significant relationships between personality attributes, such as degree of introversions and self-realization, and degree of liking for certain musical selections. Cox (1985) studied the relationship between personality characteristics of subjects and aged 17-53 and their music preferences. He found that supporters of classical music tend to be more imaginative, unconventional and enthusiastic than supporters of other styles.

Not all studies confirmed the above results. Taebel-Coker (1980) sought to discover a relationship between teacher competency and student achievement, and attitude for a period of one school year. In addition, relationships between subject attributes and student achievement and attitude were examined. Results indicated that a significant correlation between teacher competency and student achievement occurred. However, no significant correlations between attitude, achievement and attributes of students such as grade level, socioeconomic level and outside music lessons existed.

**Peer Group and Authority Figure Approval**

In addition to skill level, style, tempo, performance mediums, and subject attributes, the effect of peer group and authority figure approval has been studied as a factor which
may influence students' degree of liking for a particular type of music. Inglefield (1972) sought to discover the effect of personality variables and peer group influence on adolescent musical preference. Results indicated that influence by peer group leaders significantly altered preference, particularly in dependent-type personalities. In a study to discover adolescent's choices for certain styles of music, Chapman and Williams (1976) found that music served as a social identifier for adolescents, and that aesthetic experiences and judgements could be altered by ascribing various levels of prestige to the listening examples. Given a "minority of one" placed within a "unanimous majority" situation, Furman and Duke (1988) found that peer group influence affected non-music majors' degree of liking for orchestral music.

In addition to peer groups, the approval of certain musical styles by authority figures was also shown as a factor influencing preference. In a study which examined the effects of disc jockey, peer, and music teacher approvals of selected music styles on fifth grade students' music selection, Alpert (1982) found that music teachers and disc jockeys could positively influence preference for classical music.

Sims (1986) examined the effect of high teacher affect, activity and student participation during listening on preschool children's attention, musical selection, time spent listening and recognition of certain compositions. Results indicated that high teacher affect related positively with
higher group attending behavior. However, higher teacher affect did not correlate with higher preference, time spent listening or recognition of a composition by students.

**REPEATED LISTENING EXAMPLES**

According to several studies, the use of repeated listening experiences also appears to influence student preference or degree of liking for a specific style of music. Bartlett (1973) investigated the effect of repeated listening experiences on affective response of university students. Following nine repetitive listening experiences, results indicated that most students became more aware of structural characteristics and realized an increased preference for certain selections. Mull (1957) studied the effect of repetition on college students' preference toward contemporary music. Results indicated that subjects experienced an increase in preference following repeated listening experiences. Hornyak (1966) sought to discover relationships between specific features of contemporary music and a subject's degree of liking for a composition. In addition, relationships between a subject's familiarity with the composition, as gained through both repeated listening experiences and guided listening experiences, and subjects' preference levels were examined. Results indicated that repetition and stylistic features such as fast tempi improved preference ratings. Dombroski (1986) investigated the effects of performance and
repeated listening experiences on high school students' preference toward less-favored band compositions. Subjects were divided into control, repeated performance and repeated listening groups. Following treatment, results indicated an increase in preference following repeated listening experiences and a marked increase in preference following repeated performance experiences. Peery and Peery (1986) investigated the effect of exposure of classical music on preschooler's musical preference. Following a ten-month period of repeated listening experiences, performing and critical listening exercises, the experimental group remained positive toward classical music. However, the control group experienced an over-all decline in preference for classical music.

Research was conducted to examine the effect of extensive listening experiences on preference. Hargreaves (1984) investigated the inverted-U theory of subjective complexity as it influences degree of liking for compositions. The inverted-U theory speculates that compositions displaying optimum levels of complexity will be preferred over musical selections which are either too simple or too complex. In a 2-part experiment, he sought to discover the effects of repetition on adults' preference for complex and simple musical selections. In the first experiment, adult subjects listened to two musical selections (avant-garde jazz, and popular music) repeated three times during a single session and rated each according to their degree of liking or disliking. In the second experiment,
adults also rated their preference of compositions after 
listening to three simple and complex musical selections 
(avant-garde jazz, popular and classical music) repeated 12 
times over a three week period. Results broadly supported the 
inverted-U theory. Low complexity pieces were liked less after 
repeated listening experiences while preference within styles 
generally increased following extended listening exposures.

Keston (1954) studied the effects of repeated listening 
exposure versus repeated listening exposure with descriptive 
guides and found that guided listening instruction was more 
effective than repetition alone.

Moskovitz (1992) sought to discover the effect of 
repeated listening experiences on fourth-grade students' 
preference for fast and slow musical excerpts within a 
particular style. While pretest results indicated an overall 
preference for selections utilizing faster tempi, experimental 
subjects realized an increased preference for familiar slow 
excerpts over unfamiliar fast excerpts following treatment.

Getz (1966) also studied the effects of an extended 
period (fourteen weeks) of repeated listening on degree of 
preference toward previously unfamiliar serious music. Results 
indicated a rise in mean preference scores after the third week 
of listening exposure. Optimum response was achieved during 
the sixth to eighth hearing and remained high after the tenth 
repetition.
SUMMARY

Research indicates many factors which may influence subjects' degree of liking for certain types of music. Several studies indicate that increased musical skill level positively influences development of better student attitudes toward certain musical selections and music activities.

Research also shows that style is a primary determinant of subjects' preference for specific musical selections. Tempo and performance medium are also factors which influence preference.

In addition, research suggests that subject attributes play a role in the determination of preference or degree of liking for certain compositions. The age of a subject appears to correspond with preference levels for certain musical selections. Subjects' race and personality characteristics appear to be related to preferences for certain musical styles. Further, socioeconomic differences appear to influence students' degree of liking and attitudes toward music activities.

Research suggests that approval of certain musical selections by a subject's peer group or an authority figure might influence preference levels for certain musical compositions.

Many studies indicate the effectiveness of repeated listening experiences in positively influencing subjects' degree of liking for musical compositions. Repetitive
listening experiences appear to improve subjects' liking for contemporary and classical music.
Chapter III

METHODOLOGY

The purpose of this study was to determine the effect of repeated listening experiences on upper elementary students' tolerance toward non-Western music.

Concerning upper elementary students' tolerance toward non-Western music, the present study sought to address and answer the following questions:

1) Are there differences in posttest scores between control and experimental groups, using the pretest as a covariate?

2) Are there differences in posttest scores between control and experimental groups of fourth grade students, using the pretest as a covariate?

3) Are there differences in posttest scores between control and experimental groups of fifth grade students, using the pretest as a covariate?

4) Are there differences in posttest scores between control and experimental groups of sixth grade students, using the pretest as a covariate?
5) Are there differences in posttest scores between control and experimental groups regarding tolerance of East Indian music, using the pretest as a covariate?

6) Are there differences in posttest scores between control and experimental groups regarding tolerance of Japanese music, using the pretest as a covariate?

7) Are there differences in posttest scores between control and experimental groups regarding tolerance of African music, using the pretest as a covariate?

Hypotheses for the present study, stated in null form, were:

1) There will be no significant (p=.05) differences in posttest scores between control and experimental groups, using the pretest as a covariate.

2) There will be no significant (p=.05) differences in posttest scores between control and experimental groups of fourth grade students, using the pretest as a covariate.

3) There will be no significant (p=.05) differences in posttest scores between control and experimental groups of fifth grade students, using the pretest as a covariate.

4) There will be no significant (p=.05) differences in posttest scores between control and experimental
groups of sixth grade students, using the pretest as a covariate.

5) There will be no significant (p=.05) differences in posttest scores between control and experimental groups, regarding tolerance of East Indian music, using the pretest as covariate.

