THE DEVELOPMENT AND EVALUATION OF A SERIES OF
VIDEO-TAPE LESSONS TO SUPPLEMENT A COLLEGE
COURSE IN ADVANCED MUSIC THEORY

DISSERTATION

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The purpose of the study was to develop and evaluate a series of video-tape lessons to supplement the traditional lecture-discussion method of teaching a college course in advanced music theory.

The specific problems investigated were

1. To evaluate the effect of the video-tape supplemental lessons on achievement in harmony, keyboard, sight singing, and ear training for music students in a college course in advanced music theory.

2. To assess the effect of the video-tape materials on the achievement in harmony, keyboard, sight singing, and ear training for students who had differential learning ability levels.

3. To assess the attitudes toward music theory and the use of the supplemental lessons for the music theory students who used the video-tape lessons as supplemental material.

4. To assess the relationship between attitude toward music theory and the use of the supplemental lessons and achievement in harmony, keyboard, sight singing, and ear training for all of the music theory students involved in the evaluative study.

The development of the lessons involved the selection of appropriate subject-matter content; production of the first video-tape lesson as a pilot study; subsequent production of the first four lessons and
submitting them to a critical evaluation from three music theory specialists; and final revision of the first four, and production of the last three, lessons according to the suggestions from the music theory specialists.

Based on the evaluations of the theorists and the subsequent revisions, the supplemental lessons demonstrated acceptable content validity. The use of the supplemental lessons was, therefore, expected to enhance student learning and improve teaching efficiency for the college course in advanced music theory.

Evaluation of the video-tape lessons in the specific educational setting for which they were prepared involved a comparative study in which music theory achievement for students using the lessons was compared to the achievement for students using only traditional classroom instruction. The evaluation also included an investigation of the effect of the use of the supplemental lessons on students with differential ability levels. A final comparative study was conducted concerning student attitudes toward music theory and the use of supplemental materials.

Analysis of covariance, simple analysis of variance, \( t \) tests, and Pearson correlations produced statistical results that led to the following conclusions:

1. Students who used the video-tape supplemental lessons did not score higher on achievement tests in harmony, keyboard, sight singing, and ear training than the students who did not use those lessons.

2. Students who used the video-tape lessons had greater variance among the ability levels on the achievement tests than the students who
did not use those lessons; and for those using the lessons, students in the low beginning-ability level did not achieve at a corresponding rate with the students in the high and middle levels.

3. Attitudes toward music theory and the use of supplemental materials were less positive for the students who used the video-tape lessons than for the students who did not use those lessons.

4. Among all participants of the evaluation, a significant relationship was found between attitudes toward music theory and the use of supplemental materials and achievement in music theory.

Educational technology may not be as well suited for use with advanced music theory courses as with other academic courses. More study is needed to find the best kinds of technology to use for the optimum amount of communicative success for specific courses and students.
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CHAPTER I

INTRODUCTION

Need for the Study

Research studies on the use of instructional television (5, p. 25); video tape (15, p. 370); and audiovisual packages with charts, video-tape instruction, study guides, and audio tapes (3, p. 63) have concluded that instruction using these educational aids in almost every instance was equal to, or better than, traditional classroom instruction. Chu and Schramm (5), in their summated research study of the uses of instructional television, stated:

Summaries show that in the great majority of comparative studies, there is no significant difference between learning from television and learning from conventional teaching; and that where there is a significant difference, it is a bit more likely to be in favor of television than of conventional instruction (5, p. 25).

Thomas Carpenter (4, p. 132), another instructional television researcher, agreed with the findings of Chu and Schramm. Twyford (15, p. 370) stated that from many studies involving educational communications media, "we may conclude that instruction making extensive use of communications materials and media is at least as effective as conventional instruction." Burgess (3, p. 63), using an audiovisual package as a self-instructional approach in a string techniques class, observed that all students involved in his study agreed that the self-instructional materials, which included video tapes, were a "worthwhile alternative" for instruction in the string methods course.
Instructional television and related technological techniques have been accepted as valid alternatives for conventional teaching.

