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GOALS AND PROCEDURES FOR ESTABLISHING A MUSIC EDUCATION RESOURCE CENTER

by

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TABLE OF CONTENTS

VITA ii

ACKNOWLEDGEMENT iii

LIST OF TABLES v

LIST OF ILLUSTRATIONS viii

ABSTRACT ix

Chapter

I. INTRODUCTION 1

II. REVIEW OF LITERATURE 14

III. METHODS 27

IV. RESULTS 32

V. DISCUSSION 62

LIST OF REFERENCES 88

APPENDICES 91

LIST OF TABLES

Table		Page
1.	Number of Respondents; Categorized by School Size and Job Descriptor	33
2.	Percentage of Replies to Question 1: Would You Desire to be Served by the Proposed Center?	35
3.	Percentage of Replies to Question 2: What Do You Feel the Potential Value of the Proposed Center Would Be for You and Your Program? . . .	36
4.	Percentage of Replies to Question 9: Do You Feel You or Other Teachers in Your School Are Deficient in Your Present Knowledge Concerning One or More of the Possible Responses to Number 8?	37
5.	Percentage of Replies to Question 10: If You Answered "Yes" to Number 9, Do You Feel the Center has the Potential to Help You Increase Your Knowledge in These Areas?	39
6.	Percentage of Replies to Question 3: What Do You Feel the Potential Value of the Proposed Center Would Be for Music Education in the State of Montana?	41
7.	Percentage of Replies to Question 4: What Do You Feel the Potential Value of Such a Center Would Be Nationally?	42
8.	Percentage of Replies to Question 5: To What Degree Would You Be Willing to Participate in the Function of the Center by Responding to Requests to List Problems You Are Encountering?	44
9.	Percentage of Replies to Question 6: To What Degree Would You Be Willing to Participate in the Function of the Center by Initiating Requests for Information and/or Research? . . .	45

Table		Page
10.	Percentage of Replies to Question 7: To What Degree Would You Be Willing to Participate in the Function of the Center by Offering Your Knowledge in a Specific Area When Another Teacher Requests Such Information from the Center?	47
11.	Percentage of Replies to Question 12: Would You Take the Time to Write a Short Evaluation of Material or Personnel Sent to You if an Evaluation Instrument Were Provided?	48
12.	Percentage of Replies to Question 11: Would You Desire the Center To Have Trained Specilists Who Would Visit Your School on Request To Help Install a New Program or to Solve a Problem?	49
13.	Mean Scores of Materials as Preferred by Class A Schools in Response to Question 8: Categorized by Job Descriptor	51
14.	Mean Scores of Materials as Preferred by Class B Schools in Response to Question 8: Categorized by Job Descriptor	52
15.	Mean Scores of Materials as Preferred by Class C Schools in Response to Question 8: Categorized by Job Descriptor	53
16.	Mean Scores of Materials as Preferred by Class D Schools in Response to Question 8: Categorized by Job Descriptor	54
17.	Mean Scores of Materials Obtained in Response to Question 8; Categorized by Job Descriptor .	55
18.	Rank Order of Materials Obtained in Response to Question 8; Categorized by School Size . . .	57
19.	Rank Order of Materials Obtained in Response to Question 8; Categorized by Job Descriptor .	58

Table Page

20. Percentage of Replies to Question 13: Which Type of System Would You Prefer for Information Dissemination? 60

LIST OF ILLUSTRATIONS

Figure		Page
1.	A Model of the Process of Research to Application	16
2.	Organizational Structure	72
3.	Process Flow Chart	77
4.	Growth Flow Chart	84
5.	Growth Master Plan	85

ABSTRACT

This study developed goals and procedures for the implementation of a Music Education Resource Center. The Center was designed for the purpose of serving the needs of Montana music teachers by providing information collection, validation, and editing; and dissemination of the resulting useful material. Descriptions of current resource centers are given, providing a basis for many of the recommendations. Also, music teachers in Montana were surveyed to obtain information concerning their educational needs and desires. The results of the survey indicated a strong need for the Center and a substantial willingness to participate in its function. Teachers felt the greatest need for methods of teaching in their specific areas and expressed a high degree of receptivity toward the use of in-service training by Center specialists. They also felt the Center should send information to teachers according to categories of expressed interest. From these findings, implications for the development of the Center were stated, and recommendations made. The structure, services and growth of the Center were discussed as well as a model for evaluation of its functions. Appendices include a budget, tentative Center goals, and a partial list of sources for music materials.

CHAPTER I

INTRODUCTION

The field of education, like all other areas permitting human investigation, is undergoing a tremendous increase in the quantity of available knowledge. New theories are being proposed and new conclusions are being reached through research. Unfortunately, educational researchers have been content to investigate, obtain the ensuing results, and then lay these results neatly on the shelf. Jung, Fox, and Lippet (1967, p. 77) writing of change in education and the organizational functions which enhance learning, recognize that "there is a need for facilitation of resource availability. This might be thought of as procedures for active linkage between the needs of the system and the resources that may be found both within and outside of the system."

The application of new theories and research results has been less than adequate; practitioners have been noted for continued unquestioning use of outmoded techniques simply because no fresh alternatives were made available to them. Halpin (1966, p. 321) comments that "in education we do not suffer from a dearth of research findings but lack the courage to act on those findings which we do have."

In short, deficiencies exist in the effective use of available educational information.

In an effort to stimulate systematic collection and increased communication of such information, Congress passed Public Law 91-345 (1971. pp. 440-42) which states that "library and information services adequate to meet the needs of the people of the United States are essential to achieve national goals and to utilize most effectively the nation's educational resources." Thus, it is Government policy to "promote research and development activities which will extend and improve the nation's library and information-handling capability as essential links in the National communication networks."

Several Research and Development Centers and regional educational laboratories have already been established by the Government. These institutions have been more concerned with research than application and have almost totally excluded work in the arts.

The Problem Defined

This study was undertaken in order to establish a set of guidelines and objectives for the creation of a Music Education Resource Center at Montana State University. The purpose of the proposed Center would be to collect,

validate and edit research in music education and to disseminate the resulting useful information to pertinent music specialists in the schools and to teacher training institutions.

Edward Aguirre, United States Commissioner of Education, in response to an inquiry by this researcher,[1] has clarified the current situation by disclosing that the Office of Education does not have a clearinghouse for music education because funds appropriated for information centers have not allowed arts and/or humanities to be included in the centers. He further states, however, that "the need for such a center does exist, unquestionably, not only for music education, but indeed for all of the arts in education."

The necessity of a resource center in music education is clearly evidenced by the fact that music educators are not generally aware of much valuable information on music and music-related topics. Music specialists and non-specialists who are teaching music classes lack ready

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[1]An initial inquiry was made to Senator Mike Mansfield concerning existence of resource centers for music education and possible funding thereof. He, in turn, requested information from the Office of Education which replied in a letter dated November 29, 1976. Copies of the letters from Senator Mansfield and Mr. Aguirre appear in Appendix A.

access to information in four major areas: (1) pertinent research; (2) current methods; (3) innovative ideas; and (4) new equipment. These four categories are delineated below.

1. Pertinent research
   a) By psychologists in learning theory in general and musical learning in particular
   b) In ethnic musics
   c) In music-related career opportunities
   d) Relating to public relations
   e) In recruitment procedures for performance-oriented programs
   f) Concerning identification of gifted students
   g) Related to administrative relations
   h) In performance techniques
   i) Offering an analysis of music literature
   j) Describing stylistic traits
   k) In interpretation of styles
   l) Showing aptitude and actual performance correlations
   m) By physical scientists concerning musical acoustics

2. Current methods
   a) Tone production
   b) Technique development
   c) Teaching general music classes
   d) Equipment usage
   e) Media usage
   f) Measurement of achievement
   g) Evaluation

3. Innovative ideas
   a) Regarding staffing patterns
   b) In curriculum development
   c) In scheduling music classes
   d) Which apply principles from the behavioral sciences
      (1) Administrative principles
      (2) Group theory
      (3) Systems theory

(4) Leadership theory
(5) Compliance relationships

4. Information concerning new equipment
   a) Electronic
   b) Band instruments
   c) Orchestral instruments
   d) Guitar
   e) Percussion
   f) Miscellaneous performance instruments
   g) Audio-visual aids
   h) Physical aids
      (1) Practice rooms
      (2) Risers
      (3) Filing equipment
   i) Acoustical materials and application techniques
      (1) Sound shells
      (2) Gymnasium acoustical modification

The reason for this situation is simple: access to critical knowledge has often been blocked by an "information gap." It is as if a chasm existed between researchers and other information gatherers on the one side and educators on the other, with only a narrow bridge connecting the two. A very limited and often one-way traffic flow is all the bridge will permit, resulting in a mass of knowledge remaining unapplied, and a large majority of teachers uninformed. Information carriers must wait at the clogged bridge approaches or attempt to travel around the obstruction with the delays in time and hazards of becoming lost which attend such a journey.

General Procedures

If a resource center is to assist teachers in crossing this gap, several preliminary questions must be answered. This study addressed the following:

1. Most importantly, would teachers feel a need for the Center?
2. How much money would the Center cost?
3. What size and type of staff would be required?
4. Who would be the users of the Center?
5. What materials would the users desire?
6. What services would the users desire?
7. What would be the most efficient taxonomy possible for material classification and retrieval purposes?
8. What system should be employed for material dissemination?
9. To what extent should the Center offer in-service training in new techniques and equipment?
10. What level of operation would be most practical--state or national?
11. What would be the degree of user participation in the Center?

In order to help answer the above questions, the present study involved a determination of the perceived

needs of music educators in Montana. These teachers have completed a questionnaire which focused on: (1) the expressed desire for the existence of a resource center; (2) the types of materials to be made available; (3) the types of services and personnel to be made available; (4) the most effective means for dissemination of information; and (5) the possibilities for teacher evaluation of the Center.

In addition, the literature concerning existing resource centers has been reviewed in an effort to outline the goals and procedures which have guided them through their creation and subsequent operation. This general information has then been adapted to the particular case of music education.

Limitations and Delimitations

A basic limitation of the study was the inability to define for the teacher being surveyed many particulars of the Center. In other words, because the Music Education Resource Center has little direct precedent, specific alternative answers to many questions are not yet apparent. Some questions were, of necessity, open-ended, making statistical interpretation impossible, and requiring a subjective analysis by the researcher of what might be

appropriate and what might not. The type of taxonomy to be adopted, for example, developed as a result of the questionnaire response pattern. It was not the one choice most often selected by respondents from a list of typical taxonomies--no acceptable taxonomies for music education materials exist from which to chose.

Another limitation was the result of the time required to complete the questionnaire. A busy teacher is not able to devote the optimum amount of time to answering many long involved questions. Therefore, questions were designed which required only short answers, even though they may not have given the amount of information desired.

A final limitation concerned the population to which the questionnaire was sent. Ideally, all music educators in Montana should have been included in the population. This was not possible, however, because the only available source of music educators is a Directory published by the Montana State Department of Public Instruction which lists only music specialists who are currently teaching in the public schools. Often, classroom teachers in the elementary grades teach music; and many music teachers are in transition occupations, returning to school, teaching privately, or retired. None of these people are included in

the State Department listing, and thus were not reached by the questionnaire.

An obvious but important delimitation is the fact that only music teachers were surveyed. Other groups, including administrators, could legitimately have been sampled as well, but it was felt that music educators would supply the most knowledgeable answers to questions of content which might not be readily apparent to those with non-music backgrounds.

Definitions

The following three terms are used somewhat loosely and interchangeably in the literature, but their meanings are here made more specific for the purposes of this study.

Resource Center.--Collects and catalogues resources, and identifies service networks which are used to find solutions to user needs. Such a center provides for validating the accuracy of the materials and editing them for convenient usage. It provides information searches of areas where problems are being encountered by a number of different types of users. Finally, it involves dissemination and feedback systems.

Information Center.--Concerned primarily with maintaining a library of materials and disseminating them when

requests are made. It provides information, but few of the services of the resource center.

Research Center.--Primarily concerned with pure research. It will conduct general, wide-range research or concentrate on very specific problems of interest to only a few. It is only peripherally concerned with application. Most centers operating today are of this type despite the title they may have adopted.

The following terms also require definition.

User Network, or Users.--All individuals and institutions which may utilize the services of the Center.

Service Network.--Any material, person, group of people, agency or institution capable of supplying a needed service. Both service and user networks may be broad--involving many components or a general function--or narrow--involving few components and specific functions.

Material Validation.--When a resource center validates material, it utilizes its staff to verify the accuracy of the material. Conditions under which research was conducted, statistical procedures employed, motives of the service network, and other variables are considered.

