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A Study of the Musical Achievement of Elementary Students Taught by the Memphis City Curriculum Guide and Students Taught by the Traditional Approach.

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A STUDY OF THE MUSICAL ACHIEVEMENT OF ELEMENTARY STUDENTS TAUGHT BY THE MEMPHIS CITY CURRICULUM GUIDE AND STUDENTS TAUGHT BY THE TRADITIONAL APPROACH

The Louisiana State University and Agricultural and Mechanical Col. Ph.D. 1981

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A STUDY OF THE MUSICAL ACHIEVEMENT OF ELEMENTARY STUDENTS
TAUGHT BY THE MEMPHIS CITY CURRICULUM GUIDE AND
STUDENTS TAUGHT BY THE TRADITIONAL APPROACH

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
in
Music Education

by
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B.M.E., Mars Hill College, 1971
M.M.E., Louisiana State University, 1972
December 1981

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ABSTRACT

The musical achievement of students taught from the Memphis Cur-
riculum Guide, based on the Orff and Kodaly philosophies of music educa-
tion, was compared to that achieved by students taught from the basic
program outlined in the Exploring Music songbook series. Students were
chosen from the fourth and fifth grades in the Weaverville Elementary
Schools, Weaverville, North Carolina, and materials used were chosen
for these grade levels.

The Music Achievement Tests, Tests 1, 2, and 3, by Richard Colwell
were used for comparison of pretest and posttest means for the experimen-
tal and control groups on both grade levels. All classes, experimental
and control, met for one thirty-minute lesson each week for a period of
eighteen weeks. At the end of this time, the posttest was scheduled, but,
due to inclement weather and school closings, the test was postponed for
five weeks. During this time, the experimental and control groups on
both grade levels received four additional lessons. No new material was
introduced.

The t-test and ANOVA procedures from the Statistical Packages for the
Social Sciences (SPSS) computer programs were performed on the raw mean
scores in each group. Significant difference was registered between the
teaching methods for the major-minor mode discrimination subtest on the
fifth grade level. No other significant difference was registered between
the teaching methods.
The adjusted data derived from the ANOVA procedure showed significance between pre- and posttest scores on the fourth grade level for the melody recognition and instrument recognition subtests and for the fifth grade level on the feeling for tonal center and instrument recognition subtests. Significance was registered between male and female subjects on two subtests for the fourth grade level, major-minor mode discrimination and feeling for tonal center, and for the feeling for tonal center and melody recognition subtests for the fifth grade level.
CHAPTER I

INTRODUCTION

Music has been included in the general school curriculum in the United States for more than a century. However, the importance of the subject and the methods for teaching music have varied with the trends in general education. The high school band program and, to a degree, the secondary choral program have maintained relatively stable positions since the early years of this century. The elementary general music program has progressed from a "singing" class to an experience in all areas of musical learning. During the past twenty years, major changes have taken place in general educational philosophies which are also reflected in elementary music education.

The establishment of the child-centered curriculum has greatly influenced elementary general music programs. Piaget's studies of the developmental stages of a child's growth and other research in this area have contributed to understanding how a child learns and what kinds of activities are best for what ages. A child needs to participate in various aspects of music. No other life experience brings more enjoyment or individual involvement and awareness to the child.¹

Two music educators, Zoltan Kodaly and Carl Orff, have helped to increase the understanding of and respect for elementary music education.² Each music educator stressed the importance of the individual child in both group activities and individual work. Kodaly developed a structured
approach to music reading, aural development, and singing. His doctrine forms the basis of the music education program in his native Hungary.

Carl Orff's "elemental music" was developed from speech, movement, improvisation, and creativity. The two men use similar materials and teaching techniques in developing melodic and rhythmic concepts. Both educators have made unique contributions to the American music curriculum.³

An educational project that centered around the philosophies of Orff and Kodaly began in Memphis, Tennessee, in 1968, and was funded by the Elementary and Secondary Education Act, Title III funds. The curriculum in Memphis stressed movement, rhythm, speech, improvisation, the playing of instruments, and singing. During the next three years, the program was revised and expanded and in 1971 was declared the official curriculum for Memphis City System teachers to use to meet state music requirements in grades one through six.⁴

Statement of the Problem

Curriculum planning is important for all levels of music education. The development of objectives for a music program that are clearly understood and easily adapted to individual teaching situations is becoming of prime concern. The Memphis Music Curriculum is one of the first guides that has a clear statement of objectives, activities, and materials for elementary music education. Also, the observation of the influence and broader use of the Kodaly and Orff doctrines has led to a study of this curriculum.

This investigation was conducted to determine what difference, if any, would be found between test scores of students taught by use of the Memphis Curriculum Guide and those taught by the use of the program out-
lined in the Exploring Music series. The test used for the pretest and posttest was Richard Colwell's Music Achievement Tests (Tests 1, 2, and 3).

Significance of the Problem

The Memphis Curriculum project was one of the first to include the doctrines of Orff and Kodaly in a prominent place in a structured program. On both the local and state level, curriculum guides have been developed, but too many of these guides contain such broad objectives that it is difficult for individual teachers to adapt them to a particular situation. Often there is little continuity between state music programs or between the programs of individual districts and schools in the same state. A study of existing curricula could lead toward more structure and common purpose in elementary music education. A curriculum guide that is based on generally accepted new methods and materials and is easily understood by classroom teachers and music specialists (i.e., the Memphis Curriculum Guide) was considered worthy of the attention and consideration of music educators in different educational units.

Delimitations

The Memphis Curriculum Guide was used for the fourth and fifth grade level for the experimental group. Supplementary materials were used from adaptations of the Orff and Kodaly approaches as suggested by the curriculum guide. The minimum program outlined in the fourth and fifth grade teacher's edition of the Exploring Music series was used for the control group.

Materials, references, and supplementary materials were limited to

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those in the 1) Mars Hill College Music Library, 2) Middleton Library of Louisiana State University, and 3) the personal library of the investigator.

Subjects for the investigation were chosen from fourth and fifth grade students in the Buncombe County Schools, Asheville, North Carolina. A total of eight classes participated in the study with approximately thirty students in each class. The investigator conducted one thirty-minute lesson each week for eighteen weeks with each class. Lessons for four classes were developed from the Memphis Curriculum Guide. The program outlined in Exploring Music, Grade 4 and 5, was used for the other four classes.

Definition of Terms

Standard definitions of experimental research terms will be used unless otherwise indicated in the text; other terms needing definition will be defined in the text.

Method of Research

The method of research for this project was experimental, using the "nonequivalent control group design."

The eight classes of fourth and fifth grade students were assigned to the control and experimental groups by the investigator prior to the experiment, with approximately 120 students in each group.

The MAT (Music Achievement Tests) were administered as a pretest before teaching began and again as the posttest at the end of the eighteen-week instructional period. Comparison of pretest and posttest scores were made to deduce gains or losses made by the students. Each class was used
as an intact group; therefore, an analysis of covariance was used as a comparative measure. The ANOVA (analysis of variance and covariance) and the t-test procedures from the Statistical Package for the Social Sciences (SPSS) program were used to perform the computer analysis.

The null hypothesis was used for the project and was rejected at the .05 level of significance. The null hypothesis states that no statistical differences in musical achievement of the students taught from the Memphis Curriculum and those taught from the more traditional music series program would be observed.

**Development of the Remainder of the Report**

Chapter II is a review of the philosophies of music education of Carl Orff and Zoltan Kodaly and a discussion of the influence of the child-centered curriculum on the development of the elementary general music program in the United States. The development of the study and the presentation of the research design is given in Chapter III. The pretest and posttest data is analyzed and discussed in Chapter IV. Chapter V contains a summary of the material presented in the study, the conclusions drawn from the study, and the recommendations for further exploration of the subject.
Notes


2Ibid., p. 5.


CHAPTER II

REVIEW OF RELATED LITERATURE

Child Development and Music Education

"Science is not the panacea of life's problems. . . the test tube has yet to come up with a formula for increasing man's ability to think, to feel, to appreciate, to understand, to love. It is the task of the humanities to help us understand ourselves so we can understand our fellowman, to help us live in this valley of the dolls that science has fashioned for us."

This quote from the Tanglewood Symposium Documentary, The Humanistic Curriculum, gives us a most concise statement of the value of the arts to the general education of an individual. The important place that the arts have had in all cultures points toward man's need to express deep feelings. Music, perhaps more than any other art-form, may be seen as the "tonal analogue of the emotive life."

The child-centered curriculum, a development of the late 19th century, evolved as the result of educational thought that saw the need for a balance between the demands of society on education and the needs of each individual for self-development. A broad curriculum was devised that made educative experiences possible in a wide range of areas both academic and artistic. The aim of education was to derive a unity between the external and internal forces acting on the individual. Music became the subject which was to develop the expressive or emotional area of the child's life.
Love for music is as natural for children as is love for play. Adults tend to forget this first feeling of joy because of unhappy experiences in music classes. For the child of five art is life and life is art. Too often when this curious, enthusiastic child enters public school, "life" and "art" become separated into classes in math, science, music, art, etc. This first separation of courses is intended to allow for developing specific activities and skills, but, in actuality, fragmenting or continued "separation of the senses results in a fragmentation of experience." If teachers can take this natural interest of students in sound, movement, in everything around them, and use it positively in the classroom, the child will have a much more personal frame of reference with which to discover the similarities and differences between the arts and other subjects and also will be able to draw from these general experiences to relate to more specific activities in a given area. Educators should reflect on the fact that skill for teaching lies in understanding children, not just in mastering and understanding musical skills and concepts.

All children are musical. Each child has some innate ability which should be encouraged and developed in music classes to the level that a particular individual can attain. Children learn first by imitating what adults do and what they hear and see around them. Teachers do not have to teach a child to be musical and creative but should draw on the creative response that is a part of each person. In other words, educators must learn to allow a child to express himself and channel this natural energy into individual and group activities. Children should be encouraged to engage in creative experiences with music-making which
includes active participation in singing, playing, improvising, reading, listening, and composing. Music classes should be enjoyable, but, observing the fine line between simple entertainment and concrete learning, deeper musical concepts should be developed for a lifetime of enjoyment and participation.\textsuperscript{10}

The process by which a child learns about music has been studied by many educators. The implications of those findings have a great deal to do with the objectives for and methods of teaching music. Learning, itself, may be considered as growth, development, experience, or anything new added to a situation resulting in a change in behavior. Leonhard and House define learning as "a process which begins with a problem, progresses to the solution of the problem by the apprehension, clarification, and application of meaning and results in a change in behavior."\textsuperscript{11} This definition brings into the learning process the search for meaning, the developmental nature of learning, and the problem-solving element.

Perception is also a most important part of learning. Perception deals with the development of concepts derived from receiving information through the senses and responding to the stimuli. Concept development evolves through active experiences with music and must be experienced and developed before they are named. The child's experiences begin with the simplest ideas and progress through gradually more difficult activities to more complex conceptual development.

In The Process of Education, Jerome Bruner states that the most effective learning takes place when teaching emphasizes the structure of a subject, i.e., how fundamental ideas of a subject are related.\textsuperscript{12} If
one begins with these basic concepts, Bruner also believes that "any subject can be taught effectively in some intellectually honest form to any child at any stage of development."\textsuperscript{13} The suggestions are as applicable for elementary general music as they are for academic subjects such as science and math.