6) There will be no significant (p=.05) differences in posttest scores between control and experimental groups, regarding tolerance of Japanese music, using the pretest as covariate.

7) There will be no significant (p=.05) differences in posttest scores between control and experimental groups, regarding tolerance of African music, using the pretest as covariate.

The present study incorporated the following isolated variables: 1) dependent variable - upper elementary students' tolerance of non-western music, and 2) independent variable - repeated listening experiences to excerpts of three non-western musical selections.

DESIGN AND ANALYSIS

A pretest - posttest equivalent group experimental design using a five-point Likert-type scale was selected to determine the tolerance of upper elementary students toward non-western music. This design was chosen because it readily assesses
initial tolerance and indicates differences, if any, in tolerance following repeated listening experiences. This design, with the use of rather large control and experimental groups, appears to control extraneous variables such as history and mortality. Further, the length of time between the pretest and posttest assists in controlling effects of prior testing.

In answering the seven research questions, an analysis of covariance (ANCOVA) was performed to determine significance within and between groups. This statistical test was preferred because of its ability to eliminate initial differences between groups and provide for a clear and accurate indication of gain differences between pretest and posttest scores.

MEASUREMENT INSTRUMENTS

Student Response Form

The student response form consisted of: 1) statements regarding the voluntary nature of students' participation, 2) instructions requesting students to circle the number in each category that best described their current feeling about each musical example to be heard and 3) seven, five-point continua anchored by one (like very much) and five (dislike very much). Students were requested to identify themselves only by gender. The researcher coded all forms according to grade level, group placement and student number so that pretest and posttest scores could be compared (see Appendix A).
featured a male vocalist accompanied by the sitar and selected rhythm instruments. "Unaippol's" progressive form was performed with a moderate tempo. The Japanese excerpt, "Sakura", a gentle, folk song with a slower tempo, featured children's voices accompanied by the Japanese koto, Japanese flute and selected rhythm instruments. Because research has indicated that style, tempo and performance medium may affect preference (LeBlanc, 1979; LeBlanc, 1981; LeBlanc and Cote, 1983; LeBlanc and McCreary, 1983; LeBlanc and Sherriell, 1986), all three examples incorporated a variety of style, tempo and instrumental media. Recording information and titles of excerpts utilized on listening examples are found in Appendix B.

Repeated Listening Example Tape

The repeated listening example tape only utilized the same three non-western musical pieces that were used on the pretest-posttest listening tape. Each of the three examples was thirty seconds in length and was randomly placed on a repeated listening tape. All examples were separated by a five second interval of silence. The entire repeated listening tape lasted approximately two minutes.

SUBJECTS

Although nine schools originally had been scheduled to participate, two schools were eliminated from the study because
of scheduling problems regarding the administration of the posttest. Therefore the subjects in the study were 579 elementary students in grades four, five and six from intact populations of seven Midwestern urban parochial schools. Of the total subjects, 282 were boys and 297 were girls. There were 189 fourth grade students (girls = 96, boys = 93), 191 fifth grade students (girls = 103, boys = 88) and 199 sixth grade students (girls = 98, boys = 101). Four schools were randomly assigned to a control group and three were randomly assigned to an experimental group. The control group was comprised of 89 fourth grade students (girls = 43, boys = 46), 97 fifth grade students (girls = 51, boys = 46), and 90 sixth grade students (girls = 36, boys = 54). Altogether, there were 276 subjects in the control group. The experimental group was comprised of 100 fourth grade students (girls = 53, boys = 47), 94 fifth grade students (girls = 52, boys = 42), and 109 sixth grade students (girls = 62, boys = 47). Altogether, there were 303 subjects in the experimental group. All schools were located in an urban setting and students came from a predominantly mid-level socioeconomic class. The majority of the subjects was Caucasian.

PROCEDURES

After writing a letter to the superintendent of schools outlining the study, the investigator met with the principals from the Des Moines area parochial school system in early
November 1991 (see Appendix C). At this meeting, the researcher presented a description of the study. Upon receiving approval from the superintendent of the parochial school system, music teachers from nine schools were contacted to ascertain their willingness to participate in the study. All nine responded favorably. Due to unforeseen scheduling difficulties, two schools were eliminated. Therefore, the total number of participating schools was seven. Schools were then randomly assigned to a control or experimental group.

The author met with and/or called the resident music teachers in both the control and experimental groups to instruct them in the procedures of the experiment. Written and verbal instructions were given and questions were answered at this time (see Appendix D). Teachers were requested to prepare their students for the study by informing them of the impending experiment. Teachers were requested to discuss with students the voluntary nature of the study, while encouraging their participation. In introducing students to the experiment, instructors were asked to forgo comments concerning the nature of the study. Teachers were requested to remain in the classroom during the administration of the pretest and posttest. They also were asked to refrain from teaching any non-western music during the six week treatment period. Teachers in the control group were requested to provide regular music instruction, while forgoing non-western musical activities. Teachers in the experimental group were asked to
play the repeated listening experience tape at the beginning and end of each music class during the treatment period. Also during these conversations with teachers, final arrangements were made for the administration of the pretest and posttest to intact music classes at the individual schools by the investigator and other test administrators.

Due to the nature of the large sample number and the allotted time frame, proctors were selected and trained by the investigator to assist in the administration of the pretest and posttest. During the training, test proctors received full instruction regarding administrative responsibilities. Proctors were instructed to verbally identify each example by its corresponding letter name found on the student response form. In addition, test proctors were given adequate supplies of student response forms, appropriate pretest/posttest listening tapes and repeated listening tapes (to be given only to teachers involved in the experimental groups), and schedules for administration of the pretest and posttests.

Students from all seven schools were administered a pretest by the researcher or designated proctor. During the administration of the pretest, students received written and verbal instructions for completing the student response form. After all student questions were satisfactorily answered, subjects were requested to respond to the listening tape.

Following the pretest, the control group received six weeks (eleven class periods) of regular music instruction.
Repeated listening experiences in non-western music were not administered to subjects in the control group.

The experimental group, following the pretest, met twice weekly and received six weeks of repeated listening experiences (eleven class periods in all). Listening experiences occurred at both the beginning and end of each music class. Altogether, subjects in the experimental group received twenty 22 repeated listening experiences of non-western music, administered by the resident music teacher. During each treatment, subjects were instructed to sit quietly and be attentive to tape recorded excerpts. The listening experiences, lasting about two minutes per hearing, were comprised of three thirty second listening examples separated by five second intervals. No information about the music was given to the students.

To insure completion of the treatment, the researcher contacted teachers in the experimental group each week to encourage their participation and monitor their progress. Teachers reported interest and a continued willingness to participate in the study.

Following the six week treatment, a posttest was administered by the researcher/proctor to both the control and experimental groups. This test utilized the same listening tape and student response form that was used on the pretest.
TIME OF STUDY

The present study was conducted during an eight week period from February 1992 to April 1992. Pretests, administered in early February, were followed by a six week treatment period. Posttests were administered in mid-March. Analysis of data was completed by mid-October 1992. The final project was completed in May 1993.

PILOT

A pilot study, incorporating all aspects of the study, was conducted by the researcher in the fall of 1990 to determine: 1) clarity of instructions and descriptors, 2) suitability of the seven-point continua, 3) appropriateness of pretest-posttest and repeated listening examples in regards to selection and length of excerpt, 4) appropriateness of design and 5) appropriateness of data analysis.

Subjects in the pilot were students enrolled in an intact fifth grade music class (n = 24), and an intact sixth grade music class (n = 13) from a Des Moines, Iowa parochial school. The intact group of sixth graders was randomly assigned to serve as an experimental group and the intact group of fifth graders was randomly assigned to serve as a control group.