Material Editing.--Involves the staff condensing the results of research or other information into units

meaningful to the busy teacher. This does not imply a watering-down of the information, but rather an attempt to identify the salient points contained in an otherwise impenetrable mass of knowledge.

Staff.--Includes all persons employed by the Center: Director, computer specialist, research personnel, field specialists, clerks, secretary, librarian, and graduate students. Most of these positions possess obvious job descriptions; however two need further definition.

Field Specialists, or Specialists.--Persons whose responsibilities include functions demanding expertise in a specific area of music or education. For example, an expert clarinet instructor would be involved in programs being designed which would affect improvement of instruction in the clarinet. Similarly, a curriculum specialist would be involved in developing a new music curriculum.

Clerks.--Function primarily as typists and cataloguers. The clerk would have the responsibility of putting all materials written by specialists, research staff, and other Center personnel into final presentable form for dissemination and for filing material as designated by supervisory personnel.

System.--The system is spoken of in many contexts.

There is a total educational system, the Center itself, and the component functions of the Center. Any system is a unit which contains subsystems and is contained in a supersystem. These terms may be used interchangeabley for the same organization depending on the scale being used to measure it. Any system has processes and a product.

Implementation.--The delivery system used for putting a strategy into practice.

Interface.--A subsystem within a system which acts as a connector or translator between two or more subsystems.

Evaluation.--Any process whereby data concerning teh degree of compliance with which system expectancies have been met.

Recycling, or Feedback.--The use of evaluative data to effect changes in the system.

Master Plan.--A timetable for completion of system goals. It includes the task to be accomplished, who will be involved in that task, and the date by which it will be completed.

Go/No-Go Decision Points.--Crucial points in the Master Plan at which evaluative data has been collected concerning a function, and it becomes necessary to decide if the system should continue operation as specified in the

Master Plan, make modifications and continue in line with a new Master Plan, or be terminated.

University.--Unless otherwise specifically stated, all references to the University will be to Montana State University in Bozeman.

Department of Music.--The Department of Music at Montana State University in Bozeman.

Summary

The present study has sought to design a system which will serve to conduct knowledge and materials between the researcher and the practitioner inmusic education--a means of linking those who develop information and those who can apply it. Chapter II examines some existing centers and the concepts which led to their development in order to establish some precedence for the present study. Chapters III and IV expand upon the procedures and results of the questionnaire.

Hopefully, by combining a knowledge of what has been done in other subject areas with the expressed desires of Montana's music educators, a Music Education Resource Center responsive to the needs of these teachers may be designed. It should properly be a resource center, concentrating on dissemination and application rather than research.

CHAPTER II

REVIEW OF LITERATURE

Current literature relating to resource center may be divided into five general categories: (1) statements of need; (2) goals and objectives; (3) descriptions of specific centers; (4) dissemination conclusions; and (5) evaluation procedures. This chapter will present relevant information in each of these categories, organized in the above order as a general reflection of the sequence of their appearance in the implementation of such a center. Information in each of these areas was important for the completion of the study. The procedures used to turn perceived needs first into sets of goals and objectives and then into actual functioning centers were, of course, of primary importance. Existing needs assessments also assisted in the preparation of an instrument appropriate to the collection of data for use in the present study. Finally, problems encountered concerning information dissemination, evaluation, and other specifics of operation will aid in anticipating the appearance of similar difficulties in any implementation of this study's conclusions.

Statements of Need

Several researchers have found severe problems in the utilization of the results of educational research. In a study to define the processes involved in the application of research, Mackie (1974) examined the specific area of human learning. The choice of subject was incidental to the study; his efforts were aimed at finding the procedures and functions involved in the general research-to-application progression. He found that a substantial majority of the research conducted in the juman learning field was having no effect upon practices outside the laboratory. Mackie demonstrated his findings by the use of the following chart (Fig. 1). His study determined the existence of highly active basic research and theory subsystems on one side of the process, and highly active applied research and development subsystems on the other. However, the intermediate processes which should link the two sides were weak or nonexistent.

The Federal Government has tried to solve this information gap in education by the establishment of Research and Development (R & D) Centers. Often, however, these centers have placed accent upon the problem rather than solving it. For example, Feinberg (1964) speaks

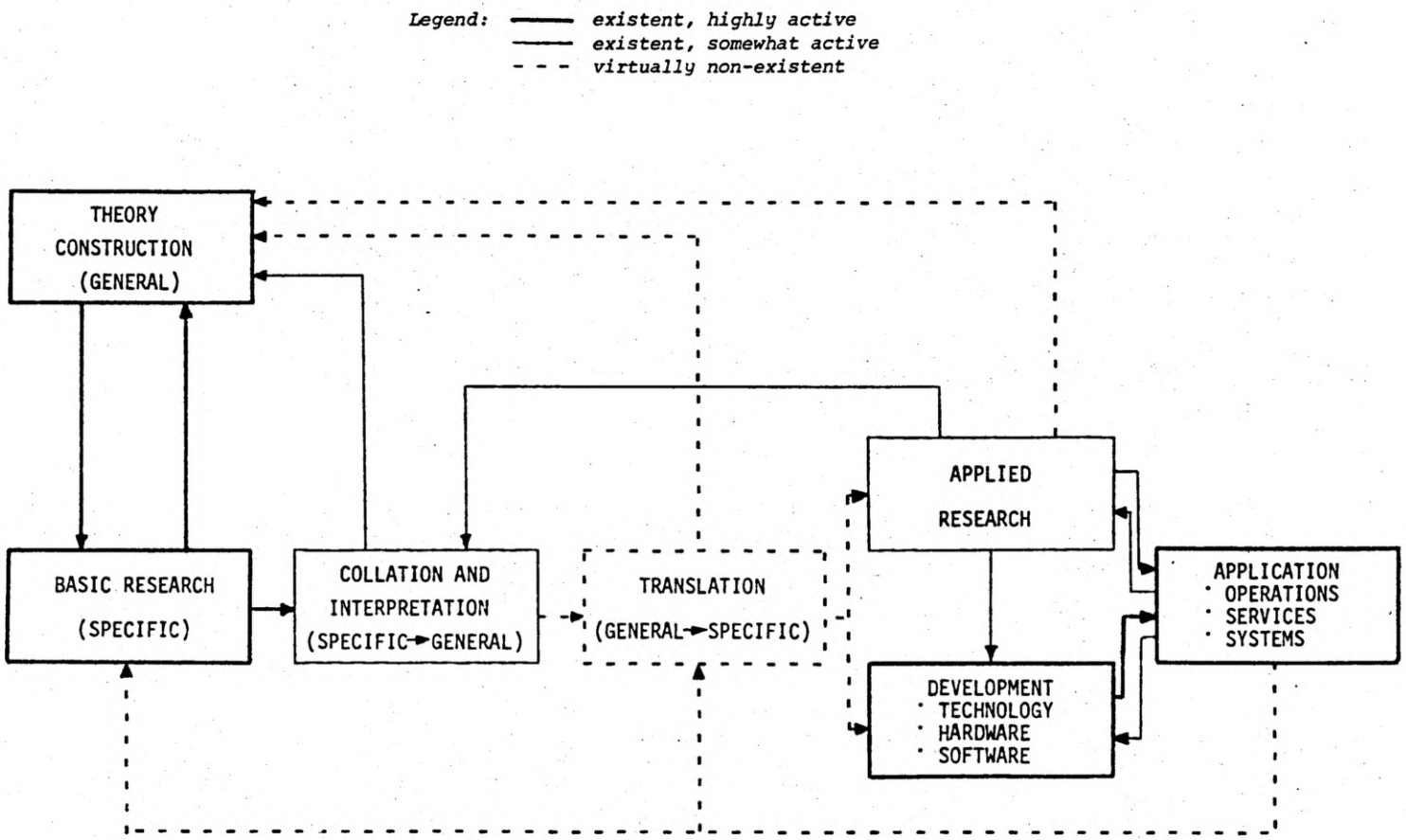


Fig. 1--A model of the process of research to application (in theory and in practice).

critically of the R & D Center at Harvard.

> In the foreground, overshadowing any other problem is a large and obvious gap between the University (Harvard) and the participating school systems. Harvard Graduate School of Education appears withdrawn, highly research oriented as opposed to service oriented, and unresponsive to the everyday needs and problems of the school systems. The conventional research--development--dissemination mode suggested by the Office of Education's description of the R & D Centers, whereby the results of basic researc h are transmitted into curriculum development, and eventually disseminated to school systems, is seriously questioned if not rejected.

Several specific problems identified by Mackie's research follow.

1. Applied research and development tends to emphasize material production and promotion rather than actual educational research (i.e., the development and installation of media, programmed texts, computer-assisted instruction, etc. often takes the place of true research). The Massachusetts State Educational Information Center (1975) corroborates this problem in its report. It found the traditional connector between educational R & D Centers and the users of its product to be the education publisher, who cannot afford to satisfy the special needs of local school districts.

2. The collation and interpretation subsystem is difficult to cope with successfully. First, there is an excessive amount of material to be examined. The Merrimack

Education Center (1972) calls this problem "overload." Second, information is becoming more and more narrow, requiring a great number of specialists who are not always available and often do not communicate well when they are available.

3. The translation subsystem consists of relating the specific findings of the laboratory to the operational requirements of application. Often, the lack of an intermediary to perform this function squelches the use of potentially helpful information. Merrimack adds the concept of "marginality" to this problem area. That is, because the idea of an interface agent is new, it is often met with skepticism.

4. There is a lack of feedback concerning types of research techniques which would improve the applicability of results.

One of the reasons behind the lack of an effective research-to-application process in education is the fact that the operation of the educational system itself accounts for virtually all of educational expenditures. Bush (1975) found that while agriculture and industry invest five to ten percent of their total expenditures in research and development, education envests only a fraction of one

percent. He estimated the resulting time lag between educational research and its application to be forty to fifty years. This compares quite unfavorably to the three to five year lag in industry and agriculture. The system of experimental stations and field agents in these areas rapidly bring the theories of science into practice. Comparable systems need to be found for education.

Cottrell and Carter (1974), associated with the Mid-Atlantic Region Special Education Instructional Materials Center, point directly to the result of this educational expenditure pattern. Before the establishment of the MAR-SEIMC, there was little interchange of ideas between special education people. This condition seems to exist throughout the entire field of education. Watson (1967, p. 109), for example, found

> school systems are seriously deficient in transmission processes for new and improved ways of working. Hundreds of successful classroom innovations are born to bloom unseen. Some get into journal articles, conversational reports, or books--but many are unknown even to other teachers in the same building. (Italics mine.)

Barry (1973, p.8) in a proposal for a National Cooperative for Career Education (NCCE) identifies yet another complication in the application of new materials. He cites "the inability of local education personnel to

adapt and implement identified materials due to their lack of training and/or staff development in current state-of-the-art methodology." A need for some type of in-service training to overcome this deficiency would, therefore, seem to be a necessity.

Goals and Objectives

All studies reviewed expressed quite similar goals and objectives for the resource center. Four basic goals established by one or more of the following groups: National Institute of Education (NIE) for the Massachusetts State Educational Information Center (1975); Cottrell and Carter (1974) at the Mid-Atlantic Region Special Education Instructional Materials Center; Merrimack Education Center (1972)--are given. These are supported by other researchers as well. The resource center should:

1. Be a storehouse of instructional material (Cottrell and Carter; Peseau)
2. Stimulate a demand for education-related information (SEIC; Buffmire, 1974)
3. Improve the delivery of such information (SEIC; Cottrell and Carter; Peseau; Merrimack; Bush).
4. Aid the user in the application of the information (SEIC; Cottrell and Carter; Merrimack; Peseau; Bush)

Several objectives which are more specific in nature also appear frequently and further define the function of the center as being one which will:

1. Identify the users (SEIC)
2. Identify information needs (SEIC; Merrimack; Peseau)
3. Maintain a collection of materials which are catalogued and abstracted for easy retrieval (Cottrell and Carter)
4. Identify service networks (SEIC; Merrimack)
5. Obtain access to service networks (Merrimack)
6. Employ specialists in the required areas (Merrimack; Peseau)
7. Develop selective dissemination processes (Cottrell and Carter; SEIC; Peseau; Bush)
8. Provide technical assistance in the implementation of information (Bush)
9. Provide for the enrichment and evaluation of the system (SEIC; Peseau; Cottrell and Carter; Bush)
10. Stimulate more and better research (Peseau) by identifying specific problems which merit investigation by masters and doctoral students and university staffs (Jacobs and Varland, 1975)

Descriptions of Specific Centers

Existing resource centers provide working examples of the above goals and objectives. These centers range in areas of study from general educational research to specific fields such as dissemination procedures or services for handicapped children. Nonetheless, all exhibit certain characteristics of operation which allow for some generalization.

