Southwestern Montana Music Assessment : a comparison between rural Montana and the extreme rural national assessment of educational progress sample
by Richard T Sietsema

A thesis submitted in partial fulfillment of the requirement for the degree of Doctor of Education
Montana State University

Abstract:
The purpose of this study was to assess the music background and music achievement of 13-year-old rural students in Southwestern Montana. Data for the rural Montana students were established through utilization of selected music exercises found in the Second National Music Assessment component of the National Assessment of Educational Progress (NAEP). Responses to the assessment exercises of the Southwestern Montana students, expressed as percentages, were compared with responses of 13-year-old student's in the population sample drawn from the "Extreme Rural" type of community in the "Western Region" of the United States. The population for the author's study consisted of all 13-year-olds attending designated elementary schools in a six county area in Southwestern Montana. One, two, and three teacher K-8 schools were referred to as "Rural" while larger K-8 schools were referred to as "Town Schools." Music in the "Rural" schools was taught primarily by the classroom teacher while certified music specialists taught music in the "Town" schools.

The NAEP music assessment was designed to gather data concerning demographics, home environment, in-school and outside of school activities, as well as cognitive and affective responses to selected music exercises. The Montana assessment booklet was developed by the author utilizing released exercises from the 1978-79 NAEP Music Assessment and was administered during the Fall of 1986. The null hypotheses were tested at the .05 level of significance as used by NAEP.

No significant difference in the cognitive and affective musical response patterns was found between "Rural" students and "Town" students. Southwestern Montana students scored slightly higher in several of the cognitive areas than did their NAEP western Extreme Rural counterparts. Most Southwestern Montana "Rural" students received their classroom music instruction from an elementary education teacher and did not have band and chorus available in their curriculum; however, "Rural" students understood the sampled elements of music as well as their "Town" counterparts.

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by

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A thesis submitted in partial fulfillment
of the requirement for the degree

of

Doctor of Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

June 1988

APPROVAL

of a thesis submitted by

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This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

May 31, 1988
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STATEMENT OF PERMISSION TO USE

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ABSTRACT

The purpose of this study was to assess the music background and music achievement of 13-year-old rural students in Southwestern Montana. Data for the rural Montana students were established through utilization of selected music exercises found in the <u>Second National Music Assessment</u> component of the National Assessment of Educational Progress (NAEP). Responses to the assessment exercises of the Southwestern Montana students, expressed as percentages, were compared with responses of 13-year-old students in the population sample drawn from the "Extreme Rural" type of community in the "Western Region" of the United States. The population for the author's study consisted of all 13-year-olds attending designated elementary schools in a six county area in Southwestern Montana. One, two, and three teacher K-8 schools were referred to as "Rural" while larger K-8 schools were referred to as "Town Schools." Music in the "Rural" schools was taught primarily by the classroom teacher while certified music specialists taught music in the "Town" schools.

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CHAPTER 1

THE PROBLEM

Introduction

The great Greek philosophers Socrates, Plato, and Aristotle recognized the value that music contributed to the quality of life and the education of citizens; therefore, the education of the young men of Athens was not complete without extensive instruction in music (Lamm 99). John Edward Ryor, former president of the National Education Association, made this case for including the arts in the nation's education curriculum:

> Quality education in its most fundamental sense cannot be separated from the culture of a society. The quality of the culture is expressed in its arts and its humanities. Those who say they can be removed from the curriculum are calling for the rape of education, for a return to "training" at the expense of "learning." (Quinn 11).

In 1981 Gardener surveyed 161 small rural Montana schools to assess the status of rural education in the state (18-21). His findings were summarized as follows:

1. Due to lack of funds many schools have very poor facilities.
2. Due to lack of funds several schools have books which are out of date.
3. Salaries for teachers in rural areas are minimal; therefore, there are very few incentives for teachers to remain in the rural areas.
4. Due to lack of benefits for teachers in rural areas there are very few male teachers.
5. Over 50 percent of the teachers responding to the survey

indicated that they had taken no college courses that specifically prepared them for teaching in a rural setting.

6. Several of the small rural schools in Montana do not comply with the state's minimum standards of accreditation nor are they checked to see if they are in compliance.
7. The curriculum in the rural schools has not been adequately developed to fit the needs of the students.
8. Rural educators lack the expertise and the time to effectively develop curriculum changes. (19-21)

One may be concerned about the quality of education in these very small isolated rural schools. According to Tillman, there are four conditions which hamper and/or impede but do not prevent the pursuit of quality education for rural schools. They are: "(1) isolation, (2) sparsity, (3) smallness, and (4) differentness" (22).

The rural teacher must be prepared to teach all subjects as well as perform the job of principal and janitor. Montana's Governor Ted Schwinden stated the following view concerning the rural teacher:

> The backbone of our rural schools is the quality of our rural school teachers; teachers equipped to do more than teach. Teacher quality is critically important in rural areas because rural students are exposed to fewer teachers than students in urban schools. A rural teacher must bring the outside world to his or her students - to inspire curiosity among students and to expand their educational horizons far beyond the classroom walls. (5)

Concern regarding specific training for rural teachers was raised in 1977 by Dunne when she pointed out:

> Teacher training programs have paid equally little attention to the needs of teachers in small rural schools. Although the literature is full of moaning about the poor quality of rural teachers, little systematic effort has been made to recruit the best people for rural schools, and even less effort has been made to train them properly. (100)

In 1983, Guenther and Weible addressed the need for better teacher preparation in rural schools. The purpose of the article was to provide an overview of rural education. They concluded their article by saying:

> The purpose of this article has been to advance the need for specific preparation and training of teachers for rural schools. . . . To alleviate the obvious neglect of rural schools, it will take creative ideas, alternatives, and collective actions of those individuals and special interest groups concerned about this injustice. (61)

Statement of the Problem

The purpose of this study was to assess the music background and music achievement of thirteen-year-old rural students in Southwestern Montana. Data for the Southwestern Montana students were established through utilization of selected music exercises found in the Second National Music Assessment component of the National Assessment of Educational Progress. Responses to the assessment exercises of the Southwestern Montana students, expressed as percentages, were compared with responses of thirteen year old students in the population sample drawn from the "Extreme Rural" type of community in the "Western" region of the United States.

Questions

Specifically, data were collected by the researcher to address the following questions pertaining to thirteen-year-old students in Southwestern Montana.

1. Does the student value music as an important realm of human experience?
2. Is the student able to identify the elements and controls of music?

3. Is the student able to identify and classify music historically and culturally?

Basic Assumptions

The following basic assumptions were considered in the Southwestern Montana Music Assessment: 1. Teachers in rural schools in Southwestern Montana had been certified by the State of Montana to teach all subjects in a K-8 elementary program; 2. Teachers in rural schools in Southwestern Montana graduated from an accredited college or university with an Elementary Education degree. These teachers had taken the required music education courses as defined by each accredited college or university; 3. Rural schools in Southwestern Montana were accredited and followed a course of study as suggested by the State of Montana; 4. Students attending rural schools in Southwestern Montana came from predominantly agricultural communities.

The Need For The Study

Over the past several years there has developed a renewed interest in rural education; therefore, one would expect to see teacher education programs designed to prepare teachers for rural and small schools. According to Dunne this may not be the case:

> Most rural teachers, then, enter their classrooms with little or no special preparation for meeting the needs of country children. And unlike the urban or suburban teacher, they cannot call on professionally designed commercial materials to help them. For fifteen years, curriculum developers have undertaken countless projects for urban children, ranging from Sesame Street to minority-oriented social studies curricula for the high schools. For twenty years, carefully designed suburban curriculum packages have

> been available. During the same period, virtually nothing has been done for the rural child. There is no profit in it for the publishing companies because there are fewer absolute numbers in rural areas, and there is less similarity among country regions than there is among cities. Unfortunately, philanthropic and governmental funding sources have not (with some notable exceptions) made up for this lack of commercial interest in rural education. As a result, the teacher looking for innovative materials for a class of suburban or urban children has a vast array to choose from; a teacher looking for similar resources for a group of poor country pupils must generally be resigned to teaching about fire hydrants, manicured lawns, skyscrapers, and other accouterments of life in metropolitan America. (101)

A survey conducted by Horn in 1981 revealed the presence of very few rural teacher education programs even in states with substantial rural populations. According to Horn:

> Only 20 percent of the 40 institutions in 28 states reported that they had practices/programs specifically designed to prepare educational personnel for rural/small schools at the preservice level. . . .
>
> Notable examples are found at Western Montana College, Brigham Young University, Berea (Kentucky) College, Western Michigan University, and the University of North Dakota. (U.S. 28-29)

The Montana Rural Education Center was established at Western Montana College by the Montana Board of Regents for Higher Education in 1980 (Montana). The purpose for the center was to provide assistance to small schools and provide resources that would help them to take advantage of their small size.

The problems of rural schools are coupled with an inadequacy of research data on rural schools. According to Dunne:

> Much has been written--in either a revisionist or a romantic vein--about the glories of the little red schoolhouse. However, more facts and figures have been gathered to promote the economic and academic virtues of consolidation. Rigorous comparisons between large and small rural schools, controlled for social class and other important variables, are few and far between, and relatively unbiased

> studies of country schools as they operate today are virtually unobtainable. Some statistics are available, on comparative academic achievement in small schools and large, and in rural schools compared to urban and suburban ones, but the existing statistics tend to be so broad and undifferentiated that it is difficult to distinguish effects of social class, student motivation, and other possibly important variables. (94)

Research concerning music and rural education has been minimal. This researcher has conducted a thorough exploration of national data base files searching for literature concerning music achievement assessment in rural schools. Data from the National Assessment of Educational Progress which includes a national music assessment component were encountered; however, very little information that related directly to Montana's rural schools and music instruction was located.

Dunne stated similar concerns in her article "Choosing Smallness" when she stated:

> Rigorous comparisons between large and small rural schools, controlled for social class and other important variables, are few and far between, and relatively unbiased studies of country schools as they operate today are virtually unobtainable. (94)

In his article, "The Current Status of Education," Jonathan Sher shares a parallel view concerning research data applicable to rural schools:

> Though more than fourteen million students are dispersed among over ten thousand independent rural school districts, only the scantiest professional attention is accorded to solving their problems or fulfilling their potential. There is no Bureau or Division of Rural Education in the U.S. Office of Education, the National Institute of Education, or the great majority of State Education Agencies. The National Education Association devotes only one-eighth of one individual's time to rural educational concerns. The National Center for Educational Statistics doesn't issue reports or compile data on the current status of rural education. . . .

> Needless to say, it is difficult to correct deficiencies or foster improvements in school systems which the education profession seems determined to ignore. (1-2)

Lack of articulated curriculum has been another major problem facing rural educators. This may be due in part to the following reasons:

1. There is insufficient assessment data available for analysis.
2. There is a lack of curriculum specialists schooled in rural education.
3. Funding for rural curriculum development is minimal.
4. Rural curricula development may not be profitable for commercial publishers.
5. Rural Curricula development is not politically expedient.

Sher went one step further and prioritized curriculum needs for rural schools:

1. Develop competently designed curricula that are appropriate to the communities in which they will be utilized.
2. Build a curriculum that reflects and enhances the natural advantages of rural communities.
3. Design a curriculum that gives rural children a sense of option for their adult lives.
4. Incorporate firm but fair performance standards into the overall rural curriculum.
5. Establish a network of individuals, agencies, and organizations committed to the improvement of rural curricula and curricular materials (Education 285-86).

The "Montana Music Needs Survey" (Appendix A) indicated deficiencies in many rural school music programs, however, this study did not yield conclusive assessment data concerning outcomes of the rural music programs. Therefore, in order to facilitate the development of a music curriculum, music strengths and weaknesses must first be assessed. For this purpose the use of a structured music assessment instrument is a necessity. The National Music Assessment component of the National Assessment of Educational Progress (NAEP) is such an instrument because it is a census-like survey of music knowledge, skills, and attitudes. It is useful when one wishes to determine how well a specific group of students performs on the NAEP music objectives.

General Procedures

A limited amount of research has been done utilizing the NAEP with rural education; however in an article in Research in Rural Education, Easton suggested a five step approach in applying the National Assessment of Educational Progress model to research on rural social studies (35-38). This basic format may be utilized and modified to fit rural music; therefore, the following progression was followed.

1. The first step in this research project was to target a specific population. According to the NAEP definition of extreme rural, "Students in this group attend schools in areas with a population under 10,000 where most residents are farmers or farm workers" (Martin 10). For the purpose of this study, breaking this classification down even further into two sub groupings was considered useful; therefore, in this research the terms of "rural/extreme" and "rural/town" were used. Rural/extreme was defined as a K-8 public school with three or less full time teachers supervised by a county superintendent. Students in this group attended schools in areas with a population under 10,000 where most of the residents were farmers or farm workers. Rural/town was defined as a K-8 independent school district having its own administrative staff to include both a superintendent and principal. Students in

this group attended schools in areas with a population under 10,000 where most of the residents were farmers or farm workers. Both of these sub groups still conform to the NAEP definition of "Extreme Rural". Rural/extreme and rural/town schools located in Southwestern Montana were identified. The population consisted of all thirteen-year-old students that were in attendance in these schools. It was estimated that approximately 40 thirteen-year-old students would be in attendance at rural/extreme schools and approximately 175 thirteen-year-old students would be in attendance at rural/town schools.

2. The second step was to design and prepare a music assessment instrument. Released exercises from the 1978-79 NAEP Music Assessment were randomly sampled without replacement and arranged into a booklet. Three hundred of these prepared booklets were printed to conduct the assessment. Several of the released exercises required the use of music stimuli; therefore, a cassette tape containing the proper music stimuli was obtained from NAEP. A paced direction/stimuli tape was then developed for the Southwestern Montana assessment. This was done to insure that all students received a standard presentation.

3. The third step was the implementation of a pilot assessment procedure. To insure uniformity, one pilot assessment was administered to thirteen-year-olds attending a rural school that was not included in the target area.

4. The fourth step was to administer the assessment to the target population. Due to the small number of students in the target area, the entire population was assessed. Before conducting the assessment, county superintendents in each of the targeted counties were contacted. This enabled the researcher to explain the assessment procedure and to obtain lists of all eligible students. Each county superintendent was asked to explain the assessment procedure to his/her teaching staff. Specific dates for assessment were arranged by the county superintendents and the assessment was administered during the first semester of the 1986-87 academic year.
5. The fifth step was to score the response data based on criteria for acceptable responses obtained from NAEP in Princeton, New Jersey.
6. The sixth and concluding step in the research project was to report assessment results. Responses received from thirteen-year-old students in the target area were compared to baseline data provided by the NAEP. Variables included age, region, sex, race, size and type of community, and level of parental education.

Limitations/Delimitations

This study was concerned with the assessment of musical skills, knowledge of music, and attitudes toward music of thirteen-year-old rural school students in Southwestern Montana as measured by selected exercises from the NAEP second assessment of music. The aim of the assessment was to describe musical attainments and not to reflect what students should or should not know. This study was not designed to predict the musical success of the participants. Musical background or training of individual teachers was not considered. This study was also not concerned with the physical materials available at each individual school.

Definition of Terms

NAEP

This refers to the National Assessment of Educational Progress. The NAEP is an assessment designed to measure knowledge, skill, and attitudes of students from various geographic and social regions at age nine, thirteen, and seventeen. In addition, it is designed to measure growth or decline in their educational attainments over time. The NAEP assesses ten learning areas: art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies, and writing.

Age Variable

The NAEP utilizes nine-year-olds, thirteen-year-olds, seventeen-year-olds, and adults (26-35 yrs). For the purpose of this study only thirteen-year-olds born during the 1973 calender year were considered.

Region Variable

The NAEP divides the United states into four regions: Northeast, Southwest, Central, and West.

Sex Variable

The NAEP utilizes a male and female variable.

Race Variable

The NAEP recognizes White, Black, Hispanic and Other.

STOC Variable

STOC is an acronym for Size and Type of Community. The NAEP recognizes four "residual" community sizes: (1) Main Big City (2) Urban Fringe (3) Medium Cities (4) Small Places. The NAEP also recognizes three "extreme" types of community: (1) Extreme Rural (2) Low Metro (3) High Metro. This study will be concerned with the following variables:

1. Size of Community

    Small Places - Students in this group attend schools in communities having a population less than 25,000 and not classified in the "fringes around big cities" category.

2. Type of Community

    These communities are defined by an occupational profile of the area served by a school as well as by the size of the community in which the school is located.

    Extreme Rural - Students in this group attend schools in areas with a population under 10,000 where most of the residents are farmers or farm workers.

Categories within the two variables are not mutually exclusive; therefore, students included in the extreme rural category for the type of community variable were also placed in the smaller places with other students as a result of the size of community variable. The NAEP did not subdivide the extreme rural category as they did not target a small geographic region or population. Neither were they concerned with differences within the extreme rural category. However, for the purpose of this study it was necessary to subdivide the extreme rural category into rural/extreme and rural/town classifications. This was done to assess differences between rural and town students within the target area and target population.

Rural/Extreme

For the purpose of this study a rural/extreme school was defined as a K-8 public school with three or less full time teachers. Schools in this category contained multi-grade classrooms and a full time certificated administrative officer such as a superintendent or principal was not employed by the school district; therefore, the resident county superintendent was considered to be the administrative leader for each district. Certified music teachers were not employed in these districts and the certificated elementary teachers did most of the required music teaching in the multi-grade classroom. In some cases a parent or community member with piano background was used as a provisional music teacher. Students in this group attended schools in areas with a population under 10,000 where most of the residents were farmers or farm workers. The schools that fit this category were located in the following Southwest Montana counties:

1. Beaverhead
2. Granite
3. Jefferson
4. Madison
5. Powell
6. Silver Bow

Rural/Town

For the purpose of this study a rural/town school was defined as a K-8 independent school district having its own administrative staff to include both a certificated superintendent and a principal. Schools in this category had separate classrooms and teachers for each grade level or discipline. In addition, schools in this category employed at least one full time certificated music specialist. Students in this category attended schools in areas with a population under 10,000 where most of the residents were farmers or farm workers. These schools were located in the following Southwest Montana counties:

1. Beaverhead
2. Powell

Level of Parental Education

This variable was subdivided into four categories: No High School, Some High School, Graduated High School, and Post High School.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

A major problem in discussion and research concerning rural schools is a lack of consensus about appropriate definitions of rural education. Several factors must be considered when identifying types of schools. The North Central Association Committee on Small Schools defines small high schools as those schools having total enrollments of less than 300 for grades nine through twelve; however they do not define a size criterion for identification of grade schools (North 2). The National School Boards Association defines a district as rural if:

> it is located in a rural setting, or the student enrollment is 2,500 or less, or it's an intermediate or county unit that serves primarily rural units, or it encounters problems related to areas with a population density of fewer than 1000 (residents) per square mile. (DeYoung 137)

On the other hand, the National Rural Development Institute defines a rural district as one where:

> the number of inhabitants is less that 150 per square mile or when located in counties with 60% of the population living in communities no larger than 5000 inhabitants. Districts with more than 10,000 students and/or in (SMSA) as defined by the Census are not considered rural. (DeYoung 137)

If this size criterion were applied to Montana, most schools would fit in this category. Geographic location and student background may be another method of school identification. There may be a wide diversity of location and demographic factors among rural schools; however, the NAEP provided the following definition of "Extreme Rural":

> Students in this group attend schools in areas with a population under 10,000 where most of the residents are farmers or farm workers. (Martin 10)

Several educators have tried to address problems facing rural education. For example, in a report by the North Central Association of Colleges and Schools it was stated that "Rural schools have had problems in obtaining and keeping high quality staff" (20). The Oregon State Board of Education reported that rural teachers tend not to have advanced degrees, are often poorly trained in curricular and guidance principles, and are unfamiliar with the unique problems of rural schools (11). In a paper presented at the National Outlook Conference on Rural Youth, Estes reported that similar situations were found at the national level (11). Edington and Musselman also reported that rural teachers are often placed in situations where they are teaching in areas for which they were unprepared and that these problems were not unrecognized by the teachers themselves (1969). Muse found that rural teachers felt that their preservice training did not adequately prepare them for the problems that they encountered when teaching in rural schools (1979). Sher outlined the problem when he stated:

> There are specific problems facing rural schools that other types of small schools do not encounter. Rural Schools must contend with the problems of isolation. This implies more than simply overcoming difficulties caused by geography or distance. Rural schools tend to be isolated from the educational, governmental, and economic support systems found in metropolitan areas, and they do not have the benefits and assistance of universities, mental health centers, teacher centers, and cultural institutions. (7-8)

The problems of the rural school are coupled with an inadequacy of research data on rural schools. Deyoung states that:

> It has been continually claimed by those who work in and with rural schools that research on the particular problems, issues, and trends in rural education is relatively scarce, of very uneven quality, and typically found either in relatively obscure state department documents or in the work of scholars not identified with mainstream educational research. (123)

The rural information problem becomes even more critical when one looks at the isolated rural state of Montana where only a minimal amount of research data is available. During the summer of 1984 this researcher conducted a "Basic Needs" survey of Montana rural educators. This survey is located in Appendix A. The questions investigated were as follow:

1. Are teachers properly trained to teach music?
2. Do they have a music curriculum guide that is usable?
3. What physical materials are available?

A telephone survey instrument was developed that incorporated both open and closed questions. The questionnaire contained fifteen major questions plus seventeen sub-questions and was administered to county superintendents and teachers. Sampling was accomplished in seventeen counties that were geographically dispersed throughout the state of Montana and data were procured in the five following general areas:

1. Personal Profile
2. Educational Background
3. Physical Equipment Inventory
4. Music Program Analysis
5. Curriculum Development

Thirty-one percent of the teachers believed that they had been adequately prepared to teach music in a self-contained classroom. Ninety-seven percent of the respondents affirmed a need for a music curriculum or study guide specifically designed for the rural school. It was also found that record, tape, and music book libraries were minimal or nonexistent in rural schools. In addition, the teachers expressed a need for music materials that would be suitable for a K-8 classroom.

NAEP Historical Overview

Since the Southwestern Montana Music Assessement follows the NAEP design, it is appropriate to provide a brief historical overview of the NAEP conception and development.

The American educational system was in turmoil during the 1950's as it was attacked by both liberal and conservative educators, each charging that the system was anti-intellectual. A culmination occurred in October of 1957 when Sputnik I was launched by the Soviet Union. The American public was shocked, for it meant that the Soviet Union had passed the United States in space technology. Vice Admiral Hyman G. Rickover, who directed the early development of the United States Navy atomic submarine program, took a critical interest in the American educational system. Rickover compared the American and European systems of education and found the European system to be superior in many respects. Rickover felt that science and engineering were more important than the humanities and that the American system wasted energy by trying to educate everyone. It was his recommendation that more money should be spent on education, science and math be strengthened, and that the "frills" be dropped from the curriculum. In 1959 an educational conference was held at Woods Hole, Massachusetts, to discuss the problems of science education and to recommend solutions. In 1960 President Eisenhower appointed eleven people to a Commission on National Goals. The final report, prepared by John W. Gardner president of the Carnegie Corporation, served as a basis for change in American education. In 1961 President John F. Kennedy established the White House Panel on Educational Research and Development. Several goals were established in an attempt to enhance the quality of American education. The federal government strongly supported change in education and consequently invested vast amounts of money into the American educational system.

The summer of 1963 may be considered as the beginning for a national assessment plan. Morris stated that "in the summer of 1963 the idea of developing an educational census of this sort was proposed in a meeting of laymen and professional educators concerned with the strengthening of American education" (7).

Henderson also noted that ". . . in the summer of 1963 . . . Ralph W. Tyler, Director of the Center for the Advanced Study of Behavioral Sciences, Stanford, California, was asked by leaders of education to prepare a memorandum exploring the possibility of assessing the progress of education nationally" (1).