Some educators encourage the use of instructional technology for other reasons than learning advantages. Burgess (3, p. 69) contends that instructional technology increases teacher efficiency by releasing time from the mundane aspects of a course and allowing instruction to focus on the more specialized problems. Many drill activities and basic facts and concepts can be efficiently and effectively presented through the use of instructional technology, providing time for the teacher to prepare and present ways to apply the drill activities and to generalize the basic facts and concepts.

The promise of success in using the resources of instructional technology can be enhanced, according to numerous researchers, by using the instructional aids to supplement, rather than replace, the traditional classroom teaching. William Thornton (14, pp. 44, 52-53), whose study compared programmed instruction, instructional television, and traditional classroom teaching, concluded that instructional television without a teacher follow-up was ineffective; but that traditional classroom instruction combined with instructional television was an effective means of instruction. Paul Saettler (12, p. 257) reported that televised instruction plus classroom teaching was more effective than either alone. George N. Gordon (6, p. 90), another prominent researcher in instructional television, agreed with Saettler. Gordon (7) recorded the following statement regarding the role of instructional television:

Television may be used for cooperative or team teaching in which case television instruction assumes part of the teaching load. The particular role of television in
cooperative teaching may vary according to subject and/or level of education (7, p. 66) . . .

Wilbur Schramm (13) has also advocated the integration of television instruction with traditional learning experiences. In his view:

The modern teacher has books, guides, periodicals, films, tapes, slides, records, laboratory equipment; some have language laboratories; and soon many of them will have programmed self-instructional materials. The basic question, therefore, is not simply how to use television alone, but rather how to combine it more effectively with other learning experiences and resources. Experience indicates that the most effective uses of television have been in situations where it has been combined carefully with other activities in a total learning situation (13, p. 5).

Evidence from available research is encouraging with regard to the use of instructional technology. The educational use of sophisticated electronics has, in many instances, effectively replaced conventional classroom teaching; promised the benefits of a more efficient management of teachers' time and of the total educational setting; and enhanced the chances for successful technological instruction by reinforcing the technology with traditional classroom teaching.

The encouraging evidence coming from the reports noted above are representative of a large body of research that supports the use of instructional technology. The indications were that educational productivity and efficiency would be increased through the use of valid materials employing the techniques of instructional technology to supplement a college course in advanced music theory.

The research, supporting the successful use of instructional technology, provided encouragement for the development of materials to supplement an advanced music theory course. The administration of the university in which the present study was conducted provided additional
encouragement to use instructional technology; members of the faculty are encouraged to use the existing facilities and personnel in planning and preparing instructional presentations. The university is equipped with sophisticated technology, including television production and playback facilities, and an electronic installation, known as the Dial Access Information Retrieval System (DAIRS). Professional production personnel are available to assist instructors in preparing programs in which the technology is used.

Utilization of the available technology and personnel to produce instructional programs is a partial response to a need expressed by Ingle (8, p. 4) in his 1970 review of dial access installations in colleges and universities. Ingle requested the production of a greater amount of creative material to be used in the electronic installations in the colleges and universities of this country and in foreign countries as well. The study by Ingle (8, p. 5) emphasized the importance of evaluating the materials created. This evaluation would serve as part of a body of evidence to lend support for a positive or negative decision concerning the installation of advanced technological systems.

Researchers such as Kumata (10) and Allen (2) have stated that the evaluation of instructional materials should be conducted by active teachers, within a specific course, and involving the students taking that course. Kumata (10, p. 84), in discussing the acceptability of the educational use of television, said that "policymakers do not accept conclusions in this area based on research which has not been done on their students, their instructors, and their courses." Allen (2) has expressed the need for future research. He stated:
The folly of assigning generalized and all-inclusive attributes to specific classes of media (e.g., television, film, print, computer-assisted instruction) under all conditions is finally being appreciated, and we should observe more intensive research efforts to discover how to design and manipulate the media so as to enhance their effectiveness under specified instructional conditions (2, p. 14).

The studies by Ingle (8), Kumata (10), and Allen (2) emphasize the need to: 1) create instructional materials, and 2) evaluate those materials within a specific educational setting. It is important for institutions contemplating technological installations to have information about the effectiveness of certain types of technology for specific courses before making a substantial investment in the required technology. It is equally important that universities that have already invested in technological installations continue to evaluate the instructional materials produced to ensure the effectiveness of these tools with regard to specific courses, instructors, and students.