Funding, for example, comes from some or all of the following sources as found by examining the institutional descriptions found in a report by the Council for Educational Development and Research (1975):

1. National Institute of Education
2. United States Office of Education
3. State departments of education
4. Local education agencies
5. Higher education institutions
6. Private foundations

As stated above, the Federal Government has established a network of Research and Development Centers. These centers are a product of the interest Sputnik suddenly awakened twenty years ago in our laggard educational system. The Educational R & D network consists of the centers them-

selves which are each working on a specific problem emphasizing research, and ten regional educational laboratories which are attempting to bring the results of research to the field more rapidly (Bush, 1975).

One such laboratory is the Mid-continent Regional Educational Laboratory in Kansas City. A 1975 report by the Council for Educational Development and Research includes a description of the laboratory's functions. By obtaining the cooperation of local districts, state departments, and institutions of higher education in its region, it has provided important links between R & D Centers and implementation systems. Its operation is strongly centered around effective dissemination of materials.

As previously mentioned, SEIC found the only connection between research and application to be the education publisher. In an effort to provide a path more conducive to the flow of realistically needed information, SEIC established Responsive Services for a Variety of Practitioners (RSVP). Its function is to provide information on two distinct levels. First, it will research requests by specific users. These are special, highly unique requests requiring the proper specialists or narrow service network. It is necessarily quite costly, but is invaluable for

special situations. Second, RSVP will research "hot" information--topics which are currently of major interest to a large portion of the user network. This is much less costly and of benefit to a larger segment of practitioners.

Dissemination Conclusions

Certain factors have become apparent in the operation of resource centers concerning dissemination procedures which should be mentioned. The six conclusions below were made by SEIC with support by other researchers where indicated.

1. The user must be involved in requesting information or it will not be used.
2. The user should have convenient access to the information.
3. Only information pertinent to the specific user should be dispersed to him.
4. The information should be in a suitable, easily usable format.
5. Needed areas of research should be identified and communicated to agencies and researchers capable of pursuing them.
6. The center must take the responsibility to diffuse innovations as well as standard information. Peseau

indicates a need for in-service education programs sponsored by the center, while Bush feels actual assistance during the installation of a program or innovation is all-important.

Evaluation Procedures

A comparison of goals and objectives with end products will, of course, be the starting point for any evaluation of a center's performance. Peseau, however, also gives a set of outcomes which individual schools--the recipients of the information--should demonstrate. These are: (1) an increase in organization and management efficiency; (2) optimization of human and financial resources; (3) infusion of innovation through in-service education and changes in technology; and (4) improved academic achievement by students. Somehow, these four items must be quantified to give the center an adequate representation of the effects of its efforts.

Summary

The literature served to confirm the need for resource centers in education--much of what is currently termed research is actually promotion of materials by publishers; the specialists needed to collect and translate

information often are not available; there is a lack of feedback throughout the educational system; and only a niggardly portion of educational monies are expended in research.

A list of research center goals as expressed by various authors, descriptions of a number of existing centers, and conclusions regarding dissemination of information were given. Procedures of evaluation, which are reviewed further in Chapter V, were also outlined.

As is evidenced by the length of the various sections of this chapter, ample material exists regarding the needs for resource centers in general, and the goals and objectives of such centers. However, accurate descriptions of existing centers are difficult to obtain. No information has been found specifically concerning music resource centers, although most of the findings presented in this chapter would seem applicable to such a center.

CHAPTER III

METHODS

The descriptions and explanations given in this section define the procedures which were used in order to elicit and analyze responses from music educators in regards to the establishment of the proposed Center. It will first be necessary to describe the population surveyed. Next, the aspects of the study which the questionnaire was designed to explore and the techniques of mailing and follow-up will be stated. Finally, the specifics of the methods of data collection and presentation will be discussed.

Population

The population of the study consisted of the approximately 440 music educators in Montana public, parochial, and Federal elementary and secondary schools as listed in the 1977 Directory published by the Montana State Department of Public Instruction. While the population was relatively large to be questioned in its entirety, it was felt that such a procedure would provide a greater sense of inclusion on the part of all music teachers in the state--the reason for surveying all music teachers was not one of necessity, but rather one of personal relations which could prove immeasurably helpful in the future of the Center.

The Questionnaire

The successful completion of the study required that information be obtained from these teachers concerning: (1) their need for a resource center; (2) the types of materials to which they would desire access; (3) the types of services and personnel they would desire to be made available to them; (4) their opinions of the most effective means for dissemination of information; and (5) their willingness to help evaluate the Center.

The questionnaire and cover letter which introduced it to the members of the population appear in Appendix B.

Survey Procedures

On April 27, 1977 a questionnaire together with a stamped, pre-addressed return envelope was mailed to these teachers. Approximately three weeks later, after slightly over 50% of those contacted had responded, a follow-up letter was mailed. This also appears in Appendix B. Nearly two weeks after the follow-up letter, with a response rate of about 60%, a telephone follow-up call was made to approximately 15% of those who had not yet responded. The last questionnaire was received on June 29.

Data Grouping

In order to determine who the primary users of the Center would be, it was necessary to group the raw data in two ways. First, four classes of school size were established. This classification corresponds to that used by the Montana High School Association to determine school class for music events such as district and state music festivals. Assignment to a class was based on the number of students attending the high school in the district. Thus, elementary districts were assigned according to the corresponding high school district. Elementary districts containing no high school were assigned to the class D category. The classes and the corresponding ranges of student populations are listed below.

Class	Number of Students
A	751 or more
B	251--750
C	101--250
D	1--100

Second, the respondents were classified according to the primary function they perform in their school. The six job descriptors are listed below. It must be remembered that these categories represent only the major

function of a teacher. He may also perform other music or non-music duties.

1. Music Supervisor
2. Band Director
3. Orchestra (String) Director
4. Choral Director
5. General Music Teacher
6. One teacher performing multiple functions with no principle responsibility

Data Processing

Responses were tallied on a master response sheet. For all questions with the exception of number 8, responses were then totaled and converted to percentages, and these percentages transferred to their appropriate cells in the accompanying tables. Checks in more than one response mode were not included in the calculations.

Question 8 required respondents to select the five types of materials they felt would be the most important for the Center to collect, and then to rank these from 1 to 5. To obtain the means for question 8 given in the tables, a 1 was assigned five points, a 2 was assigned four points, and so forth. These points were totaled and divided by the number of respondents. Thus, a mean of 5.00

would represent the highest possible rating. If two or more materials were given the same number, all were counted.

Approximately 8% of the respondents failed to follow the instructions to question 8. Instead, some marked the responses with an "x" or a check, and/or used more than five numbers or marks. Those who used only "x's" or checks were given a value of 2.5 for each such mark. Numbers greater than 5 and any marks used in addition to numbers were given a value of .5.

CHAPTER IV

RESULTS

The results of the questionnaire are of importance for two major reasons. First, any attempts to obtain funding for the Center will require explicit expressed desire on the part of those to be served. Second, the design of a center should be based on what prospective users actually need rather than what the center itself deems necessary.

Percentage of Response

A few slight adjustments must be made to the figure of 440 questionnaires mailed before an accurate percentage of response may be calculated. At least two of the persons to whom questionnaires were mailed had not been employed by the schools listed in the Directory during the school year in which the study was conducted. One person was employed jointly by two districts and thus received two mailings. Also, one husband and wife who were teaching in the same system completed one questionnaire together. These factors reduced the total number of questionnaires to 436.

Two hundred ninety-three questionnaires were returned, for a response rate of 67.2%. Actually, the percentage of returns for those receiving the questionnaire is probably somewhat higher, as several persons contacted

during the follow-up mailing and subsequent telephone communication indicated that they had not received the initial mailing.

Table 1 shows the number of returns both for size

TABLE 1.--Number of respondents; categorized by school size and job descriptor

Job Descriptor	School Size				Descriptor Totals
	A	B	C	D	
1	5	0	0	0	5
2	23	25	13	0	61
3	14	0	0	0	14
4	17	16	5	0	38
5	49	16	11	4	80
6	1	9	39	46	95
Size Totals	109	66	68	50	293

of school and job descriptor as well as for the cells created by the various combinations of these two variables. Cell C-2, for example, contains the number of class C band directors. The table will be useful for reference when examining succeeding tables of percentages in order to

determine what size of group is represented in each cell. Table 1 shows, most importantly, that cell A-6 contains only one member and, as a result, should not be included in comparisons of percentage between individual cells in subsequent tables.

The proportion of respondents in each cell to the number of possible respondents for that cell is, in general, very similar to the proportion of total returns to possible returns. This indicates that respondents were numerically representative of the total population of music teachers in Montana in relation to the two variables of school size and job descriptor.

Need

Perhaps the principle purpose of the survey was to determine if music teachers felt a need for the Center. Questions 1, 2, 9, and 10 were designed to measure this need.

Table 2 gives the percentage of responses obtained from question 1. Ninety-seven percent indicated a desire to be served by the Center. The percentage is fairly uniform over all sizes of school and also over all job descriptors with the exception of string teachers (3) who responded slightly less favorably.

TABLE 2.--Percentage of replies to question 1: Would you desire to be served by the proposed center?

Job Descriptor	School Size								Descriptor Totals	
	A		B		C		D			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	100	0	. . . .		. . . .		. . . .		100	0
2	90	10	100	0	100	0	. . . .		97	3
3	86	14	. . . .		. . . .		. . . .		86	14
4	94	6	94	6	100	0	. . . .		95	5
5	98	2	94	6	100	0	100	0	97	3
6	100	0	100	0	100	0	98	2	99	1
Size Totals	94	6	97	3	100	0	98	2	97	3

Question 2 sought to determine individual respondent estimation of the Center's potential value for him and his program. As shown in table 3, ninety-eight percent felt the Center was potentially either "very helpful" or "moderately helpful." The "very helpful" response mode increased quite significantly in an inverse relationship with school size; class D schools indicating almost twice as many "very helpful" responses as the large class A schools. Also, supervisors (1) were by far the most favorable group, with

TABLE 3.--Percentage of replies to question 2: What do you feel the potential value of the proposed center would be for you and your program?

Job Descriptor	School Size												Descriptor Totals		
	A			B			C			D					
	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No
1	80	20	0	. .	. . .	.	. .	. . .	.	. .	. . .	.	80	20	0
2	32	64	5	39	61	0	46	54	0	. .	. . .	.	38	60	2
3	43	43	14	. .	. . .	.	. .	. . .	.	. .	. . .	.	43	43	14
4	18	76	6	38	63	0	60	40	0	. .	. . .	.	32	66	3
5	37	61	2	67	33	0	64	36	0	20	80	0	46	53	1
6	0	100	0	67	33	0	54	46	0	65	35	0	60	40	0
Size Totals	35	60	5	49	51	0	55	45	0	62	38	0	47	51	2

those having multiple responsibilities (6) also highly favorable. Vocal directors (4) were the least confident of the Center's potential, especially those from class A schools.

In answer to question 9, teachers were asked to indicate if they felt the music teachers in their school were deficient in their knowledge concerning various types of materials. Their responses, shown in table 4, indicate

TABLE 4.--Percentage of replies to question 9: Do you feel you or other teachers in your school are deficient in your present knowledge concerning one or more of the possible responses to number 8 above?

Job Descriptor	School Size								Descriptor Totals	
	A		B		C		D			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	80	20	. . . .		. . . .		. . . .		80	20
2	95	5	79	21	83	17	. . . .		86	14
3	82	12	. . . .		. . . .		. . . .		82	12
4	81	19	88	12	75	25	. . . .		84	16
5	81	19	60	40	100	0	100	0	81	19
6	0	100	86	14	87	13	91	9	88	12
Size Totals	83	17	78	22	88	12	92	8	85	15

that 85% of the respondents did see such deficiencies. Responses were relatively uniform over both variables.

A somewhat greater affirmative response to question 9 could have been expected had not a typographical error in the questionnaire created some confusion on the part of the respondents. The question referred to "number 7 above," rather than number 8 as was intended. Most respondents either did not notice the error or corrected it; however, some put question marks and approximately 5% of those returning the questionnaire left this question blank.