In December of 1963 a group of educators and laypeople gathered at an educational conference proposed the idea of a national educational consensus. Several other conferences were called in the winter of

1963-64 for further discussion and a rough plan was drafted. Financial constraints were a serious problem as public funds were not available. It was at this point that a private foundation, the Carnegie Corporation of New York, granted funds to begin the project. An exploratory committee was formed and named the Exploratory Committee on Assessing the Progress of Education (ECAPE). Two basic goals were set for the committee. The first goal was to visit communities and ask questions of teachers, administrators, school board members, and interested laypeople concerning the health and quality of education. Advice was also sought on how to measure the quality of education throughout the United States. Upon completion of the first goal the committee set about accomplishing their second task, that of formulating a plan for the development of an assessment instrument. The original instruments were piloted and the final draft was written. The initial project took four years to complete and on July 1, 1968 the final report was turned over to the Committee on Assessing the Progress of Education (CAPE) under the auspices of the Carnegie Foundation, which was then responsible for the national assessment (Norris 7).

Still financed by the Carnegie Foundation, the Committee on Assessing the Progress of Education (CAPE) began in 1969 to assess the achievement of students in ten academic areas and four age groups. The original ten areas, which had been selected to exhibit a good cross section of the American educational system, included reading, writing, science, mathematics, social studies, citizenship, vocational education, literature, art, and music. Students in age groups 9, 13, 17, and 26-35 were targeted for assessment. These were selected to assess students during specific points in their educational career. For example, most young adults age 26-35 have completed their formal education. Secondary education for most is complete by age 17, intermediate education by age 13, and primary education by age 9.

According to Martin, "Specifically, the assessment program was designed to measure the knowledge, skills, and attitudes possessed by young Americans at these key points in the educational system and to monitor changes (growth or decline) in their educational attainment over time" (1).

According to Johnson:

> Later that year the assessment was adopted as a project by the Education Commission of the States (ECS). Funding and monitoring were transferred to the United States Office of Education, and the project was renamed the National Assessment of Educational Progress. (27)

The primary mission of the National Assessment of Educational Progress was to provide a standardized measuring device that would accurately describe the educational climate of the school systems within the United States. In order to provide this service, goals were established as tenets for assessment.

According to Johnson (27-28), the goals suggested that the NAEP should:

1. make available on a continuing basis comprehensive information on the educational achievement of young Americans;
2. measure change in the educational achievement of young Americans;
3. conduct special interest "probes" into selected areas of educational achievement;
4. provide data, analyses of the data and reports for a variety of audiences;

5. encourage and aid studies of National Assessment information to generate implications useful for educational decision makers and practitioners;
6. aid in the use of National Assessment technology at state and local levels where appropriate;
7. continue to develop the technologies necessary for gathering and analyzing National Assessment information; and
8. continue studies to improve National Assessment methods.

NAEP's Contributions and Shortcomings

Since its inception in 1969 the NAEP has been collecting data. According to Messick, "Over a million 9-, 13-, and 17-year-old students, as well as occasional samples of adults and of 17-year-olds who were not in school, have been assessed in a variety of subjects such as reading, writing, mathematics, science, social studies, literature, music and art" (Response 90). The educational climate in the 1960's was far different from the educational climate today. A major concern in the 1960's was, that with a national assessment in place, the federal government would interfere with local and state control of education. According to Messick:

> In the light of such concerns, the original NAEP architects developed a sampling plan insuring that accurate results could not be reported at the state or district level. They espoused matrix sampling procedures, insuring that no student would take more than a small sample of diverse exercises, so there would be no tests or test scores in the traditional sense, and certainly no test scores for any individuals. They capitalized on the strengths of matrix sampling to insure comprehensive coverage of subject matter for population groups, thereby generating sets of objectives and exercises that reflected salient features of most extant curricula. They insisted on analysis and reporting at the exercise level so that the focus would not be on curriculum units or knowledge and skill domains but on specific learning outcomes whose nature and importance could presumably be directly judged by laypeople and professionals alike. Finally, the assessment was organized in terms of age levels

> rather than grade levels, which has a number of important points in its favor but has the consequence of severing NAEP results from the usual way in which schools are organized, state and local assessments are reported, and educational policies are formulated. Thus, since the original NAEP design by deliberate plan made it difficult if not impossible to link assessment results to state or district programs or to grade-related practices in the schools, educators were less threatened and political feasibility was assured--but at the heavy cost of attentuating the usefulness of NAEP results in affecting educational practice. (Response 91)

The NAEP is concerned with comparative data and comparative norms and should not be viewed in the same light as an achievement test. Even with this limited scope, the NAEP has provided educational contributions. In the document NAEP Design, a report submitted to the National Institute of Education in 1982, the following contributions were noted:

1. NAEP has provided national data on change in educational achievement which are both valid and accurate in terms of comparisons over time, and which cover a wide variety of achievement content areas.
2. NAEP has modeled new concepts and procedures for state assessments and other testers. As a consequence of this modeling NAEP has achieved greater curricular relevance and balance in state assessments and in some local assessments; lower pupil response burden through matrix sampling; lower costs per information unit through innovation in sampling design.
3. NAEP has provided achievement data for secondary analysis by the educational research community. (National Opinion 1)

Due to design, the NAEP also has several flaws or shortcomings. The NAEP Design lists the following:

1. NAEP has failed to compete for public attention with less representative alternative indicators because information available every four years cannot possibly compete effectively with information available every year.

2. NAEP reports of achievement results have had limited relevance and comprehensibility, thus limiting meaningful evaluation of the educational system and not providing a basis for modifying that system at the local, state, or federal level.
3. NAEP lacks adequate linkage to politically responsive units with responsibility for action to maintain or improve the quality of education.
4. NAEP has depended too much on professional groups with expertise and judgment limited to particular learning areas for determining the content priorities of the Assessment. NAEP needs broader political, economic, and general policy input for establishing content-area priorities and information needs for the 1980's.
5. NAEP lacks provisions for specific policy-focused data collection and analysis to supplement the basic achievement results. (<u>National Opinion</u> 1)

The purpose of the NAEP has not been to set educational standards but to provide the public with NAEP results that address the issue of educational standards. According to Messick:

> In sum, as currently conceived and implemented, NAEP incorporates three key elements of a responsible standard-setting process--namely, the choice of educational objectives, the description of current group performance ranges and trends and the identification of educational contexts differentially related to performance. In addition, NAEP's reliance on comparative data and implicit comparative standards highlights the need for quality standards if issues of minimal requirements and excellence are to be resolved in American education. (<u>Progress</u> 19)

The NAEP has been redesigned to fit the needs of a changing educational climate; however, at this time it was not available for use. Further features of the new NAEP design are not relevant to this study and will not be discussed at this time.

<u>NAEP Music Objectives Development</u>

The Educational Testing Service of Princeton, New Jersey, was awarded the task of developing music objectives for the NAEP;

therefore, in 1965 a group of music experts was called together in Princeton to develop objectives for the assessment.

According to Norris (4), the panel was directed by three guidelines:

1. To define the major objectives of music education.
2. To suggest specific tasks which sample the major objectives and exhibit the achievements, interests, and attitudes of those exposed to music.
3. To describe the kinds of musical behavior expected of approximately 10, 50, and 90 percent of each of the several age groups considered in the study.

The committee soon discovered, due to the diverse nature of music, that this was a difficult task. One of the primary functions of music is for aesthetic use and this function is extremely difficult to assess. Other areas such as musical knowledge, skill, and recognition were much easier to measure. Another problem concerned that of deciding upon which areas to include or exclude.

Both opera and program music were included in the assessment; however, folk music, jazz, and rock-and-roll were not included and that decision caused a great deal of controversy. Oriental and other non-western music were also excluded from the assessment as they are rarely taught in this country. The meeting at Princeton lasted two days and at the conclusion a list of objectives was presented to the Educational Testing Service (ETS). The objectives were examined, compared and discussed by musicians, educators, and laypeople. Although minor changes were implemented, the basic content remained unchanged for the first assessment. The basic objectives used in the 1971-72 assessment were as follow:

I. Perform a Piece of Music
   A. Sing (technical proficiency not required)
   B. Play or sing (technical proficiency not required)
   C. Invent and improvise (technical proficiency not required)

II. Read Standard Musical Notation
   A. Identify the elements of notation, such as clefs, letter names of notes, duration symbols, key signatures, and dynamic markings.
   B. Identify the correct notation for familiar pieces.
   C. Follow notation while listening to music.

III. Listen to Music With Understanding
   A. Perceive the various elements of music, such as timbre, rhythm, melody and harmony, and texture.
   B. Perceive structure in music.
   C. Distinguish some differing types and functions of music.
   D. Be aware of (and recognize) some features of historical styles in music.

IV. Be Knowledgeable About Some Musical Instruments, Some of the Terminology of Music, Methods of Performance and Forms, Some of the Standard Literature of Music, and Some Aspects of the History of Music.
   A. Know the meanings of common musical terms used in connection with the performance of music, and identify instruments and performing ensembles in illustrations.
   B. Know standard pieces of music by title, or composer, or brief descriptions of the music, or of literary-pictorial materials associated with the music from its inception.
   C. Know prominent composers and performers by name and chief accomplishment.
   D. Know something of the history of music.

V. Know About the Musical Resources of the Community and Seek Musical Experiences by Performing Music.
   A. Know whether or not there are music libraries and stores in the community, and know where concerts are given.
   B. Seek to perform music by playing, singing, taking lessons, joining performing groups, etc.

VI. Make Judgments About Music, and Value the Personal Worth of Music.
   A. Distinguish parodies from their models.
   B. Be able to describe an important personal "musical" experience. (Norris 10-16)

The first music assessment based on the above objectives was administered in 1971-72. Following the collection and examination of the data it was determined that several of the objectives should be reviewed and changed before the next full assessment; therefore, a committee of music educators from the university, secondary, and elementary level, laypeople and the NAEP staff met during 1972-73 to formulate objectives for the second assessment. According to the NAEP report, Music 1971-79: Results From the Second National Assessment the following guidelines were developed:

> The development panel wanted the objectives for the second assessment to be broadened to apply to all students, regardless of their exposure to music education or formal music training. While conceptually similar, the 1978-79 objectives tend to emphasize the affective domain (Objective I) to a greater degree than the objectives for the first music assessment. Another concern of the development panel was that a greater variety of music be represented; therefore, the second assessment included more than formal art music. Also, those involved in developing the new objectives suggested that data be gathered on the music training background of each respondent so that a context could be provided for interpreting the music achievement level of students. (3-4)

As a result of the meeting, some of the 1971-72 objectives were changed or deleted. The following basic music objectives listed in the Procedural Handbook, 1978-79 Music Assessment were adopted for the 1978-79 Assessment:

I. Value Music as an Important Realm of Human Experience
   A. Be affectively responsive to music
   B. Be acquainted with music from different nations, cultures, periods, genres and ethnic groups
   C. Value music in the life of the individual, family and community
   D. Make and support aesthetic judgments about music

II. Perform Music
   A. Sing (without score)
   B. Play (without score)
   C. Sing or play from a written score
   D. Play or sing a previously prepared piece

III. Create Music
    A. Improvise
    B. Represent music symbolically

IV. Identify the Element and Expressive Controls of Music
    A. Identify the elements of music
    B. Identify the relationships of elements in a given composition
    C. Demonstrate an understanding of a variety of musical terms, expression markings and conducting gestures in a musical context

V. Identify and Classify Music Historically and Culturally
    A. Identify and describe the features that characterize a variety of folk, ethnic, popular and art music
    B. Identify and describe the music and musical style of the various stylistic periods in Western civilization (e.g., Medieval, Renaissance, Baroque, Classical, Romantic), Identify representative composers of each period
    C. Cite examples of ways in which man utilizes music in his social and cultural life (2-3)

<u>NAEP and the Rural School</u>

One of the variables utilized by NAEP defines size and type of community (STOC). The groups within these categories are judged by the size and type of community as well as the type of occupations within; therefore, when following the NAEP guidelines two variables must be considered: (1) size of community, and (2) type of community. The NAEP listed the following guidelines from their second assessment:

<u>Size of Community</u>

> <u>Smaller Places</u> - Students in this group attend schools in communities having a population less than 25,000 and not classified in the fringes-around-big-cities category. (Martin 10)

<u>Type of Community</u>

> <u>Extreme Rural</u> - Students in this group attend schools in areas with a population under 10,000 where most of the residents are farmers or farm workers. (Martin 10)

According to information provided in <u>Music 1971-79: Results From the Second National Music Assessment</u>, thirteen-year-old students in rural areas scored correct answers 50.16% of the time compared with a national mean of 52.31% correct on 125 music exercises. When broken down by objectives, rural students scored a higher percentage correct on Objective I, and lower on Objectives IV and V. (See Table 1)

Table 1. NAEP group results of mean percent correct, Age 13, 1978 assessment.

	Objective I (20 Exercises)	Objective IV (50 Exercises)	Objective V (55 Exercises)	Total (125 Exercises)
Nation	74.91%	60.89%	36.29%	52.34%
Rural	77.81	55.51	35.24	50.16

Rural schools are located in practically all areas of the United States where most of the residents are farmers or farm workers. In terms of the National Assessment most schools in the State of Montana would fit this description. The NAEP description would definitely fit the area of the proposed study located in Southwestern Montana where the largest independent elementary school district to be surveyed is located in a town with a population of approximately 4000 according to the 1980 census (Montana). In addition, many of the students attend rural schools that are not located within a designated town or village and may have one to four teachers who are responsible for the entire K-8 curriculum.

Over the past several years there has been a renewed interest in the status of education in rural schools in the United States. Surveys have been taken, documents have been written, and even the national television media have become involved with documentaries on rural education such as the ABC documentary "20/20" that was shown nationwide in January of 1984. The ABC documentary, arranged through the Rural Education Center at Western Montana College, focused national attention on rural education in the state of Montana (Freedman). According to the Directory of Montana Rural School's (Directory), published by the Montana Rural Education Center, there were 214 rural K-8 elementary schools with enrollment of 100 or less as illustrated in the following table:

Table 2. Rural Montana K-8 schools with enrollment of 100 or less.

Number of Teachers at each school	Number of Schools
1	114
2	47
3	17
4	20
5	5
6	6
7	2
8	1
9	0
10	2
4668 - Total Students	214 Total K-8 Schools

There may be a misconception that the educational problems faced by educators and students in low-socioeconomic or impoverished urban areas are also indigenous to the rural area. In his paper, National Assessment and Rural Education, Henderson stated that:

> Every major committee convened to study rural education has shown that while many problems in rural schools are similar to urban schools, rural schools also have many problems unlike those of urban schools. (9)

In his paper Student Achievement in Rural Schools Martin stated that:

> When one examines the cross-tabulation of race by STOC categories . . . one sees that the extreme rural category (as defined by National Assessment) is proportionately most similar to either the urban fringe or high metro STOC categories. While low metro and extreme rural students may have similar problems, the similarities would not be the result of their being the same basic population. (10)

Music Education in Rural Montana

In his paper, America's Other Children: Schools Outside Suburbia, Henderson addresses some of the problems that are indigenous to the rural school. In a typical rural school one teacher must be prepared to teach many different subjects as well as taking part in a myriad of community activities. In addition, rural schools are slow to change their curricula and teaching techniques. Rural schools are still a main bulwark of institutionalized inequality; they reflect and perpetuate the conservative elements in our social-class and racial stratification systems (63-73).

Music Achievement

Early in 1974 a group of panelists chosen by the National Executive Board of the Music Educators National Conference (MENC) met to discuss the implications of the 1971-72 NAEP music assessment. Due to the importance of the affective domain in music education, the panelists targeted attitude exercises for discussion. It was the feeling of the group that the attitude exercises were not designed to directly measure sensitivity; however, the exercises would measure tendencies which would correlate to some degree with sensitivity. The panelists also agreed that it was very difficult to measure success in the affective domain and that the NAEP had not directly measured it. The NAEP used an indirect measure of attitude and that measure was assumed to correlate with actual attitudes; however, the panel did emphasize that aesthetic sensitivity and not just positive attitudes were the ultimate goal of music education. The panel suggested the following caveats for interpreting data from the NAEP and relating it to the affective domain:

1. The assessment results are based on a random sample of entire populations regardless of musical background or preparation. The data provide valuable insight into the musical competence of the "average" citizen; however, a study of persons with some degree of training or interest in music would presumably produce quite different findings.
2. Not all musical attitudes are directly attributable to formal instruction in schools. Television, radio and social environments play major roles in developing musical knowledge as well as in influencing musical tastes and attitudes. Thus, the ability of the music teacher to influence attitudes is limited. (Rivas VII)

Attitudes Toward Music: 1971-72 Assessment

It was the consensus of the panel that drawing concrete conclusions from the NAEP assessment data would be a very difficult task. The panelists also concurred that another study and more data would be extremely useful; however, even with the limited data several tendencies seemed to be significant:

1. In most exercises a favorable tendency was shown toward music.
2. Musical tastes are not extremely narrow. "Rock" tends to be the music of youth and "Non-Rock" appeals to the adults; however, musical tastes for all ages are quite broad.
3. More than half of the Americans attend a musical concert at least once a year.
4. Thirteen and seventeen-year-olds listen to music more than any other group.
5. One-third to one-half of the population play musical instruments.
6. Most people do not go on playing their musical instruments outside of school; therefore more emphasis should probably be placed on "carry-over" instruments such as guitar, piano, and more time should be spent with small ensembles.
7. Opera did not fare well and should be given better public relations. (Rivas VII)

The MENC panel believed that the first assessment was extremely productive as it sampled a broad range of individuals and musical behaviors; therefore, such data should be considered as an important first step or beginning. (Rivas 1-30)

1978-79 NAEP Music Changes

Several changes were made in the NAEP music assessment between the 1971-72 and the 1978-79 assessment. It had been the original intent of the development panel to broaden the objectives to apply to all students, regardless of their exposure to music education; however, due to funding limitations, the National Assessment was not able to readminister the individually-administered exercises in the second assessment. This would mean that Objective II (Perform Music), and Objective III (Create Music) would not be assessed and data would not be available. Therefore, the exercises were reclassified to fit the three objective paradigm. While the 1978-79 objectives are conceptually similar, they tend to emphasize the affective domain (Objective I) to a greater degree than the objectives on the 1971-72 assessment. In addition, due to restructuring of objectives, the development panel suggested that data be gathered on the music training background of each respondent so that a context could be provided for interpreting the music achievement level. (*Music* 3-4)

Objectives I, IV, and V remained unchanged in context for the 1978-79 assessment; however, the exercises were reclassified to fit the objectives. The NAEP lists the following statements regarding the second assessment:

> Exercises designed to measure Objective I elicit affective responses from students and explore their awareness of and sensitivity to music and musical experiences. Students were assessed on how they value and respond to music and on their ability to recognize various types of music.
>
> Exercises designed to measure Objective IV elicit cognitive responses from students and require them to demonstrate knowledge and understanding of aspects of music such as rhythm, pitch and tone quality while hearing a musical selection.
>
> Exercises designed to measure Objective V also elicit cognitive responses from students and require them to demonstrate a broad knowledge and understanding of music in the context of the world around them. (*Music* 10)

CHAPTER 3

PROCEDURES

Introduction

The purpose of this study was to assess the music background and music achievement of thirteen-year-old rural students in Southwestern Montana. Data for the rural Montana students were established through utilization of selected music exercises found in the Second National Music Assessment component of the National Assessment of Educational Progress (NAEP). Responses to the assessment excercises of the Southwestern Montana students, expressed as percentages, were compared with the responses of thirteen-year-old students in the population sample drawn from the "Extreme Rural" type of community in the "Western" region of the United States. The study took place during the first semester of the 1986-87 school year. This chapter describes the population surveyed, categories of investigation, methods of collecting and analyzing data, hypotheses, and precautions to insure accuracy.

Population Description and Assessment Procedure

The population for the Southwestern Montana Music Assessment consisted of the following:

1. All thirteen-year-old students attending designated rural/extreme schools. Population size was estimated at

forty-two. The actual number assessed was forty-six. Students attending schools in the following locations were assessed:

A. Beaverhead County
   a. Grant
   b. Jackson
   c. Polaris
   d. Reichle
   e. Wisdom
   f. Wise River

B. Granite County
   a. Hall

C. Jefferson County
   a. Basin
   b. Cardwell

D. Madison County
   a. Alder

E. Powell County
   a. Ovando
   b. Helmville
   c. Garrison
   d. Elliston

F. Silver Bow County
   a. Divide
   b. Melrose

2. All thirteen-year-old students attending designated elementary rural/town schools. Population size was estimated at 175. The actual number assessed was 132. Students attending school in the following locations were assessed.

   A. District #10, Dillon, Beaverhead County

   B. District #1, Deer Lodge, Powell County

All of the counties were located in Southwestern Montana and were contiguous. The counties contained a variety of vocations including ranching, farming, mining, lumbering and government employment. The rural/extreme schools were under the administration of the county superintendent in each designated county. The designated rural/extreme schools were classified as one, two, three, or four teacher schools. None of the designated rural/extreme schools employed a certified specialist to teach music. The smallest designated rural/extreme school in the sample area was a one teacher school with five students and a student/teacher ratio of 5:1. The largest designated rural/extreme school in the sample area was a four teacher school with forty eight students and a student/teacher ratio of 12:1. Names and locations of the designated rural/extreme schools were selected from the Directory of Rural Schools (1986). Teachers in the schools were certified in the state of Montana and came from diverse educational backgrounds.

School District #10 located in Dillon, and School District #1 located in Deer Lodge were selected because they fall within the sample area and were the only elementary districts not connected administratively with a high school district. Both District #10 and

District #1 employed full time superintendents and principals and were classifiable as rural/town schools. In addition, District #10 and District #1 each employed at least two certified music specialists and music was a regularly scheduled class.

The following music programs were offered in each district:

1. District #10 - Dillon
   A. Music taught by teachers in self contained classroom - Grades K-1
   B. General Music - Grades 2-6 (required)
   C. Beginning Band - Grade 6 (elective)
   D. Junior High Band - Grade 7-8 (elective)
   E. Junior High Chorus - Grade 7-8 (elective)
2. District #1 - Deer Lodge
   A. General Music - Grades K-8 (required)
   B. Beginning Band - Grade 5 (elective)
   C. Junior High Band - Grades 6-8 (elective)
   D. Chorus - Grades 6-8 (elective)

Preparation of Assessment Materials

Released exercises from the 1978-79 Music Assessment were obtained from NAEP. A pool of released exercises for each of the NAEP music objectives was created. Exercises were randomly selected until a total of thirty minutes of exercise time had been reached. The following procedure was followed:

1. An unbiased observer was utilized for sampling purposes.
2. Exercises were grouped into sub-objective pools and shuffled.

3. The exercise pools were placed face down on a table in random order for sampling. An exercise was randomly selected without replacement from each of the pools.

4. The exercise pools were again placed in random order for sampling. A second exercise was randomly selected without replacement from each of the pools.

5. The exercise pools were again placed in random order for sampling. A third exercise was randomly selected without replacement from each of the pools until the proper time constraints had been reached.

6. Selected exercises were placed in random order in the exercise booklet. This allowed all the objectives to be assessed and still remain within the time constraints as dictated by the NAEP.

The following procedures were observed in the preparation of exercise booklets as dictated in the <u>Procedural Handbook</u> for the 1978-79 Music Assessment:

1. The booklet contained exercises of varying difficulty so that students did not become bored by many easy exercises or discouraged by many difficult exercises.

3. Exercises did not cue other exercises. In other words, the answer to one exercise was not contained in another exercise in the same booklet.