The above statements are based in part on an understanding of how a child's learning process develops. The Swiss psychologist, Jean Piaget, has done extensive research in child development. Piaget recognized three main stages of mental development that all children pass through from birth through adolescence. The stage of intuitive thought usually occurs between the ages of four through seven although individual development may vary. This time span is characterized by the child reasoning through hunches or intuitions rather than logic. He is not good at making verbal explanations but is learning to manipulate objects. In the next stage, concrete operations, ages seven to eleven, the child can begin to think through problems, but he still thinks in terms of real or concrete objects, rather than abstractions. The stage of formal operations begins around age eleven and continues through age fifteen. The child is now able to think in abstractions (e.g., form theories) and has reached the level of adult thought.\textsuperscript{14}

Teaching methods which acknowledge the natural development of the child's thought processes allow for concrete experiences that are both activity-oriented and are also based on the fundamental concepts of the subject. The study of music readily lends itself to a sequence of conceptual learning beginning with simple ideas and building to more complex understanding.\textsuperscript{15} The strong feeling among learning theorists is that

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there is probably a general learning transfer (i.e., "learning how to learn") between subjects. Studies seek to show how music learning helps children's general attention span and the development of general musical concepts such as high/low and loud/soft.

Specific learning transfer has been noted between subject areas as well as different kinds of activities in the same subject. Studies in Hungarian schools have shown that a by-product of the music instruction methods developed by Zoltan Kodaly was a marked improvement in achievement scores in other subjects, particularly math. Further study is necessary in this area because many of these correlations have insufficient statistical data.

As more research data become available, the weight of the evidence does point toward measurable general and specific learning transfer in cognitive skills from music education to other areas, particularly language arts. Studies need to be continued to provide conclusive data, but it seems, at this point, that the transfer effect seems greatest for young children with cognitive learning gain and that the transfer is negligible above the elementary grades.

These findings provide strong support for curriculum development in music education for primary and elementary age children that facilitates structured learning of musical concepts. The general music program should, through a variety of experiences, lead to broad musical concepts that gradually lead to more definite, complex ideas and activities. The concepts are not isolated from each other but are used over and over again in ever more complex situations which lead to more specific learnings. Age and conceptual or musical maturation must be taken into account in
curriculum planning. A "spiral curriculum" in which concepts are encountered over and over again in ever more complex activities is most successful for elementary school ages. The total involvement and interest of each child is important if continued enthusiasm and participation in music is to be maintained into adult life. It is a paradox of the educational system that the older, junior high age child who is beginning to think and reason on a higher level and should be able to participate in and understand more complexities in music is the child who begins to lose interest in music classes. The responsibility for solving this problem rests on the early music experience which should fulfill the needs of the individual child so that his enthusiasm and interest does not wane at the junior and senior high levels.

The answer to the problem seems to rest with the methods used for teaching and with teacher training for working with the pre-school and elementary age child. Even before the actual classroom interaction of teacher and child happens, objectives and curriculum design must be developed for each educational unit. Curriculum content must be examined on a regular basis and new ideas assimilated into the existing document that bring about a synthesis of the best of both old and new ideas.

The music education philosophies of Carl Orff and Zoltan Kodaly have been received enthusiastically by American music educators. Their ideas have become part of recent research studies in curriculum development in many school systems across the United States. A brief discussion of the main ideas in each approach follows.

The Orff Philosophy of Music Education

The 1920s found the European artistic community in a state of
change. Experimentation with new ideas and old forms was taking place in all the arts. The underlying impetus came from the return to the study of basic structural elements in movement and painting. An understanding of the elemental relationship of music to the other arts was developed, especially to dance and painting. Laban and Wigman were experimenting with freer movement in ballet. Carl Orff (b. 1895) was, at the time, studying the works of Lassus, Patestrina, Monteverdi, and the primitive music of African tribes. With the founding of the Gunther-schule, Orff and the co-founder, Dorothea Gunther, began working toward a synthesis of music and movement in the study of dance and gymnastics. The philosophy behind the founding of the school was to devise a method of teaching the "natural unity of music and movement which would be available to develop a love of dancing and music-making for the general public and not only for the naturally talented. This unity of music and movement was not to be based on incidental and subjective experience but on their elemental relationship in that they arise from a single source." Orff developed pitched percussion instruments that stressed the rhythmic rather than the harmonic aspect of music. The instruments were designed for ease in playing, therefore encouraging active student participation in composing and performing. Recorders, stringed instruments, and non-pitched percussion instruments were also employed. "My idea was to take my students so far that they could improvise their own music (however unassuming) and their own accompaniments to movement." The first edition of the Schulwerk called Rhythmic-Melodic Exercises was published in 1930. Other books followed in rapid succession. The
political uprisings which preceded World War II halted further publications, and later the Guntherschule in Munich was completely destroyed, including the instruments. The school was not rebuilt and Orff turned to other things.30

In 1948, Orff received a call from the Bavarian Radio asking him to create a series of broadcasts for children to include music that the children could play themselves. There were many problems, including lack of funds to replace the lost instruments and the process of adapting the original Schulwerk which had been planned for physical education teachers to a format useable with young children.

Broadcasts began in 1948 with musically untrained children, ages eight to twelve, participating. The children took to the instruments readily and their enthusiasm inspired those who observed their progress. The success of the initial broadcasts led to the extension of the program and enough interest in the schools to promote the founding of a musical instrument factory, Studio 49.

Gunild Keetman was invited to join the staff, and in 1951, she started children's classes at the Mozarteum in Salzburg. From Germany, the ideas of Carl Orff's philosophy of music education spread throughout Europe to Latin America, the United States, Canada, and other countries. Orff completed five volumes of the Schulwerk, continued development of the instrumentarium, and saw the concepts in the philosophy expanded to be used in music therapy.31

The Schulwerk is presented in a way that "gives practical answers to vital questions of music education."32 All material used for teaching children should be written for the child and from the child's own view-
point. Music is basically a union of sound, rhythm, movement, and speech which at some point in the child's development are differentiated and pursued as individual and separate art forms. But, at the early stages of a child's life, they are each part of a central whole. Orff's ideas for music education lead to immediate contact and individual experience in all of these areas, largely through improvisation which stimulates the child's innate abilities.  

Orff's approach is not a method. Rather it is a philosophy of ideas and activities that are to be worked through. The concepts are loosely structured and the actual organization is dependent on the imagination and ability of both teachers and students. Orff's humanizing philosophy provides for the "needed preservation of the individual." This idea is the most important single consideration in his approach. The general emphasis is on improvisation and creative imagination. The teacher must develop a way of using the ideas and, therefore, must have adequate training in and understanding of the philosophy. He also must be creative and positive toward the music and must make contact with the elemental qualities of music making if he would lead children to them.

The emphasis on principles or ideas rather than a method is very important to remember. Orff's fear was that any method could become rigid and outdated. A philosophy of basic principles should "remain true through changing circumstances and can thus encompass changing forms of music and music making."  

The various activities which make up the Orff philosophy are universal and applicable to all kinds of music. The Orff-Schulwerk assumes that students have neither special musical ability or training. The
The specific activities involved in the Orff-Schulwerk may be described as follows. Rhythm is perceived as the most elemental of musical concepts. Children view it as "the beat and the movement" and can relate to the idea on their level of experience and understanding. Children express rhythm in speech and movement. The physical awareness of rhythm comes before music making as a natural part of language and physical development. Body sounds are used to reproduce speech patterns. The natural movements of running, walking, and skipping help the child to feel beat and rhythm. These movements are imitated on small percussion instruments and may be accompanied by simple rhymes, speech patterns, or songs that develop into more complex forms in later classes.

Movement is an integral part of all areas of the Orff-Schulwerk. Orff himself said that "elemental music is never music alone but forms a unity with movement, dance, and speech." Age and ability must be taken into account when planning movement activities, especially for younger children. It may be said that all Schulwerk lessons should include some kind of movement, preferably performed in a space large
enough for children to express themselves freely. Movement exercises can begin as simply as walking to the beat or changing directions and progress from individual work within the group to total group involvement. Melody comes as a natural outgrowth of rhythm. The germ of a melody lies in voice inflections and very slight changes in pitch. The falling minor third (sol-mi in solfege) and the three-tone pattern, sol-mi-la, are natural voice inflections of children's chants, calls, and shouts and "become quite naturally the starting point to all melodic development." Gradually, the range of melodies is expanded to the pentatonic mode which includes many nursery songs, folk songs, children's songs, and games. The voice is considered the natural melody instrument and singing precedes instrument playing. Instruments may be used simultaneously to explore different pitch relationships (e.g., sing two different pitches, then explore high/low pitches on an instrument).

Accompanying songs or rhymes with physical movement is a natural response for children, such as jumping a rope while saying a rhyme. This kind of rhythmic accompaniment with hands, feet, speech, or movement may then lead to first accompaniments on instruments, either pitched or non-pitched percussion instruments.

The simplest harmonic accompaniment used in the Orff-Schulwerk is the bordun, a drone similar to a sustained organ-point of open 5ths. The bordun is usually built on the interval between do and sol in the pentatonic scale. The simple, sustained bordun is gradually replaced with more rhythmic variety. A moving bordun is used to explore neighboring notes but always returning to a repetitive pattern.

The ostinato grows out of the bordun. It consists of more complex
patterns, is longer, and is repeated continually. Simple polyphonic forms are next developed with each child learning to play an independent part within an ensemble. "Melodic and instrumental exploits are reached only in carefully graded stages, constantly reinforced, supplemented, and combined with a host of other activities."47

Improvisation and the freedom for creative development are the central aims of the Orff-Schulwerk. All activities are designed to draw from the creative and imaginative powers with which all children are born. Creative work is encouraged from the first lessons by asking children to find a different pattern, vary a rhythmic accompaniment, and so forth. From these very simple beginnings comes individual improvisation.48 Since music making grows directly out of improvisation, all exercises in inventing and improvisations are preparations for it.49

Children should be encouraged to improvise at all levels of musical growth and in all kinds of activities (singing, playing, speech, and movement). The child must master the materials he will use before improvising. Echo-playing and question and answer patterns are some techniques that will help him learn basic skills that prepare him to improvise. Short forms lead to longer ones, pentatonic scale and borduns lead to experimenting with major and minor tonalities.50 Improvisation is limited to instruments the children can play easily (such as clapping, stamping, and small percussion instruments) until they perfect the techniques of playing on barred instruments.51

Creative play-acting is also encouraged. Dramatizing nursery songs leads to pantomime and to more complicated dramatizations of short stories, fairy tales, and folklore with speech, song, dance, and instrumental music.52
The Orff instrumentarium is a unique part of the entire approach. Natural instruments (hands and feet) and small percussion instruments (rattle, claves, cymbals, woodblocks, and related instruments) are used as pure sound and rhythm producers. There are also percussion instruments with adjustable pitch such as timpani. The barred instruments (glockenspiel, metallophone, and xylophone) form a bridge between the melodic and rhythmic instruments. Stringed instruments and wind instruments (more specifically, recorders) may also be included in the list of instruments used.\textsuperscript{53}

The barred instruments are the most unique to the Orff-Schulwerk and are often referred to as "Orff instruments." The instruments were designed to be rhythmic rather than harmonic. The comparatively easy to play instruments were to be a means for children to improvise and compose their own pieces.