Question 10 was keyed to question 9--a response being required only if a "yes" response was given to question 9. However, a small number of those who answered "no" to question 9 did, in fact, respond to question 10 as well. These responses were included in the totals for question 10 for two reasons. First, it would be possible for a teacher not to feel deficient in respect to knowledge in the various areas and yet still feel a need for the possibilities of improvement provided by the Center. Thus, the respondent's interpretation of the term "deficient" would not make a negative response to question 9 and an affirmative response to question 10 mutually exclusive.

Second, the typographical error in question 9 which

was mentioned above, may have prompted enough confusion among a few respondents to negate the response-key effect. In other words, teachers who answered "no" to question 9 because of the typographical error may not have seen any reason not to respond to question 10 as no connection between the two questions would have been apparent to them.

The responses to question 10 are given in table 5.

TABLE 5.--Percentage of replies to question 10: If you answered "yes" to number 9, do you feel the Center has the potential to help you increase your knowledge in these areas?

Job Descriptor	School Size								Descriptor Totals	
	A		B		C		D			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	100	0	. . . .		. . . .		. . . .		100	0
2	100	0	100	0	100	0	. . . .		100	0
3	89	11	. . . .		. . . .		. . . .		89	11
4	100	0	100	0	100	0	. . . .		100	0
5	100	0	100	0	100	0	100	0	100	0
6	. . . .		100	0	100	0	100	0	100	0
Size Totals	99	1	100	0	100	0	100	0	100	0

Only one out of the 236 respondents to question 10 answered "no." Thus, virtually all felt the Center did offer a potential for increased teacher knowledge in various areas relating to music instruction.

Local, State, and National Potential

The next problem addressed in the questionnaire concerned the level or levels at which Montana music teachers felt the Center's value would be the greatest. Questions 2, 3, and 4 were asked in order to obtain this information.

The responses to question 2 have already been discussed (see table 3). Table 6 presents the responses to question 3. Seventy-one percent of the respondents indicated they felt the Center would be "very helpful" on the state level. There were no "of no value" responses. The percentage of "very helpful" responses increased inversely with school size.

There was much variation in response according to job descriptor, supervisors (1) giving almost twice the percentage of "very helpful" responses as band directors (2).

Data for question 4 is presented in table 7. Only 35% felt the Center would be "very helpful" at the national level. This is approximately one-half the number of those

TABLE 6.--Percentage of replies to question 3: What do you feel the potential value of the proposed center would be for Music Education in the state of Montana?

Job Descriptor	School Size												Descriptor Totals		
	A			B			C			D					
	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No
1	100	0	0	. .	. . .	.	. .	. . .	.	. .	. . .	.	100	0	0
2	41	59	0	62	38	0	77	23	0	. .	. . .	.	57	43	0
3	64	36	0	. .	. . .	.	. .	. . .	.	. .	. . .	.	64	36	0
4	71	29	0	63	38	0	60	40	0	. .	. . .	.	66	34	0
5	73	27	0	88	13	0	82	18	0	75	25	0	78	23	0
6	100	0	0	78	22	0	74	26	0	78	22	0	77	23	0
Size Totals	67	33	0	71	29	0	75	25	0	78	22	0	71	29	0

TABLE 7.--Percentage of replies to question 4: What do you feel the potential value of such a center would be nationally?

Job Descriptor	School Size												Descriptor Totals		
	A			B			C			D					
	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No	Very	Mod.	No
1	75	25	0	. .	. . .		. .	. . .		. .	. . .		75	25	0
2	23	73	5	33	52	14	46	54	0	. .	. . .		32	61	7
3	43	50	7	. .	. . .		. .	. . .		. .	. . .		43	50	7
4	20	60	20	43	57	0	20	80	0	. .	. . .		29	62	9
5	33	56	10	33	53	13	60	30	10	25	75	0	36	53	10
6	100	0	0	38	63	0	32	59	9	32	66	2	33	62	5
Size Totals	33	58	10	36	55	9	39	55	6	31	67	2	35	58	7

giving the same response for anticipated value at the state level. Supervisors (1) were again considerably more favorable than all other groups.

Teacher Participation

Various aspects of teacher participation in the Center's function seemed crucial to its success. Questions 5, 6, 7, and 12 measured this anticipated teacher involvement.

Table 8 gives the results to question 5, dealing with the degree to which teachers would respond to requests to list problems which they may be encountering. Almost 75% indicated they would give either "total" or "much participation." Response was fairly uniform across school size and job descriptor, with supervisors (1), however, responding somewhat mor favorably than all other groups.

Individual teacher initiative in sending requests to the Center for information or research was elicited in question 6. The results are presented in table 9. Ninety-nine percent of the respondents indicated they would participate in some degree (either "much" or "occasional participation") by initiating such requests. The frequency of "much" responses increased over twofold between class A schools and class D schools. There was also much variation

TABLE 8.--Percentage of replies to question 5: To what degree would you be willing to participate in the function of the Center by responding to requests to list problems you are encountering?

Job Descriptor	School Size																Descriptor Totals			
	A				B				C				D							
	T.	M.	Oc.	No	T.	M.	Oc.	No	T.	M.	Oc.	No	T.	M.	Oc.	No	T.	M.	Oc.	No
1	40	60	0	0	..	..	..	..	..	..	..	..	..	..	..	..	40	60	0	0
2	17	48	35	0	23	45	32	0	42	33	25	0	..	..	..	..	25	44	32	0
3	31	23	46	0	..	..	..	..	..	..	..	..	..	..	..	..	31	23	46	0
4	38	38	25	0	33	53	13	0	0	60	40	0	..	..	..	..	31	47	22	0
5	14	43	41	2	50	44	6	0	27	64	9	0	0	100	0	0	22	49	28	1
6	100	0	0	0	22	44	33	0	17	56	27	0	30	57	13	0	25	55	21	0
Size Totals	22	41	36	1	32	47	21	0	22	54	25	0	28	60	12	0	25	49	26	0

TABLE 9.--Percentage of replies to question 6: To what degree would you be willing to participate in the function of the Center by initiating requests for information and/or research?

Job Descriptor	School Size									Descriptor Totals		
	A			B			C			D					
	Much	Oc.	No	Much	Oc.	No	Much	Oc.	No	Much	Oc.	No	Much	Oc.	No
1	60	40	0	.	.	.	.	.	.	.	.	.	60	40	0
2	13	83	4	30	70	0	42	50	8	.	.	.	26	71	3
3	31	69	0	.	.	.	.	.	.	.	.	.	31	69	0
4	29	71	0	19	75	6	40	60	0	.	.	.	28	69	3
5	27	73	0	50	50	0	45	55	0	50	50	0	35	65	0
6	0	100	0	11	89	0	33	67	0	53	47	0	40	60	0
Size Totals	26	73	1	30	69	2	37	61	1	53	47	0	34	65	1

among job descriptors, supervisors (1) having a considerably higher percentage of "much" responses than other groups.

The extent to which teachers are willing to offer their services or resources to be used by the Center in solving other teacher's problems was ascertained through question 7. Table 10 presents the resulting information. Seventy-five percent indicated they would give either "total" or "much participation" if their knowledge or expertise were requested. School size and job descriptor variables offered relatively uniform response percentages with the notable exception of supervisors (1) who recorded over twice the percentage of "total participation" response of any other group.

Question 12 obtained an indication of whether teachers would take the time to write an evaluation of Center material or personnel. Table 11 shows that 97% of the respondents would participate in this manner. Responses were mostly uniform.

Use of Specialists

Question 11 dealt with whether or not teachers desired trained specialists to visit their schools in order to install a program or solve a problem. In table 12, the

TABLE 10.--Percentage of replies to question 7: To what degree would you be willing to participate in the function of the Center by offering your knowledge in a specific area when another teacher requests such information from the Center?

Job Descriptor	School Size																Descriptor Totals			
	A				B				C				D							
	T.	M.	Oc.	No	T.	M.	Oc.	No	T.	M.	Oc.	No	T.	M.	Oc.	No	T.	M.	Oc.	No
1	80	20	0	0	..	..	..	..	..	..	..	..	..	..	..	..	80	20	0	0
2	19	39	48	0	38	42	21	0	67	33	0	0	..	..	..	..	34	39	27	0
3	33	33	33	0	..	..	..	..	..	..	..	..	..	..	..	..	33	33	33	0
4	41	41	18	0	31	44	25	0	0	50	50	0	..	..	..	..	32	43	24	0
5	15	48	35	2	33	53	13	0	42	33	17	8	0	100	0	0	22	49	27	3
6	0	100	0	0	33	56	11	0	32	42	24	3	33	54	13	0	32	50	17	1
Size Totals	24	42	33	1	34	47	19	0	38	39	20	3	30	58	12	0	30	45	23	1

responses show 85% to favor such help. The responses are fairly uniform. Interestingly, supervisors(1) were less favorable than all other groups in their desire to bring in outside assistance.

TABLE 11.--Percentage of replies to question 12: Would you take the time to write a short evaluation of material or personnel sent to you if an evaluation instrument were provided?

Job Descriptor	School Size								Descriptor Totals	
	A		B		C		D			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	100	0	. . . .		. . . .		. . . .		100	0
2	96	4	100	0	100	0	. . . .		98	2
3	100	0	. . . .		. . . .		. . . .		100	0
4	100	0	100	0	100	0	. . . .		100	0
5	94	6	94	6	91	9	100	0	94	6
6	100	0	78	22	97	3	100	0	97	3
Size Totals	96	4	95	5	97	3	100	0	97	3

Types of Materials

A knowledge of what materials music teachers would desire the Center to make available was obtained through

TABLE 12.--Percentage of replies to question 11: Would you desire the Center to have trained specialists who would visit your school on request to help install a new program or to solve a problem?

Job Descriptor	School Size								Descriptor Totals	
	A		B		C		D			
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	75	25	. . . .		. . . .		. . . .		75	25
2	84	16	86	14	100	0	. . . .		89	11
3	86	14	. . . .		. . . .		. . . .		86	14
4	71	29	82	18	100	0	. . . .		80	20
5	76	24	93	7	90	10	100	0	82	18
6	0	100	75	25	92	8	87	13	87	13
Size Totals	78	22	85	15	94	6	88	12	85	15

question 8. This information is presented in tables 13 through 19. The materials, as they appeared in the questionnaire, are listed below.

Instrumental m ethods (tone production, technique, etc.)
Vocal methods (tone production, technique, etc.)
Ethnic musics
Graded music lists
Instruments (band, orchestral, electronic, etc.)
Methods of teaching general music

Research in musicology (musical styles, history, interpretation, etc.)
Measurement and evaluation of students and classes
Physical aids (risers, filing equipment, etc.)
Acoustical materials and application techniques
Scheduling, staffing, and other curricular matters
Theory from the behavioral sciences relating to music
Theory from the physical sciences relating to music

In each of the tables, the various types of materials are listed along the vertical axis and the variable (school size or job descriptor) is listed along the horizontal axis. In all cases, the order of the materials corresponds to the rank or mean for all respondents. In addition, the number of respondents is listed for each column. Tables 13 through 17 give average points for each material according to job descriptor, as has been previously explained, while tables 18 and 19 rank the materials from 1 to 14 based upon their mean scores. (A rank of 1 would indicate the most preferred alternative.)