4. Two background questions, supplied by the NAEP, were included in the exercise booklet to obtain information that was used in analyzing the interrelationship between the affective values

and cognitive achievement.

5. The booklet was timed so that it took no more than 45 minutes of a student's time -- the length of a typical class period. Booklets contained approximately 30-35 minutes of exercise time and an additional 10-15 minutes of introductory material, instructions and background questions.

6. The booklet was designed to be, insofar as possible, parallel to the NAEP booklet with respect to the number of different objectives measured and difficulty levels. Exercises measuring a particular objective were scattered throughout the booklet.

7. The basic measure of achievement reported by National Assessment is the percentage of respondents answering a given exercise acceptably; therefore, the NAEP is an assessment rather than a test, and specific reliability and validity figures are not available. The following information is provided in the <u>Procedural Handbook</u>:

> Procedures for estimating percentages of responses to exercises are dependent on the sample design. Each response by an individual was weighted and multiplied by an adjustment factor or nonresponse. An estimate of the percentages of a particular age group that would have responded to a particular exercise in a particular way if the entire age group were assessed was defined as the weighted number of that type of response divided by the weighted number of all the responses. A similar ratio of weights was used to estimate percentages and averages for reporting groups or sub-populations of interest. Following the 1978-79 assessment, a weighting-class adjustment procedure was used to smooth estimated population proportion across the 10 assessments conducted between 1969-70 and 1978-79. (20-21)

Procedures and formulas for estimating variability may be located in Appendix D of the Procedural Handbook; however, due to length, inclusion will not be made in this document.

Since the music section of the NAEP was first administered in 1971, and retained the basic format for the 1978 assessment, this study assumes that the NAEP possesses internal validity and stability. It was also assumed, since the music portion of the NAEP was developed by nationally recognized music educators and lay people at the university, secondary and elementary level under the auspices of the Educational Testing Service, that the NAEP assessment contained a high degree of content validity. For the Southwestern Montana Music Assessment, reliability and validity were consistent with NAEP standards.

Every effort was made on the Southwestern Music Assessment to replicate NAEP assessment procedures. For example, students were asked to mark or write directly on the testing booklet rather than on separate answer sheets. This eliminated errors in transfer. Students were encouraged to select or write the "I don't know" response if they felt that they did not know an answer to a particular question.

A cassette tape containing music stimuli was obtained from the NAEP for use on the assessment. A paced audio tape utilizing "Standard Broadcast English" was prepared for the exercise booklet and contained instructions as suggested by the NAEP. The written portions of the exercise stimulus and response options were placed on the tape to minimize the effect of any reading difficulties and to ensure that all students moved through the booklets at the same speed. The time allocated for response to an exercise followed NAEP standards.

Precautions for Accuracy

Following the preparation of assessment materials, the assessment instrument was piloted in an elementary school district located within the six county area but not included in the study. Utilization of a pilot gave the researcher practice at administrating the assessment vehicle as well as practice at encoding, decoding, and analyzing the data. A cassette tape containing music stimuli was obtained from the NAEP. A paced audio tape containing instructions was utilized for the booklets. The written portions of the exercise stimulus and response options were played aloud to minimize the effect of any reading difficulties and to ensure that all students moved through the booklets at the same speed. The paced audio tape was developed and assembled by the researcher following the guidelines dictated by the NAEP. The tape ensured that uniform assessment conditions existed across the sampling area. Age-eligible persons who were functionally handicapped to the extent that they could not participate in an assessment were not considered. Testing instructions dictated by the NAEP were followed.

Management of Variables

Variables within the study were controlled in the following manner:

1. Teacher Variable - Complete management of the teacher variable was not possible within the constraints of the study. It was the responsibility of each school district to employ properly trained and certified teachers; therefore it was assumed that

all teachers were properly certified by the State of Montana.

2. Geographic Variable - All schools were located within the six county sampling area in Southwestern Montana and therefore fall within the boundaries of the "Western Region" as determined by the NAEP. The area may be described as mountain or mountain plateau and is located on both the eastern and western slopes of the continental divide.
3. Community/Population Variable - The sample area was within parameters of "Extreme Rural" as defined by the NAEP.
4. Socio/Economic Variable - The population was representative of a variety of socio/economic backgrounds; however, the area may be considered primarily agricultural.
5. Nonparticipation Variable - Participation in the National Assessment was voluntary, however, every effort was made to encourage students to participate. The thirteen-year-old student completion rate on the 1978-79 National Assessment for Music was eighty-five percent (National 21). Therefore, a target of eighty-five percent was utilized for this study. The student completion rate in this study for rural schools was ninety-eight percent and the completion rate for town schools was eighty-six percent.
6. Nonrandom Error Variable - Systematic errors such as exercise development, preparation of exercise booklets, design or administrative procedures, field administration, scoring or analysis may have been introduced at any stage of the assessment. According to the NAEP: "These nonsampling,

nonrandom errors rarely can be quantified, nor can the magnitude of the bias they introduce in the estimates be evaluated directly" (Procedural 22). In an effort to control these systematic errors, strict quality control in all phases of the assessment was mandatory.

Data Collection

In order to insure correct data collection, the following format was utilized:

1. Before the assessment was administered, permission to use released exercises for assessment was received from NAEP.
2. In the case of rural/extreme schools access to the schools was first gained through the county superintendent of each designated county. Working in conjunction with the county superintendent, permission was obtained to assess students in each rural school in which thirteen-year-old students were enrolled. Release forms for assessment were then sent to each parent to obtain permission for assessment. Since there were from one to six thirteen-year-old students in a designated school, all were assessed at one time.
3. In the case of School District #10 in Dillon and School District #1 in Deer Lodge the following procedures were used: Permission to administer the Southwestern Montana Music Assessment was first obtained from the superintendent and building principal. Release forms were then sent to parents to obtain their permission for assessment. With the help of

the building principal a test schedule was arranged. Following the dictates of the 1978-79 NAEP Music Assessment, the assessment was administered in groups of 10 to 25 students (Procedural 13).

4. All assessments were administered by the researcher in order to insure uniformity of data collection.
5. The Southwestern Montana music assessment was completed by December 24, 1986 in order to follow the NAEP music assessment time parameters as closely as possible.
6. School officials were asked to respond to a "principal's questionnaire" constructed by NAEP to provide information concerning the school and district background. The questionnaire asked whether music was taught as a required course or an elective course, what type of music courses were available to students and the number of students that participate in music courses.
7. A questionnaire was prepared to gather data concerning educational background, and music preparedness concerning the resident multi-classroom teacher.
8. Students were asked to respond to the "Standard Background Information Form for 13-Year-Olds" as designed by the NAEP to provide information concerning standard background information.
9. Students were asked to respond to the "Background Information on Music Experiences for 13 and 17-Year-Olds" as designed by the NAEP to provide information concerning music background

and experience.

10. The following steps were taken to guarantee the anonymity of respondents:

    1. Students' names were listed with their booklet identification number. The list of names and numbers were left at each school.

    2. The assessment administrator coded each student's birth date, sex, grade, racial/ethnic classification and identification number on his/her booklet.

    3. The school lists did not leave the school and were to be destroyed twelve months following the assessment.

Statistical Hypotheses

The purpose of this study was to assess the music background and music achievement of thirteen year old rural students in Southwestern Montana. Data for the rural Montana students were collected through utilization of selected music exercises found in the Second National Music Assessment component of the National Assessment of Educational Progress. Responses to the assessment exercises of Southwestern Montana students, expressed as percentages, were compared with the responses of thirteen-year-old students in the population sample drawn from the "Extreme Rural" type of community in the "Western" region of the United States.

Exercises for the Southwestern Montana Music assessment were selected corresponding to the following NAEP objectives and sub-objectives:

I. Value Music as an Important Realm of Human Experience
   A. Be Affectively responsive to music
   B. Be acquainted with music from different nations, cultures, genres and ethnic groups
   C. Value music in the life of the individual, family and community
   D. Make and support aesthetic judgments about music

IV. Identify the Elements and Expressive Controls of Music
   A. Identify the elements of music
   B. Identify the relationships of elements in a given composition
   C. Demonstrate an understanding of a variety of musical terms, expression markings, and conducting gestures in a musical context

V. Identify and Classify Music Historically and Culturally
   A. Identify and describe the features that characterize a variety of folk, ethnic, popular and art music
   B. Identify and describe the music and musical style of the various stylistic periods in Western civilization (e.g., Medieval, Renaissance, Baroque, Classical, Romantic), identify representative composers of each period
   C. Cite examples of ways in which man utilizes music in his social and cultural life (Procedural Handbook 2-3)

Twenty-one exercises were selected. Several exercises had sub-components that were designed to gather data concerning the exercise objective. The Southwestern Montana Music Assessment was designed to follow the NAEP objectives as closely as possible; however, due to NAEP sampling procedures, Southwestern Montana population size, sampling error, and assessment time constraints, direct comparisons of this study and the NAEP assessment of music can not be made. Exercises utilized on the Southwestern Montana Music Assessment may be located in Appendix C. Null hypotheses were tested at the .05 level of significance on each exercise and exercise sub-component.

There were no significant differences in the responses to selected NAEP music assessment exercises between the following groups:

1. Southwestern Montana rural males and Southwestern Montana rural females.
2. Southwestern Montana town males and Southwestern Montana town females.
3. Southwestern Montana males and Southwestern Montana females.
4. Southwestern Montana rural students and Southwestern Montana town students.
5. Southwestern Montana rural students and Western Extreme Rural NAEP students.
6. Southwestern Montana town students and Western Extreme Rural NAEP students.
7. Southwestern Montana students and Western Extreme Rural NAEP students.

Assessment Scoring

"I Don't Know" and "No Response"

These responses were treated as valid, but incorrect categories. "I don't know" was coded only if the respondent marked that response choice or wrote it on a free response exercise. "No response" was used when the respondent had an opportunity to respond but either left the exercise blank or marked more than one response choice.

Correct and Incorrect Response

Virtually all exercises had correct response keys. The multiple choice versions had a single correct response value, while free response exercises had a range of correct response categories.

To ensure consistency of scoring for all exercises, the assessment was hand scored by the researcher following the criteria guidelines for acceptable responses published by the NAEP. Responses were coded for use with the Statistical Package for Social Science (SPSSX) data file analysis system (Statistical).

Analysis of Data

To insure proper analysis the following types of data and variables were considered:

1. Type of Data - Exercises require a yes/no response or a selected response on a Likert scale. NAEP reports percentages of young persons answering a given exercise or a mean percentage of young persons answering correctly a set of related exercises.
2. Type of Variables - The variables were considered as independent as they did not depend upon another variable.

The null hypotheses were tested at the .05 level of significance using chi square for data analysis as recommended by NAEP (Procedural 22). In addition the level provided a degree of assurance against a Type I (Alpha) error or a Type II (Beta) error occurring.

The following format was followed for data manipulation and analysis:

1. The exercises used on the Southwestern Montana Assessment were scattered throughout nine different NAEP assessment booklets and were mixed with Art and English assessment exercises due to the matrix sampling procedure utilized by NAEP. After the

exercises were located on the NAEP data tape, the information was removed and placed into a separate file.

2. The Montana data were coded to correspond with the NAEP data.
3. The Montana data were merged into a format suitable for analysis. Due to the sampling procedure used by the NAEP, the "n" varied from exercise to exercise. Certain exercises such as demographics, personal questions, activities inside school, and activities outside of school were included in all nine NAEP booklets; therefore, a large number of students responded to these exercises. The exercises that addressed the three major objectives and sub-objectives showed a varied number of respondents. Due to this structure, analysis was done exercise by exercise to avoid contamination.
4. The hypotheses were tested at the .05 level of significance using chi square for analysis.
5. Exercises significant at the .05 level were targeted for discussion.

CHAPTER 4

PRESENTATION OF THE DATA

Introduction

The purpose of this study was to assess the music background and music achievement of thirteen-year-old rural students in Southwestern Montana. Data for the rural Montana students were established through the utilization of selective music exercises found in the Second National Music Assessment component of the National Assessment of Educational Progress (NAEP). Responses to the assessment excercises of the Southwestern Montana students, expressed as percentages, were compared with the equivalent responses of thirteen year-old-students in the population sample drawn from the "Extreme Rural" type of community in the "Western" region of the United States.

Assessment booklets were constructed using released exercises from NAEP. The exercises were randomly selected and placed in an exercise booklet along with a "student questionnaire" utilized by the NAEP. The booklet was constructed following the guidelines of the NAEP regarding assessment administration, time, and objectives. A paced audio tape was constructed to facilitate assessment administration and to reduce bias. Materials for the audio tape were provided by NAEP. The NAEP principal's questionnaire was utilized for the Southwestern Montana Music Assessment. A "Teacher Questionnaire," was developed to assess the music background of multi-classroom rural teachers. The "Teacher Questionnaire" followed the guidelines set on the 1984 Montana Music Needs Survey. The "Teacher Questionnaire" was then piloted with four rural educators and minor adjustments made.

In accordance with NAEP data collection standards, a pilot assessment was conducted using thirteen year-old-students attending school in Twin Bridges, Montana. The methodology was examined and found to be satisfactory; therefore, no changes were made to the assessment booklet. Following the pilot, the assessment was given to students in the target area. Items were then scored and translated to computer readable files. The data were typed into the computer and a printout was obtained. The printout was checked excercise by excercise and corrections made. All scoring and corrections were made by this researcher to control scorer and data entry error. The null hypotheses were tested at the .05 level of significance as used by NAEP. The data collected were nominal and ordinal; therefore, chi square was selected for data analysis. When using chi square on 2 X 2 contingency tables, the Yates' correction was not implemented for the following reason:

> Both the chi-square test of homogeneity and the chi-square test of independence for 2 X 2 contingency tables give accurate Type I error probability statements even when the expected frequencies in one or two cells are as low as 1 or 2 when N is 20 or more. The conclusion applies when marginal frequencies are equal or unequal. In all instances, the Yates correction decreases the accuracy of the probability statements; its use causes the proportion of Type I errors to be far less than the nominal value of alpha.
>
> The Yates correction is not recommended for either the chi-square test of homogeneity or the chi-square test of independence, since its use would result in an unnecessary loss of power. (Camilli 166)

Southwestern Montana Principal's Questionnaire

The administrative officer of each school district completed a questionnaire regarding the demographics of the district. The principal's questionnaire is located in Appendix C. The following information is a summary of the responses made by administrators.

Town Schools

Two town schools with thirteen-year-olds in attendance were assessed within the target area. School District number 10 located in Dillon had 926 students enrolled in the K-8 program. School District number 1 located in Deer Lodge enrolled 721 students K-8. Both schools were located in towns with a population base of 2,500 to 10,000. In addition, both schools derived eighty percent of their total school population from the town.

Vocation. The students in both schools came from parents that had diverse vocations. Parents in Dillon had twenty percent placement in each of the following: Professional or managerial; sales or clerical; technical or skilled workers; factory or other blue collar workers; farm workers. Seventy percent of the parents in Deer Lodge were sales, clerical, technical or skilled workers, with five percent employed as farm workers and five percent as professional or managerial personnel. Both Dillon and Deer Lodge had ten percent not regularly employed and ten percent on welfare.

Ethnic Background. Ninety-nine percent of the students in Dillon and Deer Lodge were White with the remaining one percent divided between American Indian, Hispanic and Black.

Certified Music Specialists. Both Dillon and Deer Lodge employed two music specialists. General classroom teachers did not teach music.

Courses Available. The following courses were available to students both in Dillon and Deer Lodge: General Music Class; Choir or other vocal music group; Vocal Lessons (class or private); Band or Instrumental Music; Instrumental Lessons (class or private).

Required Music Classes. Both Dillon and Deer Lodge schools required students in grade six to participate in music for the entire year. General music for seventh and eighth grade students was not required in Dillon and required for one-fourth school year or less in Deer Lodge.

Rural Schools

The following multi-class schools with thirteen-year-olds in attendance were in this category. K-8 enrollment is given following the name of the school: Grant - 20; Jackson - 18; Polaris - 7; Wisdom - 35; Wise River - 39; Hall - 39; Cardwell - 43; Avon - 25; Elliston - 31; Helmville - 31; Ovando - 28; Melrose - 30; Divide - 20. The Polaris school district employed one full time teacher. The Cardwell and Wisdom districts employed three full time teachers. The remainder employed two full time teachers. All the schools were located in a rural area with a population less than 2,500.

Vocation. Even though the schools may be considered rural/extreme, the parents of children in attendance at these schools had diverse vocational backgrounds. Twenty percent were professional or managerial personnel. Thirteen percent were involved in sales, clerical, technical or employed as skilled workers. Eight percent are factory or other blue collar workers. Forty-eight percent are farm workers. Eight percent were not regularly employed, and three percent were on welfare.

Ethnic Background. The Cardwell and Melrose schools both claimed two percent of their student population as American Indian with the remaining ninety-eight percent as White. The remainder of the schools had one hundred percent White students.

Certified Music Specialists. None of the schools employed a full time certificated music specialist; however, the chairman of the school board at Cardwell was a certificated music specialist and taught instrumental music at the school. The Jackson school and the Grant school utilized a non-certificated local musician to help with the music program. The classroom teachers were involved teaching music at all of the schools.

Required Music Classes. K-8 general music of some type was offered at all of the rural/extreme schools. In addition, students could elect to take private lessons, depending on the availability of private instructors. Other elective music courses were not available.

Southwestern Montana Rural Teacher Questionnaire

This questionnaire is located in Appendix C. A total of twenty-three multi-classroom teachers were surveyed and all of the teachers held a bachelor's degree. None of the teachers surveyed had a major or minor in music. Twenty-six percent of the teachers received their college training outside the state of Montana. Only one teacher surveyed was male. With regard to the teachers trained within the state of Montana, the following results were evident: Montana State University - 24%; University of Montana - 29%; Eastern Montana College - 12%; Western Montana College - 35%. The following questions regarding music background and training were asked of all the multi-grade teachers in the target area:

1. Do you have a major or minor in music? - All of the respondents answered no.
2. Did you sing in High School Choir? - Sixty-one percent responded yes.
3. Did you play in High School Band? - Seventeen percent responded yes.
4. Please mark the musical instruments you can play: Piano - Guitar - Autoharp. Forty-three percent played piano, four percent played guitar and four percent played autoharp.
5. Please mark the classes taken in College: Band - Choir - Music Fundamentals - Applied Music - Music Methods - Music History. The response to this question was as follows:

Band - 0%

Choir - 4%

Music Fundamentals - 78%

Applied Music - 17%

Music Methods - 87%

Music History - 26%

6. Do you feel that college adequately prepared you to teach music in a self contained classroom? Fifty-three percent of the respondents marked yes.

The last question was open and asked for comments regarding college preparation. The following responses were given:

1. "I wish there had been some instruction on autoharp or guitar because a piano is not always available."
2. "It is my own lack of confidence that keeps me from utilizing my background."
3. "I had a good music background before I entered college and this helps me teach music in my class room."
4. "If I had not had prior piano training before entering college, I would feel very inadequate teaching music."
5. "I think I was adequately prepared, but as I wasn't required to teach music for a number of years, skills were lost. Planning for music class in the multi-grade classroom--along with planning for everything else--becomes quite overwhelming. More materials are needed for the multi-grade classroom. Programs for Christmas and Spring also need to be developed."

6. "I feel my college training for classroom music was adequate; however, I have a desire for more self-improvement in the area of playing the piano, music theory, and music appreciation."

7. "I am not adept at music but feel I can teach the lower grades adequately. I do feel there is not enough time available to spend on music, since the emphasis of our school day is in the content areas. Better materials need to be developed for the multi-grade school."

8. "It seems to me that college classes give you a great deal of theory, and idealistic ideas to use in a practical setting. Situations like this rarely work! While I did get a large amount of information from my music classes, little of it is applicable to my situation."

9. "We need to work more on enjoyment of music and an adequate listening library is not available. Also it would be nice if more materials were developed for the multi-grade classroom."

10. "I would have liked to learn more about 'basics' and 'piano.'"

11. "The college training should be more practical and less theoretical."

12. "My music background was limited to begin with and I had little interest so my response should have no bearing on the education that the college could offer me."

13. "There were no classes taught in college that prepared me for any subject in a self contained classroom. The college

subjects were general information. This includes post graduate classes. It is up to the individual to put the fragments together and succeed in a self contained classroom."

14. "I feel I am prepared to teach the primary grades fairly well, but I am not comfortable with the upper grades because of the more complicated songs and accompaniment. I believe strongly that much more is learned when a teacher 'shows' rather than 'tells' her students how to do something and I am not very talented or skilled in the music area."

15. "I took a music fundamentals class in college but not a methods class. As a result, I feel very inadequate."

16. "I majored in history and have a secondary education certification. I did not plan on teaching in a self-contained classroom; therefore, I do not feel adequately prepared."

17. "College does not prepare you to face the isolation, lack of equipment and supplies that are present in rural teaching. Teaching in a self-contained classroom is not adequately covered in college."

18. "My lack of piano has been a real hindrance."

19. "I would like to teach more music appreciation or listening; however, materials just are not available. I would encourage elementary majors to start their own music listening library."

20. "I was not prepared to write and direct musical programs. I am required to put on a Christmas program as well as a program in the Spring."

Using a 2 X 2 chi square analysis and testing at the .05 level of significance, several comparisons were made. The universities were compared with the state colleges regarding teacher preparedness and no significant difference was found. Each of the closed questions concerning teacher training was compared with the yes/no response for preparedness and the following excercises were found to be significant: (1) A background in piano was found to be significant for preparedness in teaching music. (2) Teachers who had participated in choir during high school indicated that they were better prepared to teach music.

As shown in Table 3, a background in piano may help teachers feel better prepared to teach music; however, this study did not measure the teacher effectiveness of each individual rural teacher. The excercise reflected the teacher's personal opinion regarding preparedness.

Table 3. The piano background of Southwestern Montana Rural teachers as related to their perceived music teaching preparedness. (n = 23)

Prepared	Teachers with piano background	Teachers without piano background
Adequately	6	2
Poorly	4	11

Chi-square = 4.96 D.F. = 1 Significance: P = .0246

As shown in Table 4, rural teachers who participated in choir felt better prepared to teach music in a self-contained classroom. The excercise was merely an opinion given by the teacher and did not necessarily reflect the teacher's effectiveness. Teachers were asked to specify high school and/or college choir, and only one respondent had participated in a college choir.

Table 4. The choir background of Southwestern Montana Rural teachers as related to their perceived music teaching preparedness. (n = 23)

Prepared	Teachers with choir background	Teachers without choir background
Adequately	8	0
Poorly	6	9

Chi-square = 7.87 D.F. = 1 Significance: P = .005

Southwestern Montana Home Environmental Background

Students were asked to respond to eight questions regarding home environment and the educational background of their parents. The background of Montana students was significantly different than the background of students in the Western Rural NAEP sample. The data indicate that Montana students had significantly more reading material available in their homes than students in the NAEP sample. Tables 5, 6, 7, and 8 address the availability of reading material.

Table 5. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who had an encyclopedia in their home.

Students	Yes	No	I don't know
Mont.	86.5%	12.4%	1.1%
NAEP	73.0	25.4	1.6

Mont. (n = 178) NAEP (n = 319)
Chi-square = 12.287 D.F. = 2 Significance: P = .002

Table 6. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who received magazines regularly in their home.

Students	Yes	No	I don't know
Mont.	80.9%	15.7%	3.4%
NAEP	62.4	30.7	6.9

Mont. (n = 178) NAEP (n = 319)
Chi-square = 18.324 D.F. = 2 Significance: $P < .0001$

Table 7. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who had more than 25 books in their home.