The student response sheet used in the pilot consisted of: 1) simple written instructions requesting students to circle the number that best described their current feelings about each of the musical examples heard, and 2) four seven-
point continua, anchored by the words "really like a lot" and "really dislike a lot".

A listening tape, comprised of four non-western musical examples, was prepared by the investigator for the pretest and posttest. The musical selections were "Song of Zomadonau" (African), "Thumri" (East Indian), "Keibairaku no Kyu" (Japanese) and "Gameleyan Gong Kebyar" (Indonesian). Each musical example was approximately 45 seconds long with a 15 second interval of silence during which students could mark their responses.

Both groups were administered a pretest by the investigator. During the pretest, students were asked to respond to the listening tape by circling the number on the seven-point continua that best represented their degree of liking for each of the musical excerpts heard. The researcher was careful to maintain a neutral facial expression during the administration of the pretest so that student responses would not be influenced.

The control group received three weeks (six class sessions) of regular music instruction. All non-western musical activities were excluded during this period. Three weeks of repeated listening experiences (six consecutive classes) were administered to the experimental group following the pretest. During the repeated listening experiences, subjects were instructed to listen to the same excerpt of East Indian music used on the pretest at the beginning and end of
each music class. Altogether, subjects listened to the selection 12 times. Following a three week treatment, both control and experimental groups were administered a posttest, using the same listening tape and response sheet utilized in the pretest.

Analysis of interval data derived from the pretest-posttest scores was performed through a statistical t-test. Results indicated a positive, but not significant (p=.05) improvement between pretest and posttest scores of the experimental group following treatment. No significant difference between pretest and posttest scores from the control group occurred.

PILOT CONCLUSIONS

It appeared that both verbal instruction and those appearing on the student response form were clear and could be transferred to the final study. In an effort to improve clarity of descriptors, the investigator revised the seven-point continua to the current five-point continua anchored by "like very much" and "dislike very much".

Recognizing that larger sample size tends to enhance validity, the sample was increased to include seven schools. Further the addition of fourth grade students displays a truer representation of upper elementary-aged students and was implemented in the final study.
In order to investigate the effect of repeated listening experiences on upper elementary students' tolerance toward non-western music, the researcher decided to include a variety of styles instead of the single style examined in the pilot study. Therefore, African and Japanese musical excerpts, as well as East Indian music, were included on the repeated listening tape. It was also decided to include examples of western music on the pretest-posttest listening tape to provide an apparently well-balanced listening experience. Additionally, because the investigator noted some degree of restlessness during administration of the pretest and posttest, musical examples were shortened to thirty seconds. Further, intervals between examples were shortened from fifteen seconds to five seconds.

A pretest-posttest equivalent group experimental design seemed appropriate; however, in line with current research, the length of the study was increased from a three week treatment period to a six week period. It was hoped that by lengthening the treatment, subjects would have more evidence on which to base their liking, and the effects of prior testing on the results of the posttest would become minimized.

The analysis of data was revised from the utilization of a statistical t-test to an analysis of covariance (ANCOVA). This revision was made in an effort to determine significance in mean posttest scores between control and experimental groups while seeking to eliminate initial differences between groups.
It appears from the results of the pilot that tolerance toward non-western music may be modified in upper elementary students through the use of repeated listening experiences. Therefore, after revising the student response form, length and nature of musical excerpts on the listening tape, length of the repeated listening period, sample size and analysis of data, the final study was implemented.
Chapter IV

RESULTS

The present study examined the effect of repeated listening experiences on upper elementary students' tolerance toward non-western music.

Upper elementary students from seven Des Moines, Iowa parochial schools participated in this study. A pretest-posttest equivalent group-experimental design was utilized and subjects were asked to record on a student response form their degree of liking for each western and non-western musical excerpt presented on a listening tape. In order that a balanced listening experience might be provided for subjects, both western and non-western musical excerpts were included on the listening tape; however, because of the focus of the study, only information concerning non-western music was included in the analysis of data. Students from intact music classes from four schools (n=276) comprised the control group while students from intact music classes from three schools (n=303) comprised the experimental group. Following administration of the pretest, subjects in the control group received six weeks (11 class sessions) of regular music instruction. During this six-
week period, subjects in the experimental group were requested to listen to the same non-western musical excerpts that were presented on the pretest. All listening experiences occurred at the beginning and end of 11 consecutive music class sessions (22 hearings total). Following the treatment period, both experimental and control groups were administered a posttest which was identical to the pretest.

The pretest-posttest student response form utilized a five-point Likert scale (1 = like very much, 2 = like, 3 = neither like nor dislike, 4 = dislike, 5 = dislike very much) for each of seven musical examples. In an effort to assist the reader in the interpretation of scores, numbers ascribed to degree of liking on the student response form were converted so that the following scale was utilized during data analysis: 1 = dislike very much, 2 = dislike, 3 = neither like nor dislike, 4 = like and 5 = like very much. Thus, a higher score indicates a higher degree of liking for each excerpt.

The remainder of this chapter is organized in the following format:

I. Effect of repeated listening experiences on upper elementary students' tolerance toward non-western music.

II. Effect of repeated listening experiences on fourth grade students' tolerance toward non-western music.

III. Effect of repeated listening experiences on fifth grade students' tolerance toward non-western music.
IV. Effect of repeated listening experiences on sixth grade students' tolerance toward non-western music.

V. Effect of repeated listening experiences on upper elementary students' tolerance toward East Indian music.

VI. Effect of repeated listening experiences on upper elementary student's tolerance toward Japanese music.

VII. Effect of repeated listening experiences on upper elementary students' tolerance toward African music.

**Effect of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward Non-western Music.**

Data was analyzed to determine mean scores and standard deviations for all students regarding tolerance toward non-western music. The pretest mean score, regarding all styles of music, for subjects in the control group was 2.13 with a standard deviation of .83. The posttest mean score was 2.06 with a standard deviation of .97.

For subjects in the experimental group, the pretest mean score, was 1.94 and the standard deviation was .80. The posttest mean score was 2.38 with a standard deviation of 1.14 (See Table 1).
Table 1.

Mean Scores and Standard Deviations by Group for All Upper Elementary Students

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M &amp; SD</td>
<td>M &amp; SD</td>
</tr>
<tr>
<td>Control</td>
<td>2.13 .83</td>
<td>2.06 .97</td>
</tr>
<tr>
<td>Experimental</td>
<td>1.94 .80</td>
<td>2.38 1.14</td>
</tr>
</tbody>
</table>

Regarding all styles of non-western music, for all ages of students, an analysis of covariance, using the pretest mean as a covariate, was utilized to determine significant gain differences (p=.05) between posttest mean scores of experimental and control groups. The main effects, by group, revealed a mean square of 24.091 with one degree of freedom. The F value was 28.105 and significance of F was determined at the p=.001 level. Therefore, the null hypothesis stating that there will be no significant (p=.05) difference between control and experimental groups, using the pretest as a covariate was rejected (See Table 2).
Table 2.

Analysis of Covariance for All Styles of Music, for All Students.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates pretest M</td>
<td>153.866</td>
<td>1</td>
<td>153.866</td>
<td>179.507</td>
<td>.001</td>
</tr>
<tr>
<td>Main Effects of Group</td>
<td>24.09</td>
<td>1</td>
<td>24.091</td>
<td>28.105</td>
<td>.001*</td>
</tr>
<tr>
<td>Explained</td>
<td>177.957</td>
<td>2</td>
<td>88.978</td>
<td>103.806</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>493.724</td>
<td>576</td>
<td>.857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>671.681</td>
<td>578</td>
<td>1.162</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * indicates significance.

Effect of Repeated Listening Experiences on Fourth Grade Students' Tolerance toward Non-western Music.