Table 13 lists the mean materials scores for class A schools, table 14 for class B, table 15 for class C, and table 16 for class D. From this data, it is apparent that there is much variation according to job descriptor, but less according to school size. Vocal methods and instrumental methods vary inversely in importance with school

TABLE 13.--Mean scores of materials as preferred by class A schools in response to question 8; categorized by job descriptor

Material	Job Descriptor						Mean, All Class A Respondents (N=106)
	1 (N=5)	2 (N=22)	3 (N=14)	4 (N=15)	5 (N=49)	6 (N=1)	
Meth. Gen. Mus.	2.80	0.75	0.61	1.77	3.86	3.00	2.43
Vocal Methods	1.00	0.91	0.00	3.57	2.68	4.00	2.02
Graded Lists	0.80	3.14	3.11	1.87	1.40	1.00	2.00
Instr. Methods	1.00	3.75	2.46	0.60	0.49	5.00	1.51
Meas. & Eval.	0.90	1.27	0.64	1.20	1.02	0.00	1.03
Scheduling	2.10	1.45	0.39	1.37	0.67	2.00	0.98
Research	0.40	0.77	1.36	1.00	0.76	0.00	0.85
Ethnic Musics	0.60	0.00	0.14	0.43	1.39	0.00	0.85
Theory B. Sci.	0.10	0.34	0.61	0.60	0.96	0.00	0.68
Instruments	1.60	0.61	1.54	0.00	0.47	0.00	0.62
Budgeting	1.90	0.43	1.04	0.80	0.32	0.00	0.58
Acoustical	0.20	0.45	0.46	0.57	0.27	0.00	0.37
Phys. Aids	0.40	0.66	0.43	0.20	0.18	0.00	0.35
Theory P. Sci.	0.00	0.11	0.46	0.27	0.28	0.00	0.25

TABLE 14.--Mean scores of materials as preferred by class B schools in response to question 8; categorized by job descriptor

Material	Job Descriptor				Mean, All Class B Respondents (N=64)
	2 (N=24)	4 (N=16)	5 (N=15)	6 (N=9)	
Vocal Methods	1.69	2.84	1.77	2.78	2.15
Meth. Gen. Mus.	1.06	2.28	4.10	1.44	2.13
Instr. Methods	3.81	0.72	0.40	2.28	1.87
Graded Lists	1.56	1.56	0.97	2.11	1.50
Meas. & Eval.	1.08	1.63	1.50	1.33	1.35
Research	1.73	1.38	0.63	0.83	1.26
Ethnic Musics	0.17	0.84	1.83	0.94	0.84
Scheduling	1.33	0.19	0.67	0.89	0.83
Budgeting	0.92	0.31	0.63	0.44	0.63
Theory B. Sci.	0.13	0.94	1.00	0.44	0.58
Acoustical	0.50	0.41	0.07	1.11	0.46
Instruments	0.42	0.10	0.33	0.28	0.31
Theory P. Sci.	0.00	0.25	0.33	0.28	0.18
Phys. Aids	0.25	0.19	0.00	0.00	0.14

size, while scheduling and theory in the behavioral sciences vary directly. Other materials are either relatively static

or vary more or less randomly.

TABLE 15.--Mean scores of materials as preferred by class C schools in response to question 8; categorized by job descriptor

Material	Job Descriptor				Mean, All Class C Respondents (N=66)
	2 (N=12)	4 (N=4)	5 (N=11)	6 (N=39)	
Vocal Methods	1.79	3.13	3.00	2.86	2.70
Instr. Methods	3.08	1.13	0.45	2.99	2.47
Meth. Gen. Mus.	1.54	2.13	4.00	2.31	2.44
Graded Lists	1.46	1.38	1.64	1.50	1.51
Meas. & Eval.	1.54	2.88	1.36	1.28	1.44
Instruments	1.25	0.63	0.64	0.59	0.72
Scheduling	1.41	0.25	0.09	0.67	0.68
Budgeting	1.04	0.63	0.00	0.51	0.53
Acoustical	0.17	1.13	0.41	0.51	0.47
Theory B. Sci.	0.67	0.63	0.64	0.18	0.37
Research	0.00	0.00	1.00	0.31	0.35
Ethnic Musics	0.25	0.25	0.55	0.18	0.26
Phys. Aids	0.00	0.00	0.00	0.33	0.20
Theory P. Sci.	0.00	0.63	0.27	0.08	0.13

Table 17 shows the variation in responses according

TABLE 16.--Mean scores of materials as preferred by class D schools in response to question 8; categorized by job descriptor

Material	Job Descriptor		Mean, All Class D Respondents (N=50)
	5 (N=4)	6 (N=46)	
Vocal Methods	2.25	3.07	3.00
Meth. Gen. Mus.	4.50	2.59	2.74
Instr. Methods	0.25	2.74	2.54
Graded Lists	1.25	2.14	2.07
Research	1.00	0.89	0.90
Instruments	0.00	0.87	0.80
Meas. & Eval.	0.75	0.80	0.80
Ethnic Musics	1.75	0.40	0.50
Scheduling	0.00	0.53	0.49
Acoustical	0.00	0.39	0.36
Budgeting	0.00	0.30	0.28
Theory P. Sci.	0.25	0.28	0.28
Theory B. Sci.	0.50	0.07	0.10
Phys. Aids	0.25	0.08	0.09

to job descriptor totals. Here, it may clearly be seen that there is much differentiation of material preference

TABLE 17.--Mean scores of materials obtained in response to question 8; categorized by job descriptor

Material	Job Descriptor						Mean, All Respondents (N=290)
	1 (N=5)	2 (N=58)	3 (N=14)	4 (N=35)	5 (N=79)	6 (N=99)	
Meth. Gen. Mus.	2.80	1.04	0.61	2.04	3.95	2.27	2.39
Vocal Methods	1.00	1.41	0.00	3.19	2.53	2.84	2.34
Instr. Methods	1.00	3.47	2.46	0.71	0.46	2.71	1.96
Graded Lists	0.80	2.10	3.11	1.67	1.34	1.79	1.76
Meas. & Eval.	0.90	1.25	0.64	1.59	1.15	1.00	1.14
Research	0.40	1.01	1.36	1.06	0.78	0.61	0.82
Scheduling	2.10	1.40	0.39	0.70	0.56	0.61	0.78
Ethnic Musics	0.60	0.12	0.14	0.60	1.37	0.34	0.61
Instruments	1.60	0.66	1.54	0.14	0.44	0.66	0.60
Budgeting	1.90	0.76	1.04	0.56	0.32	0.38	0.52
Theory B. Sci.	0.10	0.32	0.61	0.76	0.90	0.14	0.48
Acoustical	0.20	0.41	0.46	0.56	0.23	0.48	0.41
Phys. Aids	0.40	0.40	0.43	0.17	0.13	0.19	0.22
Theory P. Sci.	0.00	0.04	0.46	0.30	0.28	0.19	0.21

between the various job groupings. As is to be expected, teachers tended to list those materials as important which would be helpful in the performance of their particular job. Band directors (2) gave considerable preference to instrumental methods, vocal directors (4) to vocal mehtods, and general music teachers (5) to methods of teaching general music. Supervisors (1) ranked these three areas in their top six, but also included scheduling and budgeting--understandably major concerns of the administrator. Interestingly, band directors ranked instruments of minor importance, orchestra directors felt graded music lists to be of primary importance, general music teachers were the only group to rank ethnic music material highly, and supervisors were little interested in research or in theory from the behavioral or physical sciences.

Tables 18 and 19 show rank order according to size and job descriptor, respectively. It is apparent again that there is little difference in response among the school size groupings, but much variation between job categories. From the school size table (18), it may be seen that only two rankings (marked with an asterisk) vary more than three ranks from the total figure, while twenty-two rankings differ at least that much from the total in the job

descriptor table (19).

TABLE 18.--Rank order of materials obtained in response to question 8; categorized by school size

Material	School Size				Rank, All Respondents
	A	B	C	D	
Meth. Gen. Mus.	1	2	3	2	1
Vocal Methods	2	1	1	1	2
Instr. Methods	4	3	2	3	3
Graded Lists	3	4	4	4	4
Meas. & Eval.	5	5	5	6.5	5
Research	7	6	11*	5	6
Scheduling	6	8	7	9	7
Ethnic Musics	8	7	12*	8	8
Instruments	10	12	6	6.5	9
Budgeting	11	9	8	11.5	10
Theory B. Sci.	9	10	10	13	11
Acoustical	12	11	9	10	12
Phys. Aids	13	14	13	14	13
Theory P. Sci.	14	13	14	11.5	14

*Vary more than three ranks from that in the "All Respondents" column.

On the whole, music teachers were most concerned with methods for general music, vocal methods, and instrumental methods. Graded music lists and measurement and evaluation of students and classes complete the top five ranked materials these teachers would desire the Center to provide.

Many respondents listed materials other than those given. Some of these responses were easily placed on one of the existing categories; however, over sixty of them could not be so categorized. Nine respondents listed audio-visual materials (films, records, and multi-media information) as important. Rehearsal techniques, recruitment, and clinicians were the only other write-in responses listed by more than two teachers.

Dissemination

Question 13 presented three manners of material dissemination and requested the teachers to check the style they preferred. These are coded in table 20 by Roman numerals as follows.

I. The Center would send all material it obtains in condensed form to all teachers

II. The Center would send information only to teachers who have expressed an interest in the particular

TABLE 20.--Percentage of replies to question 13: Which type of system would you prefer for information dissemination?

Job Descriptor	School Size												Descriptor Totals		
	A			B			C			D					
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
1	40	40	20	. .	. .	. .	. .	. .	. .	. .	. .	. .	40	40	20
2	18	59	23	27	59	14	54	31	15	. .	. .	. .	30	53	18
3	8	67	25	. .	. .	. .	. .	. .	. .	. .	. .	. .	8	67	25
4	20	47	33	33	33	33	20	80	0	. .	. .	. .	26	46	29
5	41	49	10	50	38	13	36	55	9	0	100	0	40	50	10
6	0	100	0	50	33	17	46	43	11	44	29	27	45	36	20
Size Totals	29	53	18	37	44	19	44	45	11	41	35	24	36	46	18

area of knowledge concerned

III. The Center would send information only on request

All sizes except class D and all job descriptors except the combined category (6) rated style II at least as tied for the most favorable method of dissemination. Dissemination pattern II accounted for 46% of the responses, while pattern I accounted for 36%. String teachers (3) and the larger schools favored pattern II most consistently.

Suggestions and Projects

Questions 14 and 15 provided many suggestions regarding materials, Center structure, and potentially valuable projects as well as new sources of information. Also, many expressions of support for the Center concept were included in the responses.

CHAPTER V

DISCUSSION

Summary of the Study

The present study was initiated for the purpose of developing a conceptual blueprint from which a Music Education Resource Center could be built. The design of the Center was envisioned as one which would: (1) facilitate the collection, validation, and editing of potentially useful knowledge, and to disseminate that information to music teachers and teacher training institutions; and (2) provide certain services to users from qualified staff members.

In order to effect such a design, it was felt that obtaining an overview of existing resource centers as well as surveying the needs of Montana music educators would be necessary. As a result, the literature pertaining to existing resource centers was reviewed, permitting certain generalizations to be made which are applied to the current project. Also, a questionnaire was sent to music teachers in the state enabling a more precise definition to be made of the needs of those teachers. The questionnaire focused on five basic issues: (1) the expressed desire for the existence of a resource center; (2) the types of materials

to be made available; (3) the types of services and personnel to be made available; (4) the most effective means for dissemination of information; and (5) teacher willingness to participate in Center evaluation.

Conclusions

The results of the questionnaire supported the following conclusions:

1. Montana music teachers felt a significant need for the Center.
2. These teachers felt the Center had a considerable potential for alleviating teacher deficiencies.
3. The value of the Center was estimated to be much higher at the state level than at the national level.
4. Teachers were quite willing to list problems they might encounter or to request information from the Center.
5. Teachers were willing to give their knowledge to help other Center users.
6. Potential users would help in program evaluation by completing a written evaluative instrument.
7. Most teachers desired the Center to provide trained specialists who would visit individual schools.
8. Teachers favored materials which are directly

related to methods of teaching their particular subject.

9. By a small margin, teachers prefer the Center to send materials only to teachers who have expressed an interest in the particular area of knowledge concerned.
10. In general, the need for and estimation of the potential value of the Center increased as school size decreased.
11. Supervisors were generally the most favorable group toward Center potentialities.
12. The greatest variations in response occurred across the job descriptor variable.

Implications for Center Implementation

Clearly, the most important single issue in any attempt to establish a Music Education Resource Center is an accurate determination of the actual need for such a center. Results of the survey suggest quite conclusively that a definite need does, in fact, exist. Although the Center had been seen by the researcher as a solution to many exigencies, the degree of support for the idea among teachers in the field was nonetheless surprising. The danger that creation of the Center would merely give birth

to a more or less parasitic--and needless--organization providing satisfaction only to itself at considerable taxpayer expense would now seem minimal. Still, the fact that other types of center have developed such relationships with their clients would suggest that caution be exercised. Often, however, these centers have been based on the perceived needs of their own developers rather than on actual user needs and desires.

As has been previously discussed, Mackie's research plainly shows that an effective interface network must exist between the research and application subsystems of an educational theory-to-practice model. Such a network will only be successful if client needs are made a continuing aspect of Center planning procedures.

Feinberg's criticism of the R & D Center at Harvard (i.e., the lack of communication between the Center and participating school systems) should act as a warning signal whenever user needs lose significance in the eyes of the Center staff. Specific recommendations concerning this problem will be made in the next section when a system for Center operation is discussed.

It is therefore felt that ample justification for the Center both in regards to stated needs on the part of

Montana's music teachers and theoretical explorations of educational systems has been obtained.