Students	Yes	No	I don't know
Mont.	98.9%	.0%	1.1%
NAEP	88.4	8.5	3.1

Mont. (n = 178) NAEP (n = 319)
Chi-square = 18.340 D.F. = 2 Significance: $P < .0001$

Table 8. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who received a newspaper regularly in their home.

Students	Yes	No	I don't know
Mont.	76.4%	20.2%	3.4%
NAEP	63.6	32.3	4.1

Mont. (n = 178) NAEP (n = 319)
Chi-square = 8.824 D.F. = 2 Significance: $P = .0123$

Students were asked to indicate the amount of education that their mothers and fathers had received. According to the data, there was a significant difference in the educational background of the two samples. Montana parents in the sample have a higher percentage of individuals who have finished high school, have received some education after high school, and have graduated from college. Tables 9, 10, 11, and 12 address parent's education.

Table 9. Responses of Southwestern Montana and Western Extreme Rural NAEP students to the question: "How much school did your father complete?"

Students	< 8th Grade	8th Grade	< H.S	H.S.	H.S.+	I Don't Know
Mont.	.6%	2.2%	5.%	29.8%	50.0%	12.4%
NAEP	7.2	4.0	9.7	29.5	24.8	24.8

Mont. (n = 178) NAEP (n = 319)
Chi-square = 44.080 D.F = 5 Significance: P < .001

Table 10. Percentage of Southwestern Montana and Western Extreme Rural NAEP students whose fathers graduated from a college or university.

Students	Yes	No	I don't know
Mont.	32.0%	43.8%	24.2%
NAEP	14.4	57.4	28.2

Mont. (n = 178) NAEP (n = 319)
Chi-square = 22.162 D.F. = 2 Significance: P < .001

Table 11. Responses of Southwestern Montana and Western Extreme Rural NAEP students to the question: "How much school did your mother complete?"

Students	< 8th Grade	8th Grade	< H.S	H.S.	H.S.+	I Don't Know
Mont.	.0%	1.1%	7.9%	35.4%	46.6%	9.0%
NAEP	6.9	6.6	12.9	33.8	20.4	19.4

Mont. (n = 178) NAEP (n = 319)
Chi-square = 55.807 D.F = 5 Significance: P < .001

Table 12. Percentage of Southwestern Montana and Western Extreme Rural NAEP students whose mothers graduated from a college or university.

Students	Yes	No	I don't know
Mont.	36.5%	46.1%	17.4%
NAEP	16.0	62.7	21.3

Mont. (n = 178) NAEP (n = 319)
Chi-square = 27.515 D.F. = 2 Significance: P < .001

Southwestern Montana Music Assessment

The original NAEP designers developed a matrix sampling procedure that would insure that no student would take more than a small sample of diverse exericises. Music exercises were merged with art and English and placed in nine different booklets. This was to insure that each booklet was different and that results could not be reported at the state or district level. They capitalized on the stengths of the matrix sampling to insure a complete coverage of the objectives and sub-objectives in a subject area.

This type of sampling procedure worked well for NAEP due to sample size and area. The Southwestern Montana Music Assessment was much more narrow in scope and matrix sampling was not used. This created a problem in that all of the exercises utilized by the NAEP could not be used in the Southwestern Montana Music Assessment. A complete picture of an objective or sub-objective may not be given due to omission of data. In viewing the results from the Southwestern Montana Music Assessment, data must be compared exercise by exercise.

The following Music Objectives listed in the Procedural Handbook, 1978 Music Assessment were utilized in the Southwest Montana Music Assessment:

I. Value Music as an Important Realm of Human Experience
   A. Be affectively responsive to music
   B. Be acquainted with music from different nations, cultures, periods, genres and ethnic groups
   C. Value music in the life of the individual, family and community
   D. Make and support aesthetic judgments about music

IV. Identify the Elements and Expressive Controls of Music
   A. Identify the elements of music
   B. Identify the relationships of elements in a given composition
   C. Demonstrate an understanding of a variety of musical terms, expression markings and conducting gestures in a musical context

V. Identify and Classify Music Historically and Culturally
   A. Identify and describe the features that characterize a variety of folk, ethnic, popular and art music
   B. Identify and describe the music and musical style of the various stylistic periods in Western civilization (e.g., Medieval, Renaissance, Baroque, Classical, Romantic), identify representative composers of each period
   C. Cite examples of ways in which man utilizes music in his social and cultural life (2-3)

In order to collect information to measure the above objectives, a minimum of two exercises were used for each sub-objective. As indicated previously, due to the limitations of the assessment instrument, the exercises may not give a complete picture of all of the above objectives and sub-objectives; therefore, each exercise must be examined separately. Each of these exercises was tested using the hypotheses as listed in Chapter 3. In addition, data were collected and analyzed concerning activities inside and outside of school. Data pertaining to the exercises are presented in this chapter and are grouped according to the objectives and sub-objectives identified by NAEP.

In order to conceptualize the assessment, matricies of in-school, outside of school, and NAEP objectives are presented in Appendix B. The Southwestern Montana Music Assessment booklet is located in Appendix C. Following the presentation of the statistical analysis for each assessment exercise, a summary table of responses for the exercise is provided.

Activities Outside of School

Students were asked to give a "yes", "no", or "I don't know" response to participation in activities outside of school. The following activities were listed:

A. Listen to Music?

B. Sing just for fun?

C. Sing with friends just for fun?

D. Sing in a church or community music group?

E. Play a musical instrument by yourself just for fun?

F. Play a musical instrument with friends just for fun?

G. Play a musical instrument in a church or community music group?

H. Take music lessons?

I. Make up your own music?

A. Listen to Music. There were no significant differences found on this excercise.

B. Sing For Fun. As shown in Table 13, sixty-four percent of the Southwestern Montana females sang outside of school compared with forty-four percent for the male population.

Table 13. Percentage of Southwestern Montana Male and Southwestern Montana Female students who sang for fun outside of school.

Students	Yes	No	I don't know
Male	44.0%	56.0%	.0%
Female	63.8	36.2	.0

Male (n = 84) Female (n = 94)
Chi-square = 7.000 D.F. = 1 Significance: P = .0081

C. Sing With Friends For Fun. As shown in Table 14, forty-seven percent of the Southwestern Montana Town females sang with friends while only nineteen percent of the males sang. When the rural and town data were merged, Southwestern Montana females sang with friends forty-nine percent of the time while males sang twenty-one percent (see Table 15).

Table 14. Percentage of Southwestern Montana Town Male and Southwestern Montana Town Female students who sang with friends just for fun outside of school.

Students	Yes	No	I don't know
Male	19.0%	81.0%	.0%
Female	47.3	52.7	.0

Male (n = 58) Female (n = 74)
Chi-square = 11.495 D.F. = 2 Significance: P = .0007

Table 15. Percentage of Southwestern Montana Male and Southwestern Montana Female students who sang with friends just for fun outside of school.

Students	Yes	No	I don't know
Male	21.4%	78.6%	.0%
Female	48.9	51.1	.0

Male (n = 84) Female (n = 94)
Chi-square = 14.576 D.F. = 1 Significance: P = .0001

D. Sing in a Church or Community Music Group. As shown in Table 16, thirty-nine percent of the Southwestern Montana Town females sang in church compared with fourteen percent of the males. When the data were merged, Southwestern Montana females sang in church forty percent of the time while males sang only twenty percent (see Table 17).

Table 16. Percentage of Southwestern Montana Town Male and Southwestern Montana Town Female students who sang in a church or music group outside of school.

Students	Yes	No	I don't know
Male	13.8%	84.5%	1.7%
Female	39.2	60.8	.0

Male (n = 58) Female (n = 74)
Chi-square = 11.316 D.F. = 2 Significance: P = .0035

Table 17. Percentage of Southwestern Montana Male and Southwestern Montana Female students who sang in a church or community group.

Students	Yes	No	I don't know
Male	20.2%	77.4%	2.4%
Female	40.4	59.6	.0

Male (n = 84) Female (n = 94)
Chi-square = 10.158 D.F. = 2 Significance: P = .0062

E. Play a Musical Instrument by Yourself. As shown in Table 18, sixty-four percent of the Southwestern Montana female students played a musical instrument by themselves while forty-five percent of the males played an instrument. When Southwestern Montana rural and town data were merged, sixty-seven percent of the females marked yes on this excercise while forty-six percent of the males responded yes (see Table 19). Sixty-three percent of the Southwestern Montana Rural students played a musical instrument by themselves as compared with fifty-five percent of the Town sample (see Table 20). Sixty-three percent of Southwestern Montana Rural students played a musical instrument by themselves as compared with thirty-five percent for the Western Extreme Rural NAEP students (see Table 21). As shown in Table 22, fifty-five percent of the Southwestern Montana Town students played a musical instrument by themselves while Western Extreme Rural NAEP students marked yes only thirty-five percent of the time. When the data were merged, fifty-seven percent of the Southwestern Montana sample marked yes on this excercise and thirty-five percent of the Western Extreme Rural NAEP sample marked yes (see Table 23).

Table 18. Percentage of Southwestern Montana Town Male and Southwestern Montana Town Female students who played a musical instrument by themselves just for fun outside of school.

Students	Yes	No	I don't know
Male	44.8%	55.2%	.0%
Female	63.5	36.5	.0

Male (n = 58) Female (n = 74)

Chi-square = 4.593 D.F. = 1 Significance: P = .0321

Table 19. Percentage of Southwestern Montana Male and Southwestern Montana Female students who played a musical instrument by themselves just for fun outside of school.

Students	Yes	No	I don't know
Male	46.4%	52.4%	1.2%
Female	67.0	31.9	1.1

Male (n = 84) Female (n = 94)
Chi-square = 7.758 D.F. = 2 Significance: P = .0207

Table 20. Percentage of Southwestern Montana Rural and Southwestern Montana Town students who played a musical instrument by themselves just for fun outside of school.

Students	Yes	No	I don't know
Rural	63.0%	32.6%	4.4%
Town	55.3	44.7	.0

Rural (n = 46) Town (n = 132)
Chi-square = 7.295 D.F. = 2 Significance: P = .0261

Table 21. Percentage of Southwestern Montana Rural and Western Extreme Rural NAEP students who played a musical instrument by themselves just for fun outside of school.

Students	Yes	No	I don't know
Mont.	63.0%	32.6%	4.4%
NAEP	34.5	64.6	.9

Mont. (n = 46) NAEP (n = 316)
Chi-square = 18.718 D.F. = 2 Significance: P = .0001

Table 22. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who played a musical instrument by themselves just for fun outside of school.

Students	Yes	No	I don't know
Mont.	55.3%	44.7%	.0%
NAEP	34.5	64.6	.9

Mont. (n = 132) NAEP (n = 316)
Chi-square = 17.433 D.F. = 2 Significance: P = .0002

Table 23. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who played a musical instrument by themselves just for fun outside of school.

Students	Yes	No	I don't know
Mont.	57.3%	41.6%	1.1%
NAEP	34.5	64.6	.9

Mont (n = 178) NAEP (n = 316)
Chi-square = 24.592 D.F. = 2 Significance: P = .0000

F. Play a Musical Instrument With Friends. No significant differences were found on this excercise.

G. Play a Musical Instrument in a Church or Community Group. No significant differences were found on this excercise.

H. Take Music Lessons. As shown in Table 24 and 25, thirty-three percent of the Southwestern Montana rural students and thirty-six percent of the Southwestern Montana town students took lessons while only eighteen percent of the Western Extreme Rural NAEP students responded in the same manner. When the Southwestern Montana data were merged, thirty-five percent of the Montana students took lessons (see Table 26).

Table 24. Percentage of Southwestern Montana Rural and Western Extreme Rural NAEP students who took music lessons outside of school.

Students	Yes	No	I don't know
Mont.	32.6%	67.4%	.0%
NAEP	17.7	82.3	.0

Mont. (n = 46) NAEP (n = 316)
Chi-square = 5.64452 D.F. = 1 Significance: P = .0175

Table 25. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who took music lessons outside of school.

Students	Yes	No	I don't know
Mont.	36.4%	63.6%	.0%
NAEP	17.7	82.3	.0

Mont. (n = 132) NAEP (n = 316)
Chi-square = 18.153 D.F. = 1 Significance: P = .0000

Table 26. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who took music lessons outside of school.

Students	Yes	No	I don't know
Mont.	35.4%	64.6%	.0%
NAEP	17.7	82.3	.0

Mont. (n = 178) NAEP (n = 317)
Chi-square = 19.445 D.F. = 1 Significance: P = .0000

I. Make Up Your Own Music. There were no significant differences on this exercise.

Music Activities Outside of School Summary. Responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural students regarding "activities outside of school" are located in Table 27.

Table 27. Percentage of "Yes" responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students to the question: "Which of the following activities do you do outside of school?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
A. Listen to Music	98%	92%	87%
B. Sing For Fun	63	52	60
C. Sing With Friends	40	35	40
D. Sing in Church/Community	39	28	29
E. Play Instr. by self	63	55	34
F. Play Instr. with Friends	28	24	18
G. Play Instr. in Church/Comm.	9	20	14
H. Take Music Lessons	33	36	18
I. Make up Own Music	30	30	41

Music Activities In School

Students were asked to mark the number of years of participation in selected music activities in school. The following activities were listed:

A. General Music Class or Music Appreciation?

B. Choir, Chorus or Glee Club?

C. Band or Instrumental Music?

D. Orchestra?

E. Introduction to Music, Music Literature or Music History?

F. Music Theory Class or Music Composition?

A. General Music. Thirty-three percent of the Southwestern Montana Rural students (see Table 28) had not participated and seventeen percent of the Southwestern Montana Town students (see Table 29) had not taken general music. These may be compared to forty-two percent for the Western Extreme Rural NAEP sample. When the

Southwestern Montana data were merged, twenty-one percent had never taken a general music class compared with forty-two percent for the Western Extreme Rural NAEP sample (see Table 30).

Table 28. Percentage of Southwestern Montana Rural and Western Extreme Rural NAEP students who participated in general music class.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	32.6%	4.3%	19.6%	10.9%	32.6%
NAEP	41.1	16.9	7.8	11.6	22.6

Mont. (n = 46) NAEP (n = 319)
Chi-square = 12.520 D.F = 4 Significance: P = .0139

Table 29. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who had participated in general music class.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	16.7%	11.4%	18.2%	11.4%	42.4%
NAEP	41.1	16.9	7.8	11.6	22.6

Mont. (n = 132) NAEP (n = 319)
Chi-square = 40.441 D.F = 4 Significance: P = .0000

Table 30. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who had participated in general music class.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	20.8%	9.6%	18.5%	11.2%	39.9%
NAEP	41.1	16.9	7.8	11.6	22.6

Mont. (n = 178) NAEP (n = 319)
Chi-square = 41.387 D.F = 4 Significance: P = .0000

B. Choir. As shown in Table 31, a significant difference was found between Southwestern Montana Town males and females regarding participation in chorus. Sixty-seven percent of the males responded that they had never taken chorus while thirty-seven percent of the females marked the same response. When rural and town data were merged, seventy percent of the males responded that they had never taken chorus and forty-five percent of the females marked the same response (see Table 32). Fifty percent of the Southwestern Montana Town students had never taken choir while seventy-six percent of the rural students (see Table 33), and seventy percent of the Western Extreme Rural sample had never participated (see Table 34). Fifty percent of the Southwestern Montana Town students had never participated in choir compared with seventy percent for the Western Extreme Rural NAEP sample (see Table 35).

Table 31. Responses of Southwestern Montana Town Male and Southwestern Town Female students regarding participation in chorus.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Male	67.2%	17.2%	8.6%	3.4%	3.4%
Female	36.5	24.3	24.3	12.2	2.7

Male (n = 58) Female (n = 74)

Chi-square = 14.544 D.F = 4 Significance: P = .0057

Table 32. Percentage of Southwestern Montana Male and Southwestern Montana Female students who participated in chorus or glee club.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Male	70.2%	17.9%	7.1%	2.4%	2.4%
Female	44.7	22.3	20.2	9.6	3.2

Male (n = 84) Female (n = 94)
Chi-square = 14.760 D.F = 4 Significance: P = .0052

Table 33. Percentage of Southwestern Montana Rural and Southwestern Montana Town students who participated in chorus or glee club.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Rural	76.1%	17.4%	4.3%	0%	2.2%
Town	50.0	21.2	17.4	8.3	3.0

Rural (n = 46) Town (n = 132)
Chi-square = 12.41 D.F = 4 Significance: P = .0145

Table 34. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who had participated in chorus or glee club.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	50.0%	21.2%	17.4%	8.3%	3.0%
NAEP	69.5	13.5	12.6	2.8	1.6

Mont. (n = 132) NAEP (n = 318)
Chi-square = 17.968 D.F = 4 Significance: P = .0013

Table 35. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who had participated in chorus or glee club.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	56.7%	20.2%	14.0%	6.2%	2.8%
NAEP	69.5	13.5	12.6	2.8	1.6

Mont. (n = 178) NAEP (n = 318)
Chi-square = 10.307 D.F = 4 Significance: P = .0356

C. Band. As shown in Table 36, forty percent of the Southwestern Montana female students had not participated in band while twenty-five percent of the males had not participated.. Forty-eight percent of the Southwestern Montana Rural students had never taken band while twenty-eight percent of the Town students had not participated (see Table 37). Twenty-eight percent of the Southwestern Montana Town students had not participated in band while fifty-three percent of the Western Extreme Rural NAEP sampled had not (see Table 38). When data were merged for the Southwestern Montana rural and town sample, thirty-three percent had never taken band while fifty-three percent of the Western Extreme Rural NAEP sample had not participated (see Table 39).

Table 36. Percentage of Southwestern Montana Male and Southwestern Montana Female students who participated in band or instrumental music.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Male	25.0%	27.4%	38.1%	8.3%	1.2%
Female	40.4	11.7	36.2	8.5	3.2

Male (n = 84) Female (n = 94)
Chi-square = 9.730 D.F = 4 Significance: P = .0452

Table 37. Percentage of Southwestern Montana Rural and Southwestern Montana Town students who participated in band or instrumental music.

Students	Have never taken	Less than 1 Year	1 to 2 years	3 to 4 years	5 or more years
Rural	47.8%	28.3%	13.0%	6.5%	4.3%
Town	28.0	15.9	45.5	9.1	1.5

Rural (n = 46) Town (n = 132)
Chi-square = 17.907 D.F = 4 Significance: P = .0013

Table 38. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who had participated in band or instrumental music.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	28.0%	15.9%	45.5%	9.1%	1.5%
NAEP	53.3	18.2	12.9	14.1	1.6

Mont. (n = 132) NAEP (n = 319)
Chi-square = 59.429 D.F = 4 Significance: P = .0000

Table 39. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who had participated in band or instrumental music.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	33.1%	19.1%	37.1%	8.4%	2.2%
NAEP	53.3	18.2	12.9	14.1	1.6

Mont. (n = 178) NAEP (n = 319)
Chi-square = 44.605 D.F = 4 Significance: P = .0000

D. Orchestra. There were no significant differences on this exercise.

E. Introduction to Music. As shown on Table 40, ninety-nine percent of the Southwestern Montana Town students had never taken introduction to music while seventy-five percent of the Western Extreme Rural NAEP sample had never participated. When Southwestern Montana rural and town data were merged, ninety-eight percent had never participated while seventy-five percent of Western Extreme Rural NAEP sample responded in the same manner (see Table 41).

Table 40. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who had participated in introduction to music, music literature, or music history.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	99.2%	.8%	.0%	.0%	.0%
NAEP	74.6	17.2	4.7	1.9	1.6

Mont. (n = 132) NAEP (n = 319)
Chi-square = 38.115 D.F = 4 Significance: P = .0000

Table 41. Percentage of Southwestern Montana and Western extreme Rural NAEP students who had participated in introduction to music, music literature, or music history.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	97.8%	2.2%	.0%	.0%	.0%
NAEP	74.6	17.2	4.7	1.9	1.6

Mont. (n = 178) NAEP (n = 319)
Chi-square = 43.528 D.F = 4 Significance: P = .0000

F. Music Theory or Music Composition. As shown in Table 42, not one student in the Southwestern Montana Town sample had taken music theory while eighty-seven percent of the Western Extreme Rural NAEP had never participated. When the Southwestern Montana rural and town data were merged, ninety-eight percent of the students had never taken music theory compared with eighty-seven percent of the Western Extreme Rural NAEP sample (see table 43).

Table 42. Percentage of Southwestern Montana Town and Western Extreme Rural NAEP students who had participated in music theory or music composition.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	100.0%	.0%	.0%	.0%	.0%
NAEP	86.5	8.8	2.5	.9	1.3

Mont. (n = 132) NAEP (n = 318)
Chi-square = 19.669 D.F = 4 Significance: P = .0006

Table 43. Percentage of Southwestern Montana and Western Extreme Rural NAEP students who had participated in music theory or music composition.

Students	Have never taken	Less than 1 year	1 to 2 years	3 to 4 years	5 or more years
Mont.	97.8%	1.7%	.6%	.0%	.0%
NAEP	86.5	8.8	2.5	.9	1.3

Mont (n = 178) NAEP (n = 318)
Chi-square = 17.100 D.F = 4 Significance: P = .0018

<u>In School Activities Summary</u>. Several of the exercises included in these activities were not significant. To facilitate understanding, percentages of "Have Never Taken" for each question are given below in Table 44.

Table 44. Percentage of "Have Never Taken" responses by Southwestern Montana Rural, Town, and Western Extreme Rural NAEP students to the statement: "Indicate how many years you have participated in each activity in school."

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
A. General Music	33%	17%	41%
B. Choir	76	50	70
C. Band	48	28	53
D. Orchestra	100	99	95
E. Intro to Music	94	99	75
F. Music Theory	91	100	87

Objective I: Value Music as an Important Realm of Human Experience

This NAEP objective contains four sub-objectives. For the 1978-79 National Music Assessment the NAEP used a total of 20 exercises to assess this objective. These 20 exercises were utilized in the following manner: Sub-objective I-A, 3 exercises; Sub-objective I-B, 5 exercises; Sub-objective I-C, 9 exercises; and Sub-objective I-D, 3 exercises. The exercises used for this assessment were provided by the NAEP; however, due to the limitations of this study, the full range and number of exercises used by NAEP were not used in this study. Due to these omissions, each exercise or item must be examined separately and the collective exercises may not completely measure the entire objective or sub-objective.

Sub-Objective I-A: Be affectively responsive to music. This sub-objective used only two of the three possible NAEP exercises for assessment. On exercise number four (4-A, 4-B, 4-C, & 4-D), musical selections were played and the students were asked how much they liked the music. The music selections were as follow:

A. Ludwig Van Beethoven, Fidelio (Excerpt from Overture)

B. Ramsey Lewis, "Wade in the Water" (Excerpt)

C. Peter Tchaikovsky, "Waltz of the Flowers" (Excerpt)

D. Gustav Holst, "Mercury" (Excerpt)

Exercise number 14 asked students to respond to the question: "Can music change the way you feel?"

Exercise 4-A. Significantly more Southwestern Montana Town females (26%) than males (7%) liked the music of Beethoven (see Table 45). When the data were merged, significantly more Southwestern Montana females (30%) than males (12%) liked the music of Beethoven (see Table 46). Nearly thirty-three percent of the Southwestern Montana students liked the music of Beethoven compared with twenty-five percent of the Western Extreme Rural NAEP sample (see Table 47). There were no other significant differences on this exercise.

Table 45. Responses by Southwestern Montana Town Male and Southwestern Montana Town Female students regarding their preference for the musical selection Fidelio by Beethoven.

Students	Very Much	Some	Not Very Much	Not At All
Male	1.7%	5.2%	15.5%	77.6%
Female	4.1	21.6	35.1	39.2

Male (n = 58) Female (n = 74)

Chi-square = 19.965 D.F. = 3 Significance: P = .0002

Table 46. Responses by Southwestern Montana Male and Southwestern Montana Female students regarding their preference for the musical selection _Fidelio_ by Beethoven.