Regarding all styles of non-western music, data was analyzed to determine fourth grade students' pretest and posttest mean scores and standard deviations. For fourth grade subjects in the control group, the pretest mean score was 2.25 with a standard deviation of .83. The posttest mean score was 2.08 with a standard deviation of .88.

For subjects in the experimental group, the pretest mean score was 2.26 with a standard deviation of .89. Subjects in
the experimental group recorded a posttest mean score of 2.75 and a standard deviation of 1.10 (See Table 3).

Table 3.

Mean Scores and Standard Deviations of Fourth Grade Students by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>2.25</td>
<td>.83</td>
</tr>
<tr>
<td>Experimental</td>
<td>2.26</td>
<td>.89</td>
</tr>
</tbody>
</table>

An analysis of covariance, using the pretest as a covariate, was used to determine significant differences (p=.05) between control and experimental posttest mean scores of fourth grade students for all styles of non-western music. The main effects, by group, revealed a mean square of 21.660 with one degree of freedom. The $E$ was 27.563. Significance of $E$ was calculated at the $p=.001$ level. Therefore, the null hypothesis stating there would be no significant (p=.05) differences between control and experimental groups of fourth grade students, using the pretest as a covariate, was rejected (See Table 4).
### Table 4.

**Analysis of Covariance for All Styles of Music, for Fourth Grade Students.**

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates pretest M</td>
<td>45.039</td>
<td>1</td>
<td>45.039</td>
<td>57.312</td>
<td>.001</td>
</tr>
<tr>
<td>Main Effects of Group</td>
<td>21.660</td>
<td>1</td>
<td>21.660</td>
<td>27.563</td>
<td>.001*</td>
</tr>
<tr>
<td>Explained</td>
<td>66.699</td>
<td>2</td>
<td>33.350</td>
<td>42.437</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>146.169</td>
<td>186</td>
<td>786</td>
<td>1.132</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>212.868</td>
<td>188</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: * indicates significance.

### Effect of Repeated Listening Experiences on Fifth Grade Students' Tolerance toward Non-western Music.

Concerning all styles of non-western music, fifth grade students' mean scores and standard deviations were determined. Subjects in the control group realized a pretest mean score of 2.32 with a standard deviation of .76. The posttest mean score was 2.24 with a standard deviation of 1.00.

Subjects in the experimental group recorded a pretest mean score of 1.83 with a standard deviation of .70. The
posttest mean score was 2.34 and a standard deviation of 1.21 (See Table 5).

Table 5.

Mean Scores and Standard Deviations of Fifth Grade Students by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>2.32</td>
<td>.76</td>
</tr>
<tr>
<td>Experimental</td>
<td>1.83</td>
<td>.70</td>
</tr>
</tbody>
</table>

An analysis of covariance, using the pretest as a covariate was utilized to determine whether a significant (p=.05) difference existed between the posttest mean scores of fifth grade subjects in the control and experimental groups. The main effects, by group, revealed a mean square of 5.307 with one degree of freedom. The F was 5.419. Significance of F was determined at p=.021. Therefore, the null hypothesis which states that there are no significant (p=.05) differences between control and experimental groups of fifth grade students, using the pretest as a covariate, was rejected (See Table 6).
Table 6.

Analysis of Covariance Regarding All Styles of Music for Fifth Grade Students.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates pretest M</td>
<td>36.384</td>
<td>1</td>
<td>36.384</td>
<td>37.153</td>
<td>.001</td>
</tr>
<tr>
<td>Main Effects, by Group</td>
<td>5.307</td>
<td>1</td>
<td>5.307</td>
<td>5.419</td>
<td>.001*</td>
</tr>
<tr>
<td>Explained</td>
<td>41.691</td>
<td>2</td>
<td>20.845</td>
<td>21.286</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>184.113</td>
<td>188</td>
<td>.979</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>225.804</td>
<td>190</td>
<td>1.188</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * denotes significance.

Effect of Repeated Listening Experiences on Sixth Grade Students' Tolerance Toward Non-western Music.

Sixth grade students' mean scores and standard deviations, for all styles of music, were analyzed. Subjects in the control group recorded a pretest mean score of 1.81 with a standard deviation of .82. The posttest mean score was 1.86 with a standard deviation of 1.00.

Subjects in the experimental group realized a pretest mean score of 1.74 with a standard deviation of .70. Subjects recorded a posttest mean score of 2.07 with a standard deviation of 1.04 (See Table 7).
Table 7.

Sixth Grade Students’ Mean Scores and Standard Deviations by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>1.81</td>
<td>.82</td>
</tr>
<tr>
<td>Experimental</td>
<td>1.74</td>
<td>.70</td>
</tr>
</tbody>
</table>

An analysis of covariance, using the pretest as a covariate, was utilized to determine whether a significant (\(p = .05\)) difference was realized between posttest mean scores of control and experimental groups of sixth grade students. The main effect, by group, yielded a mean square of 2.249 with one degree of freedom. The \(F\) was 2.890. Significance of \(F\) was determined to be \(p = .091\). Therefore, the research decision was to fail the null hypothesis stating that there will be no significant (\(p = .05\)) differences between control and experimental groups of sixth grade students, using the pretest as a covariate (See Table 8).
Table 8.
Analysis of Covariance, Regarding All Styles of Music, for Sixth Grade Students

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates pretest M</td>
<td>52.939</td>
<td>1</td>
<td>52.939</td>
<td>68.026</td>
<td>.001</td>
</tr>
<tr>
<td>Main Effects, by Group</td>
<td>2.249</td>
<td>1</td>
<td>2.249</td>
<td>2.890</td>
<td>.091</td>
</tr>
<tr>
<td>Explained</td>
<td>55.188</td>
<td>2</td>
<td>27.594</td>
<td>35.458</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>152.531</td>
<td>196</td>
<td>.778</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>207.720</td>
<td>198</td>
<td>1.049</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Effect of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward East Indian Music.

Regarding tolerance toward East Indian music, pretest and posttest mean scores and standard deviations of all upper elementary subjects were determined. The pretest mean score of subjects comprising the control group was 1.71 with a standard deviation of .94. The posttest mean score was 1.74, and the standard deviation was 1.08.

Subjects in the experimental group yielded a pretest mean score of 1.65 with a standard deviation of .88. The posttest
mean score was 2.21 with a standard deviation of 1.33 (See Table 9).

Table 9.
Mean Scores and Standard Deviations of All Upper Elementary Students by Group Regarding Tolerance toward East Indian Music

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th></th>
<th>Posttest</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>1.71</td>
<td>.94</td>
<td>1.74</td>
<td>1.08</td>
</tr>
<tr>
<td>Experimental</td>
<td>1.65</td>
<td>.88</td>
<td>2.21</td>
<td>1.33</td>
</tr>
</tbody>
</table>

Regarding tolerance toward East Indian music, an analysis of covariance, using the pretest as a covariate, was utilized to determine significant differences ($p=.05$) between posttest mean scores of upper elementary students. The main effects, by group, produced a mean square of 29.153 with one degree of freedom. $F$ was 22.322. Significance of $F$ was found to be at the $p=.001$ level. Therefore, the null hypothesis stating that there would be no significant ($p=.05$) difference in posttest scores between control and experimental groups, regarding tolerance toward East Indian music, using the pretest as a covariate, was rejected (See Table 10).
Table 10.

