THE INTERDISCIPLINARY APPROACH: A MUSIC EDUCATION METHODS COURSE COMPONENT FOR PRESERVICE EDUCATION AND MUSIC EDUCATION MAJORS

Karyn Makonnen

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Committee:
I. Barbara O'Hagin, Advisor
Ed Duling

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ABSTRACT

Isabel Barbara O’Hagin, Advisor

The purpose of this study was to develop a music education methods course component which could serve as an introduction to collaborative and integrative procedures for preservice education and music education majors. The design for the course component was two-fold: to provide preservice teachers with strategies for (a) the development of collaborative partnerships to facilitate the integration process, and (b) the development of interdisciplinary units. Four categories of teacher participants were designated: (a) the methods course instructor, (b) the preservice elementary education major, (c) the preservice music education major, and (d) the inservice elementary general music teacher. Preservice education and music education majors participate in heterogeneous teams. Each team includes one music education major and three elementary education majors from a variety of disciplines. The course component is designed for a five-week period within a preexistent music methods course. Visual models and guidelines to facilitate collaboration and critical thinking are included. Implications and suggestions for implementation of this action thesis are discussed in Chapter Four.
DEDICATION

This thesis is dedicated to my mother, who nurtured my musicianship, my father, who made my music education a reality, and to my sister, whose faith helped me bring this project to fruition.
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CHAPTER I: INTRODUCTION

What considerations will determine the future of music education in our public schools? Among others, the curricular strategies we, as educators, decide to preserve and the ones we decide to alter are major factors. These curricular strategies are often reflected in the general music methods courses for elementary classroom teachers. One curricular strategy of current interest is the integrated curriculum. Colleges and universities are investigating the inclusion of this approach as an option for teacher education (Scott-Kassner, 1999). The incorporation of music throughout the school day opens opportunities for students to make connections to many forms of experience. Thus, educators have begun to devise lesson plans and curricula which emphasize linkages between music and other disciplines (Barrett, McCoy & Veblen, 1997).

Background of the Problem

With the advent of curricular reform in music education, there is an increase in requests for teacher instruction that includes strategies for planning and implementation of integrated curricula (Campbell, 1995). Support for the integrated approach to curriculum planning and instruction is reflected in the content and achievement standards of the National Standards for Music Education. Though not a new strategy or concept, integrated curricula
need to be reexamined in terms of current educational trends and the National Standards for Music Education, and then incorporated into undergraduate music methods classes (Gratto, 1997).

Campbell (1995) suggests an interdisciplinary project as an effective instructional strategy for music teachers in the general music classroom. The incorporation of this strategy may provide a means for general music teachers to achieve many curricular objectives. Concurrently, this interdisciplinary approach may serve to link the general music curriculum to a wide range of disciplines. Campbell states that when musical knowledge, skills, and dispositions are richly interwoven with another discipline, an interdisciplinary project may emerge. Through interdisciplinarity, the integrity of disciplines may be preserved. Such interactive strategies allow the classroom teacher to become an informed advocate of the variety of enhanced learning possible through music. An interdisciplinary approach, structured within the music methods course curriculum, could possibly provide preservice and inservice teachers the opportunity to experience the collaborative process and receive training in integration methods and procedures. Preservice teachers and students K-12 may be the beneficiaries of such efforts.

Although the concepts of interdisciplinarity and integrated curricula have gained some currency through dissemination in music journals and general education
journals, they primarily remain at a level of advocacy, and are more illustrative of curriculum correlations than of actual integration (Snyder, 1996). However, teacher educators have become increasingly sophisticated in addressing the issue of integration using music. This approach provides learning connections that have the potential to assist teachers with more efficient instruction toward curricular goals, and to improve student performance on proficiency tests (Patchen, 1996).

The development of positive attitudes toward music education is of paramount importance. Positive integration experiences in the methods classroom may build the confidence of undergraduates and lead to positive integration experiences later, at the inservice level. The personal achievements of course participants and the joy of making music are highly desirable outcomes for participants in the music methods course itself. To achieve such outcomes, the course instructor must strive to set attainable goals, leading participants to experience successes and a sense of accomplishment as the course progresses (Bennett & Gerber, 1992). The approach and attitude of participants in the integration process are equal in importance to the methods employed during the process. For, no matter what the curricular goals or objectives, the process and the outcome will be based upon and determined collectively by the attitudes and personal
philosophies of the participants toward education and music education.

Some educators are concerned with the use of music as supplementary material. I. B. O'Hagin (personal communication, July 7, 1999) states that music education deserves to be viewed as much more than a supplementary tool to teach other subjects. She suggests that this is not true integration, and is certainly not music education. Snyder (1996) emphasizes that it is important for arts educators and classroom teachers to strive to preserve the integrity of music as a discipline. She encourages an approach to music integration that elevates music education to a level higher than a curricular frill, subservient to the curricula of other disciplines. Snyder states that a thoughtful, well-developed curriculum will honor the concepts and skills, as well as the materials and tools of each discipline, enhancing students learning immeasurably. Bresler (1994) advocates that music must not be stripped of its intellectual substance. She recommends that music be taught by specialists who are able to draw on music's intrinsic aesthetic values, including the integration of the cognitive and affective domains.

E. Duling and I. B. O'Hagin (personal communication, May 15, 1998) believe that more work could be done in K-12 schools regarding research toward implementation of a system for integration using music. Research regarding teacher training is carried on almost exclusively by
institutions of higher learning, with public schools usually providing the sites for research and thus the data for statistics (Reimer, 1992). Perhaps this research structure should be altered, because there is a significant gap between existing research and its application (Reimer, 1992). The college music methods course is perhaps a common ground on which to begin the process of closing the gap between research and application (Apfelstadt, 1988).

Need for the Study

Requests have been made by educators for a review of curricular content in music methods courses offered for classroom teachers by institutions of higher learning (Reimer, 1992). Such requests, over time, have generated research into the curricular content of fundamentals and method courses (Barry, 1998). Certain findings reveal an apparent mismatch or disparity between the content of some music fundamentals and methods courses and the types of activities and skills that classroom teachers find useful, or actually employ, in their work (Austin, 1997; Saunders & Baker, 1991). Austin (1997) states that one explanation for the low ratings given some preservice college methods courses may be this apparent mismatch between course content and what teachers deem useful in the classroom. Methods course instructors, for example, may spend a great deal of time teaching elementary education majors about music notation, piano skills, and the recorder, among other instruments. Yet, when asked what activities they would be
able and willing to implement in the classroom, inservice teachers more commonly mentioned activities based upon singing, listening, movement, and integrating music with other subjects.

What specific skills and understandings are needed to prepare preservice teachers to integrate music with other areas of the curriculum? In a study of methods course content conducted by Saunders and Baker (1991), it was concluded that inservice classroom teachers did perceive certain music skills and understandings as useful. They considered teaching music notation and sightsinging to be the music teacher's responsibility. The skills and understandings found to be most practical were those that provided classroom teachers with the tools to integrate music with other areas of study.