Students	Very Much	Some	Not Very Much	Not At All
Male	2.4%	9.5%	25.0%	63.1%
Female	8.5	21.3	36.2	34.0

Male (n = 84) Female (n = 94)
Chi-square = 16.494 D.F. = 3 Significance: P = .0009

Table 47. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students regarding their preference for the musical selection _Fidelio_ by Beethoven.

Students	Very Much	Some	Not Very Much	Not At All
Mont.	13.0%	19.6%	43.5%	23.9%
NAEP	.0	24.5	16.3	59.2

Mont. (n = 46) NAEP (n = 49)
Chi-square = 19.596 D.F. = 3 Significance: P = .0002

Exercise 4-B. As shown in Table 48, significantly fewer Southwestern Montana Rural students (41%) than Western Extreme Rural NAEP students (69%) liked the music of Lewis. Nearly thirty percent of the Southwestern Montana Town sample liked the music of Lewis while sixty-nine percent of the Western Extreme Rural NAEP sample liked the music (see Table 49). When the data were merged, only thirty-two percent of the Southwestern Montana students liked the music of Lewis, compared with sixty-nine percent of the Western Extreme Rural NAEP sample (see Table 50). There were no other significant differences on this exercise.

Table 48. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students regarding their preference for the musical selection Wade in the Water by Ramsey Lewis.

Students	Very Much	Some	Not Very Much	Not At All
Mont.	4.3%	37.0%	32.6%	26.1%
NAEP	12.2	57.1	8.2	22.4

Mont. (n = 46) NAEP (n = 49)
Chi-square = 11.017 D.F. = 3 Significance: P = .0116

Table 49. Responses by Southwestern Montana Town and Western Extreme Rural NAEP students regarding their preference for the musical selection Wade in the Water by Ramsey Lewis.

Students	Very Much	Some	Not Very Much	Not At All
Mont.	.8%	28.8%	36.4%	34.1%
NAEP	12.2	57.1	8.2	22.4

Mont. (n = 132) NAEP (n = 49)
Chi-square = 31.529 D.F. = 3 Significance: P = .0000

Table 50. Responses by Southwestern Montana and Western Extreme Rural NAEP students regarding their preference for the musical selection Wade in the Water by Ramsey Lewis.

Students	Very Much	Some	Not Very Much	Not At All
Mont.	1.7%	30.9%	35.4%	32.0%
NAEP	12.2	57.1	8.2	22.4

Mont. (n = 178) NAEP (n = 49)
Chi-square = 28.871 D.F. = 3 Significance: P = .0000

Exercise 4-C. Significantly more Southwestern Montana Town Females (33%) than males (5%) liked the music of Tchaikovsky (see Table 51). When the Southwestern Montana data were merged, significantly more females (36%) than males (10%) liked the music of Tchaikovsky (see Table 52). Nearly thirty-three percent of the Southwestern Montana

Rural students liked the music of Tchaikovsky. This compares with twenty-two percent for the Western Extreme Rural NAEP sample (see Table 53). There were no other significant differences on this exercise.

Table 51. Responses by Southwestern Montana Town Male and Southwestern Town Female students regarding their preference for the musical selection <u>Waltz of the Flowers</u> by Tchaikovsky.

Students	Very Much	Some	Not Very Much	Not At All
Male	1.7%	3.4%	13.8%	81.0%
Female	12.2	20.3	29.7	37.8

Male (n = 58) Female (n = 74)
Chi-square = 26.132 D.F. = 3 Significance: P = .0000

Table 52. Responses by Southwestern Montana Male and Southwestern Montana Female students regarding their preference for the musical selection <u>Waltz of the Flowers</u> by Tchaikovsky.

Students	Very Much	Some	Not Very Much	Not At All
Male	2.4%	7.1%	19.0%	71.4%
Female	11.7	24.5	29.8	34.0

Male (n = 84) Female (n = 94)
Chi-square = 27.516 D.F. = 3 Significance: P = .0000

Table 53. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students regarding their preference for the musical selection <u>Waltz of the Flowers</u> by Tchaikovsky.

Students	Very Much	Some	Not Very Much	Not At All
Mont.	6.5%	26.1%	30.4%	37.0%
NAEP	6.1	16.3	8.2	69.4

Mont. (n = 46) NAEP (n = 49)
Chi-square = 11.939 D.F. = 3 Significance: P = .0076

Exercise 4-D. There were no significant differences between groups regarding preference for the music of Holst.

A summary of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses for exercise four is viewed in Table 54.

Table 54. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students that "liked" the music of Beethoven, Lewis, Tchaikovsky, & Holst.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
IA: Beethoven	33%	17%	25%
IB: Lewis	41	30	69
IC: Tchaikovsky	33	20	23
ID: Holst	26	33	22

Exercise 14. There were no significant differences on this exercise.

A summary of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses is viewed in Table 55.

Table 55. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses to the question: "Can music change the way you feel?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Yes	98%	88%	100%

Composite I-A. When the data from all exercises were merged, there were no significant differences between any groups.

<u>Sub-Objective I-B: Be acquainted with music from different nations, cultures, genres and ethnic groups.</u> This sub-objective used only two of the five possible NAEP exercises for assessment. On exercise number nine (9-A, 9-B, 9-C, 9-D, 9-E, 9-F, 9-G, 9-H, & 9-I), students were asked the question: "Do you like to see live performances of each of the following kinds of music?"

A. Rock
B. Jazz
C. Symphonic
D. Opera
E. Ballet
F. Folk
G. Country & Western
H. Soul
I. Religious Music

Exercise number eleven required students to respond to the following question: "If you could buy only one record or tape, which kind would you buy?"

A. Jazz
B. Classical
C. Broadway Musical
D. Country and Western
E. Rock
F. Soul

Exercise 9-A. Rock - There were no significant differences on this exercise.

Exercise 9-B. Jazz - Significantly more Western Extreme Rural NAEP students (49%) than Southwestern Montana Rural students (39%) liked to see live performances of Jazz (see Table 56). Significantly more Western Extreme Rural NAEP students (49%) than Southwestern Montana Town students (39%) preferred jazz (see Table 57). As shown in Table 58, significantly more students in the Western Extreme Rural sample (49%) liked to see live performances of jazz than did students in the Southwestern Montana sample (39%). There were no other significant differences on this exercise.

Table 56. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of jazz music?"

Students	Yes	No	I don't know
Mont.	39.1%	47.8%	13.0%
NAEP	49.0	51.0	.0

Mont. (n = 46) NAEP (n = 49)
Chi-square = 6.961 D.F. = 2 Significance: P = .0308

Table 57. Responses by Southwestern Montana Town and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of jazz music?"

Students	Yes	No	I don't know
Mont.	39.4%	48.5%	12.1%
NAEP	49.0	51.0	.0

Mont. (n = 132) NAEP (n = 49)
Chi-square = 6.768 D.F. = 2 Significance: P = .0339

Table 58. Responses by Southwestern Montana and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of jazz music?

Students	Yes	No	I don't know
Mont.	39.3%	48.3%	12.4%
NAEP	49.0	51.0	.0

Mont. (n = 178) NAEP (n = 49)
Chi-square = 6.978 D.F. = 2 Significance: P = .0305

Exercise 9-C. Symphonic - Twenty-three percent of the Southwestern Montana females liked to see live performances of symphonic music while only fourteen percent of the males marked "yes" on this exercise (see Table 59). Twenty-eight percent of the Southwestern Montana Rural students liked to see live performances of symphonic music as compared with only six percent of the Western Extreme Rural NAEP students (see Table 60). There were no other significant differences on this exercise.

Table 59. Responses by Southwestern Montana Male and Southwestern Montana Female students to the question: "Do you like to see live performances of symphonic music?"

Students	Yes	No	I don't know
Male	14.3%	76.2%	9.5%
Female	23.4	54.3	22.3

Male (n = 84) Female (n = 94)
Chi-square = 9.707 D.F. = 2 Significance: P = .0078

Table 60. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of symphonic music?"

Students	Yes	No	I don't know
Mont.	28.3%	56.5%	15.2%
NAEP	6.1	79.6	14.3

Mont. (n = 46) NAEP (n = 49)
Chi-square = 8.764 D.F. = 2 Significance: P = .0125

Exercise 9-D. Opera - Significantly more Southwestern Montana Rural females (25%) than males (4%) liked to see live performances of opera (see Table 61). When rural and town data from the Southwestern Montana sample were merged, females (14%) liked to see live performances of opera significantly more than did their male counterparts (2%) (see Table 62). There were no other significant differences on this exercise.

Table 61. Responses by Southwestern Montana Rural Male and Southwestern Montana Rural Female students to the question: "Do you like to see live performances of opera?"

Students	Yes	No	I don't know
Male	3.8%	92.4%	3.8%
Female	25.0	60.0	15.0

Male (n = 26) Female (n = 20)
Chi-square = 7.003 D.F. = 2 Significance: P = .0301

Table 62. Responses by Southwestern Montana Male and Southwestern Montana Female students to the question: "Do you like to see live performances of opera?"

Students	Yes	No	I don't know
Male	2.4%	95.2%	2.4%
Female	13.8	79.8	6.4

Male (n = 84) Female (n = 94)
Chi-square = 9.697 D.F. = 2 Significance: P = .0078

Exercise 9-E. Ballet - Significantly more Southwestern Montana females (65%) than males (4%) liked to see live performances of ballet (see Table 63). When the Southwestern Montana data were merged, significantly more females (50%) than males (2%) liked to see live performances of ballet (see Table 64). There were no other significant differences on this exercise.

Table 63. Responses by Southwestern Montana Rural Male and Southwestern Montana Rural Female students to the question: "Do you like to see live performances of ballet?"

Students	Yes	No	I don't know
Male	3.8%	96.2%	.0%
Female	65.0	25.0	10.0

Male (n = 26) Female (n = 20)
Chi-square = 25.266 D.F. = 2 Significance: P = .0000

Table 64. Responses by Southwestern Montana Male and Southwestern Montana Female students to the question: "Do you like to see live performances of ballet?"

Students	Yes	No	I don't know
Male	2.4%	96.4%	1.2%
Female	50.0	42.6	7.4

Male (n = 84) Female (n = 94)
Chi-square = 59.345 D.F. = 2 Significance: P = .0000

Exercise 9-F. Folk - There were no significant differences on this exercise.

Exercise 9-G. Country & Western - Significantly more Southwestern Montana Rural students (78%) than Southwestern Montana Town students (52%) liked to see live performances of country western music (see Table 65). Significantly more Southwestern Montana Rural students (78%) than Western Extreme Rural NAEP students (49%) liked to see live performances of country western music (see Table 66). There were no other significant differences on this exercise.

Table 65. Responses by Southwestern Montana Rural and Southwestern Montana Town students to the question: "Do you like to see live performances of country western music?"

Students	Yes	No	I don't know
Rural	78.3%	13.0%	8.7%
Town	51.5	38.6	9.8

Rural (n = 46) Town (n = 132)
Chi-square = 11.20135 D.F. = 2 Significance: P = .0037

Table 66. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of country western music?"

Students	Yes	No	I don't know
Mont.	78.3%	13.0%	8.7%
NAEP	49.0	46.9	4.1

Mont. (n = 46) NAEP (n = 49)
Chi-square = 12.950 D.F. = 2 Significance: P = .0015

Exercise 9-H. Soul - Significantly more Southwestern Montana males (16%) than females (12%) liked to see live performances of soul music (see Table 67). Significantly more Western Extreme Rural NAEP students (57%) than Southwestern Montana Rural students (11%) liked to see live performances of soul music (see Table 68). Significantly more Western Extreme Rural NAEP students (57%) than Southwestern Montana Town students (14%) liked to see live performances of soul music (see Table 69). Significantly more Western Extreme Rural NAEP students (57%) than Southwestern Montana students (14%) liked to see live performances of soul music (see Table 70). There were no other significant differences on this exercise.

Table 67. Responses by Southwestern Montana Male and Southwestern Montana Female students to the question: "Do you like to see live performances of soul music?"

Students	Yes	No	I don't know
Male	15.5%	75.0%	9.5%
Female	11.7	63.8	24.5

Male (n = 84) Female (n = 94)
Chi-square = 6.958 D.F. = 2 Significance: P = .0308

Table 68. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of soul music?"

Students	Yes	No	I don't know
Mont.	10.9%	67.4%	21.7%
NAEP	57.1	38.8	4.1

Mont. (n = 46) NAEP (n = 49)
Chi-square = 24.173 D.F. = 2 Significance: P = .0000

Table 69. Responses by Southwestern Montana Town and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of soul music?".

Students	Yes	No	I don't know
Mont.	14.4%	69.7%	15.9%
NAEP	57.1	38.8	4.1

Mont. (n = 132) NAEP (n = 49)
Chi-square = 34.654 D.F. = 2 Significance: P = .0000

Table 70. Responses by Southwestern Montana and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of soul music?"

Students	Yes	No	I don't know
Mont.	13.5%	69.1%	17.4%
NAEP	57.1	38.8	4.1

Mont. (n = 178) NAEP (n = 49)
Chi-square = 42.320 D.F. = 2 Significance: P = .0000

Exercise 9-I. Religious Music - Significantly more Southwestern Montana Rural female students (20%) than Southwestern Montana Rural males (0%) liked to see live performances of religious music (see Table 71). Significantly more Southwestern Montana female students (16%) than Southwestern Montana males (2%) liked to see live performances of religious music (see Table 72). Significantly more Western Extreme Rural NAEP students (31%) than Southwestern Montana Rural students (9%) liked to see live performances of religious music (see Table 73). Significantly more Western Extreme Rural NAEP students (31%) than Southwestern Montana Town students (10%) liked to see live performances of religious music (see Table 74). Significantly more Western Extreme Rural NAEP students (31%) than students in the merged Southwestern

Montana sample (10%) liked to see live performances of religious music (see Table 75). There were no other significant differences on this exercise.

Table 71. Responses by Southwestern Montana Rural Male and Southwestern Montana Rural Female students to the question: "Do you like to see live performances of religious music?"

Students	Yes	No	I don't know
Male	.0%	92.3%	7.7%
Female	20.0	65.0	15.0

Male (n = 26) Female (n = 20)
Chi-square = 6.803 D.F. = 2 Significance: P = .0333

Table 72. Responses by Southwestern Montana Male and Southwestern Montana Female students to the question: "Do you like to see live performances of religious music?"

Students	Yes	No	I don't know
Male	2.4%	94.0%	3.6%
Female	16.0	72.3	11.7

Male (n = 84) Female (n = 94)
Chi-square = 14.820 D.F. = 2 Significance: P = .0006

Table 73. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of religious music?"

Students	Yes	No	I don't know
Mont.	8.7%	80.3%	10.9%
NAEP	31.3	62.5	6.3

Mont. (n = 46) NAEP (n = 49)
Chi-square = 7.561 D.F. = 2 Significance: P = .0228

Table 74. Responses by Southwestern Montana Town and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of religious music?"

Students	Yes	No	I don't know
Mont.	9.8%	83.4%	6.8%
NAEP	31.3	62.5	6.3

Mont. (n = 132) NAEP (n = 49)
Chi-square = 12.346 D.F. = 2 Significance: P = .0021

Table 75. Responses by Southwestern Montana and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of religious music?"

Students	Yes	No	I don't know
Mont.	9.6%	82.6%	7.8%
NAEP	31.3	62.5	6.3

Mont. (n = 178) NAEP (n = 52)
Chi-square = 14.650 D.F. = 2 Significance: P = .0007

A summary of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses for exercise nine is found in Table 76.

Table 76. Percentage of "yes"responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students to the question: "Do you like to see live performances of each of the following kinds of music?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
A. Rock	87%	92%	92%
B. Jazz	39	39	49
C. Symphonic	28	16	06
D. Opera	13	07	15
E. Ballet	30	27	23
F. Folk	15	11	13
G. Country & Western	78	52	49
H. Soul	11	14	57
I. Religious Music	09	10	31

Exercise 11. If you could buy only one record or tape, which kind would you buy? - Significantly more Southwestern Montana Rural students (78%) than Western Extreme Rural NAEP students (51%) selected rock music (see Table 77). Significantly more Southwestern Montana Town students (85%) than Western Extreme Rural NAEP students (51%) selected rock music (see Table 78). Significantly more Southwestern Montana students (83%) than Western Extreme Rural NAEP students (51%) selected rock music (see Table 79). There were no other significant differences on this exercise.

Table 77. Southwestern Montana Rural and Western Extreme Rural NAEP student responses to the following: "If you could buy only 1 record or tape, which kind would you buy?"

Students	Jazz	Classical	Musical	Western	Rock	Soul	Don't know
Mont.	.0%	2.2%	.0%	19.6%	78.3%	.0%	.0%
NAEP	.0	2.9	.0	22.9	51.4	22.9	.0

Mont. (n = 46) NAEP (n = 35)
Chi-square = 12.801 D.F = 3 Significance = .0051

Table 78. Southwestern Montana Town and Western Extreme Rural NAEP student responses to the following: "If you could buy only 1 record or tape, which kind would you buy?"

Students	Jazz	Classical	Musical	Western	Rock	Soul	Don't know
Mont.	1.5%	2.3%	.8%	8.3%	84.8%	.0%	2.3%
NAEP	.0	2.9	.0	22.9	51.4	22.9	.0

Mont. (n = 132) NAEP (n = 35)
Chi-square = 40.900 D.F = 6 Significance: P = .0000

Table 79. Southwestern Montana and Western Extreme Rural NAEP student responses to the following: "If you could buy only 1 record or tape, which kind would you buy?"

Students	Jazz	Classical	Musical	Western	Rock	Soul	Don't know
Mont.	1.1%	2.2%	.6%	11.2%	83.2%	.0%	1.7%
NAEP	.0	2.9	.0	22.9	51.4	22.9	.0

Mont. (n = 178) NAEP (n = 35)
Chi-square = 48.692 D.F = 6 Significance: P = .0000

A summary of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses for exercise eleven is found in Table 80.

Table 80. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP student responses to the question: "If you could buy only one record of tape, which kind would you buy?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Jazz	00%	02%	00%
Classical	02	03	03
Broadway Musical	00	01	00
Country & Western	20	09	23
Rock	78	85	51
Soul	00	00	23

Composite I-B. When the data from all exercises were merged, there were no significant differences.

Sub-Objective I-C: Value music in the life of the individual, family and community. This sub-objective used only two of the nine possible NAEP exercises for assessment. On exercise number thirteen students were asked the question: "How important do you think music is in our society?" Exercise number nineteen (19-A, & 19-B) required students to respond to the following questions:

A. Which one of the following music activities would you rather do in school?

Listen to recorded music

Listen to live music

Perform music

Read about music

I don't know

B. Which one of the the following music activities would you rather do on your own?

Listen to recorded music

Listen to live music

Perform music

Read about music

I don't know

Exercise 13. Significantly more Southwestern Montana Town females (89%) than Southwestern Montana Town males (65%) believed that music was important in our society (see Table 81). Significantly more Southwestern Montana females (91%) than Southwestern Montana males (76%) believed that music was important in our society (see Table 82). Significantly more Southwestern Montana Rural students (100%) than Southwestern Montana Town students (89%) believed that music was important in our society (see Table 83). Significantly more Southwestern Montana Rural students (100%) than Western Extreme Rural NAEP students (87%) believed that music was important in our society (see Table 84). There were no other significant differences on this exercise.

Table 81. Responses by Southwestern Montana Town Male and Southwestern Montana Town Female students regarding the importance of music in society.

Students	Very important	Somewhat important	Not very important	Not at all	Don't know
Male	32.8%	32.8%	29.3%	.0%	5.2%
Female	44.6	44.6	5.4	1.4	4.1

Male (n = 58) Female (n = 74)
Chi-square = 14.865 D.F = 4 Significance: P = .0050

Table 82. Responses by Southwestern Montana Male and Southwestern Montana Female students regarding the importance of music in society.

Students	Very important	Somewhat important	Not very important	Not at all	Don't know
Male	42.9%	33.3%	20.2%	.0%	3.6%
Female	47.9	43.6	4.3	1.1	3.2

Male (n = 84) Female (n = 94)
Chi-square = 11.973 D.F = 4 Significance: P = .0176

Table 83. Responses by Southwestern Montana Rural and Southwestern Montana Town students regarding the importance of music in society.

Students	Very important	Somewhat important	Not very important	Not at all	Don't know
Rural	63.0%	37.0%	.0%	.0%	.0%
Town	39.4	39.4	15.9	.8	4.5

Rural (n = 46) Town (n = 132)
Chi-square = 14.003 D.F = 4 Significance: P = .0073

Table 84. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students regarding the importance of music in society.

Students	Very important	Somewhat important	Not very important	Not at all	Don't know
Mont.	63.0%	37.0%	.0%	.0%	.0%
NAEP	29.0	58.1	6.5	3.2	3.2

Mont. (n = 46) NAEP (n = 31)
Chi-square = 12.092 D.F = 4 Significance: P = .0167

A summary for Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses for exercise thirteen is found in Table 85.

Table 85. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses to the question: "How important do you think music is in our society?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Very Important	63%	39%	29%
Somewhat Important	37	39	58
Not Very Important	00	16	07
Not Important At All	00	01	03
Don't Know	00	05	03

Exercise 19-A. There were no significant differences on this exercise.

Exercise 19-B. Southwestern Montana Rural students (48%) preferred to listen to live music while the majority of Western Extreme Rural NAEP students (74%) preferred recorded music (see Table 86). Significantly more Western Extreme NAEP Rural students (74%) than

Southwestern Montana Town students (52%) preferred listening to recorded music (see Table 87). There were no other significant differences on this exercise.

Table 86. Responses by Southwestern Montana Rural and Western Extreme Rural NAEP students regarding the music activities that they would rather do on their own time outside of school.

Students	Listen to recorded music	Listen to live music	Perform music	Read about music	Don't Know
Mont.	39.1%	47.8%	8.7%	.0%	4.3%
NAEP	74.2	6.5	16.1	3.2	.0

Mont. (n = 46) NAEP (n = 31)
Chi-square = 18.154 D.F = 4 Significance: P = .0012

Table 87. Responses by Southwestern Montana Town and Western Extreme Rural NAEP students regarding the music activities that they would rather do on their own time outside of school.

Students	Listen to recorded music	Listen to live music	Perform music	Read about music	Don't know
Mont.	52.3%	35.6%	8.3%	1.5%	2.3%
NAEP	74.2	6.5	16.1	3.2	.0

Mont. (n = 132) NAEP (n = 31)
Chi-square = 11.893 D.F = 4 Significance: P = .0182

A summary for Southwestern Montana Rural, Southwestern Montana Town and Western Extreme Rural NAEP responses for exercise nineteen is found in Table 88 & Table 89.

Table 88. Percentage of Southwestern Montana Rural, Southwestern Montana Town, Western Extreme Rural NAEP responses to the the following question: "Which one of the following music activities would you rather do in school?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Listen to recorded music	28%	24%	26%
Listen to live music	49	56	58
Perform Music	17	17	13
Read about music	02	00	03
I don't know	04	03	00

Table 89. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP responses to the following question: "Which one of the following music activities would you rather do on you own?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Listen to recorded music	40%	52%	74%
Listen to live music	48	36	07
Perform music	08	08	16
Read about music	00	02	03
I don't know	04	02	00

Composite I-C. When the data from all exercises were merged, there were no significant differences.