Analysis of Covariance, for All Students, Regarding Tolerance toward East Indian Music.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates Indian</td>
<td>91.572</td>
<td>1</td>
<td>91.572</td>
<td>70.116</td>
<td>.001</td>
</tr>
<tr>
<td>Pretest Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Effect by Group</td>
<td>29.153</td>
<td>1</td>
<td>29.153</td>
<td>22.322</td>
<td>.001*</td>
</tr>
<tr>
<td>Explained</td>
<td>120.725</td>
<td>2</td>
<td>60.362</td>
<td>46.219</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>749.650</td>
<td>574</td>
<td>1.306</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>870</td>
<td>374</td>
<td>576</td>
<td>1.511</td>
<td></td>
</tr>
</tbody>
</table>

*Note: * indicates significance.

Effect of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward Japanese Music.

Regarding tolerance toward Japanese music, data was analyzed to determine the mean scores and standard deviations of all upper elementary students. The pretest mean score for subjects in the control group was 2.80 with a standard deviation of 1.22. The mean posttest score was 2.50 with a standard deviation of 1.31.
Subjects in the experimental group yielded a pretest mean score of 2.44 with a standard deviation of 1.19. The posttest mean score was 2.48 with a standard deviation of 1.23 (See Table 11).

Table 11.

Mean Scores and Standard Deviations of All Upper Elementary Students by Group Regarding Tolerance toward Japanese Music.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>2.80</td>
<td>1.22</td>
</tr>
<tr>
<td>Experimental</td>
<td>2.44</td>
<td>1.19</td>
</tr>
</tbody>
</table>

Regarding tolerance toward Japanese music, an analysis of covariance, using the pretest as a covariate, was utilized to determine significant differences ($p=.05$) between posttest mean scores of upper elementary students who were in control and experimental groups. The main effects, by group, produced a mean square of 2.274 with one degree of freedom. $F$ was 1.818 and significance of $F$ was found to be $p=.178$. Therefore the research decision was to fail to reject the null hypothesis stating that there will be no significant ($p=.05$) difference in posttest scores between control and experimental groups,
regarding tolerance toward Japanese music, using the pretest as covariate (See Table 12).

Table 12.
Analysis of Covariance, for All Students, Regarding Tolerance toward Japanese Music.

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates Japanese</td>
<td>209.876</td>
<td>1</td>
<td>209.876</td>
<td>167.824</td>
<td>.001</td>
</tr>
<tr>
<td>Pretest Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Effect by Group</td>
<td>2.274</td>
<td>1</td>
<td>2.274</td>
<td>1.818</td>
<td>.178</td>
</tr>
<tr>
<td>Explained</td>
<td>212.150</td>
<td>2</td>
<td>106.075</td>
<td>84.821</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>720.330</td>
<td>576</td>
<td>1.251</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>932.480</td>
<td>578</td>
<td>1.613</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Effect of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward African Music.

Analysis of data was completed to determine pretest and posttest mean scores for all upper elementary students concerning tolerance toward African music. Subjects in the control group yielded a pretest mean score of 1.87 with a standard deviation of 1.03. The posttest mean score for
students in the control group was 1.94 with a standard deviation of 1.14.

Subjects in the experimental group recorded a pretest mean score of 1.72 with a standard deviation of .91. The posttest mean score was 2.45 with a standard deviation of 1.34 (See Table 13).

Table 13.

Mean Scores and Standard Deviations of All Upper Elementary Students by Group Regarding Tolerance toward African Music

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Control</td>
<td>1.87</td>
<td>1.03</td>
</tr>
<tr>
<td>Experimental</td>
<td>1.72</td>
<td>.91</td>
</tr>
</tbody>
</table>

Concerning tolerance toward African music, an analysis of covariance, using the pretest as a covariate, was used to determine significant differences (p=.05) between posttest mean scores of upper elementary students. The main effects, by group, produced a mean square of 43.610 with one degree of freedom. F was 31.439. Significance of F was determined to be p=.001. Therefore, the null hypothesis stating that there
would be no significant \( (p=.05) \) differences in posttest scores between control and experimental groups, regarding tolerance toward African music, using the pretest as a covariate, was rejected (See Table 14).

Table 14.

**Analysis of Covariance, for All Students, Regarding Tolerance toward African Music.**

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>M Square</th>
<th>F</th>
<th>Sig. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates African</td>
<td>108.054</td>
<td>1</td>
<td>108.054</td>
<td>77.898</td>
<td>.001</td>
</tr>
<tr>
<td>Pretest Mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Effect by Group</td>
<td>43.610</td>
<td>1</td>
<td>43.610</td>
<td>31.439</td>
<td>.001*</td>
</tr>
<tr>
<td>Explained</td>
<td>151.664</td>
<td>2</td>
<td>75.832</td>
<td>54.669</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>796.204</td>
<td>574</td>
<td>1.387</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>947.868</td>
<td>576</td>
<td>1.646</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: * denotes significance.

**Conclusion**

Overall, repeated listening experiences appear to significantly influence upper elementary students' tolerance toward non-western music; however, two notable exceptions arise: 1) while it appears that the use of repeated listening activities positively influences sixth grade students'
tolerance toward non-western music, data analysis indicates that the increase is not significant, and 2) for all students, repeated listening experiences result in a positive, but insignificant, increase in tolerance toward Japanese music. Thus, it appears that repeated listening experiences significantly increase fourth- and fifth-grade students' tolerance toward non-western music, as well as increase all upper elementary students' tolerance toward East Indian and African musical styles.
Chapter V

SUMMARY AND DISCUSSION

The purpose of this study was to examine the effects of repeated listening experiences on upper elementary students' tolerance toward non-western music.

SUMMARY OF RESULTS

Students from seven Des Moines, Iowa parochial elementary schools participated in this study. Results consist of analyzing responses from fourth- (n=189), fifth- (n=191) and sixth-grade students (n=199).

Upper elementary students from intact music classes were randomly assigned to control and experimental groups (control=276, experimental =303). All students were administered a pretest utilizing a five-point Likert-type scale to determine degree of liking for each of seven tape recorded western (n=four) and non-western (n=three) musical excerpts. Although western musical excerpts were included on the pretest-posttest listening tape, due to the focus of the study, only student responses made regarding non-western selections were
included in the analysis of data. Following the pretest, subjects in the experimental group received repeated listening experiences at the beginning and end of 11 class sessions (22 hearings total) consisting of the same non-western musical excerpts utilized on the pretest listening tape. During this period, subjects in the control group received regular music instruction for six weeks (11 class sessions total). Following the treatment period, all subjects were administered a posttest which was identical to the pretest.

**Effect of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward Non-western Music**

Data from the pretest and posttest were analyzed to determine mean scores and standard deviations, by group, regarding tolerance toward non-western music. Additionally, an analysis of covariance, using the pretest as a covariate, was used to determine whether significant gain differences ($p=.05$) existed between control and experimental posttest mean scores. Results indicate highly significant ($p=.001$) gain differences between the two groups. Overall, it appears that repeated listening experiences significantly influence upper elementary students' tolerance toward non-western music.
Effects of Repeated Listening Experiences, by Grade Level, on Students' Tolerance toward Non-western Music

Pretest and posttest mean scores and standard deviations were determined, by grade level, for subjects in control and experimental groups. Further, an analysis of covariance, using the pretest as a covariate, was utilized to discover whether significant gain differences ($p=.05$) existed in posttest mean scores of fourth-, fifth- and sixth-grade students, by group. Results indicate highly significant ($p=.001$) gain differences in posttest mean scores of both fourth- and fifth- grade students. Therefore, it appears that repeated listening experiences significantly influence fourth- and fifth- grade students' tolerance toward non-western music. For sixth-grade students, while analysis of data displayed a positive increase regarding tolerance toward non-western music, a significant gain was not realized. Therefore, repeated listening experiences do not appear to significantly influence sixth grade students' tolerance toward non-western music.