Leonhard (1993) states that, at all levels of music education, provision for curriculum integration is virtually nonexistent. As it concerns methods class ratings (Austin, 1997), integrative practices employed by the inservice teacher may largely reflect the integrative processes he or she has experienced as a preservice education major. Therefore, germane to this study will be the enhanced depth of learning possible through an interdisciplinary approach to curriculum integration in the music methods course for education majors (Barrett, McCoy, & Veblen, 1997; Snyder, 1996).
What new thinking is required to close the gap between what some colleges are teaching and what many classroom teachers actually do? The report of the Task Force on Music Teacher Education for the Nineties (1987) endorsed a three-way partnership among school music educators and college professors of music and music education. This partnership is marked by participation and commitment on all sides. The operative words throughout this report are "collaboration" and "partnerships" (Apfelstadt, 1988). There is a need to expose both the preservice elementary and preservice music education majors to inspiring, exemplary teachers, whose experience has fashioned them into role models that demonstrate proper attitudes toward collaboration. Therefore, this study involves the use of the general music methods course as a common and natural arena for preservice students to learn integrative and collaborative approaches proven to be useful for inservice teachers.

Based upon existing literature (Austin, 1997; Jacobs, 1989; Snyder, 1996), additional research is needed to study the usefulness and effect of music methods courses that include instruction based on collaboration, integration and interdisciplinarity. Such studies could address any gaps or weaknesses that may exist in the literature and may help to determine what to include in music methods course curricula for preservice teachers.

Reimer (1992) endorsed the idea that music teachers become an integral part of the curricular team. Inclusion
of the preservice music education majors as an active member of a preservice integrated team in the general music methods course for elementary education majors may pave the way for more effective collaboration as these teachers enter the profession. Research is needed concerning such a proposed course design and its implementation. This document addresses that issue and suggests possible avenues for further research.

Purpose of the Study

The purpose of this study was to develop a music education methods course component which could serve as an introduction to collaborative and integrative procedures for preservice education and music education majors. Thus, the design for this general music methods course component was two-fold: to provide preservice teachers with strategies toward (a) the development of collaborative partnerships to facilitate the integration process, and (b) the development of interdisciplinary units.

Definition of Terms

Collaboration: the act of working in groups to plan and to solve problems by communicating abstract ideas, using group process techniques, and achieving consensus on direction (Erickson, 1995).

Crossdisciplinary: to view one discipline from the perspective of another (Jacobs, 1989); for example, the history of math, the history of music, and the physics of music.
Discipline Field: a specific body of teachable knowledge with its own background of education, training, procedures, methods, and content areas (Piaget, 1972).

Focus: the main point or center of interest in a unit of study. This focal point is surrounded by relevant zones of interest to the disciplines involved in a unit of study.

Interdisciplinarity: a knowledge view and curriculum approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic, or experience. This definition may contrast the discipline-based view of knowledge. The idea of interdisciplinarity does not stress delineations but linkages (Jacobs, 1989).

Integration: units of knowledge that are centered around a common broad theme. Each discipline explores this theme to develop concepts and skills that are unique to that particular discipline. Integration of skills, concepts and topics across disciplines is explored as similarities are noted. Students and teachers are encouraged to link ideas from one discipline to ideas of another discipline, leading to higher level thinking and deeper learning (Snyder, 1996). (Jacobs refers to this process as interdisciplinary units of courses).

Multiple Lenses: a mental approach to assist students with the development of sophisticated attitudes toward knowledge in general that transcends specific subject matter knowledge. Students are sensitized to view knowledge from
the perspective of history and the "story of civilization" (Jacobs, 1989).

Teambuilding: strategies that create enthusiasm, trust and mutual support during collaboration (Kagan, 1992).

Zoning: the process of brainstorming to discover areas of interest surrounding the main focus for the unit of study. This process enables teams to uncover related areas "in the zone" surrounding the focus.
CHAPTER II: REVIEW OF RELATED LITERATURE

This review of literature includes the following categories: (a) collaborative strategies, and (b) the effect of college music methods/fundamentals courses on preservice and inservice teachers.

Collaborative Strategies

Erickson (1995) proposed that collaboration toward a critical thinking curriculum model become standard in curriculum planning. She suggested that the focus be on concept-based, integrated curricula which would provide depth to learning and would focus on relevant issues, problems and ideas, rather than upon a single theme or topic. Methods teachers can provide undergraduate students with many of the necessary skills and resources to link music with other disciplines (Gratto, 1997). This, too, might be implemented most easily in the general music methods courses for elementary and music education majors. Such a forum might also provide an opportunity for undergraduates to begin formulating a teaching philosophy which values music education (Reimer, 1992). For, as Bresler (1994) suggested, as long as the primacy of music in human knowledge remains unrecognized, music instruction is likely to remain as it is today--less than ideal.

What kind of teacher is necessary to fill the requirements for effective collaboration? Erickson (1995) responded that it is the thinking teacher that inspires thinking students. She stated that teachers who take
personal responsibility for their work, demonstrate thoughtful behavior, take interest, and increase self-efficacy are suited for the task. Further, she charged that the appropriate teacher for these tasks must be capable of reasonable self-assessment, which is, itself, a powerful learning tool. Because a "community of believers" is essential to successful collaboration, prospective participants may profit from professional development related to current strategies and approaches in this area. A resounding theme in much of the literature on collaboration is the high level of commitment on the part of the teacher which is required to ensure success (Apfelstadt, 1988). Accordingly, this document will focus specifically on collaboration in the general music methods course. The goal of the component is to facilitate collaborative endeavors which include the music education teacher, as well as other teaching professionals.

Erickson (1995) defined collaboration as the act of working in groups to plan and solve problems by communicating abstract ideas, using group process techniques, and achieving consensus on direction. Apfelstadt (1988) examined the current thinking on educational partnerships to extract theoretical implications for music education. She stated that music educators at the college level have engaged in numerous activities with schools; however, many of these ventures have been more cooperative than collaborative.
In a review of literature on organizational collaboration, Erickson concluded that, whereas cooperation signifies agreement between two or more separate parties, collaboration implies a mutually beneficial partnership based on shared goals. Hord (1986) suggested that the two are distinctly different operational functions. As it concerns the cooperative approach, a researcher may benefit greatly from the school's cooperation; in fact, the researcher depends upon it in order to accomplish the project. On the other hand, the school may not benefit appreciably. In contrast, the collaborative approach would fit the "school-based" research paradigm, because the researcher and the school together would engage in study of a mutually interesting issue, pool their resources, and work for shared goals. All parties involved would function as a team, hence their inclusion would be mutually beneficial (Erickson, 1995).

Erickson emphasized that participants should have a knowledge of these two strategies and clarify which strategy is being employed. Ignorance concerning strategic approaches may lead to conflicts, if the expectations of each participant are not understood (Erickson, 1995). Of the two strategies, collaboration is the more time-consuming and demands a higher commitment level from all sides (Hord, 1986).

Currently, educators are reexamining the types of benefits that might arise from greater collaborative
efforts between general music specialists and classroom teachers. Current trends in educational reform call for greater collaboration between general music specialists and elementary classroom teachers (Austin, 1997). Ballard (1990) suggested that the current interest in these approaches signals a need for greater cooperation between the classroom teacher and music specialist. Ballard stated that the most practical and immediately feasible way of incorporating the arts into the daily curriculum is to involve the classroom teacher.

In reference to MENC's goals for 1990, Lewis (1991) advocated the need for cooperation between the music specialist and the classroom teacher. Lewis suggested that it is unlikely that we will achieve these goals without the enthusiastic support of classroom teachers. She further contended that the task of garnering this support lies primarily with college and university educators.

The Holmes Group Report (1986) presented a definitive analysis and rationale of the goals, possible solutions, and actions for improvement of teacher education. Specific recommendations for school-university partnerships and other collaborative efforts pertaining to inservice teacher education are emphasized throughout the report. The report suggested that, in order for university education faculties to become expert educators of teachers, they must make better use of expert teachers in the education of other teachers, and in research on teaching. Further, the report
stated that procedures must be established for utilizing specialized expertise. These procedures included (a) full participation by each member of the partnership, (b) adjustments to professional loads to enable partnerships to function, and (c) rewards to participants for increased contributions to the program of teacher education.