Sub-Objective ID: Make and support aesthetic judgements about music. This sub-objective used only one of the three possible NAEP exercises for assessment. On exercise number three (3-A, 3-B, & 3-C), students were asked how much they agreed or disagreed with the following statements:

A. I like many songs because of the music rather than the words.

B. There are certain parts of my favorite songs that I wait to hear because I like them best.

C. There are certain parts of my favorite songs that make me want to do things like clap my hands, snap my fingers, tap my feet, hum or whistle.

Exercise 3-A. There were no significant differences on this exercise.

Exercise 3-B. There were no significant differences on this exercise.

Exercise 3-C. There were no significant differences on this exercise.

A summary for Southwestern Montana Rural, Southwestern Town, and Western Extreme Rural NAEP responses is found in Table 90.

Table 90. Percentage of Southwestern Montana Rural, Southwestern Montana Town and Western Extreme Rural NAEP student "agree" responses to the following statements:

A. I like many songs because of the music rather than the words.
B. There are certain parts of my favorite songs that I wait to hear because I like them best.
C. There are certain parts of my favorite songs that make me want to do things like clap my hands, snap my fingers, tap my feet, hum or whistle.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
A.	70%	56%	32%
B.	89	88	96
C.	67	62	59

Composite I-D. When the data from all exercises were merged, there were no significant differences.

Composite Objective I. When the data from all exercises were merged there were no significant differences.

Objective IV: Identify the Elements and Expressive Controls of Music

This NAEP objective contains three sub-objectives. For the 1978-79 National Music Assessment the NAEP used a total of 50 exercises to assess this objective. These 50 exercises were utilized in the following sub-objectives: Sub-objective IV-A, 30 exercises; Sub-objective IV-B, 5 exercises; Sub-objective IV-C, 15 exercises. The exercises used for the Southwestern Montana Assessment were provided by the NAEP; however, due to the method of constructing the instrument for this study, the full range and number of exercises used by NAEP were not used on this study. Due to the omissions, each exercise or item must be examined separately and the collective exercises may not completely measure the entire objective or sub-objective.

Sub-Objective IV-A: Identify the elements of music. This sub-objective used only two of the thirty possible NAEP exercises for assessment. On exercise number ten, a music stimuli tape was used and students were asked to respond to the following question: "What kind of instruments are playing?"

A. Brasses

B. Strings

C. Woodwinds

D. I don't know

Exercise number seventeen (17-A, 17-B, 17-C, & 17-D), used a music stimuli tape and required students to identify relative pitch.

Exercise 10. There were no significant differences on this exercise.

A percentage summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students is found in Table 91.

Table 91. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP correct answers on the following question: "What kind of instruments are playing?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct (Brasses)	85%	73%	88%

Exercise 17-A. There were no significant differences on this exercise.

Exercise 17-B. There were no significant differences on this exercise.

Exercise 17-C. There were no significant differences on this exercise.

Exercise 17-D. There were no significant differences on this exercise.

A percentage summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students on exercise seventeen is found in Table 92.

Table 92. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students to the following: "Two sounds will be played: Is the second pitch higher, lower, or the same as the first sound?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
A. Lower	87%	78%	85%
B. Same	87	94	94
C. Lower	70	69	68
D. Higher	91	77	79

Composite IV-A. When the data from all exercises were merged, there were no significant differences.

<u>Sub-Objective IV-B: Identify the relationships of elements in a given composition</u>. This sub-objective used only two of the five possible NAEP exercises for assessment. On exercise number seven, students responded to the following question: "Now you are going to hear a melody in four phrases. What is its form?"

1. A --- A --- A --- B
2. A --- A --- B --- A
3. A --- A --- B --- B
4. A --- B --- B --- A

Exercise number eighteen asked students to respond to the following question: "Listen carefully to the entire piece of music. What is the form of the music?"

1. Canon

2. Rondo

3. Verse and chorus

4. Theme and variations

Exercise 7. There were no significant differences on this exercise.

A percentage summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students is found in Table 93.

Table 93. Percentage of Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP correct answers regarding identification of melodic form.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct	40%	48%	50%

Exercise 18. Significantly more Southwestern Montana Town female students (66%) than Southwestern Montana Town male students (41%) correctly identified the theme and variations (see Table 94). Significantly more Southwestern Montana females (59%) than Southwestern Montana males (46%) correctly identified the theme and variations (see Table 95). There were no other significant differences on this exercise.

Table 94. Responses of Southwestern Montana Town Male and Southwestern Montana Town Female students regarding the identification of the correct music form.

Students	Canon	Rondo	Verse and Chorus	(Correct) Theme and Variations	Don't Know
Male	6.9%	13.8%	1.7%	41.4%	36.2%
Female	6.8	12.2	6.8	66.2	8.1

Male (n = 58) Female (n =74)
Chi-square = 18.057 D.F = 4 Significance: P = .0012

Table 95. Responses by Southwestern Montana Male and Southwestern Montana Female students regarding the correct music form.

Students	Canon	Rondo	Verse and chorus	(Correct) Theme and variations	Don't know
Male	6.0%	9.5%	6.0%	46.4%	32.1%
Female	8.5	13.8	10.6	58.5	8.5

Male (n = 84) Female (n = 94)
Chi-square = 16.076 D.F = 4 Significance: P = .0029

A percentage summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students for exercise eighteen is found in Table 96.

Table 96. Percentage of correct answers by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students regarding identification of "Theme and Variations" form.

	SW MT Rural	SW MT Town	W. Extreme Rural NAEP
Correct	48%	55%	60%

Composite IV-B. When the data from all exercises were merged, there were significant differences between several groups. Significantly more Southwestern Montana Town females (62%) than Southwestern Montana Town males (38%) marked correct answers (see Table 97). Significantly more Southwestern Montana females (56%) than Southwestern Montana males (43%) marked correct answers on this sub-objective (see Table 98). There were no other significant differences on this sub-objective.

Table 97. Percentage of total correct and incorrect responses by Southwestern Montana Town Male and Southwestern Montana Town Female students to sub-objective IV-B: "Identify the relationships of elements in a given composition."

Students	Total Correct	Total Incorrect
Male	37.9%	62.1%
Female	62.2	37.8

Male (n = 116) Female (n = 148)
Chi-square = 15.287 D.F. = 1 Significance: P <.001

Table 98. Percentage of total correct and incorrect responses by Southwestern Montana Male and Southwestern Montana Female students to sub-objective IV-B: "Identify the relationships of elements in a given composition."

Students	Total Correct	Total Incorrect
Male	42.9%	57.1%
Female	56.4	43.6

Male (n = 168) Female (n = 188)
Chi-square = 6.492 D.F. = 1 Significance: P = .0107

Sub-Objective IV-C: Demonstrate an understanding of a variety of musical terms, expression markings and conducting gestures in a musical context. This sub-objective used only two of the fifteen possible NAEP exercises for assessment. Exercise number five asked students to identify a note on the staff. Exercise number twenty (20-A, 20-B & 20-C) required students to identify the following:

A. Key signature

B. Number of counts received by a designated note

C. Ledger line

Exercise 5. Significantly more Southwestern Town female students (80%) than Southwestern Town male students (53%) were able to identify the correct note on the staff (see Table 99). Significantly more Southwestern Montana female students (78%) than Southwestern Montana male students (56%) were able to correctly identify the note (see Table 100). Significantly more Southwestern Montana Rural students (65%) than Western Extreme Rural NAEP students (45%) were able to correctly identify the note on the staff (see Table 101). Significantly more Southwestern Montana Town students (68%) than Western Extreme Rural

NAEP students (45%) were able to correctly identify the note (see Table 102). Significantly more Southwestern Montana students (67%) than Western Extreme Rural NAEP students (45%) were able to correctly identify the note on the staff (see Table 103). There were no other significant differences on this exercise.

Table 99. Responses of Southwestern Montana Town Male and Southwestern Montana Town Female students regarding note identification.

Students	(Correct) B note	C note	D note	F note	G note	Don't know
Male	53.4%	13.8%	12.1%	5.2%	3.4%	12.1%
Female	79.7	4.1	9.5	.0	1.4	5.4

Male (n = 58) Female (n = 74)
Chi-square = 13.393 D.F = 5 Significance: P = .0200

Table 100. Responses of Southwestern Montana Male and Southwestern Montana Female students regarding note identification.

Students	(Correct) B note	C note	D note	F note	G note	Don't know
Male	56.0%	10.7%	9.5%	6.0%	6.0%	11.9%
Female	77.7	6.4	8.5	1.1	2.1	4.3

Male (n = 84) Female (n = 94)
Chi-square = 12.234 D.F = 5 Significance: P = .0317

Table 101. Responses of Southwestern Montana Rural and Western Extreme Rural NAEP students regarding note identification.

Students	(Correct) B note	C note	D note	F note	G note	Don't know
Mont.	65.2%	8.7%	4.3%	6.5%	8.7%	6.5%
NAEP	45.1	11.8	17.6	5.9	.0	19.6

Mont. (n = 46) NAEP (n = 51)
Chi-square = 13.326 D.F = 5 Significance: P = .0205

Table 102. Responses of Southwestern Montana Town and Western Extreme Rural NAEP students regarding note identification.

Students	(Correct) B note	C note	D note	F note	G note	Don't know
Mont.	68.2%	8.3%	10.6%	2.3%	2.3%	8.3%
NAEP	45.1	11.8	17.6	5.9	.0	19.6

Mont. (n = 132) NAEP (n = 51)
Chi-square = 11.788 D.F = 5 Significance: P = .0378

Table 103. Responses of Southwestern Montana and Western Extreme Rural NAEP students regarding note identification.

Students	(Correct) B note	C note	D note	F note	G note	Don't know
Mont.	67.4%	8.4%	9.0%	3.4%	3.9%	7.9%
NAEP	45.1	11.8	17.6	5.9	.0	19.6

Mont. (n = 178) NAEP (n = 51)
Chi-square = 14.223 D.F = 5 Significance: P = .0143

A Summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town and Western Extreme Rural NAEP students on exercise five is found in Table 104.

Table 104. Percentage of correct answers by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students regarding note identification.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct	65%	68%	45%

Exercise 20-A. Significantly more Southwestern Montana Town females (78%) than Southwestern Montana Town males (48%) were able to correctly identify a key signature (see Table 105). Significantly more Southwestern Montana females (76%) than Southwestern Montana males (50%) were able to correctly identify a key signature (see Table 106). There were no other significant differences on this exercise.

Table 105. Responses of Southwestern Montana Town Male and Southwestern Town Female students regarding music symbol identification.

Students	Clef	Time signature	(Correct) Key signature	Note	Don't know
Male	19.0%	6.9%	48.3%	12.1%	13.8%
Female	5.4	4.1	78.4	10.8	1.4

Male (n = 58) Female (n = 74)
Chi-square = 17.707 D.F = 4 Significance: P = .0014

Table 106. Responses of Southwestern Montana Male and Southwestern Montana Female students regarding music symbol identification.

Students	Clef	Time signature	(Correct) Key signature	Note	Don't know
Male	19.0%	4.8%	50.0%	13.1%	13.1%
Female	6.4	6.4	75.5	9.6	2.1

Male (n = 84) Female (n = 94)
Chi-square = 18.315 D.F = 4 Significance: P = .0011

Exercise 20-B. Significantly more Southwestern Montana Rural students (76%) than Western Extreme Rural NAEP students (50%) correctly identified the number of counts received by a quarter note (see Table 107). Significantly more Southwestern Montana Town students (71%) than Western Extreme Rural NAEP students (50%) correctly identified the number of counts received by a quarter note (see Table 108). Significantly more Southwestern Montana students (73%) than Western Extreme Rural NAEP students (50%) correctly identified the number of counts received by a quarter note (see Table 109). There were no other significant differences on this exercise.

Table 107. Responses of Southwestern Montana Rural and Western Extreme Rural NAEP students regarding the number of counts received by a quarter note.

Students	(Correct) 1 count	2 counts	3 counts	4 counts	Don't know
Mont.	76.1%	13.0%	10.9%	.0%	.0%
NAEP	50.0	28.8	9.6	.0	11.5

Mont. (n = 46) NAEP (n = 52)
Chi-square = 10.858 D.F = 3 Significance: P = .0125

Table 108. Responses of Southwestern Montana Town and Western Extreme Rural NAEP students regarding the number of counts received by a quarter note.

Students	(Correct) 1 count	2 counts	3 counts	4 counts	Don't know
Mont.	71.2%	14.4%	6.1%	5.3%	3.0%
NAEP	50.0	28.8	9.6	.0	11.5

Mont. (n = 132) NAEP (n = 52)

Chi-square = 15.184 D.F = 4 Significance: P = .0043

Table 109. Responses of Southwestern Montana and Western Rural NAEP students regarding the number of counts received by a quarter note.

Students	(Correct) 1 count	2 counts	3 counts	4 counts	Don't know
Mont.	72.5%	14.0%	7.3%	3.9%	2.2%
NAEP	50.0	28.8	9.6	.0	11.5

Mont. (n = 178) NAEP (n = 52)

Chi-square = 18.395 D.F = 4 Significance: P = .0010

Exercise 20-C. There were no significant differences on this exercise.

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students on exercise twenty is found in Table 110.

Table 110. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students regarding identification.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
A. Key signature	59%	65%	46%
B. Counts for quarter note	76	71	50
C. Ledger line	50	64	56

Composite IV-C. This composite does not give an accurate picture of the NAEP sub-objective IV-C due to the limitation of the study. The exercises used in the Southwestern Montana Assessment did not assess knowledge of expression markings or conducting gestures. When the data from all exercises were merged, significant differences were noted between two groups. The percentage of correct answers for Southwestern Montana Town females (57%) was significantly higher than the percentage of correct answers marked by the Southwestern Montana Town males (45%) (see Table 111). The percentage of correct answers marked by Southwestern Montana females (57%) was significantly higher than the percentage of correct answers marked by Southwestern Montana males (46%) (see Table 112).

Table 111. Percentage of total correct and incorrect responses by Southwestern Montana Town Male and Southwestern Montana Town Female students to sub-objective IV-C: "Demonstrate an understanding of a variety of musical terms. . . .in a musical context."

Students	Total Correct	Total Incorrect
Male	44.9%	55.1%
Female	57.2	42.8

Male Responses (n = 336) Female Responses (n = 376)
Chi-square = 10.642 D.F. = 1 Significance: P = .001

Table 112. Percentage of total correct and incorrect responses by Southwestern Montana Male and Southwestern Montana Female students to sub-objective IV-C: "Demonstrate an understanding of a variety of musical terms. . . .in a musical context."

Students	Total Correct	Total Incorrect
Male	45.5%	54.5%
Female	56.6	43.4

Male Responses (n = 440) Female Responses (n = 456)
Chi-square = 11.090 D.F. = 1 Significance: P = .001

Composite IV. This composite does not give an accurate picture of NAEP Objective IV due to the limitation of this study. The Southwestern Montana Assessment did not measure the expressive controls of music. When the data from all exercises were merged, two groups showed a significant difference in response. The percentage of correct answers marked by Southwestern Montana Town females (67%) was significantly higher than the percentage of correct answers marked by the Southwestern Montana Town males (61%) (see Table 113) The percentage of correct answers marked by Southwestern Montana females

(66%) was significantly higher than the percentage of correct answers marked by Southwestern Montana males (62%) (see Table 114).

Table 113. Percentage of total correct and incorrect responses by Southwestern Montana Town Male and Southwestern Montana Town Female students to Objective IV: "Identify the elements. . . . of music."

Students	Total Correct	Total Incorrect
Male	61.1%	38.2%
Female	66.6	33.4

Male Responses (n = 924) Female Responses (n = 1034)
Chi-square = 6.380 D.F. = 1 Significance: P = .0113

Table 114. Percentage of total correct and incorrect responses by Southwestern Montana Male and Southwestern Montana Female students to Objective IV: "Identify the elements. . . .of music."

Students	Total Correct	Total Incorrect
Male	62.2%	37.8%
Female	66.0	34.0

Male Responses (n = 1210) Female Responses (n = 1254)
Chi-square = 3.862 D.F. = 1 Significance: P = .0468

Objective V: Identify and Classify Music Historically and Culturally

This NAEP objective contained three sub-objectives. For the 1978-79 National Music Assessment the NAEP used a total of 55 exercises to assess this objective. These 55 exercises were used in the following sub-objectives: V-A, 10 exercises; V-B, 43 exercises; and V-C, 2 exercises. The exercises used for the Southwestern Montana

Assessment were provided by the NAEP; however, due to the limitations of this study, the full range and number of exercises used by NAEP were not used in this study. Due to the omissions, each exercise or item must be examined separately and collective exercises may not measure the entire objective or sub-objective.

Sub-Objective V-A: Identify and describe the features that characterize a variety of folk, ethnic, popular and art music. This sub-objective used only two of the ten possible NAEP exercises for assessment. On exercise number eight the following musical selections were played:

1. Bob Dylan, "The Times They Are A-Changin" (Excerpt)
2. Billie Holiday, "Baby, I Don't Cry Over You" (Excerpt)
3. Arlo Guthrie, "The City of New Orleans" (Excerpt)

Students were asked to identify the selections that were the most closely related.

Exercise fifteen required students to identify the kind of music that was performed. A music stimuli tape was played and the students were given a choice of the following answers:

1. Blues song
2. Folk-rock song
3. Operatic song
4. Work song

Exercise 8. There were no significant differences on this exercise.

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students to exercise number eight is found in Table 115.

Table 115. Percentage of correct response by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students on music relationship.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct (Selections 1 & 3)	96%	93%	94%

Exercise 15. Significantly more Southwestern Montana Town students (91%) than Western Extreme Rural NAEP students (81%) were able to able to correctly identify a "Blues song" (see Table 116).

Table 116. Responses of Southwestern Montana Town and Western Extreme Rural NAEP students regarding the identification of the kind of music that is being performed.

Students	(Correct) Blues song	Folk-rock song	Operatic song	Work song	Don't know
Mont.	90.9%	5.3%	.0%	.0%	3.8%
NAEP	80.8	11.5	1.9	3.8	1.9

Mont. (n = 132)   NAEP (n = 52)

Chi-square = 10.502   D.F = 4   Significance: P = .0328

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students on exercise fifteen is found in Table 117.

Table 117. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students on "music type" identification.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Blues song (correct)	98%	91%	81%

Composite V-A. Due to the limitations of this study, this composite does not give an accurate picture of NAEP sub-objective V-A. When the data from all exercises were merged, there was a significant difference between two groups. The percentage of correct answers marked by Southwestern Montana Rural students (97%) was significantly higher than the percentage of correct answers marked by Western Extreme Rural NAEP students (87%) (see Table 118). The percentage of correct answers marked by Southwestern Montana students (94%) was significantly higher than the percentage of correct answers marked by Western Extreme Rural NAEP students (87%) (see Table 119).

Table 118. Percentage of total correct and incorrect responses by Southwestern Montana Rural and Western Extreme Rural NAEP students to sub-objective V-A: "Identify and describe the features that characterize a variety of folk, ethnic, popular and art music."

Students	Total Correct	Total Incorrect
Rural	96.7%	3.3%
NAEP	87.3	12.7

Rural Responses (n = 92) NAEP Responses (n = 102)
Chi-square = 5.750 D.F. = 1 Significance: P = .0159

Table 119. Percentage of total correct and incorrect responses by Southwestern Montana and Western Extreme Rural NAEP students to sub-objective V-A: "Identify and describe the features that characterize a variety of folk, ethnic, popular and art music."

Students	Total Correct	Total Incorrect
MONT	93.5%	6.5%
NAEP	87.3	12.7

MONT Responses (n = 355) NAEP Responses (n = 102)
Chi-square = 4.287 D.F. = 1 Significance: P = .0363

Sub-Objective V-B: Identify and describe the music and musical style of the various stylistic periods in Western civilization. This sub-objective used only two of the forty-three possible NAEP exercises for assessment. On exercise number two, students were asked to identify composers from the following periods:

1. Renaissance Period
2. Baroque Period
3. Classical Period
4. Romantic Period
5. Modern Period

Exercise six required students to identify a musical work composed by the same person. The following selections were played:

1. Beethoven, Egmont Overture, (Excerpt)
2. Copland, Fanfare for the Common Man, (Excerpt)
3. Beethoven, Fidelio, (Excerpt)

Exercise 2. There were no significant differences on this exercise.

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, And Western Extreme Rural NAEP students on exercise two is found in Table 120.

Table 120. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students regarding composers of the Renaissance, Baroque, Classical, Romantic, and Modern periods.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct responses	12%	11%	10%

Exercise 6. Significantly more Southwestern Montana Rural students (70%) than Western Extreme Rural NAEP students (50%) were able to correctly identify musical selections composed by the same person (see Table 121).

Table 121. Responses to the question by Southwestern Montana Rural and Western Extreme Rural NAEP students regarding the identification of musical works composed by the same person.

Students	1 & 2 only	(Correct) 1 & 3 only	2 & 3 only	All 3	Don't Know
Mont.	4.3%	69.6%	8.7%	17.4%	.0%
NAEP	22.7	50.0	18.2	4.5	4.5

Mont. (n = 46) NAEP (n = 22)
Chi-square = 10.869 D.F = 4 Significance: P = .0281

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students on exercise six is found in Table 122.

Table 122. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students regarding identification of musical works composed by the same person.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct	70%	68%	50%

Composite V-B. When the data from all exercises were merged, there were no significant differences.

<u>Sub-Objective V-C: Cite Examples of ways in which man utilizes music in his social and cultural life</u>. This sub-objective used both of the two possible NAEP exercises for assessment. Exercise number sixteen required students to respond to the following: "Why is music often played in shopping centers, restaurants, or doctors' offices." Students were given the following response options:

1. To cover up noises in these places
2. To teach the customers new songs
3. To keep people awake
4. To make these places more pleasant
5. I don't know

Exercise twenty-one asked students to identify a song written during the American Civil War, Viet Nam War, Protestant Reformation, War of 1812, and the American Civil Rights Movement. The following songs were listed:

1. "We Shall Overcome"

2. "The Star Spangled Banner"

3. "Where Have All the Flowers Gone"

4. "Battle Hymn of the Republic"

5. "A Mighty Fortress"

Exercise 16. There were no significant differences on this exercise.

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students is found in Table 123.

Table 123. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students to the question: "Why is music often played in shopping centers, restaurants, or doctors' offices?"

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
Correct (To make these places more pleasant)	94%	92%	88%

Exercise 21. There were no significant differences on this exercise.

A summary of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students is found in Table 124.

Table 124. Percentage of correct responses by Southwestern Montana Rural, Southwestern Montana Town, and Western Extreme Rural NAEP students to song and period identification.

	SW MT Rural	SW MT Town	W Extreme Rural NAEP
American Civil War	44%	48%	44%
Viet Nam War	30	18	19
Protestant Reformation	25	18	25
War of 1812	38	39	19
American Civil Rights	38	22	37

Composite V-C. When the data were merged there were no significant differences.

Composite V. When the data were merged there were no significant differences.

Endnotes

Due to the type and structure of the NAEP assessment a large amount of data were collected by NAEP. This included individual student background data, parental data, school and teacher data. The instrument design for the Southwestern Montana Music Assessment was based on the NAEP pattern. The Southwestern Montana study was limited to the assessment of the music background and training of thirteen-year-old rural students in Southwestern Montana; therefore, all of the school, parental, teacher, and student background data collected were not utilized.

In order to better visualize the personal data regarding in-school and outside of school activities preferred by students, additional tables are located in Appendix D. These tables cross-reference some of the National NAEP, Western NAEP, and Montana data.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The purpose of this study was to assess the music background and music achievement of thirteen-year-old rural students in Southwestern Montana. Data for the Southwestern Montana students were established through utilization of selected music exercises found in the *Second National Music Assessment* component of the National Assessment of Educational Progress (NAEP). Responses to the assessment exercises of the Southwestern Montana students, expressed as percentages, were compared with the responses of thirteen-year-old students in the population sample drawn from the "Extreme Rural" type of community in the "Western" region of the United States.