Responses to questions 3 and 4 in the questionnaire (see tables 6 and 7) unexpectedly agreed with an assumption made on the part of the researcher. Many of the centers examined during the literature review were oriented toward meeting a national need. Often, the scope of problems encountered on a national level necessitated an overly complex structure and led to a lack of simple and direct communication with users. Such centers moved relatively rapidly from the designed interface agent position into a complete and self-contained subsystem, itself requiring (and usually lacking) an interface agent in order to reach users. This type of growth within the system is unhealthy, serving only to add excess weight with a concomitant loss in strenght and responsiveness.

The teachers surveyed seemed wary of this kind of a national center in comparison to a center developed by and for Montanans. This response pattern, coming from those who have had little or no contact with national centers of any kind, was somewhat surprising, indicating greater teacher awareness than was previously realized concerning possible problems to be faced by the Center.

Also surprising were the levels at which teachers indicated they were willing to participate in functional aspects of Center operation. The success of the Center will depend to a large degree upon input from users; it must be aware of the problems confronting educators if it is to attempt to provide solutions. The Center cannot operate in a vacuum. It cannot justify its own existence. It must be justified by the degree to which teachers are willing to utilize its services.

Because funding, space, and time are limited, much of the Center's operation will need to be on a cooperative basis. In other words, if a particular teacher has field tested a material or technique and has found it useful, that information should be made known to the Center and exploited by other teachers. The survey indicated teachers were willing to provide this type of assistance to their colleagues.

This is a delicate area into which to delve, but the tremendous amount of manpower and knowledge in the field could never be matched by the Center staff. The Center must, in large part, function as a facilitator and conductor of ideas from one part of the system to another. The willingness to participate in intersystem communications

by the teachers is most encouraging.

In line with a desire for user participation and input is the necessity for user evaluation of all aspects of the Center with which he comes in contact. An extremely positive response to question 12 suggests that users will take time to evaluate Center material, operations and personnel. In designing instruments for such use, great care must be exercised in order to elicit only such information as is absolutely necessary for program adjustment. Teachers must also continually be made to realize that their evaluations provide the basis for modifications in the Center and its materials. If the fact of their importance in decision-making potentialities within the system is stressed, their willingness to sacrifice time and effort will be increased; when the teachers see they can influence the decisions which determine Center operation, their use of and participation in the system will grow.

Also, if the Center can, in fact, become a recognized subsystem within the total system of music education in Montana, chances of efficacy of operation will be great. The Center, in other words, must become an acknowledged partner in the music education process. The above-mentioned expressions of willingness on the part of teachers to par-

ticipate in Center operation indicate that music teachers are open to the possibility of accepting a facilitating agent into their educational domain.

While more specific comments concerning staff size and specialization will be made in the following section, some discussion of survey results pertaining to these areas is appropriate at this point. Teachers viewed the use of resource people from the Center as one means of securing needed assistance. The smaller schools, with access to fewer reserves from which to draw support, were especially receptive to this idea. This brings up the point which echoes throughout all of the results: music teachers in Montana feel isolated from materials, methods, and people which could provide aid in the teaching of music.

The fact that teachers preferred the Center to concentrate on methods rather than materials suggests even more strongly the need for specialists who could provide some type of in-service training. An effective method of meeting these needs would be the organization of workshops involving all schools in a small area. Problems and solutions could be shared and the expertise of Center personnel could be used most efficiently. When a specific problem arises in a school such as regeneration of the music curriculum,

Center personnel could work within that school as aides to the music faculty.

It becomes apparent upon examination of the survey data that smaller schools expressed a slightly stronger desire to see the Center come to fruition than did larger schools. These schools with only one or perhaps two music teachers are usually at a severe disadvantage with respect to materials, budget, and time. The students in these schools are, in a very real sense, "disadvantaged" in regards to a musical environment. Every effort should be made by the Center to provide the support the teachers in these schools require to carry on effective programs.

It is comforting to note the extremely positive position taken by those in supervisory positions in response to the questionnaire. Although there are few full-time music supervisors in Montana, their presence in the very largest schools would necessitate coordinating Center function in those districts with them. Their acceptance of the Center concept, the, is crucial to successful operation in the large districts.

The taxonomy necessary for the coding of materials would seem to be best developed by concentrating on the specific requirements of the various job descriptors.

Materials could be classified according to broad categories of usage with cross-references where appropriate. This would reduce the amount of material to be searched when investigating a problem in a specific area.

Recommendations

Current literature and the results of the study suggest the following goals and procedures for Center development. The Center will be examined from organizational, operational, and evolutional perspectives. Then, a goals and evaluation model will be discussed.

Organization

Figure 2 depicts the organizational structure of the Center and its relationships to the University. The Center is envisioned as an educational unit under the control of the Department of Music at Montana State University. It would be directly responsible to the Head of the Department. The Office of the Vice President for Research appears as an administrative necessity which will be required for the purpose of approving grant requests and accepting money from funding sources.

Advisory Board.--In order that the Center may obtain as much input as possible, an advisory board will be formed

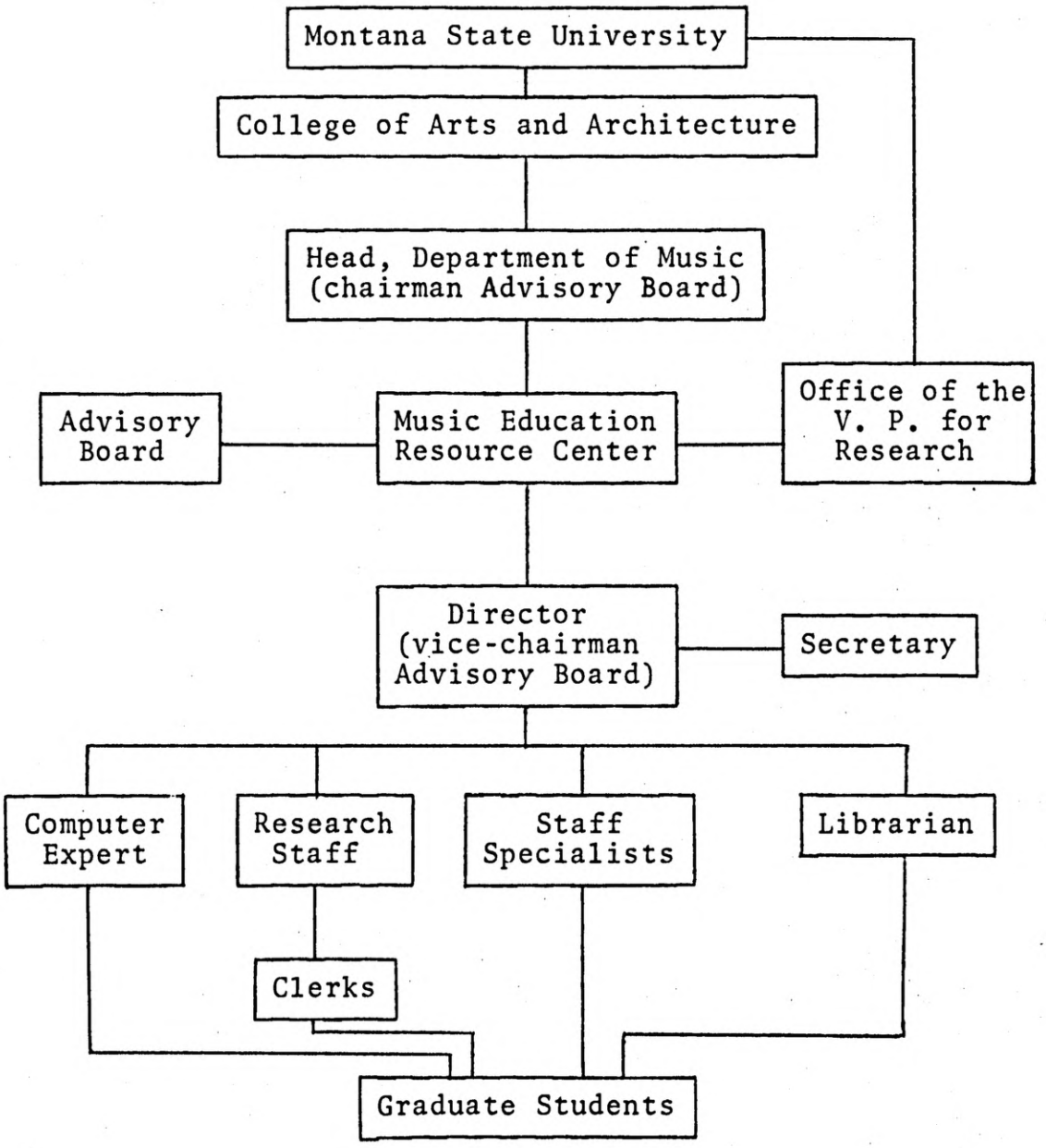


Fig. 2--Organizational Structure.

to make recommendations to the Department Head and the Center Director. The Board will assist in the establishment of Center goals and needs assessments, guide Center projects and activities, review monthly staff reports, assist in the selection of field test sites, annually evaluate total Center function, help assure program accountability, and recommend adjustments in line with evaluative data.

The Board will also be actively involved in efforts to obtain financial support for the Center and approve a master plan early in Stage I of the project. The composition of the Board will be as follows:

1. Head of the Department of Music as ex officio Board Chairman.
2. Center Director as ex officio Board Vice-Chairman.
3. Dean, College of Arts and Architecture, Montana State University (or his representative).
4. Dean, College of Education, Montana State University (or his representative).
5. Two student teacher supervisors from the faculty of the Department of Music. Membership on the Board will rotate among those faculty members so qualified.
6. One faculty-member-at-large from the Department of Music. Such faculty member must be associate pro-

fessor or higher in rank.

7. Three full-time public school music teachers. An effort should be made to balance membership between large and small schools, elementary and secondary endorsement, and field of specialization.
8. One full-time music supervisor from a Montana public school district.
9. Consultant for Arts Education in the Montana Office of Public Instruction.
10. Two members-at-large.

Membership on the Board will be for a period of two years. The initial board shall be made up of six members appointed to two year terms and six appointed to three year terms, however. This is to assure a consistent membership during the difficult period of initial Center operation and to assure a staggered membership in later years for purposes of continuity. The first-listed twelve members will elect the two at-large members, and when terms have expired, the remaining members shall elect those members who are not automatically present by virtue of their occupancy of some other position. No elected member may immediately succeed himself in order that the Board will not become static.

Advisory Board meetings will be held monthly.

Travel, food, and lodging costs will be paid to Board members. They will receive no other compensation.

Department Head.--The Head of the Department of Music will assume the position of chairman of the Advisory Board. He will oversee all aspects of the project, including responsibility for financial considerations, personnel selection, master plan development, final preparation of evaluative data, and responsibility for program adjustment in light of that data.

Center Director.--The Director will assume the position of vice-chairman of the Advisory Board. He will be directly responsible to the Head of the Music Department. He will recruit system users and promote Center services, supervise material search, storage and retrieval systems, develop instruments for Center needs assessments and evaluations as well as instruments for user needs assessments and user evaluation of Center materials, and plan in-service and research activities with Department Head approval.

Staff.--The remainder of the Center staff will include a computer systems expert; specialists in various fields; research staff; a librarian; a secretary; writing clerks; and graduate students. As the Center develops through Stage I of the program, the number and job descrip-

tions of these positions will become known. Staff functions will include:

1. Materials search
2. Material abstraction
3. Material validation
4. Material editing
5. Computer systems and programs development
6. Material codification, storage, and retrieval processes
7. Development of material taxonomy for the above processes
8. Material dissemination systems
9. Cognizance of copyright laws and recording of copyright releases
10. Development of a Center newsletter for users

Process

The functions of the Center staff may be better understood when the Center is examined from an operational point of view (Fig. 3). Subsystems of the Center include: (1) Administrative Services; (2) Computer Services; (3) Materials Services; (4) In-Service Training; (5) Curriculum Development Services; (6) Research Services; (7) Dissemination Services; and (8) Evaluation Services.