The xylophone and metallophone that were developed have a unique sound and with the glockenspiel form the foundation of the instrumentarium. They are built in soprano, alto, tenor, and bass range.\textsuperscript{54} The sound bars are arranged in a C diatonic scale, rest on wooden sound boxes, and may be removed when not needed. Removal of the bars allows the child to learn melodies and accompaniments quickly because unnecessary bars are not in the way. The accidentals, F\# and Bb, are available so that different keys may be used. Chromatic models of the instruments are also available.\textsuperscript{55}

The music and activities described become more complex as the child matures. Melodic and harmonic devises move to major, m\textsuperscript{inor}, and modal with accompaniments varying from polyphonic to traditional harmonic
structure including recognizable chord progressions and cadences. Improvisational techniques become more complex, including augmentation and diminution. Notation is studied and used as a means of, first, recording students' compositions, and later, reading and performing composed music. The complexity of the above development is rarely seen in the existing educational system, but one can see how such an end is possible with adequate teacher training and funding for materials.56

The Orff approach has been introduced into several school systems in the United States. One of the first pilot programs was started in the Middlefork Schools in Northfield, Illinois, in 1960 and was adopted as the regular curriculum for grades 1-3 in 1962. Grace Nash and Louise Burge were two of the music specialists involved in the program.57 Another pilot program utilizing both Orff and Kodaly techniques was begun in 1959 at the Third Street Music School Settlement in Manhattan under the direction of Harris Danziger.58

Federal funding through the Elementary and Secondary Education Act, Title III, has been used to promote projects for curriculum development based on the Orff approach. The Bellflower Project, Bellflower, California, was one such project and was entitled "Creativity and Participation in Music Education." The program was funded from March, 1966, through June, 1968, and explored the use of Orff-Schulwerk in American schools, the response of children from different backgrounds, and the suitability of American folklore to the Orff approach.59

The Title III project called "Music Curriculum for Memphis City Schools" began in the summer of 1968. The stated purpose was to "create a series of functional curriculum guides emphasizing creativity."60 The
guide, which was developed for grades 1-6, was adopted as the Memphis City Schools curriculum guide in 1971. This curriculum design was the one chosen as the experimental teaching method for this study.

The Orff philosophy has spread far beyond the general area of Europe covered by the Bavarian radio broadcasts. The earliest translations of the Orff-Schulwerk Music for Children were the English adaptation by Margaret Murray and the Canadian adaptation by Doreen Hall. The new American edition, Volume 2 and 3, was co-ordinated by Hermann Regner and was published in 1978-79. Grace Nash, an American music educator who has done extensive work and study of the Orff-Schulwerk, is the author of the Music with Children series, an American adaptation of the materials used in the Orff approach. She was one of the teachers in the experimental Orff program in Northfield, Illinois, in 1960 and is active in presenting Orff workshops across the United States. Nash feels that "Orff's Music for Children is so vital, so logical, and so right that we must train more and more teachers to present it."

Elizabeth Nichols has adapted the Orff approach in her Orff Instrument Source Book to correlate with folk songs and speech activities in the songbook series Making Music Your Own, Books 1-3. She sees the adapting of the Orff-Schulwerk to fit available series books as a problem in wide-spread usage of the approach in the United States. But, as Nichols states, this is no problem if one remembers that the Orff-Schulwerk is an approach to music teaching rather than a method and as such may be used with any suitable song material.

Carl Orff, as composer and music educator, has contributed a great deal to both music literature and music pedagogy. His influence is now
beginning to be felt throughout the United States and abroad.

The Kodaly Method of Music Education

Zoltan Kodaly (1882-1967) developed a method of music teaching for public schools in his native Hungary in the years after World War II. He was determined that music education would help to return a pride in the native folk music of Hungary and help rebuild the shattered culture of the country after the ravages of the war. Kodaly said that "music is not merely entertainment, but art, and therefore necessary to the balanced human life." Kodaly's commitment was to making music belong to everyone, not just to the upper class or talented performers. His concept was that music literacy was worthless if the child did not at the same time develop musical discrimination. The Kodaly method as experienced in Hungary has produced "musically literate amateurs . . . not just professionals."

The musical basis of the method is the folksong. Kodaly and Bela Bartok (1881-1945), his fellow countryman, spent several years in the early part of this century collecting authentic Hungarian folk music to use as the material for teaching music to children. His arguments for the use of folk music are sound. A child learns best in his own musical language, and simple folk songs are the first music he learns at home and on the playground. The basis of many Hungarian folk songs is the pentatonic scale, and it is easier to sing in tune than a major scale. Finally, this is living music with an endless series of examples. A variety of styles and formulas is a background for study of more complex music. The study of folk music does not exclude all other styles, but it is, rather, an introduction to music of all cultures and periods.

Kodaly stressed the use of the musical "mother tongue" which the
child learns in a manner similar to the way he learns his native language. This implication makes clear that any adaptation of the Kodaly method should be based on the folk music of the particular country then expanded to that of other cultures and composed music.\textsuperscript{72}

Kodaly considered singing the most important of all musical expression. The voice is the instrument closest to a child or an adult and may become a part of everyday life as another instrument may not. Singing is active music making. Kodaly stressed that children should learn to sing in tune before studying an instrument. His aim is to develop inner hearing before playing a melody on an instrument.\textsuperscript{73}

The Kodaly method is a child-developmental one rather than a subject-logic approach. This means that the structure of teaching the subject is dependent on how and what the child learns most easily at a given age.\textsuperscript{74} The tools that are used in the method include relative solmization, hand signs, and rhythm syllables. Kodaly incorporated relative solmization into his already existing method as a means of teaching children not only absolute pitches but also the function of, and relationship between and among, pitches. This is an active approach to ear-training wherein the children do not theorize about music but actually make it. Relative solmization used in correlation with movable do gives a child the feeling of pitch function in all keys because the relationship of pitches is the same in any key.\textsuperscript{75}

The melodic material for the method is derived from the pentatonic scale which is readily found in the native Hungarian folk songs. This scale is very easy to sing in tune because there are no half steps.\textsuperscript{76} Melodically, the first tones sung by the young child are the descending
minor third, sol-mi. The next tone added is la above sol. This three-note pattern is found in children's chants around the world and is called the "universal musical vocabulary of young children."77

One characteristic of children's melodic development is that the child's range is usually limited to five or six tones and that his steps are difficult to sing in tune, as was previously mentioned. With this in mind, Kodaly felt that the pentaton, or five-tone scale, was the best vehicle to use to teach children musical skills. The pentatonic scale is made up of do, re, mi, sol, and la with do being the "home tone" in major and la the "home tone" in minor. After these tones can be sung in tune with each other in songs and exercises, fa and ti are added to complete the major scale.78

Reading and writing music are emphasized from the earliest lessons. Many songs involving different modes, rhythmic patterns, and meters are learned by rote, but reading and writing activities are limited to the pentatonic scale and simple rhythms. When these materials are secure, then more complicated melodic and rhythmic patterns are added to reading and writing activities, drawing from song material originally learned by rote.79

The rhythm syllables used by Kodaly in rhythmic reading were adapted from the French counting system associated with Emile-Joseph Cheve (1804-1864). The Hungarian adaptation of this system used only words and sounds rather than the entire, rather complicated method developed by Cheve.80 Rhythmic and melodic development occur almost simultaneously in the method. The quarter note is the child's walking pace, the eighth note his running pace. These rhythms are the logical place to start rhythmic
reading. In French counting, the quarter note is "ta" and the eighth note is "ti." All other note values become relative to the quarter and eighth notes. The syllables are used to express duration rather than specific note values, thus only the stems of the notes are necessary, except for half and whole notes. A musical shorthand for writing music is developed from the use of the above rhythmic notation added to the first letter of each solfege syllable for the melodic pattern. Music may be written by the children without the use of staff notation at first, but is easily transferred to the staff as notational skills develop.  

The third tool that is associated with the Kodaly method is the use of hand signs for each of the solfege syllables. These hand signs are not original with Kodaly but were borrowed, with minor changes, from John Curwen (1816-1880), an Englishman who originated them in 1870. The distance between the hand signs reflects, to some extent, a visual representation of the relative high/low relationship between notes. The hand signs were incorporated into Kodaly's method to reinforce intervallic feeling as well as to give children something visual to relate with their voice movement.

Elements of movement education that may be associated with Emile-Jacques Dalcroze (1865-1950) and his method of Eurhythmics are also incorporated into the Kodaly method. Beating time, clapping, and tapping are some of these activities that are especially important in the early lessons. Kodaly believed that the rhythmic elements of songs are best introduced through walking and clapping. Clapped or stepped ostinatos may be added to songs or used in combination with other rhythmic exercises. The elements of movement in the Kodaly method are used with unaccompanied
singing or speech exercises rather than with the piano which is used in
Eurhythmics exercises.\textsuperscript{63}

Improvisation is encouraged and is used to reinforce elements
already learned, including movement, melody, rhythm, and form. The
child, at first, works with both rhythm and melody. The two concepts may
be explored separately in some activities, but they are always closely
related in practice. New ideas or concepts may be isolated from the song,
studied, and then replaced in the song, but the part is never completely
separated from the whole. Creative reinforcement of all new concepts
allows the child to use and recognize the element already learned in new
situations.

Periods of careful concentration in the recognition of rhythm, mel­
ody, tempo, dynamics, and timbre are well planned and are alternated
with periods of relaxation so that different kinds of activities are
used in each lesson. Concentration activities gradually become longer
and longer as the child matures.\textsuperscript{84} Music, movement, rhythm, and active
singing help provide needed physical involvement that is often lacking
in our more urban environments. These kinds of activities are very
important to the kind of transfer of learning described as "active read­
iness for dealing with new tasks."\textsuperscript{85} Emotional and physical development
are both equally important to the child's growth and both are stressed
in Kodaly's teaching approach.

The method is best implemented with young children. The foundations
for music learning are thus laid at the child's most perceptive age.\textsuperscript{86}
Nursery school children are "taught the rudiments of music through
play."\textsuperscript{87} As the child matures, materials and procedures become ever
more complex. In this way, music study remains fresh and alive, and interest is maintained through adolescence and into adult life.\textsuperscript{88}

The Kodaly method has worked so well in Hungary that many music educators from other countries who came to study in Hungary have returned to their own countries and begun using the ideas there. However, it is difficult to transplant an educational idea from one culture to another. Some educators used only the techniques learned as a system for teaching music reading and writing. Others translated the Hungarian folk songs, added a few songs from their own culture, and called it an adaptation. This superficial approach did not achieve the expected results, and people discredited the idea and accused the method of working only in Hungary's structured educational system.

The French and English adaptations were done by master teachers and have produced positive results. The carefully selected musical literature was prepared from the native culture (as Kodaly had intended) and was presented in a logical sequence of musical development built on the characteristics of the songs. Both adaptations took the tools of the Kodaly method, relative solfege, rhythm syllables, and hand signs and developed ways of using them that worked in their respective cultures.\textsuperscript{89}

The Kodaly method first appeared in the United States in the early 1960s. The musical climate at the time was such that teachers were complaining that children were musically illiterate and showed little interest in "good music." Music was part of the educational public relations medium but not considered important as part of the core curriculum.

In 1964, Mary Helen Richards returned from two months of study in
Hungary and proceeded to write a teacher's book and a series of charts called Threshold to Music. This approach to elementary music education was designed for classroom teachers and was an adaptation of the Kodaly method using American folk music. The concept worked well in the California schools where Richards supervised the use of the Threshold program. Katinka Daniel, who had studied the Kodaly method at the Liszt Academy, joined Richards in the early teaching stages and then used some of the same materials in her schools in Oregon.

Denise Bacon worked with Richards during the summer of 1965 and then studied in Hungary in 1967-68. When she returned to the United States, she and Petre Erdei worked in 1968-69 collecting American folk music and teaching twice weekly in public schools.

Through a Ford Foundations grant, the Kodaly Musical Training Institute was established at Wellesley, Massachusetts, with Bacon as director. The aims of the Institute were to train teachers in the Kodaly method and develop an American music curriculum based on Kodaly concepts. "The starting point in every adaptation must be the teachers' definitions of aims in the light of the conditions and educational objectives of a given society ... the purpose also determines the method." Teacher training is of fundamental importance to Kodaly's philosophy of music education. Grants have been awarded not only to the Kodaly Institute but also to other programs working to adapt the Kodaly method for American education and to train teachers in the approach.