Effects of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward East Indian, Japanese and African Music

Data analysis determined the mean scores and standard deviations of all upper elementary students, by group, toward the three specific styles of non-western music contained in the study. In addition, an analysis of covariance, using the
pretest as covariate, was utilized to determine whether significant gain differences ($p=.05$) existed between subjects in the two groups. Highly significant gain differences ($p=.001$) existed between posttest mean scores of control and experimental subjects regarding their tolerance toward East Indian and African music. Although a slight gain difference was realized regarding tolerance toward Japanese music, it was not statistically significant. Therefore, while it appears that repeated listening experiences significantly influence upper elementary students' tolerance toward East Indian and African music, these experiences do not appear to affect tolerance toward Japanese music.

**DISCUSSION**

**Effect of Repeated Listening Experiences on All Upper Elementary Students' Tolerance toward Non-western Music**

The present study indicates that repeated listening experiences appear to have a positive effect on upper elementary students' tolerance toward non-western music. Previous studies dealing with repeated listening experiences in western music seem to support this finding (Getz, 1966; Hornyak, 1966; Hargreaves, 1984; Bartlett, 1973; Mull, 1957; Moskovitch, 1992).

Listening experiences provide upper elementary students valuable exposure to western and non-western musical literature. For those students with previously limited
exposure to non-western music, initial exposure may create a negative reaction due to their unfamiliarity with the musical sound. Repeated listening experiences provide students initial and continuing exposure to a specific musical style. Through exposure, it is possible to develop students' awareness of a particular genre. With the use of repeated listening experiences, students may become more aware of a specific musical genre, in this case, non-western music, and familiarity may be increased. Repeated listening experiences facilitate familiarity and assist upper elementary students in the development of a more tolerant and open attitude toward non-western music.

It is possible that familiarity may lead to tolerance because subjects learn to expect certain outcomes with each exposure. Students may perceive initial non-western listening experiences as unfamiliar and unpredictable; information regarding such an unfamiliar musical selection may be difficult to place in a listener's categorization of previous musical knowledge. However, with each additional hearing, subjects may achieve a greater expectation of the music's content. Previously unrecognized patterns may emerge and become identifiable. With each additional listening experience, what was at first unpredictable, becomes expected at later hearings. Subjects may enjoy greater satisfaction as a heightened sense of expectation is realized and fulfilled through repeated listening experiences.
Effect of Repeated Listening Experiences, by Grade Level, on Students' Tolerance toward Non-western Music.

Analysis of data indicates that repeated listening experiences result in significant gain differences in posttest mean scores regarding tolerance toward non-western music in fourth- and fifth-grade students. However, sixth-grade students receiving repeated listening experiences in non-western music realized only a small, insignificant improvement in tolerance toward this style.

Several reasons may account for the discrepancy in tolerance levels of children in fourth-, fifth- and sixth-grades. It is possible that as students advance in grade level, overall preference for certain styles of music may be influenced by a variety of musical and extra musical factors.

Research has indicated that, with each advancing grade level, children tend to prefer rock over other styles of music (Greer, Dorrow and Randall, 1974; Shehan, 1979). For sixth-grade students, non-rock music may not be highly regarded, nor deemed worthy of further pursuit. By comparing responses of experimental subjects by grade level, it becomes evident that tolerance levels decline in older students. Fourth-grade students initially regarded non-western music more highly than fifth-grade subjects, who in turn, favored this style more positively than sixth-grade students.
Non-western music may not be highly regarded by older students because it differs from popular and rock styles of music. It appears that popular music appeals to students because of its lyrics, rhythm, melody and mood (Boyle, Hosterman, Ramsey, 1981). Non-western music may lack familiar attributes in these areas. In the present study, two of the three non-western music selections were performed in a foreign text, while the third composition (in English) related the beauty of cherry blossoms. It is possible the lyrics did not appeal to sixth-grade students. It is also possible the gentle mood of the Japanese excerpt and the rather mystical mood of the East Indian excerpt did not meet with approval in subjects this age. Further, it is likely that unusual scale patterns employed in the East Indian excerpt seemed remote to western listeners.

Additionally, as children age, they tend to view school music activities less favorably (Jones, 1992). Sixth-grade students who have developed a closed attitude toward music class activities in general, may have dismissed the repeated listening experiences as merely another part of the school music program. Such a lack of interest might affect tolerance levels.

Finally, peer approval, or the lack thereof, may have affected levels of tolerance. Subjects were administered the pretest and posttest in rather large groups. Even though there was total silence during the testing period, the researcher
noted an exchange of non-verbal communication between students. It is possible that sixth-grade students may have felt the need to rate non-western musical examples according to their perceived level of approval from fellow students.

**Effect of Repeated Listening Experiences on Upper Elementary Students' Tolerance toward East Indian, Japanese and African Music.**

The present study indicates that, for all upper elementary students, repeated listening experiences significantly improve tolerance toward East Indian and African music. While experimental subjects realized a slight improvement in tolerance toward Japanese music following the treatment period, the gain difference was not significant.

In an effort to explain these results, it is worthwhile to examine data regarding initial responses toward the music contained in the present study. Results indicate that experimental subjects initially held the East Indian and African excerpts in low regard. It is possible that subjects perceived these excerpts as highly complex. Such a conclusion may have negatively influenced subjects.

Many factors influence the perceived complexity level of a musical composition. A subject's knowledge of a style or particular excerpt, and his/her familiarity with a musical composition's harmonic, rhythmic, melodic, formal and expressive elements affects tolerance toward the selection.
Additionally, subjects are likely to view a musical composition as technically simple or complex.

The East Indian excerpt contained technically complex rhythmic, harmonic, melodic, formal and expressive components. Additionally, these components were rather unfamiliar to western ears. The African selection displayed expressive and rhythmically complex components. Further, both African and East Indian excerpts contained in the present study were perceived as being unfamiliar to subjects. These factors may have led subjects to decide that the African and East Indian musical excerpts were highly complex. Such a conclusion might have resulted in low initial responses.

As repeated listening experiences progressed, subjects became more familiar with the non-western excerpts. It is possible that students realized an increasingly greater acceptance and tolerance toward these excerpts as they began to expect certain outcomes in the music. According to Hargreaves (1984), subjects may initially view complex musical excerpts negatively, but regard such excerpts more favorable as familiarity is increased. The present study appears to support Hargreaves' findings.

While pretest means for the East Indian and African excerpts indicated an initially low degree of tolerance, the pretest mean score regarding the Japanese selection was relatively high. In fact, the pretest mean score concerning tolerance toward Japanese music was fairly comparable to
posttest mean scores of the East Indian and African excerpts. Following repeated listening experiences, the mean scores concerning tolerance toward African and East Indian musical styles increased significantly, but the mean score concerning tolerance toward Japanese music increased only slightly. Pretest scores indicate that subjects initially held the Japanese excerpt in high regard, but were not significantly influenced by repeated listening experiences.

It is likely that factors which influenced subjects' tolerance toward East Indian and African music also affected tolerance toward the Japanese excerpt. Such factors may include: the musical elements listed earlier, the technical complexity level of the excerpt, subjects' degree of familiarity with the excerpt, and subjects' overall perceived complexity level of the composition. It is possible that these variables positively affected initial tolerance toward Japanese music, but negatively influenced initial tolerance toward the East Indian and African styles.

Because research has indicated that performance medium affects degree of liking (LeBlanc, 1981) each musical selection employed in the present study utilizes vocal and instrumental mediums. Each musical selection contained in the present study employs timbres which are representative of the cultures featured. The Japanese selection utilized children's voices, a Japanese koto, a Japanese flute and rhythm instruments. The African excerpt employed a rough sounding, adult female voice
and a chorus of both female and male singers accompanied by a guitar and rhythm instruments. The East Indian excerpt utilized a male vocalist with a smooth, but nasal quality, accompanied by a sitar and rhythm instruments. Initially, responses to the Japanese excerpt may have been higher because subjects could readily identify with the sound of children's voices. Examples employing the rather unusual adult timbres may not have been appealing at the first hearing. However, with each repeated listening experience, the unusual tone qualities of the adult vocalists may have become more familiar and better liked.