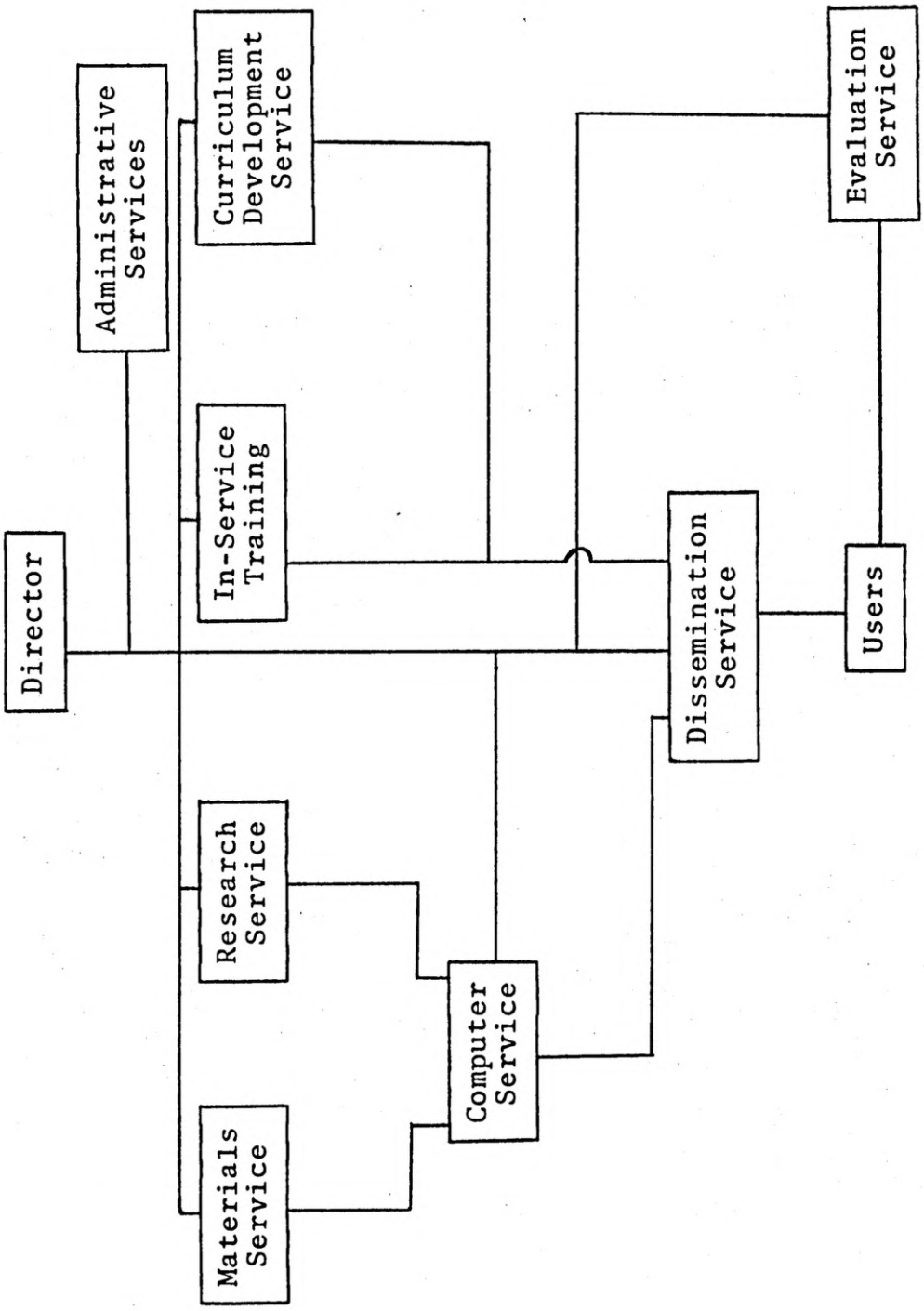


Fig. 3--Process flow chart.

The functions of each of these subsystems is delineated below.[2]

I. Administrative Services
   A. General liaison activities between the Center and the University
      1. Grants
      2. Procurements
      3. Shared-use of equipment and facilities
      4. Other financial arrangements
   B. Supply acquisition
   C. Contracts and other legal matters
   D. Computer use agreements with the University

II. Computer Services
   A. Develop suitable computer storage programs
   B. Develop coding and retrieval systems

III. Materials Services
   A. Materials search
   B. Handle all correspondence from
      1. Suppliers
      2. Users
   C. Maintain library
   D. Manage all printing and reproduction procedures
   E. Control all copyright procedures
   F. Collect all evaluations from users

IV. In-Service Training
   A. Oversee user orientation to the Center
      1. Explain computer use
      2. Explain materials request procedures
      3. Explain use of specialists
   B. Assign specialists to workshops or schools
   C. Obtain clinicians or external specialists
   D. Coordinate in-service for Center staff

V. Curriculum Development Service
   A. Provide assistance to schools developing curriculum plans
   B. Facilitate adaptation of materials to specific school curriculums

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[2]Adapted from NCCE Proposal, pp. 34-38.

VI. Research Services
   A. Oversee all field testing and research
   B. Contract research to proper external agencies and firms

VII. Dissemination Services
   A. Distribute all materials to users
   B. Recruit users

VIII. Evaluation Services
   A. Compile all evaluative data
   B. Organize evaluative data
   C. Feed data to Advisory Board and other pertinent system components

Growth

Now that the organization adn process of the Center are understood, a plan for their ordered implementation will be presented. Four stages from birth to full maturation will allow an efficient and healthy organism to emerge as a worthy member of the educational community. Figure 4 is a growth flow chart for the Center, showing the stages and a sequence of implementation steps. Figure 5 presents a master plan corresponding to the flow chart.

Stage I.--The first stage of Center development is mainly preparatory. The initial step is the conduction of a needs assessment to determine if what music teachers desire differs significantly from what is currently in existence. This step has been completed with the present study. Second, the Department Head must approve the

present study with or without modification. Next, he must select the members of the Advisory Board and hire the program Director. The Advisory Board (including the Department Head and Center Director) must next establish the goals and objectives for the Center. At some point within Stage I, at least partial funding for the project must be realized. When all of these steps have been completed, a decision point has been reached: to proceed to Stage II, to modify the Center concept, or to extirpate the project entirely based upon whether or not the Center possesses the potential to be an effective, efficient, and valid means of reaching the established goals.

Stage II.--If the decision is positive, the Department Head will need to begin the implementation stage. Start-up personnel must be hired: the computer specialist, the secretary, two research staff, and two clerks. In addition, these personnel must be trained in Center operating procedures and must develop with the Director operational manuals and the various forms required for user interaction with the Center. The Center will now be in operational status, and initial requests for information will be processed.

Evaluation of these incipient Center functions must

be made before entering into the next stage. This is another important decision point, requiring careful consideration; for if the decision is reached to proceed, the Center will rapidly swing into full operation.

Stage III.--The Department Head must now hire a full complement of staff (see Appendix C concerning Center budget for a full listing of personnel). The Center should move through two full evaluation periods (two years) before proceeding to the go/no-go decision point which would lead to the final stage.

Stage IV.--This stage would involve either horizontal growth into other arts areas and/or vertical growth into a national center. If a national center does develop, a group of regional centers should be established at various universities throughout the country. These regional centers would be controlled by the prototype Center at Montana State University and would be tied to it through computer systems for total sharing of materials.

Goals and Evaluation Model

Because the Center must remain responsive to the needs of music teachers, a strategy for system renewal must be built into Center operations. The following model has

been designed to help insure continued Center relevancy. It is based on work by Feyereison, Fiorino, and Nowak (1970); Stake (1967); and Handy and Hussain (1969) as well as the literature mentioned in Chapter II.

There are five phases to the model: (1) needs assessment; (2) goals determination; (3) implementation; (4) product; and (5) recycling.

A needs assessment is simply a comparison of current system operations with desired system operations. Where actual needs are not matched by services capable of removing those needs, a mis-match occurs and, hence, a system need. The survey included in this study represents the initial needs assessment for the Center.

Once needs are recognized, the goals determination phase is entered into. Here, needs are translated into statements of what the Center plans to acheive. These goals statements must relate: (1) who will be affected, (2) what changes will take place, (3) how these changes will be measured, (4) what proficiency level will be accepted for the changes, and (5) over what period of time will the changes occur.

The implementation phase is the period during which the activities designed to eliminate the needs are

put into motion.

The product phase involves data collection concerning implemented procedures and analysis of that data by the appropriate methods. Evaluation design for the product phase may be based on many factors. Some are suggested below:

1. Amount of use
2. Written instruments completed by users
3. Evidence relating to a change in teaching behaviors
4. Evidence relating to a change in student achievement
5. Evidence relating to a change in student attitudes
6. Changes in curriculum
7. Monthly Center staff reports
8. Advisory Board annual reports
9. Possible employment of external evaluation firm

Instruments to measure these factors will be designed in Stage I of the project (see Growth Flow Chart and Master Plan, Figs. 4 and 5).

In the recycling phase, information gleaned from the data will be returned to the needs assessment phase where a new comparison will be made between what now is--after the program has been in operation--with what is desired: do gaps still appear? The needs assessment phase

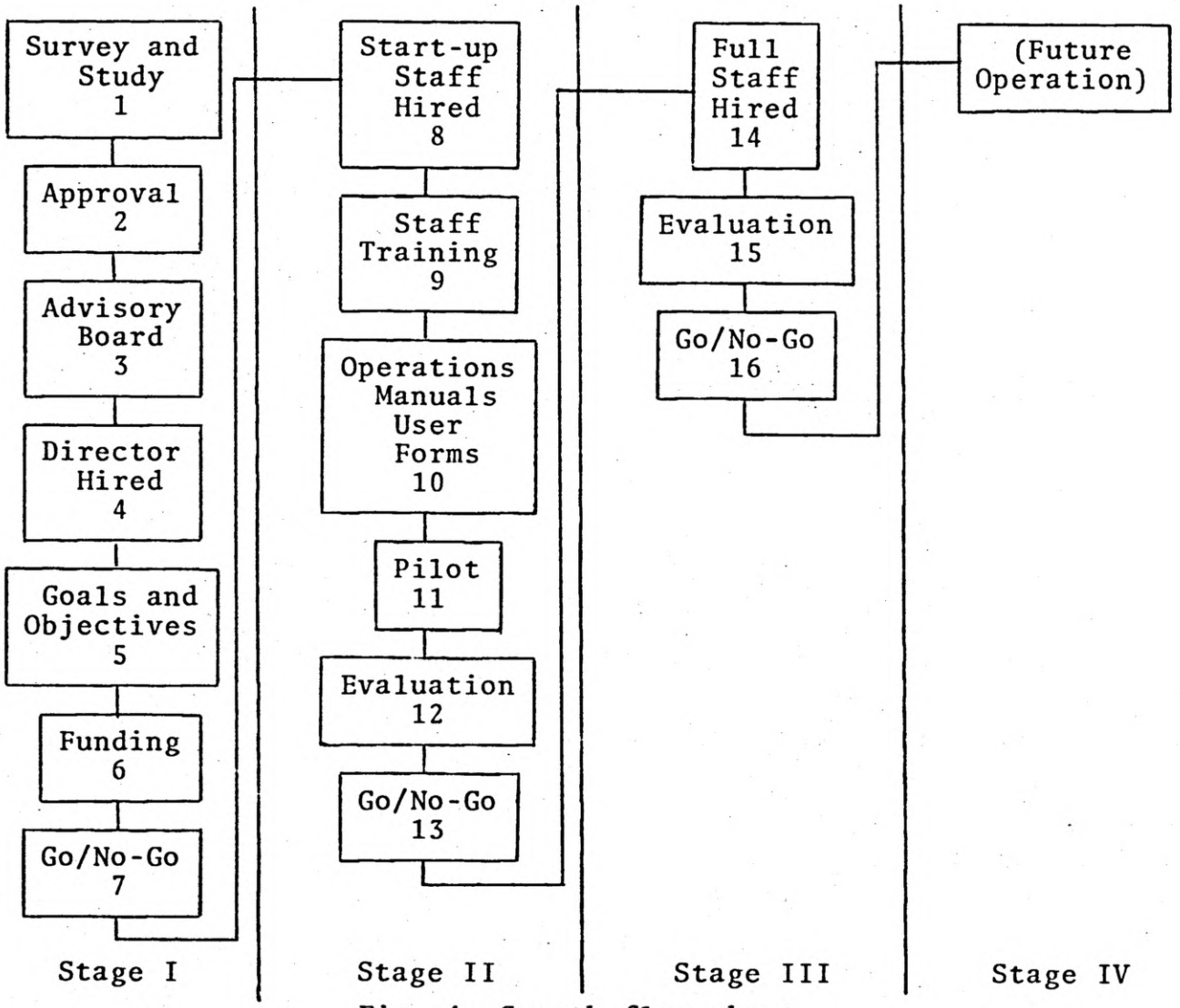


Fig. 4--Growth flow chart.