Since the physical size of Montana would make it extremely difficult to assess the entire state, Southwestern Montana was selected as a sample area. Following the guidelines of the NAEP it may be considered as "Extreme Rural" with an economy based on agriculture. Other vocations are in evidence, such as professional workers and blue collar workers. There was also a diversity in the economic base of Southwestern Montana which included lumbering, mining, and several state institutions including colleges, prisons, and hospitals. In addition, school districts in Southwestern Montana were varied in size.

During the course of the study, this researcher drove approximately 2500 miles and visited eighteen schools in a six-county area in Southwestern Montana. All but two of the schools visited were K-8 multi-grade educational systems. The teachers in these multi-grade schools had dissimilar educational and personal backgrounds. The smallest K-8 multi-grade school had one teacher and nine students; the largest had three teachers and thirty-nine students. The assessment was conducted during the months of November and December, 1986. The actual assessment took about one hour to administer in each school. Since the physical facilities in many of the schools were limited, the assessment was administered in various surroundings such as multi-purpose rooms, coat closets, and even the teacherage.

General Procedures

After selection of the target sample area a suitable instrument for assessment had to be located. The NAEP was selected because it had been developed by music educators and specialists and had been utilized for national surveys since 1971. In addition, a suitable data base had been established that could be used as a baseline. Assessment materials were purchased from NAEP and, following the guidelines set forth by NAEP, an assessment booklet was developed for use in the Southwestern Montana Music Assessment. The assessment dates were arranged through the chief administrative officers for each school district. The parents of each thirteen-year-old student in the target area were contacted and asked for permission to assess their children. On the appointed assessment dates, data were collected at each district. The data were then hand scored by the researcher to control bias and translated into computer readable form. The data were analyzed and the Southwestern Montana sample was compared with the NAEP baseline data.

Discussion

There was a dichotomy in programs and personnel when comparing rural and town schools in Southwestern Montana. In the two town schools, Dillon and Deer Lodge, general music was required through grade six and was then optional through grade eight. Both schools offered band, chorus and general music. These classes were taught by certified music specialists. In rural schools certified music specialists were not employed by the district and the classroom teachers taught music; however, some of the rural districts employed a musically-talented teacher's aide to help with the program. In rural districts band and chorus were generally not offered as regularly scheduled classes and if the students were interested in learning to play a music instrument they had to travel some distance to take private lessons.

Music and the Rural Teacher

A total of twenty-three rural teachers were surveyed. All of the teachers held a bachelor's degree and none had a major or minor in music. Their background and training was diverse. Teachers who had participated in choir during high school seemed to feel more secure teaching music. In addition, teachers with a piano background were found to be significantly more comfortable in teaching music. Twenty-two percent of the rural teachers specifically mentioned that adequate materials were not available for use in the K-8 multi-grade setting. These materials may not have been developed due to the limited sales market. Another major concern was in the area of college training. Thirty-five percent of the teachers felt that their college preparation was too theoretical and did not address the problems faced in the classroom. An enhanced piano background was also requested by many of the teachers surveyed. It was also suggested that elementary majors should be encouraged to start their own listening library as materials may not be available in the rural setting.

Parents' Education

Parents of the students in the Southwestern Montana sample had a significantly higher level of education than the parents of students in the Western Extreme Rural NAEP sample. In addition, Montanans had a higher percentage of encyclopedias, magazines, books and newspapers available in their homes. There appeared to be a relationship with the parent's education and their children's participation in music lessons, band, and chorus. In most cases it appeared that there was a correlation between parental education and student participation in these activities; however, a comparitive analysis was not run on this relationship. This area should be targeted for further study.

Southwestern Montana Assessment

Seven hypotheses were tested at the .05 level of significance.

These hypotheses were tested in the following NAEP areas:

1. Music Activities Outside of School
2. Music Activities Inside of School
3. Music Objectives

Although the NAEP originally identified five objectives, the revised NAEP assessment instrument surveyed only three objectives. The Southwestern Montana Assessment was designed to follow these objectives as closely as possible; however, due to NAEP sampling procedures, Southwestern Montana population size, and sampling error, components of several NAEP objectives and sub-objectives were omitted. In order to obtain an accurate picture, exercises should be examined rather than NAEP objectives and sub-objectives. Merged NAEP exercise percentages may be compared with percentages from the Southwestern Montana Music assessment as both assessments measure the same data.

Exercises from the following music objectives were utilized for the Southwestern Montana Assessment:

- I. Value Music as an Important Realm of Human Experience
  - A. Be affectively responsive to music
  - B. Be acquainted with music from different nations, cultures, genres and ethnic groups
  - C. Value music in the life of the individual, family and community
  - D. Make and support aesthetic judgments about music
- IV. Identify the Elements and Controls of Music
  - A. Identify the elements of music
  - B. Identify the relationships of elements in a given composition
  - C. Demonstrate an understanding of a variety of musical terms in a musical context
- V. Identify and Classify Music Historically and Culturally
  - A. Identify and describe the features that characterize a variety of folk, ethnic, popular and art music
  - B. Identify and describe the music and musical style of the various stylistic periods in Western civilization (e.g., Medieval, Renaissance, Baroque, Classical, Romantic),

identify representative composers of each period
C. Cite examples of ways in which man utilizes music in his social and cultural life

Conclusions

The Southwestern Montana Music Assessment followed the music objectives of NAEP as closley as possible; however, due to NAEP sampling procedures, Southwestern Montana population size, sampling error, and instrument development, direct comparisons of objectives and sub-objectives of this study and the NAEP assessment of music are not congruent. This study was not designed to prove that a particular segment of a population had a greater understanding or appreciation of music. The study was designed to ascertain if there were differences between populations and where those differences occurred.

There were a number of significant differences in exercise responses; however, many of these differences were not reflected in the objective and sub-objective totals. Through the use of the matrix (Appendix B), and the Southwestern Montana Assessment booklet (Appendix C), comparisons with objectives, sub-objectives, and exercises may be made between and among the group variables.

In order to summarize the Southwestern Montana Music Assessment, the research questions were addressed by the following assessment objectives:

Objective I. Does the student value music as an important realm of human experience?

Twenty one exercises were used to assess this objective. Students responded to questions regarding the types of music and music activities that they preferred, if they preferred certain songs, and if music could affect their emotions. Significant differences were found on the exercises; however, when the data were merged for each sub-objective as well as the main objective, there were no differences in the response pattern between any groups. The response pattern of town students who were taught music by a certified music teacher was not significantly different from the response pattern of rural students who received music training from the general classroom teacher or a non-certificated music teacher. The response pattern of the Southwestern Montana sample was not significantly different from the NAEP Western Extreme Rural sample.

When the data were merged for Objective I, there were no differences between any of the sampled groups regarding the value of music as an important realm of human experience. Therefore, the answer to the research question is that no significant differences regarding music value were found between any of the sampled groups.

Objective IV. Is the student able to identify the elements and controls of music?

Seventeen exercises were used to assess this objective. Students were asked to identify an instrument family, relative pitch, music form, musical terms, and notation.

In sub-objective IV-A, there were no differences between any sampled groups regarding instrument identification and relative pitch identification. In sub-objective IV-B, when asked to identify music form within a given composition, Southwestern Montana town females gave a significantly higher percentage of correct answers than their male counterparts. In a similar comparison between Southwestern Montana males and females, a significantly higher percentage of correct answers was given by females. There were no differences between any other sampled groups regarding music form. In sub-objective IV-C, when asked to identify musical terms and notation there were no differences between rural males and females; however, town females received a significantly higher percentage of correct answers than town males. Southwestern Montana town and rural students gave a significantly higher percentage of correct answers than did their Western Extreme Rural NAEP counterparts.

When the data for Objective IV were merged, the following conclusions were reached:

a. There were no differences between Southwestern Montana rural male and female students regarding the identification of the elements and controls of music;

b. There were also no differences between Southwestern Montana rural students and town students regarding music element and control identification;

c. Southwestern Montana Town females received a significantly higher percentage of correct answers on this objective than town males;

d. The merged percentages of Southwestern Montana females were higher than percentage scores of Southwestern Montana males;

e. There were no significant differences when Southwestern Montana town, Southwestern Montana rural and the combined Southwestern Montana students were compared to the Western Extreme Rural NAEP students.

The answer to the research question on the basis of this study is that Southwestern Montana Town Females responses were significantly different from Southwestern Montana Town Males regarding the ability to identify the elements and controls of music.

3. Is the student able to identify and classify music historically and culturally?

Six exercises were used to assess this objective. Students were asked to identify the types, styles, and uses of music.

As noted in sub-objective V-A, Southwestern Montana rural students were better able to identify the types of music than were students in the Western Extreme Rural NAEP sample. When answer percentages from Southwestern Montana rural and town students were combined, the percentage of correct answers was also significantly higher than the answer percentage received by students in the Western Extreme Rural

NAEP sample. There were no differences between groups on any of the other sub-objectives.

When the data were merged, there were no significant differences between any of the sampled groups regarding the students ability to identify and classify music historically and culturally. The answer to the research question is that there were no differences between groups in their ability to identify and classify music.

Recommendations for Further Study

In order to enhance the music programs in K-8 elementary schools, the following recommendations should be considered.

1. Due to the small sample size and limited geographic area, the data collected in this study were limited. In-depth studies should be conducted examining and comparing rural and town schools with respect to the following questions:

    A. In responding to exercise 13 ("How important do you think music is in our society?"), why did Southwestern Montana Rural students consider music to be more important than Southwestern Montana Town students and why were there significant differences in response patterns between Southwestern Montana Town Males and Southwestern Montana Town Females that were not apparent between Southwestern Montana Rural Males and Southwestern Montana Rural Females?

B. Why were there significant differences in response patterns between Southwestern Montana Town Males and Southwestern Montana Town Females that were not apparent between Southwestern Montana Rural Males and Southwestern Montana Rural Females on exercises regarding elements and controls of music as found in sub-objectives IV-B & IV-C.

C. What factors or variables contribute to educational differences in rural and town schools? Is music achievement and attitude the result of a teacher variable or are other factors such as environment involved? Could differences be the product of rural vs town and not teacher vs teacher?

2. Another area of interest for rural teachers throughout the state is that of teacher preparation at the college or university level. As documented in the teacher survey of this study, there was concern that teacher education classes tended to be too theoretical rather than practical. Many teachers felt that they had been adequately prepared to teach the basics; however, they had not been prepared to handle classes such as the creative and performing arts. Perhaps this is a researchable area.

3. Since the NAEP has current data available, similar studies in other disciplines should be conducted to assess the progress of rural and town students. Data of this type may benefit administrators, and legislators that are considering school

consolidation and reorganization.

Recommendations for Action

As indicated by K-8 educators in both the Southwestern Montana Music Assessment and the Montana Music Needs Survey, music materials for the K-8 multi-grade are limited. Following college graduation most teachers in rural schools will not have access to instructional methods, resources, and materials that they have available while attending college. Elementary education students should be encouraged to own a music education library. This should include instructional materials as well as a listening library.

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APPENDICES

APPENDIX A

MONTANA MUSIC NEEDS SURVEY

University of Montana

Rural Montana Music Needs Survey

by

Richard Sietsema

Educ. 596

Dr. Mark Clark

SS 1984

Introduction

Small Schools are a fact of life in rural Montana as it takes large amounts of territory to generate a school population. Consolidation has reached its practical limits in most areas with distances from home to school often taking over one hour each way. Montana has more than its share of real schools. In the state, there are 110 one-teacher schools or ten percent of the nation's total.[1] There are also 66 two and three teacher schools, which brings the total to over 175 of designated rural schools. Distance and isolation are not problems for rural folks, but they do create some unique problems for schools and teachers. According to Tillman, there are four conditions which hamper and/or impede but do not prevent the pursuit of quality education for rural schools. They are: "(1) isolation, (2) sparsity, (3) smallness, and (4) differentness".[2]

A minimal amount of research in curriculum development has been done concerning rural education; however, in 1981 Gardener mailed a questionnaire to 161 small rural Montana schools to assess the status of rural education in the state.[3] From this survey several features were salient:

1. Salaries for teachers in the rural areas are minimal.
2. Due to the lack of benefits for teachers in the rural areas, there are very few male teachers.
3. Over 50 percent of the teachers responding to the survey indicated that they had taken no college courses that specifically prepared them for teaching in a rural setting.

4. Several of the small rural schools in Montana do not comply with the state's minimum standards of accreditation nor are they checked to see if they are complying with minimum standards.
5. The curriculum in the rural schools has not been adequately developed to fit the needs of the students.
6. The lack of funds means that many of the schools have very poor facilities.

In 1983, Guenther and Weible wrote an article that corroborated the findings of Gardener. They concluded their article by saying:

> The purpose of this article has been to advance the need for specific preparation and training of teachers for rural schools. . . . To alleviate the obvious neglect of rural schools, it will take creative ideas, alternatives, and collective actions of those individuals and special interest groups concerned about this injustice.[4]

After spending four years working with the Montana Rural Education program, this researcher has observed a definite educational trend. Practically every teacher graduated from a teacher training program which utilized a traditional urban approach. The classes were designed for larger schools where it was assumed that there would be resource facilities as well as trained specialists to take care of the co-curricular activities such as music, art, drama, and physical education. This is just not the case if the teacher accepts a job in Ingomar, Montana. The closest shopping is forty miles away and the drinking water must be hauled in. The only social life is in the "Jersey Lilly" bar, a favorite watering hole for a few old cowboys and a spotted dog that stop in now and then for a cool one. The teacher must be prepared to teach all subjects as well as perform the job of principal and janitor. Montana's Governor, Ted Schwinden, gave the following view concerning the rural teacher:

> The backbone of our rural schools is the quality of our rural school teachers; teachers equipped to do more than teach. Teacher quality is critically important in rural areas because rural students are exposed to fewer teachers than students in urban schools. A rural teacher must bring the outside world to his or her students - to inspire curiosity among students and to expand their educational horizons far beyond the classroom walls.[5]

The problems of the rural school are coupled with an inadequacy of research data on Montana rural schools. No studies are available on basic needs in music education for such schools. Thus this researcher decided to conduct a needs survey. A specific hypothesis is not appropriate for a needs survey. The questions to be investigated are:

1. Are teachers properly trained to teach music?
2. Do they have a music curriculum guide that is useable?
3. What physical materials are available?

Methods

Two separate telephone survey instruments were developed that incorporated both open and closed questions. The instruments were similar in nature, but were targeted for two distinct groups: (1) county superintendents, and (2) teachers. The questionnaire contained fifteen major questions plus seventeen sub-questions for a total of thirty-two responses. The final question was open and requested relevant information regarding curriculum needs. Data was gleaned from five areas: (1) personal profile, (2) educational background, (3) physical equipment, (4) music program analysis, and (5) needs assessment for curriculum development.

The questionnaire was piloted with six rural education teachers. As a result of the pilot program, three questions were modified or expanded to enhance the reliability of the instrument. All six of the teachers in the pilot program felt that the instrument accurately measured the required data.

Sampling was accomplished with the help of Ralph Kroon, Rural Education Field Representative at Western Montana College. The names and phone numbers of eighteen county superintendents throughout the state of Montana were provided. The county superintendents in turn were asked to provide the names and phone numbers of accessible teachers under their supervision. The respondent selection process may tend to introduce a systematic bias into the survey; however, since time was a factor it was expedient to utilize the forgoing survey method.

In the final analysis, sampling was accomplished in a total of seventeen counties. The counties were geographically dispersed throughout the state (see appendix A). The county superintendents were the easiest to reach by phone as they were working in their respective offices. The teachers on the other hand were difficult to locate as school was not in session during the summer months. The questionnaire was administered to sixteen county superintendents and sixteen teachers. The response rate after five days of telephoning was eighty-nine percent for county superintendents and eighty percent for teachers. The response from all concerned parties was very positive.

Statement of Findings

Data were procured in five general areas. After analysis it became apparent that some information related directly to the specific questions while other findings were more generalized. Therefore, each of the five general categories were analyzed separately. As two separate instruments were used, some questions may solicit dissimilar responses. However, in most cases analogies may be implied.

Personal Profile - The first question is purely informational. It was interesting to note however, that in canvassing the county superintendents, the number of schools supervised varied from a low of one, to a high of thirteen with a mean of five. With regard to the teachers, fifty percent surveyed teach in a school with three or more teachers. In scanning the chronological age, the mean age of the county superintendents is forty-eight compared with the mean age of forty-one for the teachers. The county superintendents have also spent more years in education with a mean of twenty years as opposed to the teachers mean years of eleven. With regard to the teachers, fifty percent surveyed teach in a school with three or more teachers. Teachers in the more isolated schools were not in residence during the summer months and therefore could not be reached. All of the teachers were female, while seventy-five percent of the county superintendents were female.

Educational Background - In analysis of educational training the teachers were representative of a diverse background. The county superintendents had far more educational training with forty-four percent holding a master's degree. However, sixty-nine percent of the teachers had training beyond the bachelors degree. Teachers had a more extensive music background than did the county superintendents. Sixty-two percent of the teachers played the piano and could therefore do some accompaniment for music programs and class singing. This was in sharp contrast to the thirty eight percent of the county superintendents that played the piano. A wide percentage margin was held by the teachers in all degrees of musical training. Sixty-three percent of the teachers participated in high school choir as compared with forty-four percent of the county superintendents. Forty-four percent of the teachers played in band as compared with twenty-five percent for the county superintendents. Thirty-one percent of the teachers play guitar as compared with a mere thirteen percent for the county superintendents. However, even with the enhanced background, only thirty-one percent of the teachers felt that the college preparation had been sufficient in the musical arts. Nineteen percent of the county superintendents expressed satisfaction regarding college preparation in music.

Physical/Equipment Inventory - Of the schools surveyed, all had access to phonographs and cassette tape players. Seventy-five percent also had record or tape libraries. The county superintendents and the teachers did not totally agree on the percentage of schools that had access to a music book library. However several county superintendents and teachers expressed concern that the record and book libraries were minimal or outdated. Most schools (94 percent) had access to a piano. However the question was not asked regarding the piano's physical condition or if it was indeed playable. Sixty-five percent of the schools did not have an autoharp unless it was owned by the teacher.

Music Program Analysis - County superintendents and teachers did not totally agree on the number of music programs presented each year requiring music. County superintendents claimed that seventy-five percent of the schools they supervised presented two programs a year and that twenty-five percent presented three. The teachers on the other hand claimed fifty-six percent for two programs, twenty-five percent for one program, and nineteen percent for three programs. The most popular program was Christmas (100 percent) followed by Spring (41 percent) and Graduation (22 percent). A myriad of other programs were mentioned encompassing most of the the holidays. One school surveyed staged an operetta each year.

Needs Assessment for Curriculum Development - On the final question, ninety-seven percent of the respondents affirmed a need for a music curriculum or study guide specifically designed for the rural school. When rural teachers were asked for curriculum suggestions, the response was immense. Approximately ninety percent of the respondents requested lessons or activities that were readily accessible and easy to understand. These lessons should be applicable to a K-8 classroom and should contain music materials for vocal, instrumental, theory, music appreciation, games, and creative activities. They must be enjoyable, stimulating, and educational for both boys and girls at all age levels. Several other suggestions were noted such as a music news letter, a renting or borrowing network, a music mobile, workshops, and better song collections. Three county superintendents also mentioned a need for teacher self-confidence development regarding music education. As shown in the educational background section of the survey, less than one third of the teachers or county superintendents felt satisfied regarding college preparation in music.

Discussion of Results

Some very interesting trends surfaced during the research study. In addition, the study tended to reinforce observations that were conceived after two "music mobile" pilot studies conducted in Eastern Montana during the spring of 1982 and 1983. During the "music mobile" pilot, qualified music teachers were sent to teach music in selected rural schools. The music teacher worked with the on board classroom teacher and the students within each school.

During September 21-25, 1981, fifteen educators representing Montana, New Mexico, and Washington D.C. were involved in a workshop/study concerning the rural schools in Garfield county, Montana. During the five day period, mornings were spent "brainstorming" rural education problems such as curriculum, facilities, interpersonal communication, research, etc. Afternoons were devoted to school visitation in the thirteen rural schools as well as Jordan Elementary School, Garfield County High School, and the Garfield School Dormitory.

Having been involved in both the "music mobile' and the Garfield County study, this researcher discovered an interesting phenomenon. Most rural schools had a minimal abount of physical equipment and a very limited budget. Student enrollment varied from five to fifteen in a one teacher school. The student age in a rural school ranged from six to fifteen. This presented a real challenge when teaching music. Traditional classroom music books were not geared to the multi-grade approach. In addition, physical equipment was limited. Many of the pianos that were in residence were dusty old relics that may not have been tuned in twenty years. The record and tape players were the typical variety that could be purchased from a school supply company. These were built for durability and not quality. It was also discovered that many of the record and tape libraries were outdated and minimal. This same concern was voiced by the teachers and county superintendents during this study. The teacher, however, was still expected to present programs that would entertain the parents, friends and relatives on special occasions such as Christmas, Spring, Graduation, and Thanksgiving. In this researchers opinion, this would be a difficult task for a trained music specialist. For the young teacher with a limited background in music the situation may be overwhelming.

Over the years, many music curriculum guides have been developed; however, most are not applicable to the small isolated rural school. To appreciate this, one must first spend time visiting rural schools and talking with the teachers and county superintendents. After doing this, certain trends become evident. Many of the traditional teaching methods and materials will not work and most sequential music lessons were designed for a narrow age group and may not work in the multi-level classroom.

The teachers and County superintendents proposed numerous entries for a proposed rural education curriculum guide. After condensation, four major music components were salient:

1. Sequential, easy to use lessons for a K-8 class. These lessons should encompass vocal, instrumental, theory, music appreciation games, creative activities, etc. These should be "hands on" materials.
2. Better collections of songs that would interest both boys and girls. Must be useable by children at all grade levels.
3. Lessons that would integrate music with other subjects areas.
4. Access to a music resource person for advice and materials (Clearing House concept).

One of the latest commercial methods available is the "Arts in Education" project. Missoula's District No. 1 in collaboration with the Missoula High School District, developed a K-12 Arts in Education Curriculum Resource Guide under the direction of Dr. Madgie Hunt. Phi Delta Kappa funded a grant to produce a color videotape cassette staff development component. Sone of these materials may be applicable to the rural school. However, at this point in time they have not been widely used so the results have not been measured.

In the article, A Survey of Rural Schools in Montana, Gardener states, "Due to lack of benefits for teachers in rural areas, there are very few male teachers . . . Eighty-six percent of the teachers in rural Montana are women at the present time.[6] Those figures are comparable to the present "needs survey". It is also interesting to note that 44 percent of the teachers surveyed were educated in states other than Montana.

Only one respondent was not interested in a music curriculum guide for the rural school. Upon careful analysis it was discovered that this teacher is an advanced pianist that has been teaching for twenty years. This teacher also stages an operetta each year.

In scanning the questionnaire, it was also apparent that only one teacher respondent was employed in a one teacher school. Had the survey been done during the winter rather than the summer, the trend might have been reversed. The majority of remote schools are one room, and the teachers do not remain at the teacherage during the summer months. The county superintendents on the other hand are elected officials and were easy to access.

Conclusion

Having been involved with rural education studies, music workshops, and "music mobile" pilot programs, this researcher has observed that teachers do indeed feel uncomfortable or ill at ease when teaching music. As shown in the study, three county superintendents alluded to the same problem. In this researchers opinion, most elementary teachers would feel ill at ease if they were required to do the identical job with the equivalent equipment. Teaching methods and materials should be revised to accommodate the rural teacher. This author feels that most book companies are not interested because the market is too small. In addition, the majority of colleges are not concerned because the job market is limited. Therefore the responsibility rests squarely on the shoulders of those educators interested in rural education.