The Task Force on Music Education (1987) reaffirmed the need for improvement of music teacher education. The Task Force called for a focus on partnerships and process in music teacher education, and a partnership of all parties that have an interest in the preparation of school music educators (p. 11). Both the Holmes Group and the Task Force on Music Education recognized that the lack of communication between college educators and schools prevents a thorough and complete analysis of the total education process for K-12 students, and for preservice and inservice teachers.

Warren (1989) was concerned with the development of models for inservice music teacher education based on selected school-university collaborations. Warren found that very few inservice music teachers in New York and New Jersey had participated in school-university collaborations. School music teachers expressed a willingness to participate in co-equal relationships with professors, and to address music education concerns, needs, interests, and problems. Alternately, however, results of a questionnaire-survey indicated that very few university
graduate music education departments, or music education professors have initiated, or participated in collaborative projects with school districts or teachers.

Results of Warren's findings (1989) led her to recommend that implementation of programs and models for school-university collaboration would serve to (a) foster better communication, awareness, and understanding, (b) provide enhancement of individual knowledge and skill, and (c) help develop stronger music education programs at both the school and university level.

Barry (1998) stated that music and arts faculty at the college and university levels are well-equipped to assist in the development of arts inservice programs for public school teachers. Ideally, such collaborations between K-12 teachers and college and university faculties offer benefits to all institutions and individuals involved, most importantly, for students at K-12 schools (Gregory, 1995). Barry suggested that, without deemphasizing the critical need for full-time specialists, attention must be given to educating classroom teachers, preparing them to serve not merely as lay arts instructors, but as committed advocates for arts integration.

A project developed in Alabama, at Auburn University, implemented an arts inservice program for elementary teachers. Results of a preliminary review of literature on inservice music education revealed that literature dealing exclusively with music and arts education is relatively
scarce (Barry, 1998). Upon expanding the search to sources pertaining to general education, the literature yielded the following recommendations by Wade (1989) for effective inservice teacher education: (a) course instructors should set clear goals and take primary responsibility for the design and teaching of sessions; (b) course participants should be invited to become involved in state, federal and university-initiated programs; and (c) incentives such as college credit should be offered to encourage participation. Barry reports that the Auburn University project planning committee hopes to develop recommendations for future arts advocacy programs.

In view of Alabama's shortage of arts specialists, participants were drawn from 15 school districts within the region. The inservice conference was publicized through mailed announcements and applications. Although 50 scholarships were available, only 23 teachers completed applications and participated in the conference. In their applications, participants expressed an interest in integrating the arts into the curriculum (52%). They also expressed a desire to learn new teaching strategies for arts integration (56%). This appeared to reinforce research findings that classroom teachers are most interested in strategies they can use to integrate music education with other disciplines (Austin, 1997; Saunders & Baker, 1991).
The Effect of College Music Methods/Fundamentals Courses on Preservice and Inservice Teachers

The primary purpose of a study conducted by Lewis (1991) was to determine the effect of a music methods course on preservice elementary teachers. Subjects for the study were 114 juniors and seniors in one section of a three-credit general music methods course for non-majors at a Midwestern university. Part of the course content included music fundamentals and music teaching methods. Students also received instruction in playing the autoharp, recorder, and piano. All sections were taught by the same instructor. This study investigated whether or not enrolling in a general music methods course for non-majors would affect the students' attitudes toward music and music education.

In the Lewis study, a Likert-type survey of 23 items was designed to measure students' level of comfort in directing various types of music activities, and the importance they placed on the study of music. The study also sought to determine the significance of previous musical experience on preservice teachers' attitudes toward music instruction. The researcher administered the survey on both the first and last day of the course.

Data analysis indicated that a definite positive shift in attitude had taken place during the semester. Results revealed that students felt more comfortable engaging in the classroom activities of singing, listening, playing
musical games, and discussing musical concepts upon completion of the methods course. Students also attached greater importance to the systematic study of music within the elementary school curriculum at the end of the course than they had at the onset. Most importantly, survey items measuring student attitude revealed that course participants strongly agreed that (a) the study of music was a necessity in elementary curriculum, (b) the potential existed for correlation of music with other subjects, (c) the study of music has the potential to promote academic success, and (d) that music is a basic subject that deserves to be offered by both the music specialist and the classroom teacher (Lewis, 1991).

Especially significant survey data revealed that comfort level, even more than previous experience, determined elementary education majors' attitudes toward the teaching of music. Comfort and experience were not concluded to be synonymous, showing only moderate correlation in the survey. It appears, therefore, that classroom teachers who feel comfortable directing musical activities are more likely to support the notion of the classroom teacher's involvement in music instruction than musically experienced people without the benefit of methods course instruction.

Thus, the idea that musically experienced people do not need a methods course may be a fallacy (Lewis, 1991). These findings may support the proposed notion of including
the music education major as a member of an integrated team of college music methods course participants. The "more musically experienced" music education majors may benefit, as well as other course participants, from service on integrated teams. Music education majors may then begin, as undergraduates, to develop a level of comfort working with future classroom teachers.

Lewis (1991) indicated that elementary teachers recognized the need for music specialists, and supported the idea that, as classroom teachers, their role was supplementary and complementary in providing music education. These findings appear to support the concept of a general music methods course curriculum design that is inclusive of both elementary education and music education majors working together to structure musical experiences for children.

Saunders and Baker (1991) wanted to discover what music skills and understandings classroom teachers would find useful and practical to include in a music fundamentals course. Three hundred questionnaires were mailed to randomly selected elementary teachers in four counties in Maryland and the Washington D.C. area. Fifty questionnaires were sent to each grade level, kindergarten though fifth grade. Of the 300 questionnaires mailed, 159 were returned (53%).

A survey of findings revealed that some topics most frequently studied in preservice music courses are not
necessarily those that the teachers found to be most useful in the classroom. For instance, only 34% of the teachers indicated that they had received instruction in correlating music with other disciplines, yet 83% of those teachers indicated that they had used their own approach for music correlation in the classroom. Data revealed nine skills and understandings that a majority of the teachers indicated they had not studied, but would use. Of these nine skills and understandings, correlation of music with other disciplines ranked highest (88%) as a desirable skill deemed useful in elementary classroom instruction. Results of the survey conducted by Saunders and Baker (1991) suggested that instruction in procedures for music integration may have relevance and validity as curriculum course content in a three-credit music methods course.

Barrett, McCoy and Veblen (1997) endorsed the concept of integrated curriculum with the development of interdisciplinary units. These authors believed that a truly comprehensive music program is already interdisciplinary in nature, because musical understanding draws upon many forms of knowing and understanding. Thus, they suggested that a strong music program, or course of instruction, will draw from varied sources of insight and information to enhance the musical understanding of students. Collaboration may then become a more desirable part of the integration process.
Jacob's multiple lens concept (1989) is noteworthy as an important perspective for preservice teachers. This concept offered a way to view learning as the story of civilization seen from a historic perspective that transcends specific subject matter. The lens concept allows interdisciplinary work to be viewed as a community effort toward further advancement of civilization. Jacobs (1989) and Campbell (1995) suggest specific guidelines for completion of interdisciplinary work. Using a step-by-step process, both of these authors provide clear and concise suggestions that may facilitate interdisciplinary classwork.