The encouragement from the university administration to use the existing technology and personnel combined with the representative research studies that have been presented led to the assumption that an advanced music theory course could be instructionally enhanced through the use of valid video tape supplemental lessons. The instructional aid was needed to improve the teaching efficiency in the theory course that met only three fifty-minute class periods each week instead of the five class periods per week commonly scheduled for the comparable course at other universities.
Purpose of the Study

The purpose of the study was to develop and evaluate a series of video-tape lessons to supplement the traditional lecture-discussion method of teaching a college course in advanced music theory.

Problems Investigated

The specific problems investigated were

1. To evaluate the effect of the video-tape supplemental lessons on achievement in harmony, keyboard, sight singing, and ear training for music students in a college course in advanced music theory.

2. To assess the effect of the video-tape materials on the achievement in harmony, keyboard, sight singing, and ear training for students who had differential learning ability levels.

3. To assess the attitudes toward music theory and the use of the supplemental lessons for the music theory students who used the video-tape lessons as supplemental material.

4. To assess the relationship between attitude toward music theory and the use of the supplemental lessons and achievement in harmony, keyboard, sight singing, and ear training for all of the music theory students involved in the evaluative study.

Statistical Hypotheses to Be Evaluated

The problems investigated in the study were tested through specific statistical hypotheses, stated in the null form. A significance level of .05 was the criterion by which the first three null hypotheses of no significant differences could be rejected. The statistical standard of
.01 was established by which the fourth hypothesis of no significant relationships could be rejected.

The statistical hypotheses used to test the research problems were

1. There will be no significant difference in the group means for achievement in harmony, keyboard, sight singing, and ear training, between the music theory students who had the video-tape lessons as supplemental material to traditional teaching and the music theory students who had traditional classroom teaching only.

2. There will be no significant difference in the group means on achievement as measured by the combined scores of achievement tests in harmony, keyboard, sight singing, and ear training between differential ability levels among the students in one theory section that will not be evidenced for the same ability levels among the students in the other theory section.

3. There will be no significant difference in the group means on the Music Theory Attitude Survey (MTAS) between the music theory students who had the video-tape lessons as supplemental material to traditional teaching and the music theory students who had traditional classroom teaching only.

4. For all subjects involved in the evaluation, there will be no significant relationships between the scores of the Music Theory Attitude Survey and the composite achievement scores in the four content areas of harmony, keyboard, sight singing, and ear training.
Definition of Terms

The terms that are defined include those that may be used with a meaning peculiar to this study or that may need clarification in addition to that provided in the text of the research.

The phrase traditional lecture-discussion method of teaching is synonymous with traditional classroom instruction (teaching) and conventional classroom instruction (teaching). These phrases refer to a didactic procedure that has long been used in higher education. The procedure depends primarily upon oral communication between instructor and students. A limited amount of visual illustrative material is often part of the instructor's oral presentation of desired course content. Students are encouraged to contribute personal insight into the teaching process and to ask thoughtful questions.

The term instructional television is a more inclusive term than educational television. Educational television refers to the mass communication of educational material through the use of educational broadcasting systems and networks. Instructional television can incorporate the meaning of educational television, but for the purposes of this study, instructional television refers to the television media, with its unique technique, in sending and receiving instructional material through local means, rather than through a broadcasting system or network.

The term Dial Access Information Retrieval System (DAIRS) applies to an electronic installation available at the university in which this study was conducted. The DAIRS (9) is an audio-video installation that
allows students to receive prepared programs, during scheduled times, at more than 130 different on-campus locations. The scheduled programs are "called in" to the study carrels through a dial-activated system, except in the case of color-television programs, which are received by selecting one of 12 operating television channels.

Limitations

The study was limited by the technological resources and the educational setting of the university in which the study was conducted. This limitation includes the technical capabilities and the management of the DATRS, the accessibility of video-tape playback equipment, and the professional personnel involved with the production of the video-tape lessons. The information obtained by this study, owing to the use of specific technology and personnel, may not be generalizable to other technologies or educational settings.