Ralph Kroon, Rural Education Field Representative at Western Montana College, confirms this researchers belief that the majority of rural educators love their jobs and are not interested in returning to the urban environment. They are very talented and creative, but need some support. The Montana Rural Education Center was established at Western Montana College to help rural teachers. Each year the center sponsors workshops and teaching seminars throughout the state. It was through these efforts that the television media focused on the Montana rural teacher in January of 1984 when the A B C documentary "20/20" was shown nationwide. Rural teachers work hard and produce excellent results, but they do need special help to keep their students competitive.

NOTES

1 "Small Schools in a Big Land," Montana Rural Education Center, Western Montana College, Dillon, Montana, 59725.

2Jerome Tillman, "In Pursuit of Quality: the Agenda for Rural and Small Schools," The Rural Educator, Vol. 5, No. 1, Fall 1983, p. 22.

3 Clark Gardiner, "A Survey of Rural Schools In Montana," The Rural Educator, Vol. 5, No. 2, Winter 83-84, pp. 18-21.

4 John Guenther and Tom Weible, "Preparing Teachers For Rural Schools," Rural Education, Vol. 1, No. 2, Winter 1983, p. 61.

5 Ted Schwinden, "The Governor's View on Montana rural Education," Montana Rural Education Newsletter, Vol. 1, No. 5, October 1982, p. 5.

6 Gardiner, p. 19.

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Hunt, Madgie. <u>Arts in Education Curriculum Resource Guide</u>, Missoula School Dist. #1, Missoula, Mt.

Kroon, Ralph. <u>Montana Rural Education Curriculum Guide</u>, ERIC ED 224 635.

Schwinden, Ted. "The Governor's Views on Montana Rural Education." <u>Montana Rural Education Newsletter</u>, 1 (October 1982), 5.

Tillman, Jerome. "In Pursuit of Quality: The Agenda for Rural and Small Schools." <u>The Rural Educator</u>, 5 (Fall 1983), 21-23.

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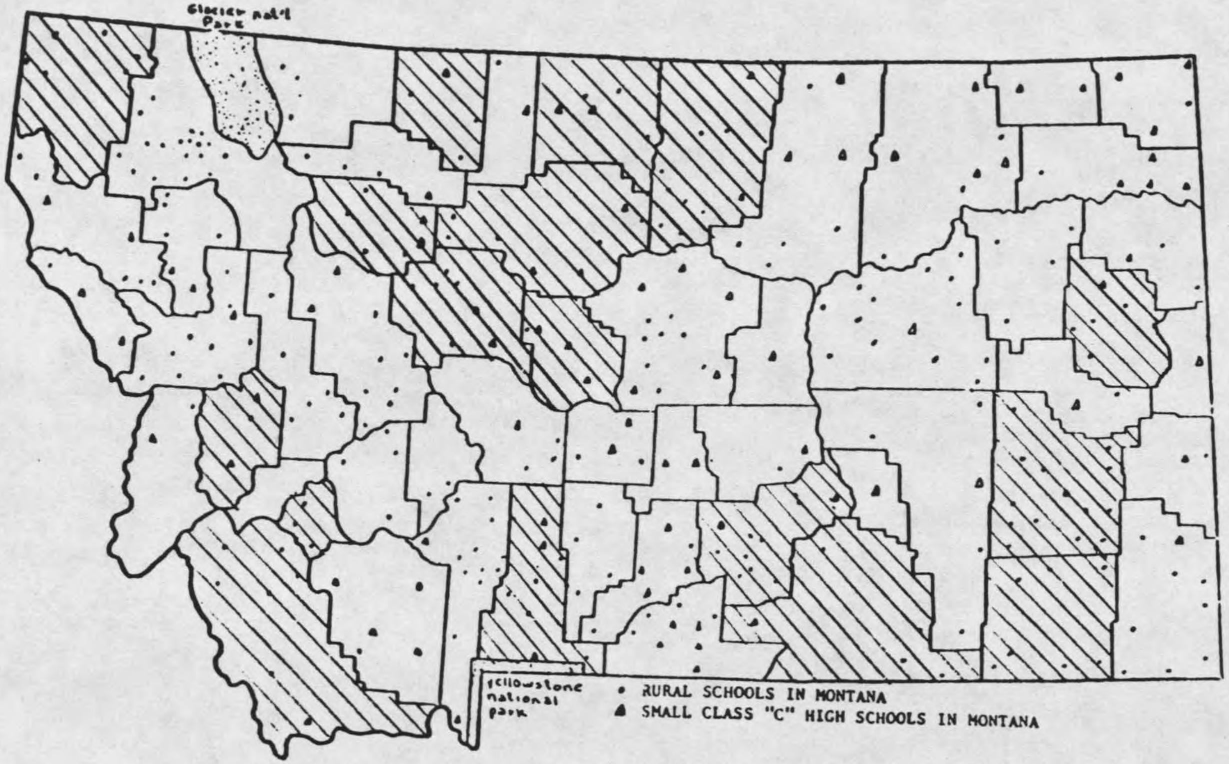
APPENDIX A

MONTANA MAP



Counties that were surveyed are shaded.

APPENDIX B

COUNTY SUPERINTENDENT & TEACHER SURVEY FORMS

COUNTY SUPERINTENDENT

Rural Education

1. How many rural schools do you supervise? _____
2. Are you: Male _____ Female _____
3. What is your age? _____
4. How many years have you been: A. Teaching _____ B. Co. Supt_____
5. In what state did you recieve your B. Ed.? _______________
6. What is the highest educational degree acheived? _______
7. Do you play the piano? Yes _____ No _____
   A. If yes, how well? Beginner _____ Intermediate _____
      Advanced _____
   B. Did you take piano lessons in: Grade School? _____
      High School? _____
      College? _____
      Other? _____
   C. How many years did you take piano lessons? _____
8. Did you participate in choir in high school? Yes _____ No _____
   A. If yes, how many years? _____
9. Did you play in band in high school? Yes _____ No _____
   A. If yes, what instrument? ____________________
10. Do you play the guitar? Yes _____ No _____
    A. If yes, how well? Beginner _____ Intermediate _____
       Advanced _____
    B. How many years have you played the Guitar? _____

C. Did you learn to play the guitar in: Grade School? ____

High School? ____

College? _____

Other? _____

11. Do the teachers that you supervise teach music on a regular basis in their classrooms? A. Yes, All of them. ____

B. No, None of them. ____

C. Some of them. _____

If yes, how much time per week? _______________

12. Do Your teachers have access to the following:

A. Phonograph: Yes _____ No _____

B. Cassette tape player: Yes _____ No _____

C. Record or tape collections: Yes _____ No _____

D. Music books for classroom use: Yes _____ No_____

E. Piano: Yes _____ No _____

F. Autoharp: Yes _____ No _____

G. Guitar: Yes _____ No _____

13. How many programs do your teachers put on each year that require music? _____

A. Please list them: ____

14. Did your college music classes prepare you to teach music in the self contained classroom? Yes _____ No _____ Somewhat _____

15. Would you like to have a music curriculum or study guide designed specifically for the rural school? Yes _____ No _____

A. If yes, what should it contain? ___________________________

____

RURAL TEACHER

Rural Education

1. Do you teach in a: 1 teacher School? _____ 2 teacher School? _____
2. Are you: Male _____ Female _____
3. What is your age? _____
4. How many years have you been teaching? _____
5. In what state did you recieve your B. Ed.? _______________
6. What is the highest educational degree acheived? _________
7. Do you play the piano? Yes _____ No _____
   A. If yes, how well? Beginner _____ Intermediate _____
      Advanced _____
   B. Did you take piano lessons in: Grade School? _____
      High School? _____
      College? _____
      Other? _____
   C. How many years did you take piano lessons? _____
8. Did you participate in choir in high school? Yes _____ No _____
   A. If yes, how many years? _____
9. Did you play in band in high school? Yes _____ No _____
   A. If yes, what instrument? ____________________
10. Do you play the guitar? Yes _____ No _____
    A. If yes, how well? Beginner _____ Intermediate _____
       Advanced _____
    B. How many years have you played the Guitar? _____

C. Did you learn to play the guitar in: Grade School? ____

High School? ____

College? ____

Other? ____

11. Do you teach music on a regular bais in your classroom?

If yes, how much time per week? ______________

12. Do you have access to the following:

A. Phonograph: Yes _____ No _____

B. Cassette tape player: Yes _____ No _____

C. Record or tape collections: Yes _____ No _____

D. Music books for classroom use: Yes _____ No_____

E. Piano: Yes _____ No _____

F. Autoharp: Yes _____ No _____

G. Guitar: Yes _____ No _____

13. How many programs do you put on each year that require music? _____

A. Please list them: ______________________________

14. Did your college music classes prepare you to teach music in the self contained classroom? Yes _____ No _____ Somewhat _____

15. Would you like to have a music curriculum or study guide designed specifically for the rural school? Yes _____ No _____

A. If yes, what should it contain? ______________________

____

____

____

____

APPENDIX B

SOUTHWESTERN MONTANA MUSIC ASSESSMENT MATRIX

ACTIVITIES/OBJECTIVES SCORE KEY

Items that are significant at the .05 level are marked with an (X). The numbers across the top of the tables indicate the following variables:

1. MT Rural Male vs MT Rural Female
2. MT Town Male vs MT Town Female
3. MT Male vs MT Female
4. MT Town vs MT Town
5. MT Rural vs Western Extreme Rural NAEP
6. MT Town vs Western Extreme Rural NAEP
7. MT vs Western Extreme Rural NAEP

MATRIX A

Music Activities Outside of School (X <.05)

Activity (Test Item #1)	Variables (See Key) 1	2	3	4	5	6	7
A. Listen to music							
B. Sing for Fun			X				
C. Sing w/friends for fun		X	X				
D. Sing in church/community		X	X				
E. Play instr. by self		X	X	X	X	X	X
F. Play instr. w/friends							
G. Play instr. church/comm.							
H. Take music lessons					X	X	X
I. Make up own music							

MATRIX B

Music Activities In School (X <.05)

Activity (Test Item #12)	Variaables (See Key) 1	2	3	4	5	6	7
A. Gen. Mus. Class					X	X	X
B. Choir		X	X	X		X	X
C. Band			X	X		X	X
D. Orchestra							
E. Intro to Music						X	X
F. Music Theory						X	X

MATRIX C

Overview of all items compared on Ojectives I, IV, & V plus Sub-Objectives. (X <.05)

MT Assessment Objective	Item	Variables (See Key) 1	2	3	4	5	6	7
I-A	4A		X	X		X		
	4B					X	X	X
	4C		X	X		X		
	4D							
	14							
I-A Composite								
I-B	9A							
	9B					X	X	X
	9C			X		X		
	9D	X		X				
	9E	X		X				
	9F							
	9G				X	X		
	9H			X		X	X	X
	9I	X		X		X	X	X
	11					X	X	X
I-B Composite								
I-C	13		X	X	X	X		
	19A							
	19B					X	X	
I-C Composite								
I-D	3A							
	3B							
	3C							
I-D Composite								
Obj. I Total								

Objectives and Sub-Objectives. (Continued)

MT Assessment Objective	Item	1	2	3	4	5	6	7
IV-A	10							
	17A							
	17B							
	17C							
	17D							
IV-A Composite								
IV-B	7							
	18		X	X				
IV-B Composite			X	X				
IV-C	5		X	X		X	X	X
	20A		X	X				
	20B					X	X	X
	20C							
IV-C Composite			X	X				
Obj. IV Total			X	X				
V-A	8							
	15						X	
V-A Composite						X		X
V-B	2							
	6					X		
V-B Composite								
V-C	16							
	21							
V-C Composite								
Obj. V Total								

APPENDIX C

SOUTHWESTERN MONTANA RURAL

MUSIC ASSESSMENT MATERIALS

CONVERSION TABLE

The following conversion table may be utilized to convert the items found on the Southwestern Montana Rural Music Assessment to NAEP item identification numbers.

Montana Items		NAEP Items
1.	A-I	TO101A-I
2.	A-S	TO411A-S
3.	A-C	TO514A-C
4.	A-D	TO613A-D
5.		TO901A
6.		TO504A
7.		TO703A
8.		TO905A
9.	A-I	TO603A-I
10.		TO805A
11.		TO103A
12.	A-F	TO104A-F
13.		TO401A
14.		TO406A
15.		TO902A
16.		TO713A
17.	A-D	TO707A
18.		TO917A
19.	A-B	TO402A-B
20.	A-C	TO908A-C
21.	A-E	TO814A-E

SOUTHWESTERN MONTANA RURAL MUSIC ASSESSMENT

SCHOOL I.D. NUMBER __________ STUDENT I.D. NUMBER __________

AGE -- 13 BIRTHDATE ______________________________
Month Day Year

SEX -- M F GRADE IN SCHOOL -- 7 8 9

RACIAL/ETHNIC CLASSIFICATION -

White Black American Indian Hispanic Asian

DIRECTIONS FOR ANSWERING EXERCISES

Multiple Choice Exercises

Most of the exercises in this booklet are followed by several suggested answers. Sometimes the answer choices will be listed down the page, as shown in the example below.

Example Exercise 1

Listen carefully to the music. What instrument is playing?

- ○ Clarinet
- ○ Drum
- ○ Trumpet
- ● Banjo
- ○ I don´t know

The circle beside "Banjo" has been filled in because banjo is the correct answer.

Other multiple choice exercises will have the answer choices written across the page, as shown in the example below. For this type of exercise, you should choose the answer you think is best and fill in the circle under that answer. Just for practice, after the example exercise is read, FILL IN the circle under the answer you think is best.

Example Exercise 2

What is the name of the music instrument shown below?

Piano	Guitar	Drum	Trumpet	I don´t know.
○	○	○	○	○

You should have filled in the circle under "Drum" because drum is the correct answer.

For all of the exercises, you will have time to choose an answer and fill in a circle.

Remember, each time you answer a multiple choice question, fill in only ONE circle. Fill in that circle COMPLETELY. If you change your answer, be sure to erase your first answer completely.

For most of the exercises, one of the answer choices is "I don´t know." If you do not know the answer to a question, fill in the circle for "I don´t know."

At the bottom of most pages, there is a "STOP" sign. When you see a "STOP" sign, do not go on to the next page until you are told to do so.

DO NOT CONTINUE
UNTIL TOLD TO DO SO

1. Which of the following activities do you do <u>outside of school</u>? Fill in one circle in each box.

<u>Outside of school</u>, do you

	Yes	No	I don't know.
A. listen to music?	○	○	○
B. sing just for fun?	○	○	○
C. sing with friends just for fun?	○	○	○
D. sing in a church or community music group?	○	○	○
E. play a musical instrument by yourself just for fun?	○	○	○
F. play a musical instrument with friends just for fun?	○	○	○
G. play a musical instrument in a church or community music group?	○	○	○
H. take music lessons?	○	○	○
I. make up your own music?	○	○	○

STOP

DO NOT CONTINUE UNTIL TOLD TO DO SO

2. Below are two lists. In the blank space beside the name of each composer in List B, write the number of the period of music history from List A in which he composed his BEST music.

<u>List A</u>

1. Renaissance Period
2. Baroque Period
3. Classical Period
4. Romantic Period
5. Modern Period

<u>List B</u>

_____ Johann Sebastian Bach

_____ Bela Bartok

_____ Johannes Brahms

_____ Frederic Chopin

_____ Aaron Copland

_____ Antonin Dvorak

_____ Edvard Grieg

_____ George Frederick Handel

_____ Joseph Haydn

_____ Franz Liszt

_____ Wolfgang Amadeus Mozart

_____ Giovanni Pierluigi da Palestrina

_____ Sergei Prokofiev

_____ Nikolai Rimsky-Korsakov

_____ Arnold Schoenberg

_____ Igor Stravinsky

_____ Peter Ilyich Tchaikovsky

_____ Antonio Vivaldi

_____ Richard Wagner

STOP

DO NOT CONTINUE UNTIL TOLD TO DO SO.

3. For each of the following statements, fill in one circle that best describes how much you agree or disagree with the statement.

A. I like many songs because of the music rather than the words.

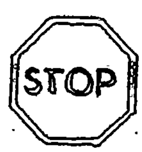
Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
○	○	○	○	○

B. There are certain parts of my favorite songs that I wait to hear because I like them best.

Stongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
○	○	○	○	○

C. There are certain parts of my favorite songs that make me want to do things like clap my hands, snap my fingers, tap my feet, hum or whistle.

Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
○	○	○	○	○



DO NOT CONTINUE UNTIL TOLD TO DO SO.

4. You will now hear four different pieces of Music. After each one is played, fill in one circle to indicate how much you like the music.

A. How much do you like this music?

Very much	Some	Not very much	Not at all
○	○	○	○

B. How much do you like this music?

Very much	Some	Not very much	Not at all
○	○	○	○

C. How much do you like this music?

Very much	Some	Not very much	Not at all
○	○	○	○

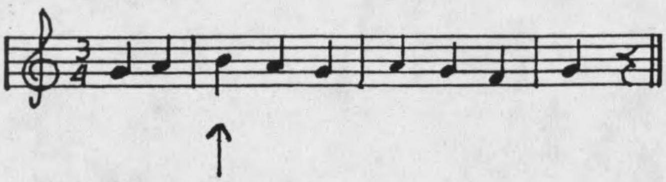
D. How much do you like this music?

Very much	Some	Not very much	Not at all
○	○	○	○

STOP

DO NOT CONTINUE UNTIL TOLD TO DO SO.

5. Look at the line of music.



The arrow is pointing to what note?

- ◯ B
- ◯ C
- ◯ D
- ◯ F
- ◯ G

- ◯ I don´t know.

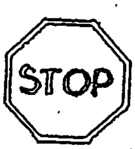
DO NOT CONTINUE
UNTIL TOLD TO DO SO.

6. Musical works by the same composer often sound similar. Listen carefully to these three musical examples. Which examples were probably composed by the same person?

The works probably composed by the same person are

- ○ 1 and 2 only.
- ○ 1 and 3 only.
- ○ 2 and 3 only.
- ○ all 3.

- ○ I don't know.



DO NOT CONTINUE UNTIL TOLD TO DO SO.

7. A. Listen carefully to the form of this melody. It has four phrases:

A --- A (same) --- B (different) --- A (same)

B. Now you are going to hear a different melody in four phrases. It will be played two times. What is its form?

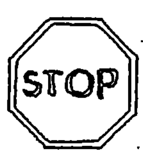
○ A --- A --- A --- B

○ A --- A --- B --- A

○ A --- A --- B --- B

○ A --- B --- B --- A

○ I don´t know.



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8. Listen carefully to the three musical selections. Which two selections are more closely related?

○ Selections 1 and 2

○ Selections 2 and 3

○ Selections 1 and 3

○ I don´t know

STOP DO NOT CONTINUE
UNTIL TOLD TO DO SO.

9. Do you like to see live performances of each of the following kinds of music?

Fill in one circle in each box.

	Yes	No	I don´t know.
A. Rock	○	○	○
B. Jazz	○	○	○
C. Symphonic	○	○	○
D. Opera	○	○	○
E. Ballet	○	○	○
F. Folk	○	○	○
G. Country & Western	○	○	○
H. Soul	○	○	○
I. Religious music	○	○	○

STOP **DO NOT CONTINUE UNTIL TOLD TO DO SO.**

10. Listen carefully to the music. What kind of instruments are playing?

Mark only <u>ONE</u> answer.

- ○ Brasses
- ○ Strings
- ○ Woodwinds
- ○ I don't know.

DO NOT CONTINUE
UNTIL TOLD TO DO SO.

11. If you could buy only one record or tape, which kind would you buy?

- ○ Jazz
- ○ Classical
- ○ Broadway Musical
- ○ Country and Western
- ○ Rock
- ○ Soul

- ○ I don't know.

STOP

DO NOT CONTINUE UNTIL TOLD TO DO SO.

12. Listed below are several kinds of music activities. Indicate how many years you have participated in each activity in school. Be sure to fill in one circle in each box.

Including elementary and junior high school, how many years have you taken or participated in

A. General Music Class or Music Appreciation?

Have Never Taken	Less Than 1 Year	1 to 2 Years	3 to 4 Years	5 or More Years
O	O	O	O	O

B. Choir, Chorus or Glee Club?

Have Never Taken	Less Than 1 Year	1 to 2 Years	3 to 4 Years	5 or More Years
O	O	O	O	O

C. Band or Instrumental Music?

Have Never Taken	Less Than 1 Year	1 to 2 Years	3 to 4 Years	5 or More Years
O	O	O	O	O

D. Orchestra?

Have Never Taken	Less Than 1 Year	1 to 2 Years	3 to 4 Years	5 or More Years
O	O	O	O	O

E. Introduction to Music, Music Literature or Music History?

Have Never Taken	Less Than 1 Year	1 to 2 Years	3 to 4 Years	5 or More Years
O	O	O	O	O

F. Music Theory Class or Music Composition?

Have Never Taken	Less Than 1 Year	1 to 2 Years	3 to 4 Years	5 or More Years
O	O	O	O	O

STOP

DO NOT CONTINUE UNTIL TOLD TO DO SO.

13. How important do you think music is in our society?

- ○ Very Important
- ○ Somewhat Important
- ○ Not Very Important
- ○ Not Important At All
- ○ I don´t know.

STOP

DO NOT CONTINUE
UNTIL TOLD TO DO SO.

14. Can music change the way you feel?

- ○ Yes
- ○ No
- ○ I don´t know.

STOP **DO NOT CONTINUE UNTIL TOLD TO DO SO.**

15. Listen carefully to the music. What kind of music is being performed?

- ○ Blues song
- ○ Folk-rock song
- ○ Operatic song
- ○ Work song

- ○ I don´t know.

DO NOT CONTINUE UNTIL TOLD TO DO SO.

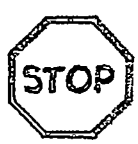
16. Why is music often played in shopping centers, restaurants, or doctors´ offices?

- ○ To cover up noises in these places
- ○ To teach the customers new songs
- ○ To keep people awake
- ○ To make these places more pleasant
- ○ I don´t know.

DO NOT CONTINUE UNTIL TOLD TO DO SO.

17. For each of the following parts, two sounds will be played. Decide if the second is higher in pitch, lower in pitch, or the same pitch as the first sound. Each pair of sounds will be played twice. Listen carefully.

A. Was the second sound				
	higher in pitch?	lower in pitch?	the same pitch.	I don´t know.
	○	○	○	○
B. Was the second sound				
	higher in pitch?	lower in pitch?	the same pitch.	I don´t know.
	○	○	○	○
C. Was the second sound				
	higher in pitch?	lower in pitch?	the same pitch.	I don´t know.
	○	○	○	○
D. Was the second sound				
	higher in pitch?	lower in pitch?	the same pitch.	I don´t know.
	○	○	○	○



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18. Listen carefully to the entire piece of music. What is the form of the music?

- ◯ Canon
- ◯ Rondo
- ◯ Verse and chorus
- ◯ Theme and variations

- ◯ I don´t know.

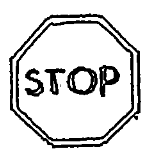
DO NOT CONTINUE
UNTIL TOLD TO DO SO.

19. A. Which one of the following music activities would you rather do in school?

- ◯ Listen to recorded music
- ◯ Listen to live music
- ◯ Perform music
- ◯ Read about music
- ◯ I don't know.

B. Which one of the following music activities would you rather do on your own?

- ◯ Listen to recorded music
- ◯ Listen to live music
- ◯ Perform music
- ◯ Read about Music
- ◯ I don't know.



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