Summary

This review of literature indicates that college music methods course work that is relevant to the needs of both classroom and music teachers may serve to diminish the disparity that exists between what some courses currently offer and what teachers actually need for effective music education and integration in K-12 schools. The literature also indicates that colleges and universities are well equipped to assist in the development of inservice music programs that improve teacher education. Exposure to exemplary college music education instructors, as well as positive experiences at the preservice level, appear to have a favorable impact on inservice teachers' attitudes toward music education and collaboration toward rich, integrative learning experiences.
Therefore, further collaborative projects and research are needed to facilitate the implementation of integrative and collaborative procedures in the general music methods course for preservice teachers. This document proposes to examine one such possible solution, through incorporation of a music integration component within the general music methods course curriculum.
CHAPTER III: COMPONENT DESCRIPTION

The purpose of this study was to develop a general music methods course component which could serve as an introduction to collaborative and integrative procedures for preservice education and music education majors. Thus, the purpose for this general music methods course component was two-fold: to provide preservice teachers with strategies for (a) the development of collaborative partnerships to facilitate the integration process, and (b) the development of interdisciplinary units.

This general music methods course component employs some suggested interdisciplinary strategies derived from Campbell (1995) and Jacobs (1989). Collaborative strategies employed in this model are derived from Kagan's cooperative learning structures (1992). These ideas and strategies are incorporated as elements of the interdisciplinary unit plan procedure for the methods course component.

Participants

Four categories of teacher participants are designated for this course component: (a) the methods course instructor, who will develop the curriculum, guide research, exemplify and encourage collaboration, and assist participants with finding a lens through which integrative processes may be viewed as building blocks of culture and community; (b) the preservice elementary education major, who will research and represent his/her discipline, and serve as a contributing member of one interdisciplinary
team; (c) the preservice music education major, who will share musical knowledge, and research and provide exemplary musical selections; and (d) the inservice elementary general music teacher, who may assist the instructor, share knowledge, resources, success stories from experience, and possibly host preservice teachers in the actual classroom.

Component Design

The general outline below is presented to give potential participants an overview of the steps and suggestions that are included in this course component.

I. Component Models
   A. Cognitive Pyramid
   B. Individual Discipline Field Statement
   C. Orbits of Intersection
   D. Collaborative Strategies

II. The Interdisciplinary Unit
   A. Find A Focus
      1. Interdisciplinary Team Sheet
      2. Suggestions for Interdisciplinary Study
   B. Rationale
      1. Procedures
      2. Examples
   C. Zoning Process
      1. Cognitive Domain Table
      2. Application of Orbits of Intersection
      3. Team Statement
   D. Interdisciplinary Unit Plan
1. Individual Discipline Plan
2. Interdisciplinary Plan Sheet

E. Implementation
1. Search for Knowledge
2. Practice and Apply Skills and Concepts

III. Assessment
A. Team Research
B. Unit Lesson Plan
C. Music Connection
D. Team Presentation
E. Assessment

The Cognitive Pyramid.

The Cognitive Pyramid (see Appendix A) is a visual representation of the multiple lens concept employed in this music methods course component. The cognitive pyramid has four equal sides which represent a team of any four disciplines chosen to participate in the cognitive process during integration. Participants combine knowledge to view a specific focus for study through a shared lens represented at the top of the pyramid. However, each discipline filters and processes information about the focus differently through its own unique perspective.

Thus, a focus on the Middle Ages, as an example, provides teaching teams and classroom students with a variety of historical points of reference. However, students of history study the Crusades, while general music classes research the music of the troubadours,
minnesingers, minstrels, or analyze and perform old English carols. Students in dance and drama classes may research the origins of Moorish dance, while social studies classes research Druid customs and celebrations that are observed today, but which originated in the Middle Ages.

As basic knowledge, comprehension, and applications intersect among disciplines, new cognitive connections may occur spontaneously. Mental linkages, creative ideas, and new understanding may result. Thus, as the chosen focus for study is illuminated, synthesis may occur as a result of analysis and application of new understanding. Students may then collaborate to plan a performance, a play, or a day-long celebration that typifies life in the Middle Ages.

The Cognitive Pyramid is also a visual representation of the variety of cognitive levels at which a focus may be examined; from simple acquisition of knowledge, through comprehension, and application, to the higher order thinking skills of synthesis and evaluation (Abeles, Hoffer & Klotman, 1984). This hierarchy of thinking skills has been reconfigured on the pyramid to guide and encourage preservice teachers to explore beyond basic knowledge and the subservient use of music, to deeper, more creative applications.

In this course component, preservice teachers will examine a chosen focus as equal partners in collaborative and integrative procedures. Teams are encouraged to promote a sense of community, as the instructor guides preservice
teachers toward integrative work focused on linkages—rather than delineations—among disciplines.

When a focus for study is examined at each critical thinking level, team members may not only view music (among other individual discipline fields) in greater depth, but also may gain insight into the "community" effort of the team. This approach may lend integrity, depth, and dimension to the multiple lens concept.

**Individual Discipline Field Statement.**

To check for understanding of the multiple lens concept, the methods course instructor may use the Individual Discipline Field Statement which each team member may complete according to his or her specific discipline (see Appendix B). This statement is designed to demonstrate how each discipline field contributes to the education of the whole child. It also helps preservice teachers understand the importance of the multiple lens concept in interdisciplinary teamwork. As an optional assignment, the course instructor may assign a one-page essay that addresses these issues.

**Orbits of Intersection.**

During collaboration, applied knowledge and information may intersect and overlap at a variety of cognitive levels. Knowledge appears at the tip of the pyramid (see Appendix A) to suggest its potential to lead to ever deepening and intersecting orbits of integrative study. Areas of intersection form a web of cognitive
connections that orbit around the focus. The Orbits of Intersection (see Appendix C) allow preservice teachers to participate in a writing process that may reveal links and common interests among disciplines. This visual model represents the integrative process. This sheet may also be used to develop guiding questions or objectives for interdisciplinary unit lesson plans.

Collaborative Strategies

Preservice elementary education and music education majors in the methods course component will work in heterogeneous teams with four members on each team. Each team will include one music education major and three elementary education majors. Where possible, these groups of four should represent a variety of discipline fields. For larger teams of eight to ten, two students may work in pairs and share responsibilities within a team. The course instructor may choose to assign two preservice music teachers to large teams.

Collaborative strategies (Kagan, 1992) may be selected at the instructor's discretion for this course component (see Appendix D). These strategies include Teambuilding which may be employed to build team trust, enthusiasm, and mutual support. Social Skills structures are employed to facilitate the collaborative effort. Information Sharing structures promote effective communication skills and facilitate simultaneous sharing within teams. Thinking Skills structures facilitate a team approach to problem
solving, introduce the levels of critical thinking, and assist teams toward the development of effective organizational skills during the integrative process. Methods course instructors may find the Blooming Worksheet a useful strategy to acquaint preservice teachers with the levels of critical thinking, found in Thinking Skills structures.

The Interdisciplinary Unit

Overview of Unit Plan Procedures:
1. Find a Focus for the Unit of Study
2. Sharpen the Focus
3. Find A Rationale for the Focus
4. Plan the Unit of Study
5. Implement the Unit Plan
6. Assess the Unit Plan

Find A Focus.

Teams should select a focus upon which they will develop an interdisciplinary unit. In this course component the instructor will demonstrate the use of one focus as a model for the class. Then teams may brainstorm to select a focus, or choose a focus from three or four suggested by the instructor. Steps for finding a focus are found in Appendix E. Suggestions for interdisciplinary study using music are detailed in Appendix F.