One of the greatest problems educators have found in adapting the method for use in this country is the differences in Hungarian and American folk music. Many American folk songs are pentatonic in their
original forms, but the addition of Western harmonic accompaniments has given them a diatonic quality. Many of the diatonic songs may be used at a more advanced level and the true pentatonic melodies may be used without traditional accompaniments. Folk songs of many nations may be used in the American method because there are so many cultural backgrounds represented in this country. Music from our best composers is needed that is composed specifically for use with children.95

American music educators share the ideals expressed by Kodaly, but the immediate music reading ability developed through solfege and the other teaching tools often overshadows the personality development of each individual child that was so central to Kodaly's philosophy.96 Teachers in America may get lost in a "sea of pedagogical details" and miss the essence of the philosophy if they are not carefully trained in the method.97 The tendency, at times, has been to use the tools of the approach as "gimmicks,"98 rather than as the basis for developing deeper ideas. Kodaly's philosophy was drawn from a background of humanistic thinking, and his emphasis was on developing the musicality inherent in each individual. Students may go as far as teachers can and will take them.99 Kodaly felt that teachers must be trained to the extent that they were "good enough to teach children."100

Every person has the right to be musically literate and to explore the world of music. Kodaly believed that only the best music, teachers, techniques, and materials were good enough to be used to teach children about music. He devoted a large portion of his life and his compositions to this effort.101
Summary

"Though Kodaly and Orff worked independently of each other and under different conditions, their methods have much in common and both are based on what is enduring in traditional education." Both Orff and Kodaly were composers who understood the learning process and how the essential concepts of music are best presented to children. They both emphasized that children should experience music through the active process of music making. Each man, in his own way, worked to develop "rhythmic and melodic disciplines, musical form, and listening skills." Musical material for both approaches is taken from nursery rhymes, folk songs, composed music for children, and standard vocal and instrumental literature. Individual development, creativity, discipline, and sensitivity are encouraged through cooperation with and participation in an ensemble.

Although the two approaches have many elements in common and may be combined effectively, Denise Bacon cautions that there are definite differences that must be honored. The Orff philosophy would lose its main intent if one were to try to make it sequential. Kodaly's approach taught without the sequence would prove fruitless. Also trying to take the best ideas from each would result in losing something in both. Creative and well-trained teachers in both approaches may successfully combine some elements of each in the individual classrooms. School systems should not encourage this unless that well-trained teacher is there.

The central aim of the philosophies of both Orff and Kodaly is the same—to develop musically literate audiences and to encourage the growth of the sensitive awareness of each child. To this end, each approach has limitless importance to the future of elementary music education.
Notes


6 Ibid.

7 Sheehy, p. 2.


11 Leonhard and House, p. 121.


13 Ibid., p. 32.


15 Bruner, p. 42.

16 Ibid., p. 6.

18Ibid., p. 9.


20Wolff, p. 19.

21Leonhard and House, p. 145.

22Bruner, p. 53.


24Choate, p. 15.


28Ibid.


30Ibid., p. 5.  
31Ibid., pp. 7-8.

32Liess, p. 57.  
33Ibid.

34Lane, p. 57.


36Liess, p. 60.

37Lane, p. 57.


40Ibid.


Ibid.

Ibid., pp. 172-174.


Ibid.

Ibid., p. 5.

Keller, p. 27.


Keller, p. 27.


Keller, p. 6.

Orff, p. 4.


Ibid., p. 6.


Ibid., p. 144.

Ibid., p. 150.


Orff, p. 7.

6^Nash, p. 93.


6^Ibid., p. iii.


6^Choksy, p. 23.


6^Choksy, pp. 8-9.


6^Choksy, p. 15.


6^Choksy, pp. 17-18.

6^Ibid., p. 17.

6^Ibid., pp. 16-18.


6^Erzsebet Szonyi, p. 22.

6^Choksy, p. 28.

6^Ibid., pp. 20-21.


6^Kokas, pp. 50-51.


6^Ibid., p. 53

6^Erzsebet Szonyi, p. 30.

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88 Ibid.
95 Richards, p. 47.
99 Kaplan, p. 12.
100 Bacon, "Kodaly in U.S.," p. 204.
101 Kaplan, p. 13.
104 Ibid., p. 19.
105 Denise Bacon, "Kodaly and/or Orff?" Music Educators Journal, April 1970, p. 17.
CHAPTER III
THE RESEARCH DESIGN AND DEVELOPMENT OF THE STUDY

Introduction

The experimental approach to research was used in this study. Experimental and control groups were used for the experiment, and the nonequivalent control group design developed by Stanley and Campbell1 was the basis for the study. Pretests and posttests were given to each subject, and an analysis of covariance was used as the statistical procedure as suggested in the design. A t-test was also used to provide more information about the data. The purpose of the study was to measure musical achievement of fourth and fifth grade students using the Memphis City Schools Curriculum Guide (an Orff-Kodaly approach) and those using the more traditional approach of the songbook series, Exploring Music.

Preliminary Observations

Before beginning the study, the investigator talked with school officials of the Buncombe County School System, Asheville, North Carolina, to ascertain what schools would be receptive to the use of the study in their music program and were large enough to supply a sizeable student population in the fourth and fifth grades. Mrs. Dorothy Hampton, Cultural Arts Co-ordinator for Buncombe County Schools was consulted concerning the logistics of the study. She contacted the Superintendent's office and the principals concerned and obtained permission for the study to be
conducted in the following schools. (See letter, Appendix C) Beaver-ville Elementary Schools (Primary and Middle) were chosen for the study. The fourth and fifth grade levels were chosen because norms for the Music Achievement Tests, used for the pre- and posttests, were either not given or were not validated for all tests below the fourth grade level.

After an interview with Mr. Robert Embler, principal of the Beaver-ville Middle School, the investigator determined that the students of this school district were from the same socio-economic background which is primarily rural. All subjects participating in this study were white male and female; there were no minority groups represented in these two grade levels at these schools.

The experimental teaching method was devised from the Memphis City Schools Curriculum Guide. This guide was chosen because of the documented success of the Memphis music program and because of the incorporation of the Orff and Kodaly approaches to elementary music education. The teaching philosophies of both men are becoming more important to elementary music education in the United States. Permission for use of the Memphis Guide was obtained from Ms. Nancy Ferguson, Music Specialist, Memphis City Schools. (See letter, Appendix C) The Exploring Music text was chosen for the control group because of the minimum program outlined for each grade level and because it is a state-adopted text in North Carolina and readily available to all students.

The Main Study

Subjects

The students chosen for the study were from the fourth and fifth.
grades of the Weaverville Elementary Schools, Weaverville, North Carolina. The number of fifth grade students involved in the study at the beginning of the year was 128, divided among four classes; the number of fourth grade students was 109, divided among four classes. The fourth grade was made up of five classrooms for the 1979-80 school year, but one class was not used in the study so that the total number of classrooms for the experimental and control groups would be equal. Children were arbitrarily assigned to the home rooms at the beginning of the year, and the individual classes were randomly assigned to a teaching method intact.³

Four classes, two fourth grade classes and two fifth grade classes, were chosen for the experimental group and the other four classes formed the control group. A total of 237 students initially participated in the study with 119 students in the experimental group and 118 students in the control group.

Lesson plans were prepared for each grade level in the experimental group (Appendix A) and control group (Appendix B) using materials and suggested lesson plans for the appropriate age. Each class was taught by the investigator once a week for thirty minutes. The study was designed for eighteen weeks which resulted in eighteen lessons for each group.

A letter of permission for students to participate in the study was sent to the parents or guardian of each child in each class the first week of school (August 13, 1979). (See letter, Appendix C) The letters were signed and returned to the homeroom teacher and, in turn, to the investigator. A musical background survey of each student was taken to determine previous musical experience such as piano or instrumental lessons, parents' musical interests, and previous school or church music experiences.
Private piano lessons appeared to be the only factor at this age that might be relevant to this study and was included in the data as a variable. (See survey, Appendix C)

The Test

The Music Achievement Tests (MAT) developed by Richard Colwell\textsuperscript{4} were chosen for use as the pretest and posttest given in this study as a measure of the musical achievement of the students involved in the study. The MAT was chosen over other music achievement tests because "the rationale behind the development of MAT is that music in the schools has content which is universally basic and which can be easily measured."\textsuperscript{5} This content is not necessarily factual knowledge but a set of skills and understandings that a student should obtain as he participates in music making. The skills stressed in these tests are auditory development.

The development of the tests was begun in 1962. Colwell's primary intent was to develop "tools for appraisal"\textsuperscript{6} of music teaching and musical learning that were lacking in American public schools. The purpose of the tests was to measure individual achievement and not to evaluate given courses. The content of the tests was based on objectives for music education already in existence. One reason for this choice of materials was that establishing any new objectives for teaching could imply that the writers of the test were dictating the content of what should be taught to the teacher. From this statement comes a highly practical reason for basing the test development on existing objectives: "... if test items do not realistically reflect what is being taught, it becomes impossible to standardize the achievement test."\textsuperscript{7}
Establishing the validity of any test is most important to the credibility and consistency of the test results for use in the schools. Content validity was considered viable for setting up the table of specifications for MAT. A standardized achievement test is invalid if it is not possible to find agreement on objectives for various levels of the music program. Most elementary music series contain lists of objectives for the music program, outlined on a grade-by-grade basis, and, if the objectives are not stated, they may be implied by a study of the pupils' books.

"Content validity for MAT was established by a search of music series texts (which revealed a strong similarity among programs), the college texts on elementary music, publications of the Music Educators National Conference, the writings of psychologists such as Rosamund Shuter, and a conference of experts." The attempt was to agree on items of learning that were truly widespread, whether or not they were the most important items, or the most musical. The final standardization of MAT 1 and 2 was based on returns from 21,000 students.

The following description of the individual tests was taken from the respective interpretive manuals for the tests mentioned. The first two tests of MAT are designed for measuring achievement in the upper elementary grades, although they are not inappropriate for older ages and are widely used in high school and college situations (norms are given for elementary grades through high school). MAT 3 and 4 are constructed from objectives for junior high general music programs, performance groups, and upper elementary music books and programs. The standardization sample for these two tests was almost 19,000 students, approximately 10,000 for Test 3 and 9,000 for Test 4.
The reliability, or consistency of measurement of a test, is a major concern for any teacher. Knowing the reliability formulas for a test gives the teacher confidence that his students will perform nearly the same whenever they take the test taking into consideration how variable students are from day to day depending on how they feel, what is going on in other classes, and so forth. A well constructed test can do much to minimize these extraneous factors.

The reliability of MAT Tests 1 and 2 was computed by: 1) split-half reliability and 2) Kuder-Richardson (KR) formula 21. Total reliability of MAT as computed by Kuder-Richardson 21 is .951, standard deviation 28.08. KR 21 has been proven to give a low estimate of the true reliability of MAT. KR 14, a more appropriate formula, split-half, and test-retest consistently provide higher reliability estimates. KR 21 is reported because it is available for every part of the test. Tables of grade level reliability coefficient and standard error of measurement are given in the MAT Tests 1 and 2 Interpretive Manual.

The reliability of MAT Tests 3 and 4 was also computed by Kuder-Richardson formula 21. Again, low estimates were obtained and formula KR 14 consistently provides a higher estimate of reliability. Tables of reliability coefficient by grade level and standard error of measurement are found in the MAT Tests 3 and 4 Interpretive Manual.

Item difficulty shows the percentage of pupils who answer any one item correctly. Item discrimination indicates the power of a test item to differentiate between pupils who have achieved well and those who have not achieved. Item Analysis tables are given for all test and subtest questions in the Interpretive Manuals for the respective tests.
Each individual test of the MAT is divided into subtests dealing with specific areas of learning. The MAT is basically a test of auditory development with two subtests incorporating the use of notation. The tests are given from recordings, and each student has an answer sheet for each individual test. All instructions are included on the recording and are also given in the instruction booklets and manuals that accompany the tests. The auditory-visual (notation) subtests of Test 2 and 3 were not used in this study because the students participating had had little music background and mastery of music notation was not a primary aim of either of the teaching methods used. For similar reasons, Test 4 was not used in this study because the material covered in the test did not directly apply to the teaching materials presented in the study.