The study was limited by the use of subjects, who were students of the university in which the study was conducted. The students who enrolled in the advanced music theory course were the subjects for this study. These students, the sample for the study, may not be representative of the entire population; the results, therefore, may not be generalizable to a broader population without additional study using samples from a broader population base.

The study was limited by the subject-matter content, the materials used, and the manner of presentation. This limitation includes the materials and the manner of presentation for the traditional classroom instruction as well as for the supplemental lessons. The information
obtained by this study may not be generalizable to college courses in advanced music theory that, compared to the present study, present different subject-matter content, use different materials, or present the content in different ways.
CHAPTER BIBLIOGRAPHY


CHAPTER II

RELATED RESEARCH

No research studies were found that directly related to this investigation. A number of studies influenced the organization and the evaluative aspect of this study; these studies and their relationship to the present research will be discussed. Related research investigated included: programed instruction, computer-assisted instruction, instructional television, and self-instructional programs, some using multimedia technology, and others using audio tapes as an integral part of the program.

The related research here discussed should not be considered exhaustive; rather, it purports to be selective of the research done in the areas represented. Specific studies particularly relevant to the present research were reviewed in some detail.

One area of curricular development that related to the present research was programed instruction. Since the 1950's, programed instruction has been successfully used to supplement, as well as to replace, traditional classroom teaching (28). Selected studies involving programed instruction have been included in this chapter. Three individual studies, not included in the body of this review, provided valuable insight into the formation and use of behavior objectives and the systematic presentation of subject matter in small instructional units. These three studies included one with nonmusical content by
Grant Noble (21), in which the integration of programed instruction with classroom instruction was investigated; and two studies with musical content, the first, by James Carlsen (3), one of the early programs to use audio tapes, and the second by George Cribb (5), in which a comparison was made between the teaching procedures of conventional and programed instruction.

General resources of programed instruction, not included in the body of this chapter, provided brief reviews of available programs or information concerning studies done about programed instruction. These general resources included Teaching Machines and Programmed Learning: A Source Book (18); Programmed Instruction (20); Edward J. Green's comprehensive book (9); Hendershot's bibliography (11); a more recent bibliography by Razik (22); and other basic resources by Saettler (24), Schramm, (26), and Stolurow (29). Similar resource material about programed instruction specifically for music has been compiled by Dallin (6) and Rogers and Almond (23).

A programed text for advanced music theory by Paul O. Harder (10) is presently available from commercial sources. The third edition of this text, only recently published, has audio cassette tapes to accompany the written programed material.

In addition to programed instruction, sources were consulted in computer-assisted instruction. These sources included articles or books by Hickey (12), Lorber (17), and McMullen (19), who wrote general reference works providing surveys of the literature or technical instruction concerning use of the computer to assist in the educational process. Allvin (1), Hullfish (13), and Kuhn (14) wrote articles with
specific reference to the use of computer-assisted instruction in music. Helen Lekan (15, p. 247) has included in her Index the sophisticated sight singing program that has been tested at Stanford University.

The references cited above for programed instruction and computer-assisted instruction provided general information and constructive ideas for the development and evaluation of the video-tape lessons of this research. They did not specifically influence the direction of the present study; therefore, they have not been reviewed in detail in this chapter.

Research studies that most directly influenced this research and that are specifically reviewed in this chapter are presented in two categories: 1) studies related to the use of instructional television; and 2) evaluations of self-instructional materials.

**Studies Related to the Use of Instructional Television**

The writings of Chu and Schramm (4), in summarizing other studies, provided generalizations about the characteristics of instructional television. Instructional television use and student attitudes toward television as a teaching aid were reported to be more positive among elementary and secondary students than among college students (4, pp. 25, 80). Attitudes toward instructional television were also observed to be better among teachers at the elementary and secondary levels than at the college level (4, p. 80). Administrators, at all levels, were more likely to favor instructional television than were teachers (4, p. 81).

Chu and Schramm (4, pp. 65, 89) also discussed studies supporting the idea that motivated conditions and positive student attitudes were
conducive to learning with television. Factors found to determine student attitudes toward instructional television included the amount of contact with the teacher, whether the students found the presentation boring or interesting, previous instructional television experience, and the conditions of viewing the presentation.