Sharpen the Focus.

Teams may use the Interdisciplinary Team Sheet in Appendix E to facilitate teamwork, notate areas for
consideration during focus selection, and assess the validity of the chosen lens focus. A Rationale Checklist to assess the viability of the chosen focus is included as part of the Interdisciplinary Team Sheet.

Certain guidelines may facilitate the selection of a fertile theme for focus. A fertile theme should (a) captivate; (b) be based upon concepts, and curricular content; (c) disclose contrasts and similarities within and across disciplines; (d) disclose patterns; and (e) offer a theme that penetrates and magnifies subject matter pervasively, across disciplines. For example, the lens of a camera captures not only the main subject, a farmer plowing a field; it may also disclose rain approaching in the distance, the field of corn, a woman milking a cow, or a boy tending sheep. Likewise, a good study focus captures and clarifies the theme across and within discipline fields.

Preservice teachers could be guided toward a rationale that reflects application of knowledge toward creativity and synthesis. This synthesis could lead to problem solving, new inventions, or scientific discoveries. Preservice teachers may be inspired to combine creative writing, musical composition, and artistic performance, to compose an opera, a play, or some other creation based upon integration of preexistent knowledge.
Two Examples of Units.

This section will highlight two units that were designed for interdisciplinary study. Each unit of focus incorporates the music education curriculum and can be taught in the general music class. Both units of study were intended for grades 4-7.

Example One. A general music specialist chose rhythm and rhyme as a focus for study. She taught her 4th grade students several nursery rhymes. The students' interest in songs with lyrics that rhyme led this specialist to challenge the class to compose simple melodies based upon short poems with rhyming phrases written by the language arts class. Music students then composed simple ostinato patterns for triangles, bells, hand drum, and bass xylophone. The students notated the melodies and ostinati on large staff paper. Art students drew illustrations of the rhythm instruments used to play the melodies. The songs, rhymes, and illustrations were bound into a book of original songs and nursery rhymes written by the 4th grade.

Example Two. In a unit designed by this author, teachers of music, art, social studies, language arts, and history selected the life and times of George Gershwin as the focus for study. Collaboration during the Zoning Process (see Appendix G) revealed specific cultural and societal influences which had definite impact upon Gerswhin's life and compositional style.
Students decided to use September 26, 1898, Gershwin's birthday, as a starting point for research. The history class researched President William McKinley, the Spanish-American War, and the Klondike gold rush. The science class studied industrial expansion, scientific inventions of that era, and their impact upon society. The social studies class compared the status of women's rights today with women's rights during that time, and researched the economics of the 1920s music industry. A team of language arts students surveyed song lyrics written by Ira Gershwin, and collaborated to write a libretto for an operetta. The music class studied syncopation and improvisation, and analyzed the "trunk" and "train" themes of Gershwin's concerto, *Rhapsody In Blue*. They used this information to compose several original jazz themes around which they composed an operetta based upon the libretto.

Student teams gathered enough information on artistic, economic, and social influences of the early 1920s to recreate scenery, costumes, and music for an original operetta about the life of a struggling composer in Tin Pan Alley. Whether collaboration occurs on a large scale as in the Gershwin example, or on a smaller scale like a song book with illustrations, teams in the methods course component should be guided to consider the creation of something new from integrated contributions, and associations among disciplines.
**Zoning Process.**

After the focus has been selected, teams will use the Zoning Process (see Appendix G) to define areas that surround and relate to that focus. In this music methods course component, zoning is a writing process that reveals interests and concerns shared among disciplines, and the contributions each discipline makes from its unique view of the focus for study. Associations among discipline fields should involve critical thinking skills at a variety of levels, wherever possible. To guide each preservice teacher toward deeper levels of critical thinking about a specific discipline, each team member will apply the chosen focus for study to his or her discipline field to complete the Cognitive Domain Table (see Appendix H). Then, preservice teachers may use the Application of Orbits of Intersection model (see Appendix I) to notate specific ideas for focus-related study among disciplines.

Each team will then compile its ideas to develop a Team Statement (see Appendix J). This Team Statement should be agreed upon by all team members, and should integrate contributions from each discipline involved.

**The Unit Plan.**

Step 1. Each individual team member will apply the focus to develop three guiding questions for his or her discipline field using the Cognitive Domain Table. These questions should: (a) summarize contents of the Cognitive Domain Table; (b) be sequential in nature, similar to
chapters in a text; and (c) range from basic knowledge about the focus to deeper levels of cognition that involve application, analysis, and creativity. Each team member's questions should form a sequential summary of what he or she plans to teach. Questions are then shared with teammates. Time should be allotted to discuss linkages, prioritize goals, and to synthesize ideas for integration toward the chosen focus.

Step 2. To summarize the scope and sequence of the unit, each team will devise three unit objectives that are crossdisciplinary in nature. These objectives should be a sequential summary, or outline of the unit from basic knowledge to higher order thinking skills related to the chosen focus. A team recorder may be used for this process.

Step 3. Each member will write the three objectives on his Interdisciplinary Unit Plan (see Appendix K). These will serve as the objectives of three lesson plans for each discipline field.

As preservice teachers plan, they should be mindful that their future students will work in teams toward a synthesis of knowledge, skills, and concepts. This approach promotes the concept of interdisciplinarity. Therefore, methods course teams should be encouraged to plan activities that give students the opportunity to make mental linkages among discipline fields.
Implementation

As preservice teachers plan units in the music methods course, specific activities may be utilized to facilitate planning and implementation of unit lesson plans. These activities involve a search for knowledge, and practice and application of curricular and cross-curricular skills and concepts. Skills and concepts may be practiced and strengthened through surveys, analyses of musical literature, research, interviews, field notes, field trips, viewing professionals, attending concerts, preparing items for display, demonstrations, or performance of original creations. Such activities stimulate the imagination and provide opportunities for students in the music methods course and in schools K-12 to make the mental linkages among disciplines that are necessary for true integration.

In the general music methods course component, all teams will prepare brief musical demonstrations, or performances, as an integral part of the unit of study. These musical presentations may be performed live or they may be recorded. Their purpose is to demonstrate the musical skills and concepts chosen to expand the unit focus, and to exemplify the concept of interdisciplinarity to the other teams. For an example, a brief study of Gershwin's life and times, coupled with the study of jazz form and composition, may inspire one methods course team to create a short operatta that includes original music composed by students of that team. All of the examples used
In this section may be modified for use in the methods course component or the general music classroom.

In the Renaissance example, children's songs and games became a focus for study in an elementary general music class. Barrett, McCoy and Veblen (1997) conducted a comparative analysis of three versions of "Three Blind Mice." The use of a music history timeline to plot the origin of each version of the nursery rhyme inspired teacher collaboration that focused on historical roots of action songs for children. This focus exemplifies a type of lesson that could be prepared in collaboration with the music specialist on a methods course team.

In the example above, the music specialist prepared a transparency of the three notated versions of the nursery rhyme. Students then listened, compared manuscripts and musical notation, and analyzed each version. Students were then taught to sing the songs in unison, and in a round. Movement was added, in the form of dance, or games. The art teacher expanded upon this theme through a focus on common children's games like hopscotch and leapfrog, as depicted in a Renaissance painting by Pieter Brueghel. The art was then accompanied by poetry based on the painting. The performance of these Renaissance children's songs with accompanying games, Renaissance paintings, and poetry made a challenging and informative interdisciplinary focus for study and optional display or performance.
Assessment

In this course component, there will be culminating activities that will also serve as assessment tools for preservice teacher evaluation. Culminating activities give teams an opportunity to demonstrate their understanding of integrative and collaborative strategies. All teams participating in the music methods course will display booths or tables, which highlight the team's guiding questions, lesson plans, posters, inventions, imaginative creations, notated musical works, team performances or demonstrations. This "Interdisciplinary Fair" may be set up in the methods course classroom, music library, or some more prominent area for viewing. Students may be allowed class time to prepare the booths, or may arrange to set up their team displays in a secure area the day before the presentation. Such decisions are at the instructor's discretion.