A brief summary of each subtest follows:

Test 1
Part 1 - Pitch Discrimination
Subtest a - determine which of two tones is higher or if they stay the same
Subtest b - determine which of three tones is lower

Part 2 - Interval Discrimination
Subtest a - determine if three tones move by step or by leap
Subtest b - determine if a musical phrase moves by step or by leap

Part 3 - Meter Discrimination
determine whether music moves in duple or triple meter ("two's or three's")

Test 2
Part 1 - Major/Minor Mode Discrimination
Subtest a - determine if two chords are both major or both minor
Subtest b - determine if a musical phrase is major or minor

Part 2 - Feeling for Tonal Center

Subtest a - determine the key center of a progression of four chords
Subtest b - determine the key tone (center) of a musical phrase

Test 3

Part 1 - Tonal Memory

determine which note in a solid four-note chord is changed when the chord is arpeggiated

Part 2 - Melody Recognition

determine which part of a three-part ensemble is playing the melody which is first played alone

Part 4 - Instrument Recognition

Subtest a - identify which orchestral instrument is playing a short solo
Subtest b - identify the solo instrument playing in an orchestral excerpt

The tests may be scored by machine or by hand. The tests were scored by hand for this study. Results were recorded by the raw scores which may be translated into percentile ranks by tables given by grade level in the interpretive manuals. Raw scores were used for all data recorded for this study.

The Procedure

The pretest (MAT 1, 2, and 3) was given September 5-7, 1979, during morning school hours to the fourth and fifth grades separately. The tests
were administered by the investigator in the schools' cafeterias. Every effort was made to create a quiet and effective testing environment. Although these facilities were not ideal, they were all that were available. Classes began the following week and continued with no breaks except for regular school holidays through January 29, 1980, when the study was scheduled to end.

The posttest was scheduled to begin immediately following the conclusion of the experiment, but, due to inclement weather which resulted in the public schools being closed the end of January and much of February, the posttest was postponed. The tests were given March 12-14, 1980. During the five weeks between the final scheduled class session and the posttest, both the experimental and control groups for the fourth and the fifth grades received four additional lessons. No new material was introduced; lessons were based on activities begun during the eighteen-week study.

The lessons for the experimental group (Appendix A) were developed from the Memphis Curriculum Guide, using basic suggestions for the fourth and fifth grade levels and supplementing with appropriate materials, songs, and activities as necessary. These materials were taken from books and music found in the Mars Hill College Music Library and the personal library of the investigator. A set of Orff instruments belonged to each of the two schools and were used throughout the eighteen weeks. Other classroom instruments, including the autoharp and the recorder (for the fifth grade students), were also incorporated into the lessons. Recordings, charts, and listening activities were used in the study of orchestral instruments. Singing and movement activities were part of
most lessons.

One problem which affected the number of instruments, recordings, and other materials that were used in a given lesson was that there was no music room. All lessons were taught in the individual classrooms, and all the instruments and other materials had to be moved from room to room by the teacher and student helpers. This did not hinder the use of the Orff instruments but did necessitate careful planning for any given day.

The lessons for the control group (Appendix B) were developed from the minimum program outlined in the fourth and fifth grade teachers' edition of *Exploring Music*. The program is based on selected songs in the book and activities developed from these songs and some other activities. There are many guided listening activities designed to develop aural perception of melody, rhythm, tone color, and expression. These lessons also included work with instruments such as the glockenspiel, autoharp, and the recorder (fifth grade only). The recordings for the series were excellent and formed an integral part of each lesson as designated in the teachers' materials for that lesson. Again, classes were taught in the classrooms, but moving instruments and other materials was not as great a problem for these lessons.
Notes


2Music Curriculum for Memphis City Schools, E.S.E.A. PL 89-10 (Statistical and Progress Report, November 8, 1971).

3Campbell and Stanley, pp. 48-49.


5Ibid., p. 9.


7Colwell, Interpretive Manual, p. 10.

CHAPTER IV

ANALYSIS AND DISCUSSION

OF THE DATA

Introduction

The purpose of this chapter was to compare pretest data to published norms for each subtest, to compare posttest data to published norms for each subtest, and to compare pretest and posttest data. All comparisons were made with fourth and fifth grade norms as indicated by the particular group under consideration. No statistical comparisons were made across grade levels.

The Statistical Package for the Social Sciences (SPSS) t-test and analysis of variance procedures were used to make statistical comparisons of raw test data. The particular programs for this study were prepared with the assistance of Dr. Larry Stern of the Social Science Department, Mars Hill College, Mars Hill, North Carolina, and the Louisiana State University Department of Experimental Research.

Analysis of the Data

Pretest Data

The pretest data were derived from the fourth and fifth grade students' scores on the Music Achievement Tests (MAT) prior to exposure to the different teaching methods of this study. This information allowed

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the investigator to compare the beginning level of musical achievement of the students involved in the study with MAT published norms (grades four and five) and to compare the relative musical achievement of the control and experimental groups on each grade level.

Table 1 gives the mean scores for the fourth grade experimental and control groups together with the fourth grade published norms for the MAT on the subtests used for this study. A comparison of the three columns shows that the students in this study generally scored lower than the MAT norms on all the subtests and the total score for Test 1. The experimental group did score higher than the norm for the MAT on the tonal memory subtest.

The classes were assigned randomly to the two groups, and the means for the experimental and control groups should be very close. Table 2 gives the results of a statistical procedure (t-test) performed on the raw data to derive the F values and levels of significance between the means of the two groups. The experimental group excelled in the pitch discrimination, interval discrimination, meter discrimination, feeling for tonal center, tonal memory, melody recognition, and instrument recognition subtests and the total score for Test 1. The control group excelled on the major-minor mode discrimination subtest. Table 2 shows that there is a statistically significant difference between the two groups on two subtests, tonal memory and melody recognition.

Table 3 gives the means for the experimental and control groups and for the indicated MAT subtests for the fifth grade. Both groups of students, comprising the total number of students involved in the study on the fifth grade level, scored below the published norms of the MAT.
# TABLE 1

**SIMPLE STATISTICS FOR GROUP MEANS COMPARED TO MAT PUBLISHED NORMS**

4th GRADE - PRETEST

<table>
<thead>
<tr>
<th>Subtest</th>
<th>MAT Mean</th>
<th>Exp. Means N=55</th>
<th>Cont. Means N=54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>14.97</td>
<td>11.81</td>
<td>10.29</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>14.71</td>
<td>12.04</td>
<td>11.38</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>15.34</td>
<td>12.70</td>
<td>12.62</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>45.02</td>
<td>36.56</td>
<td>34.44</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>14.40</td>
<td>11.80</td>
<td>11.96</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>6.24</td>
<td>6.15</td>
<td>5.65</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>5.86</td>
<td>6.17</td>
<td>5.06</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>7.42</td>
<td>7.24</td>
<td>6.47</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>4.51</td>
<td>4.31</td>
<td>3.75</td>
</tr>
</tbody>
</table>
### TABLE 2

**GROUP MEANS, F VALUES, AND LEVELS OF SIGNIFICANCE**

4th GRADE - PRETEST

<table>
<thead>
<tr>
<th>Subtest</th>
<th>Exp. Means</th>
<th>Cont. Means</th>
<th>F values</th>
<th>Prob. F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=55</td>
<td>N=54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pitch Dis.</td>
<td>11.81</td>
<td>10.29</td>
<td>1.38</td>
<td>0.249</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>12.04</td>
<td>11.38</td>
<td>1.21</td>
<td>0.487</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>12.70</td>
<td>12.62</td>
<td>1.43</td>
<td>0.202</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>36.56</td>
<td>34.44</td>
<td>1.48</td>
<td>0.160</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>11.80</td>
<td>11.96</td>
<td>1.51</td>
<td>0.134</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>6.15</td>
<td>5.65</td>
<td>1.32</td>
<td>0.314</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>6.17</td>
<td>5.06</td>
<td>2.18</td>
<td>0.006</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>7.24</td>
<td>6.47</td>
<td>1.96</td>
<td>0.018</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>4.31</td>
<td>3.75</td>
<td>1.29</td>
<td>0.361</td>
</tr>
</tbody>
</table>

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### TABLE 3

**SIMPLE STATISTICS FOR GROUP MEANS COMPARED TO MAT PUBLISHED NORMS**

**5th GRADE - PRETEST**

<table>
<thead>
<tr>
<th>Subtest</th>
<th>MAT Mean</th>
<th>Exp. Means N=64</th>
<th>Cont. Means N=64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>16.39</td>
<td>13.22</td>
<td>12.90</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>15.18</td>
<td>12.94</td>
<td>12.49</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>15.86</td>
<td>14.63</td>
<td>13.93</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>47.43</td>
<td>40.79</td>
<td>39.29</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>14.82</td>
<td>12.17</td>
<td>12.39</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>6.77</td>
<td>5.77</td>
<td>5.42</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>7.94</td>
<td>6.40</td>
<td>6.02</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>8.06</td>
<td>7.08</td>
<td>7.05</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>5.06</td>
<td>4.66</td>
<td>4.84</td>
</tr>
</tbody>
</table>
These classes were also randomly assigned to the treatment. The means of the two groups were statistically compared through a t-test procedure to determine $F$ values and levels of significance between the means. Table 4 shows that the experimental group excelled on the pitch discrimination, interval discrimination, meter discrimination, feeling for tonal center, tonal memory, and melody recognition subtests and the total score for Test 1. The control group excelled on the major-minor mode discrimination and instrument recognition subtests. Table 4 also shows that there is a statistically significant difference between the two groups on one subtest, major-minor mode discrimination.

Posttest Data

The posttest data were derived from the students' scores on the MAT after exposure to the different teaching methods used in the study. The information was used to compare the students' achievement to the MAT norms for the fourth and fifth grades and to compare the relative musical achievement of the experimental and control groups.

Tables 5 and 6 show the posttest scores from all subtests for the fourth and fifth grade students in the study (experimental and control groups) and the MAT published norms for these grade levels. Table 5 shows that the students in the fourth grade groups scored generally lower than the MAT norms as they did on the pretest. However, both the control groups did score higher than the MAT norm on the tonal memory subtest.

Table 6 shows the posttest means for the fifth grade experimental and control groups and the MAT norms for that grade. Neither of the fifth grade groups scored higher than the MAT published means on any subtest.