Similarly, while the Japanese composition employed English lyrics, the East Indian and African excerpts were sung in native texts. Subjects may have found the English text more familiar and initially appealing than the foreign texts. With repeated hearings, tolerance for the indigenous texts may have increased.

Likewise, the mood of the Japanese excerpt may have appealed to subjects initially because of its gentle and soothing nature. Subjects may have felt comfortable with its tranquil style. In contrast, the African excerpt was rhythmically alive, joyful and rougher in nature due to the timbre of the vocalists. The East Indian selection may have sounded rather mystical to western ears due to its progressive form, complex rhythmic patterns, and its unusual melodic and harmonic foundations. Perhaps, subjects began to appreciate
and tolerate the moods found in the East Indian and African selections more as repeated listening experiences progressed, while degree of liking for the soothing Japanese excerpt remained stable.

It is somewhat curious that listeners might initially have preferred the slower tempo of the Japanese selection over the faster tempi of the East Indian and Japanese excerpts. However, it is possible that a slower tempo actually assisted students to perceive the Japanese excerpt as less complex than the East Indian and African selections. Additionally, the combination of variables such as mood, lyrics, and timbre may have influenced subjects more positively than tempo alone. Further, it is possible that the faster tempi of the East Indian and African styles increasingly appealed to subjects as familiarity and an expectation of musical outcomes was obtained.

Additionally, the Japanese excerpt was technically less complex than the African and East Indian excerpts. The Japanese excerpt utilized a pentatonic harmonic and melodic framework. The rhythmic patterns were somewhat sparse and rather simple. The strophic formal design was rather short and uncomplicated. The direct style of the Japanese excerpt may have been initially more appealing than the more intricate East Indian and African selections.

In addition to musical attributes, subjects who are already familiar with a particular style or specific musical
selection may respond more favorably to that excerpt than to unfamiliar selections. Of the musical compositions offered, the Japanese excerpt had the greatest chance of being familiar to elementary students. The folk song "Sakura" is found in music textbooks utilized by most of the schools surveyed. It is unlikely the other two selections were familiar to subjects in the present study because they were found in late editions of a music textbook designed for use by sixth-grade students.

Because initial familiarity could have been a factor, it is possible that repeated hearings of an already familiar selection did not significantly increase tolerance.

Perhaps, subjects in the present study already enjoyed the Japanese composition to the greatest extent possible at the initial hearing. In contrast, subjects initially expressed a lack of tolerance toward the East Indian and African selections. As repeated listening experiences allowed for greater exposure to and familiarity with these two musical styles, a greater degree of tolerance was realized.

It would seem that tolerance toward a musical composition is influenced by a selection's particular musical attributes, its technical complexity, a subject's familiarity with an excerpt, and a subject's perceived complexity level of an excerpt. Results of this study indicate that the initially low tolerance levels displayed toward East Indian and African styles of non-western music were positively influenced following repeated listening experiences. Additionally,
subjects apparently held the Japanese excerpt in high regard and repeated listening experiences failed to elevate subjects' initially high degree of liking for this genre.

Summary

The present study indicates that repeated listening experiences significantly influence upper elementary students' tolerance toward non-western music. Repeated listening experiences evidently offer an effective and accessible means for teachers to improve student tolerance for this genre of music.

The present study suggests that, overall, repeated listening experiences significantly improve fourth- and fifth-grade students' tolerance and positively influence sixth-grade students' tolerance toward non-western music. It is likely that the greatest improvement in tolerance may be realized when working with younger subjects. Teachers ought to offer students a variety of opportunities to experience non-western music while they are in elementary school rather than waiting until they are in transitional years.

Finally, the use of repeated listening experiences, according to this study, significantly improves tolerance toward African and East Indian music and slightly improves all upper elementary students' tolerance toward Japanese music. Selection of less-complex, non-western music utilizing English
texts may be desirable for initial listening experiences in this genre; with this in mind, greater improvement in tolerance may be achieved when more complex, less familiar non-western compositions are chosen for repeated hearings.

**RECOMMENDATION FOR FURTHER RESEARCH**

The present study suggests some possibilities for future research. Because data analysis of pretest mean scores suggests a rather high initial tolerance toward Japanese music, it would be interesting to study the effect of repeated listening experiences on tolerance toward different types of Japanese music. Included in the study might be Japanese music utilizing Japanese lyrics, Japanese music which is unfamiliar to western subjects, and Japanese music utilizing different combinations of instrumental and vocal timbres.

Another worthwhile avenue of research might address tolerance toward styles of non-western music not included in the present study. Researchers might examine tolerance toward other styles of ethnic music contained in textbooks such as Indonesian gamelan music and Chinese music.

A future study could focus on subjects aged sixth-grade through high school. Such a study might indicate whether older students regain flexibility toward tolerance for non-western music. Similarly, a future study could focus on the effect of repeated listening experiences on lower elementary students'
tolerance in order that information might emerge regarding the
optimum age for modification of musical acceptability.

In a future study, information gained in a longitudinal
study of sixth-grade students tolerance toward non-western
music might be interesting. In a pretest - posttest
experimental design, sixth-grade students might express their
opinions regarding non-western music, and then be exposed to
repeated listening experiences, followed by a posttest. The
process could be repeated every two years (until subjects reach
high school age) to indicate whether tolerance is improved as
students age and whether repeated listening experiences have a
cumulative effect on tolerance.

Finally, a comparison of the effectiveness of a variety
of teaching approaches aimed at improving sixth-grade students' 
tolerance toward non-western music could be made. Hopefully,
such information might yield an indication as to which, if any,
approach(es) best improves tolerance toward world musics. Such
a study might compare the use of repeated listening
experiences, performance opportunities, live performances
and/or listening guides accompanying listening experiences.
Information obtained regarding effective means of improving
tolerance in older students would be helpful to music
educators.
EDUCATIONAL IMPLICATIONS

The use of non-western music materials belongs in comprehensive school music programs. Non-western music effectively addresses the cognitive, psychomotor and affective domains and is an integral part of an educational program that prepares students to function as responsible, useful citizens. In order that students be open to further study of this genre, it is vital that a tolerance for world musics be developed early in the educational process. Before such a tolerance can be achieved, however, it is first necessary to make students aware of music from various cultures. Following initial exposure to non-western music, which will allow students to become aware of previously unfamiliar sounds, it is necessary that they receive additional exposure so that non-western sounds may become more familiar. As students receive repeated listening experiences, familiarity and a greater degree of tolerance may be realized. The use of repeated listening experiences affords teachers with an effective and accessible means of increasing student tolerance toward world musics. Unless students are allowed to develop a tolerance toward ethnic music, it is unlikely that they will pursue further study in this important component of music programs.

Teachers ought to begin studies in non-western music with young students. Because narrowing preference for musical style becomes stronger with each advancing grade level, instruction in non-western music should begin at an early age. By
administering frequent hearings of non-western music, student
tolerance may be increased and perhaps maintained.

Results of this study indicate that repeated listening
experiences can provide an approach that effectively assists
teachers in developing a greater student tolerance toward non-
western music. It is the responsibility of a music educator to
create an environment which encourages an open and receptive
student attitude toward a variety of music. A program that
intentionally incorporates non-western music experiences at
regular intervals is more likely to succeed in increasing
tolerance toward this important genre.
REFERENCES


Jones, M. J. (1992). The influence of age, teaching style, and classroom activity on elementary students' attitudes toward music class. A field report presented to the College of Arts and Sciences, Drake University.