Chu and Schramm described the use of the following research techniques: 1) research of curricular materials conducted by the classroom teacher to include a pilot study to gather evaluative information, followed by revisions to refine the materials (4, p. 12); 2) the use of covariance as a statistical technique to adjust for apparent inequalities among comparative groups (4, p. 23); 3) the use of camera shots placing the viewer into the action and the use of narration off camera explaining the video (4, p. 45); and 4) the use of follow-up lectures and classroom activities directed by the instructor (4, p. 52).

A study by William Thornton (30) compared the effectiveness of programed instruction, instructional television, and traditional classroom instruction in teaching human biology to sixth-grade students. A six-lesson unit was used for the study; one lesson was presented each week. Six different experimental groups, using different methods or combinations of methods were pretested, treated, and posttested. A "no science instruction" control group was pretested and posttested as well.

Behavioral objectives formed the basis for the construction of materials in the programed instruction, in the televised instruction, and for the teaching outline used in the traditional classroom instruction, as well as for the testing instrument. These materials were carefully constructed, pilot tested, and validated.
Differences between the group means were reported on the pre- and posttests, as well as the percentage of gain for each group from the pretest to the posttest. The highest percentage of gain was registered by the group that combined programed instruction, instructional television, and traditional classroom teaching. The next highest gain score percentage was made by the group that received only traditional classroom instruction.

The results of the Thornton study must be accepted cautiously. Problems arose concerning the selection of subjects, and the treatment of data was careless. The need to use intact classes made randomization impractical, but when striking differences occurred within the various groups on the pretests, statistical compensation was not made. Since a significant pretest difference was found between the highest and lowest group means, it would have been statistically appropriate to use a covariate to adjust for the initial differences. The pre- to posttest differences, some of which were reported to be significant, were questionable without making this adjustment for the apparent initial differences.

The data of the Thornton study, despite the weaknesses noted, supported the conclusions that traditional classroom instruction was an effective means of teaching but that the interaction of the teacher and the instructional aids, one of which used the television medium, was a more effective means of teaching than using either instructional aids or traditional teaching alone. Thornton (30, p. 53) recommended that "teachers having access to educational television use it either separately or in combination with programmed instruction only as a supplement to traditional classroom teaching."
Although the subject matter and the sample investigated were not closely related to the present study, Thornton's comparisons and the methods used to make those comparisons were relevant to this research. The comparisons made by Thornton and his research methods provided valuable techniques to emulate and presented certain weaknesses to avoid.

Helen Tien's (31) research represents a typical study that investigated the effectiveness of video-tape instruction. Many studies of this kind comprised the summated research by Chu and Schramm (4) that was discussed above.

Tien's investigation compared television teaching techniques with the lecture method of instruction regarding the effects produced upon such learning variables as achievement, personality, attitude, learning preferences, and background in art and media.

Tien's self-instructional materials consisted of subject matter from an education course. Selected course content was put on video cassette tapes of twenty to forty minutes' duration. A companion worksheet was prepared that included correct answers to questions asked in the taped instruction.

The research sample consisted of ten sections of intact classes of college undergraduate students that were randomly selected from fourteen available classes at Iowa State University. One hundred fifty-nine students completed the experiment, which was conducted over a period of eight weeks. Five randomly selected sections were assigned the teletutorial treatment while the remaining five sections were taught in the traditional manner. After four weeks, the treatments were reversed. The results from attitude and diligence scales, preference and opinion
surveys, and achievement tests were analyzed using multiple regression equations to determine the learner variables that best predicted success in achievement.

The results of Tien's (31, pp. 43-44) experiment were inconclusive. No significant difference was found between the two methods of instruction, and none of the tested learner variables was shown to be a significant predictor of achievement. Previous experience, represented by grade-point average and background in media, provided the best predictor.

Tien (31, pp. 71-72) suggested that studies similar to hers be conducted using other subjects and that video self-instruction versus traditional instruction be compared for a longer time span. Tien's comparison of the two different methods lasted for only two three-week periods. Reversing the treatments between the two five-section groups added internal validity to the experiment but reduced the total time of exposure to the two different treatments.