The difference between pre- and posttest scores for the fourth grade
<table>
<thead>
<tr>
<th>Subtest</th>
<th>Exp. Means N=64</th>
<th>Cont. Means N=64</th>
<th>F values</th>
<th>Prob. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>13.22</td>
<td>12.90</td>
<td>1.16</td>
<td>0.572</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>12.94</td>
<td>12.49</td>
<td>1.02</td>
<td>.927</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>14.63</td>
<td>13.93</td>
<td>1.20</td>
<td>.485</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>40.79</td>
<td>39.29</td>
<td>1.04</td>
<td>.870</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>12.17</td>
<td>12.39</td>
<td>1.98</td>
<td>.007</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>5.77</td>
<td>5.42</td>
<td>1.21</td>
<td>.448</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>6.40</td>
<td>6.02</td>
<td>1.11</td>
<td>.690</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>7.08</td>
<td>7.05</td>
<td>1.12</td>
<td>.649</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>4.66</td>
<td>4.84</td>
<td>1.08</td>
<td>.751</td>
</tr>
</tbody>
</table>
TABLE 5

SIMPLE STATISTICS FOR GROUP MEANS COMPARED TO

MAT PUBLISHED NORMS

4th GRADE - POSTTEST

<table>
<thead>
<tr>
<th>Subtest</th>
<th>MAT Mean</th>
<th>Exp. Means N=55</th>
<th>Cont. Means N=54</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>14.97</td>
<td>12.78</td>
<td>12.26</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>14.71</td>
<td>10.98</td>
<td>10.46</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>15.34</td>
<td>12.07</td>
<td>12.00</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>45.02</td>
<td>35.89</td>
<td>34.72</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>14.40</td>
<td>13.64</td>
<td>11.96</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>6.24</td>
<td>6.09</td>
<td>5.39</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>5.86</td>
<td>6.33</td>
<td>6.00</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>7.42</td>
<td>6.73</td>
<td>6.17</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>4.51</td>
<td>3.78</td>
<td>3.72</td>
</tr>
</tbody>
</table>
TABLE 6

SIMPLE STATISTICS FOR GROUP MEANS COMPARED TO MAT PUBLISHED NORMS

5th GRADE - POSTTEST

<table>
<thead>
<tr>
<th>Subtest</th>
<th>MAT Mean</th>
<th>Exp. Means N=64</th>
<th>Cont. Means N=64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>16.39</td>
<td>12.72</td>
<td>13.39</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>15.18</td>
<td>11.66</td>
<td>11.69</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>15.86</td>
<td>13.88</td>
<td>14.56</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>47.43</td>
<td>37.77</td>
<td>39.64</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>14.82</td>
<td>11.33</td>
<td>13.03</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>6.77</td>
<td>5.97</td>
<td>6.30</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>7.94</td>
<td>5.95</td>
<td>6.48</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>8.06</td>
<td>6.86</td>
<td>6.22</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>5.06</td>
<td>4.58</td>
<td>4.55</td>
</tr>
</tbody>
</table>

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experimental and control groups is shown in Table 7. The experimental group showed gain in the scores for the pitch discrimination, major-minor mode discrimination, and tonal memory subtests. The scores on the other subtests showed regression from the pretest to the posttest.

The fourth grade control group showed gain from the pretest to the posttest in the pitch discrimination and tonal memory subtests and the total score for Test 1. The mean for the major-minor mode discrimination subtest was the same for the control group for both the pretest and the posttest.

Table 8 shows the means for the fourth grade experimental and control groups and the $F$ values and level of significance between the two groups derived from a statistical procedure (t-test). The experimental group's scores excelled the control group's scores on all subtests and the total score for Test 1. However, no statistical significance was found between the scores for the two groups on any of the subtests.

The difference between the pre- and posttest scores for the fifth grade experimental and control groups is shown in Table 9. The experimental group showed gain in the posttest score for the feeling for tonal center subtest. All other subtest scores showed regression from the pretest scores. The control group showed some gain on the posttest scores for the pitch discrimination, meter discrimination, major-minor mode discrimination, feeling for tonal center, and tonal memory subtests. Regression from the pretest scores was registered for the interval discrimination, melody recognition, and instrument recognition subtests.

Fifth grade experimental and control group posttest means are compared in Table 10. A statistical procedure (t-test) was used to determine
TABLE 7

DIFFERENCE BETWEEN POSTTEST AND PRETEST MEANS OF
THE EXPERIMENTAL AND CONTROL GROUPS - 4th GRADE

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Post</td>
<td>12.78</td>
<td>10.98</td>
<td>12.07</td>
<td>35.89</td>
<td>13.64</td>
<td>6.09</td>
<td>6.33</td>
<td>6.73</td>
</tr>
<tr>
<td>Experimental</td>
<td>11.81</td>
<td>12.04</td>
<td>12.70</td>
<td>36.56</td>
<td>11.80</td>
<td>6.15</td>
<td>6.17</td>
<td>7.24</td>
</tr>
<tr>
<td>Diff.</td>
<td>.97</td>
<td>-1.06</td>
<td>-.63</td>
<td>-.67</td>
<td>1.84</td>
<td>-.06</td>
<td>.16</td>
<td>-.51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Post</td>
<td>12.26</td>
<td>10.46</td>
<td>12.00</td>
<td>34.72</td>
<td>11.96</td>
<td>5.39</td>
<td>6.00</td>
<td>6.17</td>
</tr>
<tr>
<td>Control</td>
<td>10.29</td>
<td>11.38</td>
<td>12.62</td>
<td>14.44</td>
<td>11.96</td>
<td>5.65</td>
<td>5.06</td>
<td>6.48</td>
</tr>
<tr>
<td>Diff.</td>
<td>1.97</td>
<td>-.92</td>
<td>-.62</td>
<td>.28</td>
<td>.00</td>
<td>-.26</td>
<td>.94</td>
<td>-.31</td>
</tr>
</tbody>
</table>
TABLE 8

GROUP MEANS, T VALUES, AND LEVELS OF SIGNIFICANCE

4th GRADE - POSTTEST

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>12.78</td>
<td>12.26</td>
<td>1.01</td>
<td>0.970</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>10.98</td>
<td>10.46</td>
<td>1.16</td>
<td>0.584</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>12.07</td>
<td>12.00</td>
<td>1.15</td>
<td>0.612</td>
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<tr>
<td>Total, Test 1</td>
<td>35.89</td>
<td>34.72</td>
<td>1.14</td>
<td>0.633</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>13.64</td>
<td>11.96</td>
<td>1.46</td>
<td>0.172</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>6.09</td>
<td>5.39</td>
<td>1.46</td>
<td>0.168</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>6.33</td>
<td>6.00</td>
<td>1.47</td>
<td>0.163</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>6.73</td>
<td>6.17</td>
<td>1.29</td>
<td>0.355</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>3.78</td>
<td>3.72</td>
<td>1.19</td>
<td>0.518</td>
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</tbody>
</table>
### TABLE 9

DIFFERENCE BETWEEN POSTTEST AND PRETEST MEANS OF

THE EXPERIMENTAL AND CONTROL GROUPS - 5th GRADE

<table>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post</td>
<td>12.72</td>
<td>11.66</td>
<td>13.88</td>
<td>37.77</td>
<td>11.33</td>
<td>5.97</td>
<td>5.95</td>
<td>6.86</td>
<td>4.58</td>
</tr>
<tr>
<td>Pre</td>
<td>13.22</td>
<td>12.94</td>
<td>14.63</td>
<td>40.79</td>
<td>12.17</td>
<td>5.77</td>
<td>6.40</td>
<td>7.08</td>
<td>4.66</td>
</tr>
<tr>
<td>Diff.</td>
<td>-0.50</td>
<td>-1.28</td>
<td>-0.75</td>
<td>-3.02</td>
<td>-0.84</td>
<td>0.20</td>
<td>-0.45</td>
<td>-0.22</td>
<td>-0.08</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre</td>
<td>12.90</td>
<td>12.49</td>
<td>13.93</td>
<td>39.29</td>
<td>12.39</td>
<td>5.42</td>
<td>6.02</td>
<td>7.05</td>
<td>4.84</td>
</tr>
<tr>
<td>Diff.</td>
<td>0.49</td>
<td>-0.80</td>
<td>0.63</td>
<td>0.35</td>
<td>0.64</td>
<td>0.88</td>
<td>0.46</td>
<td>-0.83</td>
<td>-0.29</td>
</tr>
</tbody>
</table>
TABLE 10

GROUP MEANS, F VALUES, AND LEVELS OF SIGNIFICANCE

5th GRADE - POSTTEST

<table>
<thead>
<tr>
<th>Subtest</th>
<th>Exp. Means N=64</th>
<th>Cont. Means N=64</th>
<th>F values</th>
<th>Prob. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch Dis.</td>
<td>12.72</td>
<td>13.39</td>
<td>1.02</td>
<td>0.929</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>11.66</td>
<td>11.69</td>
<td>1.24</td>
<td>.388</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>13.88</td>
<td>14.56</td>
<td>1.19</td>
<td>.500</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>37.77</td>
<td>39.64</td>
<td>1.06</td>
<td>.830</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>11.33</td>
<td>13.03</td>
<td>1.32</td>
<td>.270</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>5.97</td>
<td>6.30</td>
<td>1.59</td>
<td>.067</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>5.95</td>
<td>6.48</td>
<td>1.05</td>
<td>.858</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>6.86</td>
<td>6.22</td>
<td>1.24</td>
<td>.397</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>4.58</td>
<td>4.55</td>
<td>1.13</td>
<td>.633</td>
</tr>
</tbody>
</table>

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the F values and level of significance between the group means. The experimental group means exceeded the control group means on the melody recognition and instrument recognition subtests. The control group scored higher than the experimental group on all other subtests given in the posttest. No significant difference was registered between the means of the experimental and control groups on any subtest.

**Posttest Adjustment Procedures**

The posttest data was subjected to an analysis of covariance procedure as suggested by Stanley and Campbell. Analysis of covariance allows for covariates (in this study the pretest and the sex of the subjects) "to be inserted into a design to remove extraneous variations from the dependent variable (in this study the posttest). Regression procedures are used to remove variation in the dependent variable due to one or more covariates, and a conventional analysis of variance is then performed on the 'corrected' scores."2

The analysis of covariance procedure is a method of testing the experimental variable when matching is not possible for assigning subjects to the experimental treatment. The subjects in this study were taken as intact groups (whole classrooms), and the adjustment or "correction" of the posttest scores allows the test scores, pre- and posttest, to be considered as equally valid for the data processing and reporting.

The ANOVA procedure (SPSS analysis of variance and covariance) for this study was performed with the posttest scores as the dependent variable, the teaching method as the independent variable, and the pretest scores and sex of the subjects as the covariates. Each posttest score was subjected to analysis by the teaching method, its corresponding pre-
test score, and the sex of the subjects. The posttest scores for the fourth and fifth grade groups were treated separately.

Table 11 gives the F values and level of significance between the fourth grade posttest scores ("corrected" by the ANOVA procedure) and the teaching method, the corresponding pretest score, and the sex of the subjects. No significance was found between the adjusted posttest scores of the two groups and the teaching method. A .001 level of significance was recorded between the posttest adjustment and the pretest covariate for the two groups on the melody recognition subtest. The level of significance approached the .01 level for the pretest covariate on the instrument recognition subtest.

The level of significance approached the .05 level for the sex covariate on the major-minor mode discrimination subtest. The .01 level of significance was approached for the sex covariate on the feeling for tonal center subtest.

The results for the ANOVA procedure performed on the fifth grade posttest scores is recorded in Table 12. The F values and level of significance between the "corrected" posttest scores and the teaching method, the corresponding pretest score, and the sex of the subject is given. The .001 level of significance was approached for the posttest/teaching method interaction on the major-minor mode discrimination subtest. The .01 level of significance was approached for the pretest covariate on the feeling for tonal center subtest. A high level of significance (.001) was recorded for the pretest covariate on the instrument recognition subtest. The .01 level of significance was approached for the sex covariate on the feeling for tonal center subtest, and the .05 level of significance
<table>
<thead>
<tr>
<th>Subtest</th>
<th>Teaching Method</th>
<th>Pretest Score</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F value</td>
<td>Prob. F</td>
<td>F value</td>
</tr>
<tr>
<td>Pitch Dis.</td>
<td>0.767</td>
<td>0.383</td>
<td>17.218</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>0.038</td>
<td>0.845</td>
<td>2.087</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>0.292</td>
<td>0.590</td>
<td>2.823</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>0.184</td>
<td>0.669</td>
<td>0.632</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>1.811</td>
<td>0.181</td>
<td>3.490</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>.327</td>
<td>.569</td>
<td>3.171</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>.757</td>
<td>.386</td>
<td>19.223</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>.059</td>
<td>.809</td>
<td>12.852</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>.079</td>
<td>.780</td>
<td>4.375</td>
</tr>
</tbody>
</table>
### TABLE 12

**F VALUES AND LEVELS OF SIGNIFICANCE FOR POSTTEST ADJUSTMENT BY TEACHING METHOD, PRETEST, AND SEX - 5th GRADE**

<table>
<thead>
<tr>
<th>Subtest</th>
<th>Teaching Method</th>
<th>Pretest Score</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>F value</strong></td>
<td><strong>Prob. F</strong></td>
<td><strong>F value</strong></td>
</tr>
<tr>
<td>Pitch Dis.</td>
<td>1.955</td>
<td>0.165</td>
<td>75.952</td>
</tr>
<tr>
<td>Interval Dis.</td>
<td>0.196</td>
<td>0.658</td>
<td>2.942</td>
</tr>
<tr>
<td>Meter Dis.</td>
<td>1.492</td>
<td>0.224</td>
<td>2.378</td>
</tr>
<tr>
<td>Total, Test 1</td>
<td>2.641</td>
<td>0.107</td>
<td>22.903</td>
</tr>
<tr>
<td>Mode Dis.</td>
<td>7.171</td>
<td>0.008</td>
<td>0.596</td>
</tr>
<tr>
<td>Tonal Center</td>
<td>1.061</td>
<td>0.305</td>
<td>6.249</td>
</tr>
<tr>
<td>Tonal Mem.</td>
<td>2.054</td>
<td>0.154</td>
<td>29.997</td>
</tr>
<tr>
<td>Melody Rec.</td>
<td>0.890</td>
<td>0.347</td>
<td>3.321</td>
</tr>
<tr>
<td>Instr. Rec.</td>
<td>0.000</td>
<td>0.990</td>
<td>11.128</td>
</tr>
</tbody>
</table>
was approached for the sex covariate on the melody recognition pretest.