Sims, W. L. (1986). The effect of high versus low teacher affect and passive versus active student activity during music listening on preschool children's' attention, piece
preference, time spent listening, and piece recognition.  


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Relationships between musical attitudes, self-esteem, social status, and grade level of elementary children.  

Wig, J. A. Boyle, J. D. (1982). The effect of keyboard learning experiences on middle school general music


<table>
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<th>Like Distaste</th>
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<td>B)</td>
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</table>

Recorded music examples:

Please circle the number which best describes how you currently feel about each of the 7 group project opportunities.

Your answers will NOT affect your music grades!
Your music teacher will NOT see your answers!
You do NOT need to complete this form if you do not want to.

Student Response Form

Appendix A
6) like very much
5) dislike very much
4) neither like nor dislike
3) dislike much
2) dislike much
1) like very much

F) like very much
E) like much
D) like much
C) dislike much
B) neither like nor dislike
A) dislike much
APPENDIX B

RECORDING INFORMATION

"The City Blues"  
*Music and Me*, Level 6, Macmillan Publishing Company

"Kondawele"  
*Music and Me*, Level 8, Macmillan Publishing Company

"While My Guitar Gently Weeps"  
*Music and Me*, Level 7, Macmillan Publishing Company

"Sakura"  
*The Spectrum of Music*, Level 6, Macmillan Publishing Company

"Hymn of Joy" by Ludwig Van Beethoven  
*Symphony #9, in d minor, opus 129*. London Symphony Orchestra and Chorus, Carlo Maria Giulini, conducting

"Unnaippol" (part 2)  
*Music of India, Traditional and Classical*

"Rocky Top"  
*Music and Me*, Level 6, Macmillan Publishing Company
APPENDIX C

MATERIALS FORWARDED TO SUPERINTENDENT OF SCHOOLS

October 10, 1991

Dear Sister Jude:

As part of my master's degree program at Drake University, under the supervision of Dr. James Cox, I am studying the effects of repeated listening experiences on upper elementary grade students' tolerance of non-Western music. Your support is critical to the needs of this research and is greatly appreciated.

To continue with my research, the following tasks need to be completed:

1) Students in the upper grades (4, 5, 6) of ten Des Moines area Catholic schools will be the sample for this study. Of the ten schools, five will comprise the experimental group and five will comprise the control group.

2) A pretest will be administered to these students in all ten schools. The pretest would utilize a listening tape of approximately ten examples, and would take approximately fifteen minutes to administer.

3) Students in the experimental group will then be exposed to repeated musical listening experiences administered by the music teacher at the beginning and end of each class for a series of 12 classes. The control group will only be administered the pretest and posttest.

4) Following the series of twelve classes (approximately six weeks) a posttest, identical to the pretest, will be administered to both groups. The posttest would take about fifteen minutes to administer.

I would like to administer the pretest in February 1992. Individual responses on both pretests and posttests will be anonymous, and specific schools will not be identified by name. I hope to gain insight as to what we, as music teachers, can do to develop a tolerance for non-Western Art music. At the conclusion of this project, all participating teachers will receive an abstract of the report.

I will be contacting you in the coming weeks to seek your approval. If you have any questions, please call me at 255-8191 or Dr. Cox at 271-2823.

Thank you in advance for your time and consideration on this matter. Together we may be able to make a significant contribution to upper elementary school music education.

Sincerely,

Cindy Norell
Drake University
Music Education Area
Des Moines, Iowa 50311
THE EFFECT OF REPEATED LISTENING EXPERIENCES ON UPPER ELEMENTARY STUDENTS' TOLERANCE TOWARD NON-WESTERN MUSIC

By Cindy Norell
Drake University Music Department
Des Moines, Iowa 50311
Thesis Director:
Dr. James Cox

PURPOSE OF THE STUDY
Non-western music can be an effective means of teaching the elements of music such as melody, harmony, expression, rhythm and form. It has its own inherent beauty and is of value as a means of gaining a perspective of other cultures. There is a need to develop student tolerance toward non-Western music. Several approaches may be effective in helping students increase their willingness to attend to world musics. Careful selection of accessible, quality music, performance-oriented programs, supplementary information about the music, authority figure and peer approval of non-Western music, and the use of live and video-taped performances, as well as repeated listening experiences may help students become more willing to listen to and perform ethnic musics.

EXPERIMENTAL DESIGN
In a pretest-treatment-posttest experimental design, students in grades 4, 5, and 6 from ten Des Moines area Catholic schools will be the sample for this experiment. From the sample, five schools will be randomly assigned to the control group. Five schools will be randomly assigned to the experimental group.

A pretest will be administered to students in all ten schools. The pretest will utilize a listening tape of approximately ten musical examples, and will take approximately fifteen minutes to administer.

Students in the experimental group will then be exposed to repeated music listening experiences administered by the music teacher at the beginning and end of each class for a series of 12 classes. This listening experience will last about two minutes at the beginning and about two minutes at the end of class. The control group will only be administered the pretest and posttest.

Following the series of 12 classes, (approximately six weeks), a posttest, identical to the pretest, will be administered to both groups. The posttest would take about fifteen minutes to administer.

TIME LINE
The study will begin in February and will last for approximately six weeks.
INSTRUCTIONS TO TEACHERS

Christ the King school
801 Wall Ave
Des Moines, Iowa
January 17, 1991

Dear Music Teacher,

Thank you for consenting to participate in my study about the effect of repeated listening experiences on upper elementary students' tolerance for non-western music. I appreciate your willingness to help. I know that every minute in the classroom is important and I want to express my gratitude to you for giving your valuable time to this project.

In January, I will be arranging a schedule with you that will allow me to come to your school and administer the pretest and posttest to your fourth, fifth and sixth grade music classes. In preparing your students for my arrival, you might simply say that I am doing an experiment and I need the help of the children in the room. If a student does not wish to participate, he/she does not have to. Student's participation is totally voluntary.

I will explain the rest of the instructions about the pretest and posttest to your students when I arrive at your school.

I will be calling each teacher in the experimental group on a weekly basis to answer any questions and to monitor your progress.

At the end of the six week period, I will again visit your school (both experimental and control groups) to administer the posttest to your students.

I am enclosing instructions for you that should clarify further expectations regarding this study.

Thank you for your help. Without you, this experiment could not be completed!!! If you have any questions, please call me at Christ the King (285-3349) on Tuesdays and Thursdays, or at my home (255-8191).

Sincerely,

Cindy J.W. Norell

The Effect of Repeated Listening Experience on Upper Elementary Students' Tolerance for Non-western Music.

By Cindy Norell

Christ the King (285-3349) Tuesdays and Thursdays
Home (255-8191)
INSTRUCTIONS FOR TEACHERS PARTICIPATING IN THE STUDY

The purpose of this study is to examine the effect of repeated listening experiences on upper elementary students' tolerance for non-western music. Therefore, so that each class is treated equally, the following instructions must be adhered to.

1) Please remain in the music room during administration of the pretest and posttest.

2) It is very important that you refrain from telling students that I am investigating the effects of repeated listening experience on tolerance for non-western music.

3) Please do not teach any non-western music during the six week treatment period. Non-western music, for my study, is defined as music that does not originate from Europe or North America. This restriction applies both to the experimental group and the control group.

4) Teachers in the experimental group will be playing a two minute tape for their fourth, fifth and sixth grade music students for a period of six weeks (or 12 class periods). All twelve music class periods must begin and end with the listening tape.
   Limit your comments about the tape to the fact that you are merely helping out a friend in a project and that you will let them know the reasons and the results at a more appropriate time.

   Thank you!