Process	Who Responsible	Completion Date
1. Survey and Study	Researcher	Aug. 5, 1977
2. Approval and Modification of Study	DH	Sept. 1, 1977
3. Advisory Board Established	DH	Oct. 1, 1977
4. Director Hired	DH	Oct. 1, 1977
5. Goals and Objectives	DH, Dir, AB	Jan. 1, 1978
6. Funding	DH, Dir, AB	Jan. 1, 1978
7. Go/No-Go	DH, Dir, AB	Feb. 1, 1978
8. Start-up Staff Hired	DH, Dir	May 1, 1978
9. Staff Training	Dir	June 1, 1978
10. Operations Manuals and User Forms	Dir	July 1, 1978
11. Pilot Operation	DH, Dir, S	Aug. 15, 1978
12. Summative Evaluation	DH, Dir, AB, S, U	Jan. 1, 1979
13. Go/No-Go	DH, Dir, AB	Jan. 1, 1979
14. Full Staff Hired	DH, Dir	April 1, 1979
15. Summative Evaluation	DH, Dir, AB, S, U	July 1, 1979 July 1, 1980
16. Go/No-Go	DH, Dir, AB	Aug. 1, 1980

DH--Department Head
Dir--Center Director
AB--Advisory Board
S--Center Staff
U--Center Users

Fig. 5--Growth master plan.

now produces the necessity of a decision concerning the program under consideration. Regelski (1975) suggests six types of decision. The program may be:

1. Reviewed. Repeating the procedure in whole or in part may be all that is required to reach the desired objective.
2. Augmented. New material or types of instruction may be required in addition to those previously used.
3. Replaced. The program may be inappropriate to the objective or ineffective and must be replaced.
4. Restructured. The program may be adequate, but not in its present form. A re-ordering of steps or approaching the problem from a different point of view may be all that is necessary.
5. Reinforced. A greater number of experiences with the program may be needed.
6. Retained. The program may be retained (1) because it is successful and the user may move on to new materials or processes, or (2) it is out of step for the particular user and will be returned to when the user indicates he is ready to make relevant use of the program.

Clearly, the system is cyclic: needs require

solutions; solutions must be evaluated; evaluation creates further needs. Thus, the system remains alive and aware of its changing environment.

The present study has identified some of the needs of music teachers throughout the state. It is hoped that the Music Education Resource Center will be realized in order to provide the information and assistance necessary to meet these and future needs.

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APPENDIX A

CORRESPONDENCE

MIKE MANSFIELD
MONTANA

United States Senate
Office of the Majority Leader
Washington, D.C. 20510

November 3, 1976

Mr. Barry Donahue
Department of Music
Montana State University
Bozeman, Montana 59715

Dear Mr. Donahue:

This will acknowledge receipt of your letter of October 12th in which you discuss your work with the Head of the Music Department at Montana State University and your desire to obtain some federal funding for the project you now have underway.

The project is an interesting one and would, undoubtedly, be helpful in developing music education throughout the state. I am not certain of any federal agency that would become involved in this type of research but I will make some inquiries to see what might be done to assist the research/resource center. When I have some details, I will write to you again.

With best personal wishes, I am

Sincerely yours,

Mike Mansfield

MIKE MANSFIELD
MONTANA

United States Senate
Office of the Majority Leader
Washington, D.C. 20510

December 6, 1976

Mr. Barry Donahue
Department of Music
Montana State University
Bozeman, Montana 59715

Dear Mr. Donahue:

Enclosed is a letter I have received from the Office of Education in which they respond to my inquiry about possible sources of assistance for establishing a research resource center for music educators in Montana.

I hope you find the enclosed report of interest and perhaps their suggestions will be helpful in pursuing this idea.

With best personal wishes, I am

Sincerely yours,

Enclosure

Mike Mansfield

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

NOV 29 1976

Honorable Mike Mansfield
United States Senate
Washington, D.C.

Dear Senator Mansfield:

Thank you for your letter of November 3 on behalf of Mr. Barry Donahue, Montana State University, Bozeman, Montana, who is seeking funds to establish a research/resource center for music educators in Montana.

The need for such a center does exist, unquestionably, not only for music education, but indeed for all of the arts in education. However, in the past, funds appropriated for the ERIC (Educational Resources Information Center) clearinghouses have not permitted the addition of an arts and/or humanities clearinghouse.

While we do not currently have a national clearinghouse of arts or music education, we do have a social sciences clearinghouse:

Social Studies/Social Science Education
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302

This clearinghouse has made some research documents in the arts and humanities available to the ERIC system.

The University of Indiana at Bloomington, with assistance from the National Endowment for the Arts, has recently established the National Institute for Research for the Arts. The director is:

Mr. Leonard S. Pas
National Institute for Research for the Arts
University of Indiana
Bloomington, Indiana 47401

I hope this information is helpful to you and if this office can be of any further assistance, please call on us.

Sincerely,

Edward Aguirre

Edward Aguirre
U.S. Commissioner
of Education

APPENDIX B

QUESTIONNAIRE MATERIAL

msu

DEPARTMENT OF MUSIC

COLLEGE OF PROFESSIONAL SCHOOLS MONTANA STATE UNIVERSITY, BOZEMAN 59715

April 20, 1977

The Music Department at Montana State University is attempting to define the need for a music education resource/research center to benefit public school music teachers. Briefly, the center would be in a position to collect, edit, and disseminate information not readily available to you who are out in the field teaching. If, for example, new research disclosed valuable information pertinent to the teaching of general music; or a new piece of equipment proved quite useful for band directors, we could condense this information and make it available to the appropriate teachers.

Also, if you had a specific problem or question, and were not able to research it personally, we could search out pertinent materials and make them available to you.

At this stage of the project you can help us greatly by completing the enclosed questionnaire. This will give us some idea of the types of services and information which are topical and for which you feel a direct need.

Your busy schedules necessitate that we provide a very cursory description of the project. If you have any questions please call or write as we are very much interested in all types of input.

Sincerely,

Barry Donahue
Project Manager

Dr. Creech Reynolds
Department Head

Enclosure

TELEPHONE (406) 994 3561

The following questionnaire requires only 10 minutes to complete. Thank you for helping us.

NAME_____ SCHOOL_____

POSITION_____

1. Would you desire to be served by the proposed center?

    ____Yes
    ____No

2. What do you feel the potential value of the proposed center would be for you and your program?

    ____Very helpful
    ____Moderately helpful
    ____Of no value

3. What do you feel the potential value of the proposed center would be for Music Education in the state of Montana?

    ____Very helpful
    ____Moderately helpful
    ____Of no value

4. What do you feel the potential value of such a center would be nationally?

    ____Very helpful
    ____Moderately helpful
    ____Of no value

5. To what degree would you be willing to participate in the function of the Center by responding to requests to list problems you are encountering?

    ____Total participation
    ____Much participation
    ____Occasional participation
    ____No participation

6. To what degree would you be willing to participate in the function of the Center by initiating requests for information and/or research?

    ____Much participation
    ____Occasional participation
    ____No participation

7. To what degree would you be willing to participate in the function of the Center by offering your knowledge in a specific area when another teacher requests such information from the Center?

____Total participation
____Much participation
____Occasional participation
____No participation

8. What are the most important types of materials for the Center to collect and have available for music teachers? (Please pick the five most important and rank them 1 through 5, 1 being the most important.)

____Instrumental methods (tone production, technique, etc.)
____Vocal methods (tone production, technique, etc.)
____Ethnic musics
____Budgeting
____Graded music lists
____Instruments (band, orchestral, electronic, etc.)
____Methods of teaching general music
____Research in musicology (musical styles, history, interpretation, etc.)
____Measurement and evaluation of students and classes
____Physical aids (risers, filing equipment, etc.)
____Acoustical materials and application techniques
____Scheduling, staffing, and other curricular matters
____Theory from the behavioral sciences relating to music
____Theory from the physical sciences relating to music
____Other (specify) _____
____Other (specify) _____
____Other (specify) _____
____Other (specify) _____

9. Do you feel you or other teachers in your school are deficient in your present knowledge concerning one or more of the possible responses to number 7 above?

____Yes
____No

10. If you answered "yes" to number 9, do you feel the Center has the potential to help you increase your knowledge in these areas?

____Yes
____No

11. Would you desire the Center to have trained specialists who would visit your school on request to help install a new program or to solve a problem?

____Yes
____No

12. Would you take the time to write a short evaluation of material or personnel sent to you if an evaluation instrument were provided?

    ____Yes
    ____No

13. Which type of system would you prefer for information dissemination?

    ____The Center would send all material it obtains in condensed form to all teachers
    ____The Center would send information only to teachers who have expressed an interest in the particular area of knowledge concerned
    ____The Center would send information only on request

14. Do you have any suggestions on any aspect of the proposed Center?

15. Please briefly describe one or more projects or problems which you feel the Center, if it existed, could successfully investigate or help you to solve.

THANK YOU VERY MUCH FOR YOUR TIME!!!

Music Department
Montana State University
Bozeman, Montana
May 13, 1977

Dear Colleague;

Last month I sent you information concerning a proposed Music Education Resource/Research Center to be established at MSU, along with a questionnaire to elicit your opinions about such a center. We would like responses from every music teacher in the State so that we will know exactly what is needed. Also, funding of the project may depend on the degree of response from those we are trying to serve.

If you have not filled out the questionnaire, please do so; it requires a maximum of ten minutes.

If you have any questions or if you need another questionnaire, please call or write.

Sincerely,

Barry Donahue

Phone 994-3561

P.S. Please excuse the typographical error in the questionnaire. Question number 9 should read ". . . number 8 above?"

APPENDIX C

BUDGET

Staff	Start-up	Full Time	Cost
Director	(1)	1	$ 25,000
Computer Specialist	(1)	1	20,000
Staff Specialists		2	30,000
Staff Researchers	(2)	3	30,000
Clerks	(1)	3	27,000
Librarian		1	10,000
Secretary	(1)	1	8,000
Graduate Students	(2)	5	12,500
Staff Benefits (1% of graduate student salaries, 13.5% of all other staff salaries)			20,375
Total Staff	(8)	17	$182,875

Other	
Clinicians	$ 50,000
Legal	10,000
Advisory Board Meetings	10,000
Printing and Reproduction	25,000
Audit	15,000
Telephone and Postage	15,000
Professional Travel and Per Diem	15,000

Office Supplies	$ 5,000
University Indirect Costs (52% of salaries and benefits)	95,095
Total Other	$170,095
Total Center Costs	$352,970

APPENDIX D

LIST OF GOALS

1. Identify information needs.
2. Create a demand for music education materials.
3. Develop a useful taxonomy for material coding, storage, and retrieval.
4. Maintain computer and library storage of materials.
5. Provide rapid dissemination of materials.
6. Provide in-service training in the use of materials and program development.
7. Develop methods of system evaluation and feedback.
8. Stimulate more and better research.
9. Suggest changes in teacher training programs based on teacher needs.
10. Increase the number of music teachers able to attend graduate school by providing graduate assistantships for work in the Center.

APPENDIX E

PARTIAL LIST OF RESOURCE MATERIALS AVAILABLE AT MONTANA STATE UNIVERSITY LIBRARY OR MUSIC DEPARTMENT LIBRARY

I. Periodicals
   A. Research
      1. Journal of Research in Music Education
      2. List of Doctoral Dissertations from the above
      3. Council for Research in Music Education
      4. Directory of Music Research Libraries
      5. Fort Hays Studies
      6. Studies in the Renaissance
      7. Renaissance Quarterly
      8. Renaissance Notes
      9. Renaissance News
      10. Notes
      11. Journal of the American Musicological Society
      12. Acta Musicologica
   B. General
      1. The Insturmentalist
      2. Etude
      3. Music Educators Journal
      4. Music and Artist
      5. Music Journal
      6. Musical America
      7. The Musical Quarterly
      8. Perspectives of New Music
      9. Piano Quarterly
      10. School Musician
      11. Bandwagon
      12. Tempo
      13. Journal of American Musicological Society
      14. Library of Congress Publications
      15. American String Teacher
      16. Opera News
      17. Journal Association for Recorded Sound Collections
      18. NATS Bulletin
      19. Journal of Music Therapy
      20. Source

C. Related Periodicals
   1. Stereo Review
   2. High Fidelity

II. Books
   A. Reference
      1. Music Article Guide
      2. Directory of Music Research Libraries
      3. Music Library Association
      4. Contemporary Music Performance Directory
      5. Duckles
      6. Band Bibliography
      7. General Bibliography for Music Research
      8. Checklist of Music Serials
      9. Bibliography of Research Studies in Music Education
      10. Music Education Materials
      11. RILM Abstracts
      12. The Music Index
      13. The Education Index
      14. Current Index to Journals in Education
   B. Music Lists
      1. Violin
      2. Piano
      3. Vocal
      4. Band
      5. Orchestral
      6. Woodwind Quintet
      7. Ensemble
      8. Contemporary

III. ERIC System