Significant changes were recorded in four subtests on the fourth grade level and four subtests on the fifth grade level for the pretest and sex covariates. No significance was found, however, for the teaching method interaction on either grade level.

Discussion

The results of the study suggest several points that may be further analyzed. The experimental groups for both the fourth and fifth grades scored higher on most subtests of the pretest, and significant differences were registered for the tonal memory and melody recognition subtests for the fourth grade subjects and the major-minor mode discrimination subtest for the fifth grade subjects. Posttest scores registered regression for both the fourth and fifth grade experimental and control groups, but the fourth grade groups show more evenly divided gain and loss scores than the fifth grade group.

The fourth grade experimental group registered gain from the pretest score on the posttest score for the pitch discrimination, major-minor mode discrimination, and tonal memory subtests. The control group for the fourth grade registered gain for the posttest scores on the pitch discrimination, total score for Test 1, and the tonal memory subtests with the pre- and posttest scores for the major-minor mode discrimination subtest remaining the same. No significance was determined between any of the pre- and posttest scores of either group. Overall, the posttest scores for the fourth grade experimental group were higher for all subtests than the control group. However, no significance was registered between the posttest scores for the two groups.
The fifth grade control group registered gain from the pretest scores for the posttest scores on the pitch discrimination, meter discrimination, total for Test 1, major-minor mode discrimination, feeling for tonal center, and tonal memory subtests. The fifth grade experimental group showed gain from the pretest scores for the posttest score on the feeling for tonal center subtest. No significance was registered between the pre- and posttest scores for either the experimental or the control groups.

The fifth grade control group scored higher than the experimental group on the posttest for the pitch discrimination, interval discrimination, meter discrimination, total for Test 1, major-minor mode discrimination, feeling for tonal center, and the tonal memory subtests. The experimental group scored higher on the posttest on the melody recognition and instrument recognition subtests. No significance was registered between the posttest scores for the experimental and control groups.

The adjusted data (ANOVA procedure) show significance in pre- and posttest scores on both the fourth and fifth grade level (fourth grade: melody recognition and instrument recognition; fifth grade: feeling for tonal center and instrument recognition). Also, significance was registered between male and female subjects on two subtests for the fourth grade level (major-minor mode discrimination and feeling for tonal center) and two subtests on the fifth grade level (feeling for tonal center and melody recognition). Significant difference was registered for the teaching method interaction between only one posttest score on either grade level, the fifth grade major-minor mode discrimination subtest.

Test results indicate that the fourth grade subjects exposed to
both teaching methods showed some gain in certain areas on the posttest. These students were, overall, more responsive in the classroom. Their performance during the lessons, especially the experimental group, was more positive than was reflected by the test scores in the areas of identifying pitches and feeling for different meters. These children were not familiar with standardized testing and had some difficulty, on both the pretest and posttest, in understanding the instructions given for each subtest and in marking the answer sheets.

Pretest and posttest scores for the fifth grade students show a marked difference between the experimental and control groups. The experimental group scored higher than the control group on all but two subtests on the pretest, and the control group scored higher on all but two subtests on the posttest. These scores reflect to an extent the performance of both groups in the classroom. The fifth grade classes were less responsive to the actual classroom presentations in both teaching methods than the fourth grade students were. These classes were more crowded and the classroom teachers' attitudes were less supportive than those of the fourth grade teachers. None of the teachers actually performed any teaching, but the general attitude was apparent in pupil readiness and involvement in the music lessons. This was most important since the investigator did not teach in the schools on a full-time basis and was there only during the lesson time for each class.

The material that was tested by the MAT was covered by both teaching methods to varying degrees, although some of the terminology was
different. The lessons that were taken from the songbook series used by
the control group emphasized listening to songs and instrumental examples
and identifying form, mode, instruments, and so forth. All the teaching
materials were readily available in the songbook series' student and
teacher books and the recordings accompanying the series.

The teaching materials for the experimental group were chosen from
many different sources. Activities developed from the Memphis Curriculum
Guide for this method emphasized aural development, singing (unaccompanied
and accompanied), playing instruments, and creative movement. The
MAT subtests that were chosen for use in this study deal with aural de-
development. The specific activities and materials used in the Orff-Kodaly
philosophies are left up to the individual teachers. A test which mea-
sures the creative aspects of the Memphis Curriculum would be useful in
addition to a test like the MAT which measures aural development in spec-
ific areas (e.g., pitch, interval, meter, and so forth).

Another factor that may have affected the results of the posttest
was the postponing of the posttest because of inclement weather. Although
lessons were continued until March when the posttest was given, they were
sporadically scheduled because of the weather. The students became in-
creasingly lethargic and apathetic about school in general as the winter
wore on due to the "on and off" school situation. Student attitude was
at an all-time low by the time the posttest was given and this can affect
individual performances in a testing situation.
Notes


CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The incorporation and development of new and workable procedures for teaching elementary general music have long been the concern of all music educators involved in curriculum planning. The need is also being acknowledged for more consistency in music curricula among state and local educational units. Many methods and materials have been developed in the area of elementary music education in recent years that are becoming influential in curriculum planning and application.

The child-centered curriculum, a development of the 19th century, led to a direction for educational thought that sought a balance between society's demand on education and the needs of the individual student. Music study was considered a means for developing the emotional area of a child's life by drawing on the child's natural response to play, movement, and rhythmic expression. All children have some innate musical ability and this should be encouraged and developed to the full extent that each individual student can attain.

Child development studies by Piaget and other psychologists have led to a better understanding of how the thought processes of a child develop and of how a child learns best at a given age. With this knowledge, methods and materials for music education may be developed to accommodate the learning ability of particular age groups. Jerome Bruner has stated
that the concepts of any subject may be presented to a child at any age
if the material is presented in terms that the child can understand. The
implication for music curriculum development at the elementary level
allows for greater conceptual development at an early age that may become
more complex in terms of materials and comprehension as the child matures.

Teacher training is thus more important if the emphasis in education
is to be on conceptual development rather than on learning a given amount
of material. Curriculum content and teacher education must constantly
be re-evaluated to assimilate new ideas with the old.

The Carl Orff and Zoltan Kodaly philosophies of music education have
greatly influenced the methods and materials of elementary music educa-
tion programs throughout the United States since the first pilot programs
involving these two approaches began in the 1960s. Orff's philosophy of
music education, based on the elemental interaction of speech, rhythm,
music, and movement, stresses creativity and improvisation in instrument
playing, moving, singing, and other activities. The mallet percussion
instruments that he developed are a vital part of his approach and are
used for accompanying singing and for improvising melodies as well as
accompaniments.

Orff was concerned with the development of the whole individual.
His ideas are too loosely structured to be considered a method, and the
practical application of his approach is decided by individual teachers
and teaching situations. The central aim of his philosophy is the com-
bination of personal and interpersonal experiences of creative activities.

Kodaly also felt that music, as an art, was necessary for balanced
human development. His commitment was to making music belong to every-
one. At a time when his native Hungary was trying to recover a feeling of nationhood after the devastation of World War II, Kodaly's aim was to collect the native folk music of Hungary and use this music as the basis for a method of music education that would be used throughout the country to help revive national pride and lead to a musically literate people. He and his fellow countryman, Bela Bartok, collected thousands of native Hungarian folk tunes to use in this effort.

Kodaly's method of music education provides a systematic approach to the teaching of music reading using solfege, rhythm syllables, and hand signs as the tools of the method. The approach is developed through a series of chants. His method begins with young children working with rhythmic activities taken from children's rhymes and chants and progresses through the entire school experience with increasing complexity of concepts and materials. He emphasizes unaccompanied unison singing for the early ages leading to two and three part a cappella singing. His method forms the basis for the music education program in the Hungarian schools.

The philosophies of both Orff and Kodaly have been incorporated into school programs across the United States. Early Kodaly programs were found in Palo Alto, California, and Wellesley, Massachusetts. Mary Helen Richards adapted the Threshold to Music Experience Charts in 1964 from the Kodaly materials but used American folk song material. Many adaptations and programs followed the Threshold publication.

A pilot program based on the Orff approach appeared in Northfield, Illinois, in 1960. Federal funding through the Elementary and Secondary Education Act, Title III, was used to start programs in Bellflower, California, and Memphis, Tennessee.
The Memphis City Schools' Curriculum Guide was chosen as the source for developing lessons for the experimental treatment in this study. The program was begun in the Memphis City Schools in 1968 and was funded until 1971. The success of the project led to the allocation of local funding to continue the program when the Title III funds were no longer available.

The experimental approach to research was used in this study. The nonequivalent control group design, developed by Stanley and Campbell for comparing subjects who were taken in intact groups, was the basis for the study. A pretest and posttest were given as a means of comparing the level of musical achievement of the control and experimental groups at the beginning of the experiment and after exposure to the treatments. The null hypothesis was used for the project and stated that no statistical difference in musical achievement of the students taught from the Memphis Curriculum and those taught from the more traditional music series would be observed.

With the permission of the Superintendent's office, Buncombe County Schools, Asheville, North Carolina, and the individual principals and teachers, fourth and fifth grade students from the Weaverville Elementary School system were involved as subjects in the study. Four fifth grade classes (128 students) and four fourth grade classes (109 students) participated in the study. A total of 237 students was involved in this investigation. The Memphis Curriculum Guide was used as the source of material for the experimental group on both grade levels, and the basic program given in the teacher's edition, fourth and fifth grade, of the Exploring Music songbook series was used as the source for the materials presented to the control group.
The experiment was conducted for eighteen weeks beginning the first week of September, 1979, with the pretest. The Music Achievement Tests by Richard Colwell (Test 1, 2, and 3) were used for the pre- and post-tests. The particular skills tested were aural rather than visual. The subtests given were: pitch discrimination, interval discrimination, meter discrimination, major-minor mode discrimination, feeling for tonal center, tonal memory, melody recognition, and instrument recognition.

The lessons began the week after the pretest. Each class received one thirty-minute lesson developed from their particular curriculum each week for the treatment period.

The posttest was scheduled for the last week of January, 1980. Due to inclement weather and the subsequent closing of schools, the testing was postponed until March, 1980. Lessons were continued as weather permitted during this period.

The activities suggested in the Exploring Music program included guided listening experiences and singing, playing instruments, and music reading. The materials for use with this procedure were readily available in the student and teacher books and in the recordings accompanying the series.