Because time is limited in the music methods course, unit presentations are limited to a four-step process that summarizes the unit into a brief presentation for each team. Each teammate will select one of the four areas below and organize it for presentation. During each presentation, each team member will strive to present information in a way that will be crossdisciplinary and interdisciplinary in nature.

Team Research. The team member presenting this information will: (a) introduce team members, and their individual
discipline fields; (b) state the title of the focus, grade level and setting for the hypothetical teaching situation; (c) provide the team statement which led to formulation of the team's three guiding questions; and (d) cite major sources and research results that the team found to be valuable in planning the unit.

**Music Connections.** The team member who presents this information will: (a) present the discipline field statement for music to demonstrate the critical thinking levels as viewed through the lens of music education; (b) present a sampling of the chosen exemplary music, musical skills, and concepts that relate to the focus of the unit; and (c) explain how the musical information to be taught was integrated with the other discipline fields to facilitate the holistic approach.

**Team Presentation.** The team member who presents this information will explain the results of research on the unit of study using display samples, performance excerpts, reports, or other creative activities.

**Assessment Measures.** The assessment measures for instructors and for team self-assessment are found in Appendix L. Students should be made aware of all assessment procedures during week one of the methods course. These evaluations are not to be time consuming, but should assess the acquisition of integrative and collaborative behaviors for both the team and each individual member. As an alternative to a simple letter grade, these assessment
tools will clarify the instructor's expectations and will provide an incentive for students to develop the attitudes and behaviors desirable for effective interdisciplinary work.

Interdisciplinary learning does not always produce visible, tangible results that can be easily measured. Meaningful relationships among forms of knowledge can occur as the result of collaborative efforts to produce a tangible product, like an operetta, or a book of songs with lyrics and illustrations. However, relationships among forms of knowledge may also occur in the mind of one student at a moment when seemingly unrelated information overlaps to create a mental connection between discipline fields. In this instance, although undetected by the teacher, a mental connection has been made.

As a result of probing questions and stimulating discussion, significant strides may be achieved in interdisciplinary work. Therefore, preservice teachers in this course component are encouraged to take advantage of every opportunity to ask challenging questions, and to openly discuss ways to connect subject matter, among themselves, and with their students upon entering the profession. In the broadest sense, such connections constitute the fundamental rationale for interdisciplinary curricula.
CHAPTER IV: COMPONENT IMPLEMENTATION AND IMPLICATIONS

The purpose of this study was to develop a music methods course component that could serve as an introduction to collaborative and integrative procedures for preservice education majors. Preservice teachers who are knowledgeable about collaborative and integrative procedures may assist students in grades K-12 to apply these procedures, and assist with the development of critical thinking skills. There is a need in our society to cultivate learners in grades K-12 who can work in teams successfully, and to connect forms of knowledge within the limits of the school day. This study sought to fill these needs through an interdisciplinary approach incorporated in the general music methods course.

The review of literature revealed that classroom teachers desire instruction that includes strategies for effective integration. Further, with the advent of current curricular reform in music education, institutions of higher learning have sought to explore instruction based on integrated curricula. The incorporation of the proposed methods course component may provide a forum for the investigation of integrated curricula.

In institutions where arts study is mandated, students generally enroll in either a one-semester, multi-arts course, or a one-semester "crash course" in music fundamentals and methods (Austin, 1997). Gamble (1988) contended that all aspiring elementary teachers should
complete a two-course preparation program in music. Under this arrangement, every student would first take a music fundamentals course to gain basic skills, literacy, and positive attitudes. Then these students could complete an elementary music methods course with more specialized offerings that might include the proposed music methods course component.

Although this contention may seem frivolous, it appears to augment the notion that colleges and universities are institutions that may provide an ideal forum for innovative concepts such as this. This proposed component may add relevance to the music education curriculum for preservice music and education majors alike. Therefore, this course component is designed to be instituted at the college and university level where a music fundamentals, or methods course is often a curriculum requirement for education majors. These institutions also have the expertise and resources necessary to satisfy the logistics requirements for the course component.

The implementation of this course component was designed for a five week period within a general music methods course. Methods course instructors may choose to begin the course component at some other preferred juncture during the methods course. However, it may be advisable, once the actual steps for the interdisciplinary unit plan are begun, to complete all procedures consecutively for the benefit of continuity.
The course component was designed to be flexible so as to facilitate its use by instructors who may be committed to a predesigned syllabus, or curriculum. Week one of the music methods course could be devoted, in part, to team formation, preliminary reading assignments, and any collaborative strategies the instructor believes should begin immediately, in support of the team effort. During this time the instructor may also choose to discuss student expectations and assessment measures. Next, the instructor may choose to introduce the cognitive pyramid and explain orbits of intersection. Subsequently, having had time to discuss these ideas and concepts, some students may then be more prepared to delve into the actual steps of interdisciplinary unit preparation.

Alternately, some instructors may choose to design the entire methods course of instruction around the integrative and collaborative procedures presented in this component. Some instructors may choose to teach the entire methods course with students working in teams, to facilitate teamwork during integrative procedures.

The logistics for the music methods course component are dependent upon, and centered around, the pre-existing methods course instructors, curricular structure, schedule, and quarter or semester timeline. The music methods course instructor may choose to teach the course component, team teach with another instructor, or host a qualified specialist from outside the institution. All preservice
music education majors would be selected for participation in the course component based upon interest, availability, and recommendation by the music education faculty. Course credit could be offered to preservice music education majors as an incentive.

Is it possible to transform a child from a passive learner to an active thinker? Can students learn to draw from existing knowledge to think about and question facts in a way that complements and completes the curricular plan? In great part, the answer to these questions depends upon teacher education (Barrett, McCoy & Veblen, 1997).

Preservice music and education majors who apply critical thinking skills, probe the deeper levels of knowledge, and have had some experience at connecting forms of knowledge may guide their classroom students to do so. Preservice teachers who have received instruction in the varied approaches to learning, may apply the concept of multiple intelligences to address the educational needs of the whole child. This includes a child's musical education. The integration component incorporated in the music methods course offers a forum to introduce the application of these concepts within and among disciplines.

Students who move from class to class from 8:00 a.m. to 3:00 p.m. may tend to think that learning is an activity that is scheduled, rather than ever-evolving, spontaneous, multi-dimensional, and integrated. How can the organization of an educational institution and its curricular structure
help students connect forms of knowledge? One might begin by asking questions and simply talking with students about concepts or ideas that overlap. It may be said that integrated learning begins first in the mind. But, Jacobs (1989) suggests that basic knowledge may be connected and further illuminated through probing questions and discussion.

Over time, schools K-12 may begin to benefit from a methods course that includes interdisciplinary instruction. Collaboration between the classroom teacher and the general music specialist may become more prevalent among school staff members, especially since some of the barriers to effective teamwork have been overcome at the preservice level. Growing numbers of teachers may become equipped with the tools to dismantle the partitions that separate forms of knowledge into scheduled periods of seemingly unrelated subject matter (Barrett, McCoy & Veblen, 1997; Jacobs, 1989).