Evaluations of Self-Instructional Materials

Research conducted by Norman Burgess (2) is typical of studies of self-instructional systems that use multimedia resources. A study by Miriam Zalampas (33) also investigated self-instruction and multimedia techniques. Zalampas wrote a manual of instructions for the production of a self-teaching system using 35-mm slides and cassette tapes. The subject matter for Zalampas's self-instructional system was music fundamentals, designed for use by prospective elementary classroom teachers. The Zalampas study did not directly influence the present
research because there was no evaluation of materials. Most of the technical procedures described by Zalampas were provided, for the present research, by university personnel who were professionally trained to do those technical procedures.

Burgess's investigation included the evaluation as well as the development of a multimedia self-instructional system to teach fundamental string skills to college music students. Burgess's self-instructional materials were designed to improve instructor efficiency by replacing the teacher-instruction of the concepts and skills for the first five hours of regular classroom instruction. The multimedia system included videotape techniques and a guide book containing musical exercises and directions enabling students to find additional materials. Only the pace of Burgess's presentation was individualized since the content and manner of presentation were the same for all.

The self-instructional materials were pilot tested and revised before the final evaluation was made using experimental and control groups of subjects who were not randomly selected. The experimental group consisted of the students in a string techniques class, excluding those who chose not to participate in self-instruction. The "nonparticipating" students were combined with students from a corresponding class at another university to comprise the control group. The class at the cooperating university met during the previous semester. A record was kept of the time spent on the self-instructional program by the experimental group, and a questionnaire was submitted to them, as well, to determine their personal reactions to that method of instruction.
Burgess used a posttest only experimental design, consisting of performance exercises that were video taped and subsequently evaluated by four judges. Evaluation was based on criteria provided to each judge.

On the basis of t test results, Burgess (2, pp. 55-57) concluded that there was no significant difference between the control and experimental groups on the performance test, but there was a significant difference in time spent by the two groups, with the students using the self-instructional techniques requiring less time. No significant relationship was found between the time factor and scores on the posttest.

Burgess (2, pp. 57-62) also tested the degree of relationship between method of instruction and differential levels of achievement. The conclusion was that high achievers significantly outperformed low achievers regardless of the teaching method used.

In investigating personal reactions to his self-instructional program, Burgess reported the responses to the questionnaire (2, pp. 62-63) given to the experimental group. The conclusion was that the participants thought self-instruction presented a worthy alternative method of instruction.

Burgess (2, pp. 67-69) concluded that his multimedia self-instructional materials could be a valid alternative as a method of instruction, that teacher interaction with the student-machine instruction was often necessary, and that a need existed for future experimentation to learn more about student learning styles with regard to appropriate teaching technique.

Burgess's self-instructional materials included only the course content equivalent to the first five hours of regular classroom
instruction; and the only assurance of equivalency between the two
groups of this comparative study was that the subjects involved had not
had previous string instruction. Possibly real differences existed
initially between the experimental and control groups.

Studies by Sanders (25), Wilson (32), and Sherry (27) are
representative of research of self-instructional materials designed for
use by college nonmusic majors for instruction in elementary concepts
of music. Each of the three studies used audio tape to complement a
written text. The Sanders study used programed instruction, while
Wilson and Sherry used explanatory materials that illustrated the
prerecorded musical examples, without specifically being programed.

The research by Sanders (25) relates to the study previously
reviewed by Tien (31). Although the emphasis placed upon the various
learner variables was not so great as that of Tien's research, Sanders
(25, p. 69) sought to find relationships between achievement and grade-
point averages, scores on a reading comprehension test, scores on a
standardized college entrance examination, music background, and portions
of a standardized musical aptitude test.

Sanders's purpose was to validate a self-instructional program
that introduced musical style through orchestral music. Behavioral
objectives formed the basis of the construction of the achievement tests
and the programed material that was used with a teaching machine. The
instructional materials were constructed carefully and given preliminary
trials, revisions, and further field testing before the final version
was prepared for validation.
Sanders's subjects were college-sophomore nonmusic majors. Of the seventy-eight original students, seventy-four completed the experimental program. A stylistic discrimination examination was given as a pre- and posttest. The pretest was given simultaneously to all students prior to their beginning the self-instructional program. The posttest was taken by each student individually after completing the program. Students were instructed to keep time charts of their use of the program, but some were reported to have failed to keep a complete record (25, p. 73).