The lessons developed from the Memphis Curriculum Guide included singing, playing instruments, creating compositions and accompaniments, and listening. These activities were chosen from many sources including the Guide itself and songbooks and source books based on the Orff and Kodaly philosophies.

The Statistical Package for the Social Sciences (SPSS) t-test and analysis of variance (ANOVA) procedures were used to make statistical
comparisons of raw test data. The comparison of pretest data showed that
the control and experimental groups were closely matched with the excep-
tion of significant differences registered between the fourth grade experi-
mental and control groups on the tonal memory and melody recognition
subtests. Comparison of pretest means with MAT published norms for each
grade level showed a general tendency for all groups to score lower than
the standardized norms. Tables 1–4 show the results of the t-test per-
formed on the pretest data.

Tables 5–10 give the results of the t-test performed on the group
means of the posttest and the change scores registered by each group from
the pretest to the posttest. Comparison of the posttest scores with the
MAT published norms for each grade level again showed a general tendency
to score lower than the standardized norm.

The comparison of the difference between the pre- and posttest
scores shows that the fourth grade experimental and control groups re-
gistered gain and loss for the same number, although different, subtests.
The fifth grade experimental group showed loss in all but one subtest
while the control group registered some gain on all but three of the
subtests. No significant difference was registered between the control
and experimental groups on either grade level for the posttest.

An analysis of covariance procedure (ANOVA) was performed on the
posttest scores to "correct" them for the pretest scores as suggested by
Stanley and Campbell. In this study, each posttest score was the de-
pendent variable, the teaching method was the independent variable,
and the corresponding pretest score and the sex of the subjects were the
covariates. The results showed that at the fourth grade level there was
no significance registered between the groups for the posttest/teaching method interaction. Significant difference was reached for the posttest/pretest interaction on the melody recognition and instrument recognition subtests and for the posttest/sex interaction for the feeling for tonal center subtest.

The results of the ANOVA performed on the fifth grade posttest scores showed that the .001 level of significance was registered for the posttest/teaching method interaction on the major-minor mode discrimination subtest. Significance was registered for the posttest/pretest interaction on the feeling for tonal center and the instrument recognition subtest and for the posttest/sex interaction on the feeling for tonal center and the melody recognition subtests.

The results from the data showed no significant difference in adjusted posttest scores, except for the fifth grade major-minor mode discrimination subtests. These results failed to reject the null hypothesis stated earlier. Some significant differences were registered, but no conclusive evidence can be drawn from the random appearance of the significant scores.

Conclusions

A detailed study of the principles and materials of the Carl Orff and Zoltan Kodaly philosophies of music education led to the conclusion that these approaches were worthwhile and could be adapted for use in American elementary music programs. The more extensive use of their ideas in curriculum planning and use in instructional materials and textbooks in recent years substantiates this conclusion. The practical application of these approaches in curriculum development and classroom
use is of prime importance if the Orff and Kodaly approaches are to be absorbed into the American educational system.

The results of the data furnished by this study show little statistical difference between test scores of the experimental and control groups. The control group on the fifth grade level showed more gain scores than the experimental group, but regression was registered in some subtests for both groups. The fifth grade teaching situation was generally less desirable than that for the fourth grade, and this fact may be reflected in the test scores.

The results of the data gathered at the fourth grade level show a more even distribution of gain and regression on the posttest scores. These students were generally more receptive, and the teaching situation was more favorable. From classroom observations, the fourth grade students' attitude and participation was more positive than that of the fifth grade which may explain the better results on the tests.

Although the data failed to reject the null hypothesis in most cases, the evidence shows that the experimental approach developed from the Memphis Curriculum Guide was at least as effective as the Exploring Music materials, in most cases, on the fourth grade level.

**Recommendations**

The continued growth of and respect for both the Orff and Kodaly philosophies of music education in this country implies the need for controlled studies of the musical achievement of students involved with these methods. The Memphis Curriculum Guide is a concise, easily understood outline of a structured, K-6 program, utilizing the ideas and materials of both the Orff and Kodaly philosophies. The success of the
Memphis music program, continued after the original funding ended, suggests the importance that this particular curriculum development held for the musical participation and achievement of the Memphis students. Other studies would be appropriate in a different teaching situation, perhaps beginning with younger children and lasting for a longer period of time, to study further possible contributions of the curriculum outline for elementary music education.

The fourth grade groups performed more favorably on the pre- and posttest and in the actual teaching situation. It would seem that beginning the use of the teaching ideas expressed by Orff and Kodaly with younger children would result in more consistent musical learning and more enjoyable musical experiences. The use of movement, instrument playing, and small group work is a vital part of the Memphis curriculum and should be a part of the activities of each lesson. A specific music room or, at least, an area in a classroom that is cleared of desks, chairs, and so forth is necessary if these activities are to be carried out effectively.

With the present (1981) possibilities of cutbacks in federal funding for the arts and art programs, it is most important that music educators observe and choose the best of old and new methods and materials. If music is a vital part in the education of children, then music educators must address themselves to curriculum planning with a renewed intensity and responsibility to the total growth of our nation's children.
BIBLIOGRAPHY

Books


**Periodicals**


Dissertations


Instructional Materials, Song Collections


**Records**


APPENDIX A

LESSON PLANS

MEMPHIS CURRICULUM GUIDE

4th and 5th Grades
PLEASE NOTE:

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These consist of pages:

85-121

123-152

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APPENDIX B

LESSON PLANS

EXPLORING MUSIC

4th and 5th Grades
From: Committee on Humans and Animals as Research Subjects.

To: Vice Chancellor for Advanced Studies and Research
David Boyd Hall

Re: Proposal of Susan E. Hensley, Music
Principal Investigator

Entitled: A Study of the Musical Achievement of Elementary Students
Taught by the Memphis City Curriculum Guide and Students
Taught by the Traditional Approach

This is to certify that a quorum of the Committee on Humans and Animals as Research Subjects reviewed the above proposal. The Committee evaluated the procedures of the proposal with appropriate guidelines established for activities supported by federal funds involving as subjects humans and/or animals.

Recommendation of Committee: Approved

Comments:

A review of this proposal by the Committee will be accomplished at least on an annual basis and at more frequent intervals depending on the element of risk.

Date: 11/21/79

W.S. Bivins
Chairman, Committee on Use of Humans and Animals as Research Subjects
August 9, 1979

Ms. Susan Hensley
Music Department
Mars Hill College
Mars Hill, N. C. 28751

Dear Ms. Hensley:

Enclosed is a memo which states the steps which have been taken for approval of your study in music education to take place in two of the Buncombe County Schools. Dr. Yarbrough verbally approved of the project.

I hope that upon completion, you will share the results of this study with me. I am happy to cooperate in any way.

Sincerely yours,

Dorothy M. Hampton
Cultural Arts Supervisor

DMH/mtf
Enclosure
Ms. Susan Hensley, a member of the Mars Hill College Music Faculty, has requested permission to teach music to the students in grades four and five in the Weaverville Primary and Weaverville Middle Schools during the 1979-1980 school year for the purpose of acquiring data to use in her doctor's dissertation as a student at Memphis State University. Mr. McDarris and Mr. Embler, principals at the two schools respectively, have indicated that they and their teachers would be agreeable to this plan.

Ms. Hensley has outlined her project to me and I recommend that she be allowed to work with the students in the fourth and fifth grades in the Weaverville Schools.

Her plan is to teach each class one thirty minute period per week during one semester. Two classes from each participating grade level will be instructed in music using materials from our state adopted music text Exploring Music. The two other classes from each grade level will be instructed using materials based on Orff Schulwerk. The study will include pre- and post-tests administered by Ms. Hensley.

During the time that Ms. Hensley is working with the students, the music coordinator who serves these schools will observe periodically and will keep abreast of the progress and results of the study.
May 14, 1979

Ms. Susan Hensley
Mars Hill College
Mars Hill, NC 28754

Dear Susan,

You may consider this letter official in granting you permission to use the Memphis Curriculum Guide in your research project. I will be very interested in seeing your outcome and would certainly appreciate a copy of your results and anything else you feel would be pertinent.

Good luck.

Sincerely,

Nancy Ferguson

NP/nm
August 20, 1979

Dear Parents:

I am looking forward to working in classroom music with the 4th and 5th grade students at Weaverville Primary and Middle Schools this fall. I would like to briefly explain what this music program will be.

I am working on a Ph.D. in Music Education at Louisiana State University, and my research project is in the area of music methods and curriculum development. I currently teach music education methods and voice at Mars Hill College.

The music program for these two grades this fall will be based on two different music curriculum guides, one developed in Memphis, Tennessee, and the other taken from the songbook series, Exploring Music. Each guide presents a sound teaching procedure, and the classes will be assigned at random to one of the two approaches. Each class will have music once a week, for thirty minutes, and I will be teaching all lessons. These lessons will replace the visits of the Buncombe County music coordinator for the fall semester, but the classes will be scheduled into her program in the spring.

A music achievement test will be given to each child before classes begin, and again in the spring, to determine what musical learning has taken place. All test scores are confidential and will be used only by the people involved in the research or by authorization of the parent. The parental signature at the bottom of this sheet means that your child may participate in the music program and that the test scores may be used by me for recording data for my research. Individual students’ names will not be used in the final report.

The content of the curriculum guides and research procedures have been explained to Mrs. Dorothy Hampton, Cultural Arts Coordinator in Buncombe County, the principals, Mr. Embler and Mr. McDarris, and the teachers involved in both schools. Approval for the program has been given by these people. This is a voluntary situation, but one that all students will, hopefully, enjoy. If there are questions, I will be happy to talk with you. I may be reached in care of the Music Department, Mars Hill College, Mars Hill, N.C. The office phone number is 689-1209.

Thank you for your attention. Again, I am looking forward to working with the students and faculty in the Weaverville Schools this fall. Please sign below and return this letter to your child’s homeroom teacher on Tuesday, August 21.

Sincerely,

Susan Hensley
Assistant Prof. of Music
Mars Hill College

Parent’s signature

Student’s name
**MUSICAL BACKGROUND SURVEY**

<table>
<thead>
<tr>
<th>Name ___________________________</th>
<th>Grade ______</th>
<th>Date ______</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher _________________________</td>
<td>Age ______</td>
<td>Birthday ___</td>
</tr>
<tr>
<td>Boy ____</td>
<td>Girl ____</td>
<td></td>
</tr>
</tbody>
</table>

Father or Guardian's Name

Mother or Guardian's Name

Do you take, or have you ever taken, private piano lessons? Yes____ No____
If yes, for how long? __________________________

Do you play any other instrument(s)? Yes____ No____
If yes, what instrument(s)? ______________________
How long have you taken lessons? ______________________
Are the lessons given in a group____ or privately____?

Do you play recorder in a group at church or anywhere else other than your school music class? Yes____ No____
Do you take, or have you taken, private lessons on the recorder? Yes____ No____

Do you sing in a church choir? Yes____ No____
Have you ever sung in a church choir? Yes____ No____
If yes to either question, how long, or how old were you when you were in a church choir? ______________________

Have you always gone to school at Weaverville? Yes____ No____
If no, what other schools have you attended? ______________________

Did you have a special music teacher (or coordinator) in your other school? Yes____ No____
Has your mother or guardian had any musical training? Yes____ No____
Does she sing in a choir or play any instrument? Yes____ No____
Instrument ______________________
Choir ______________________

Has your father or guardian had any musical training? Yes____ No____
Does he sing in a choir or play any instrument? Yes____ No____
Instrument ______________________
Choir ______________________
VITA

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B.M.E., Mars Hill College, Mars Hill, North Carolina, 1971
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EXAMINATION AND THESIS REPORT

Candidate: Susan E. Hensley

Major Field: Music Education

Title of Thesis: A Study of the Musical Achievement of Elementary Students Taught by the Memphis City Curriculum Guide and Students Taught by the Traditional Approach

Approved:

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Date of Examination:

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