Jacobs (1989) stated that the renewed trend in schools toward interdisciplinarity will help students integrate strategies from their studies into the larger world. These students may become more autonomous and proactive in their approach to learning and thinking. There may be an increase in the transfer of knowledge for application and problem solving. Students may be better able to retain knowledge, having acquired an increased awareness of the relevance of
subject matter to their everyday lives, their past, and their future.

In 1996, the state of Ohio devoted portions of its state guidelines for teacher preparation to specific performance-based assessments for arts specialists that included interdisciplinary and collaborative skills (Ohio Department of Education, 1996). This proposed music methods course component may facilitate instruction pursuant to these requirements through practical application of interdisciplinary and collaborative strategies for preservice music and education majors. The music methods course component also addresses the eighth and ninth National Standards for Music Education through its integrative and interdisciplinary approach to instruction in both the arts and academic discipline fields. Austin (1997) stated that emerging interest in these innovative approaches signals a need for greater collaboration between classroom teachers and music specialists. He further stated that the effectiveness of some music fundamentals classes upon teacher preparation has been called into question.

Who will answer this call for reexamination of general music methods or fundamentals courses? This general music methods course component was designed to fully engage all general music educators interested in reform and relevancy in music teacher education. For, as Scott-Kassner (1999) believes, general music educators can influence the content and processes of the college/university music curriculum.
Such influence will ultimately change attitudes about the training of all music educators, from preschool through high school and beyond.
REFERENCES


APPENDIX A

COGNITIVE PYRAMID
Cognitive Pyramid

LENSES

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation
APPENDIX B

INDIVIDUAL DISCIPLINE FIELD STATEMENT
Individual Discipline Field Statement

Team Name________________________
Team Member_______________________
Discipline Field _________________

Preservice teachers will use this discipline field statement to:
1. Discover ways students may apply Bloom’s taxonomy of critical thinking skills to a specific discipline.
2. Specify objectives and plan strategies for achieving those objectives.
3. Guide and sharpen the team’s focus.

Each participant will apply his/her discipline (chosen major) to the chosen focus. Then, each team will insert the appropriate words or phrases to complete the sentences below.
(insert discipline) _____________ relates to (insert focus) ________________________ because it serves the community by contributing a basic knowledge of___________

B. This basic knowledge may lead to comprehension of ______

which, when analyzed and evaluated, could lead to (insert ideas for application) __________________________

C. Students may possibly create imaginative new ideas (insert ideas for synthesis)________________________.
APPENDIX C

ORBITS OF INTERSECTION
Orbits of Intersection

Guiding Questions

#1

#2

#3
APPENDIX D

COLLABORATIVE STRATEGIES
Collaborative Strategies

Kagan (1992) suggests specific strategies that serve to guide and strengthen the collaborative process. Classroom teachers and methods course instructors may employ these resources as needed to build team identity, improve social skills necessary for collaboration, and facilitate the exchange of information among team members.

Teambuilding. The suggested team building strategies create enthusiasm, trust, and mutual support, which, in the long run, lead to more efficient academic work. If there are racial or other tensions among students, teambuilding is a must. Methods course instructors may select from the following structures to help team members get acquainted and build team identity: Team Interview, Turn Toss, Roundtable, or Survival In The Desert (Kagan, 1992).

Social Skills Structures. Groups or teams that fail to work together may lack the knowledge or skills necessary for collaboration. The inclusion of a social skills curriculum may be necessary, not only to facilitate the collaborative effort, but also to prepare preservice teachers for effective collaborative and integrative work in schools. To facilitate the brainstorming process in this course component, team members may select one of the following social roles to aid team interaction: (a) the recorder who will record the group's ideas, (b) the taskmaster who encourages the group to stay on task, (c) the quiet captain who sees to it that the team does not disturb others, or
(d) the praiser who encourages positive attitudes through praise. All team members should be encouraged to remember their role as they generate ideas (Kagan, 1992, chapter 14).

**Information Sharing.** Success in the collaborative effort is highly dependent upon effective communication skills. Information sharing structures facilitate the simultaneous sharing within teams. The methods course instructor may choose to employ Roundrobin and Rallyrobin to facilitate teamwork as team members generate ideas for interdisciplinary lessons and units (Kagan, 1992, chap. 12).

**Thinking Skills Structures.** Collaborative teams must be able to question, combine, categorize, generate, evaluate, and apply information. In the methods course component and in the classroom, this effort requires a team approach to problem solving during the integration process. The methods course instructor may choose to acquaint team members with the cognitive domain and critical thinking skills. To facilitate this process, instructors may employ the Blooming Worksheet, 4-S Brainstorming, or the Team Statement (Kagan, 1992, chap. 11).
APPENDIX E

FIND A FOCUS
Find A Focus

As an optional activity to begin the focus selection process, team members may prepare an Interdisciplinary Team Sheet (see Appendix F).

Step 1. Each preservice team will write his or her own Discipline field on the Interdisciplinary Team Sheet.

Step 2. Team members will pass the sheets around until all teammates have entered their discipline field on every other team member's sheet.

Step 3. The course instructor may suggest a specific focus, or teams may use 4-S Brainstorming, to collect and then notate ideas for a thematic focus at the bottom of the Interdisciplinary Team Sheets, on a wall chart, or blackboard.

Step 4. After the focus has been selected, each team member will write it in the space provided on the Interdisciplinary Team Sheet and also at the center of the Application of Orbits of Intersection Sheet found in Appendix I.

Preservice music education majors may find it necessary to research the chosen focus and consult with the course instructor or an inservice teacher to identify
exemplary music, skills, and concepts that integrate the focus. These musical ideas should integrate basic knowledge about music, and should also incorporate some deeper levels of thinking about music to ensure depth and integrity during the integration process.
Interdisciplinary Team Sheet

Team_________ Student Name_________________

My field_________
Discipline field_______
Discipline field_______
Discipline field_______
Discipline field_______
Chosen Focus__________________ for Grade__

Find A Focus

Suggestions:
1.

2.

3.

Rationale Checklist

Does the chosen focus:
__ captivate?
__ have its basis in concepts and curricular content?
__ disclose contrasts/similarities within and across disciplines?
__ disclose patterns
__ offer a theme that penetrates and magnifies subject matter pervasively across disciplines?
APPENDIX F

SUGGESTIONS FOR INTERDISCIPLINARY STUDY
Suggestions For Interdisciplinary Study

The list below suggests ideas to begin linking music education with other core curricula. The list here is by no means complete. Teachers are encouraged to add subjects for integrative focus, as they discover resources and ideas best suited for their specific needs. As lists grow, they become invaluable time-savers for future reference.

Music Reflecting American Heritage
Folk Melody And Dance As Compositional Devices In Music
The Life And Times Of George Gershwin
Folk Dances: Their Influence On Composers
The Composer And The Librettist
Music In Our Town
Our Multicultural Music Fair
African-American Music History Survey
The Life And Times Of William Grant Still
The Life And Times Of Wolfgang Amadeus Mozart
Women Composers Through The Ages
Impressionist Art/Music Project
Chinese Opera/ Integrating The Arts
The Music On Voyager
Music And Life In The 1940's (or choose another decade)
Composing And Counting: The Music-Math Connection
The Music Man by Meredith Wilson: An All School Review
## Program Music For Interdisciplinary Study

<table>
<thead>
<tr>
<th>Composition</th>
<th>Composer</th>
</tr>
</thead>
<tbody>
<tr>
<td>An American In Paris</td>
<td>George Gershwin</td>
</tr>
<tr>
<td>&quot;The Moldau&quot; from Ma' Vlast</td>
<td>Bedrich Smetana</td>
</tr>
<tr>
<td>A Night On Bald Mountain</td>
<td>Modest Mussorgsky</td>
</tr>
<tr>
<td>Carnival Of The Animals</td>
<td>Camille Saint-Saens</td>
</tr>
<tr>
<td>Pictures At an Exhibition</td>
<td>Modest Mussorgsky</td>
</tr>
<tr>
<td>The Planets</td>
<td>Gustav Holst</td>
</tr>
<tr>
<td>Afro-American Symphony (#1)</td>
<td>William Grant Still</td>
</tr>
<tr>
<td>Don Quixote</td>
<td>Richard Strauss</td>
</tr>
<tr>
<td>Grand Canyon Suite</td>
<td>Ferde Grofe'</td>
</tr>
<tr>
<td>1812 Overture</td>
<td>Peter Tchaikovsky</td>
</tr>
<tr>
<td>The Holberg Suite</td>
<td>Edvard Grieg</td>
</tr>
<tr>
<td>Prelude to the Afternoon of a Faun</td>
<td>Claude Debussy</td>
</tr>
<tr>
<td>Appalachian Spring Concert Suite</td>
<td>Aaron Copland</td>
</tr>
<tr>
<td>Rodeo</td>
<td>Aaron Copland</td>
</tr>
<tr>
<td>Billy The Kid</td>
<td>Aaron Copland</td>
</tr>
<tr>
<td>Symphony No.9 &quot;From The New World&quot;</td>
<td>Antonin Dvorak</td>
</tr>
</tbody>
</table>
APPENDIX G

ZONING PROCESS
Zoning Process

Step 1. After the focus has been selected, each team member will complete a Cognitive Domain Table (see Appendix H) for his/her individual discipline field. This table will then be used to remind and direct teams to address each critical thinking level whenever possible, as they select skills and concepts, and develop objectives for unit lesson plans.

Step 2. Team members will be given 2 minutes of silent time to brainstorm about ways his/her discipline field might investigate the specific focus agreed upon by the team. The team will then be given 10 minutes to discuss their ideas.

Step 3. Teams are now ready to write ideas for focus related study into the Application of Orbits of Intersection (see Appendix I). Teams will use one pencil and one recorder for this process. Team members may refer to their Cognitive Domain Tables to facilitate this writing process.

Step 4. Each team will develop a Team Statement that will summarize in writing the overall ideas about the focus (see Appendix J).

Step 5. The writing in Step 3 may then be used to devise three guiding questions which become the three objectives for the Interdisciplinary Unit Plan (see Appendix K).
Cognitive Domain Table

In the spaces below, each team member will apply the focus for study to the cognitive levels. The team member will then use the information to devise three guiding questions which summarize the skills, concepts, and overall approach to the focus for study.

Focus

Discipline Field

Student

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Comprehension</th>
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<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Application</th>
<th>Analysis</th>
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<table>
<thead>
<tr>
<th>Synthesis</th>
<th>Evaluation</th>
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</table>
Cognitive Domain Table

In the spaces below, each team member will apply the focus for study to the cognitive levels. The team member will then use the information to devise three guiding questions which summarize the skills, concepts, and overall approach to the focus for study.

Focus __________________________

Discipline Field__________________

Student_____________________

<table>
<thead>
<tr>
<th>Knowledge</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Comprehension</td>
<td></td>
</tr>
<tr>
<td>Application</td>
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<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>Synthesis</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX I

AN APPLICATION OF ORBITS OF INTERSECTION
An Application of Orbits of Intersection

- Evolution of modeling clay from a lump to a pot/vase
- Light transformed through a kaleidoscope to create a stained glass window
- Transitional math
- Rotation and reflection of geometric figures
- Migration of birds and animals
- Metamorphosis
- Transition: The process of change
- Transposition
- Modulation
- Composers as transitional figures in music history
- Plots in story composition
- Underground railroad
- Immigrants
- Editing process in story writing
- Oral tradition in poetry and story telling
Team Statement Sheet

Team Name: ____________________________

Discipline Fields: ____________________________

Preservice teachers will use this Team Statement Sheet to:

1. Discover how students may employ Bloom's cognitive taxonomy to a chosen focus.
2. Assist team members in specifying objectives and evaluating strategies.
3. Assist the team members by guiding and sharpening the focus that has been chosen by the team.

APPENDIX J

TEAM STATEMENT

A. (insert focus): ____________________________ Instruct the team by contributing basic knowledge of ____________________________.

B. This basic knowledge may lead to comprehension of ____________________________, which, when analyzed and evaluated, could lead to (insert ideas for application).

C. Students may possibly create imaginative new (insert ideas for synthesis).
Team Statement Sheet

Team Name __________________________

Discipline Fields __________________________

Preservice teachers will use this Team Statement Sheet to:
1. Discover how students may employ Bloom's cognitive taxonomy to a chosen focus.
2. Assist team members in specifying objectives and evaluating strategies.
3. Assist the team members by guiding and sharpening the focus that has been chosen by the team.

Teachers will insert the appropriate words or phrases as they apply to the focus.

A. (insert focus) ______________ informs the team by contributing basic knowledge of _____________________________.

B. This basic knowledge may lead to comprehension of ________which, when analyzed and evaluated, could lead to (insert ideas for application) _____________________________.

C. Students may possibly create imaginative new (insert ideas for synthesis) _____________________________.


APPENDIX K

INTERDISCIPLINARY UNIT PLAN
Interdisciplinary Unit Plan

Focus____________________ Team__________

Discipline____________________

Guiding Question #1____________________

A. Objective: __________________

B. Procedures:

C. Materials:

D. Evaluation:

Guiding Question #2

A. Objectives: __________________

B. Procedures:

C. Materials:

D. Evaluation:

Guiding Question #3____________________

A. Objectives: __________________

B. Procedures:

C. Materials

D. Evaluation
APPENDIX L

ASSESSMENT MEASURE

FOR COURSE PARTICIPANTS
Five Point Rubrics Scale

4 Exemplary
Demonstrates exemplary collaborative and integrative skills

**These Students:**
- apply unit plan procedures with the highest level of efficiency.
- demonstrate positive attitudes and approaches necessary for interdisciplinary work.
- prepare and submit assignments on time.
- are always an asset to the team.

3 Very Good
Demonstrates very good collaborative and integrative skills

**These students:**
- apply unit plan procedures very well.
- demonstrate attitudes and approaches that are very good for interdisciplinary work.
- usually prepare and submit assignments on time.
- are usually an asset to the team.

2 Average
Demonstrates collaborative and integrative skills that are average and could improve with effort

**These students:**
- apply unit plan procedures that are considered average.
- demonstrate attitudes and approaches that are average for effective interdisciplinary work.
• are usually prepared, but did not submit some assignments on time.
• demonstrate average effort as team members.

1 Below Average
Demonstrates collaborative and integrative skills that need improvement for more effective interdisciplinary work

**These students:**
• should strive for more effective application of unit plan procedures.
• should strive to develop attitudes that are more effective for interdisciplinary work.
• should strive to prepare and submit all assignments on time.
• should strive to contribute more to the team’s effort.

0 Insufficient
Demonstrates insufficient collaborative and integrative skills

**These students:**
• failed to acquire sufficient skills for effective application of unit plan procedures.
• failed to demonstrate attitudes that are effective for interdisciplinary work.
• failed to prepare and submit assignments on time.
• failed to contribute to the team’s effort.