Gain scores from pre- to posttest on the stylistic discrimination test were used to determine the validity of the program. A significant gain was reported and the program was declared valid as an instructional device for the subjects with whom it was used (25, pp. 76-77).

Correlations were computed between the pre- and posttest scores and the gain scores with the various learner variables (25, pp. 77-79). Sanders, substantiating Tien's study, found the highest correlation to be between grade-point average and posttest scores.

Sanders did not have adequate facilities to properly conduct his research. Only half of the subjects could work on the self-instructional program at any one time. Six weeks elapsed between the time the first and last groups began active participation, with the result of some loss of control over the subjects (25, p. 67).

Another weakness in Sanders's research was insufficient data regarding testing. No estimate of reliability was given for the primary test, a stylistic discrimination examination. The time separating pre- and posttest of that examination ranged from four to twelve weeks.
Sanders (25, p. 68) reports that an informal comparison showed no difference between early and late participants in the self-instructional program, but no data were supplied to verify this.

The studies by Wilson (32) and Sherry (27) are comparable in several ways. Both researchers used pre- and posttests, followed by a retention test, as the primary means of determining the effectiveness of the materials developed. In both cases reinforcing activities were conducted with all of the experimental subjects during the interval between the posttest and the retention test. In both research studies the content was music fundamentals for nonmusic majors.

The Wilson study used an audio-tutorial system patterned from a 1961-63 model by S. N. Postlethwait (32, pp. 8-9). A tape-recorded sequence primarily functioned to direct students to a variety of previously prepared and published programed instruction as well as to provide additional instruction in the subject matter.

Six students participated in a pilot study of the system. Based on posttest scores and responses from a questionnaire, revisions were made on the system's three units. Tests for each of the three units were also revised on the basis of the pilot study. Wilson reported the test reliability estimates and stated that those of the post- and retention tests for the first unit were quite low.

In addition to variances in achievement between pre-, post- and retention tests, Wilson investigated achievement within ability levels. High, middle, and low ability levels were established from pretest scores for each unit. Analysis of variance was used to determine significant differences between the ability levels for the post- and retention tests for each unit.
Wilson concluded that his system was a successful teaching device. In regard to ability levels, it was found that high and middle achievers scored higher than low achievers on the posttest, and that all achieved about the same on the retention test (32, pp. 88-89). Wilson implied that his system would possibly be more effective if used as an out-of-class supplement to traditional classroom instruction. His implication was based on the lack of significant differences between ability levels on the retention test after significant differences were registered on the posttest. The reinforcing classroom activities, which were conducted during the interval between the post- and retention tests, were credited with causing the change from significant differences to no significant differences among the ability levels (32, p. 89).

Sherry (27) developed a self-instructional system that included a workbook, a series of cassette tapes, and other explanatory materials. The workbook was not programed; instead it provided explanatory material and self-correcting practice exercises that were illustrated by the prerecorded examples (27, p. 9).

To evaluate the self-instructional system, experimental and control groups were formed using a randomized block design, with blocking done on the basis of pretest scores. After a four-week treatment period, the variables of achievement, time, and attitude were investigated. An estimate of weekly study time was collected for both groups, but only the experimental group was given the attitude questionnaire concerning Sherry's self-instructional system.

Based on the difference between the pre- and posttest scores, Sherry concluded that significant learning resulted from the use of his self-instructional system. When comparisons were made between the
experimental and control groups, no significant differences were reported except on the retention test in favor of the experimental group. Responses to the attitude questionnaire were positive favoring the use of the self-instructional system.

Lack of sufficient reliability and validity data for the primary testing instrument weakened Sherry's research. The only reliability information given was a correlation of .624 between the post- and retention tests. The retention test was given ten weeks after the posttest, and reinforcing classroom activities were reported during that time, thus making the correlation untenable.

Research by both Daniels (7) and Elrod (8) used college music-theory students as subjects; their research focused upon self-instructional material using audio tapes and a written program. The content of the self-instructional materials for both studies dealt with ear training skills that were only part of the total course of freshman music theory.

Melvin R. Daniels, Jr., (7) investigated the effectiveness of programed harmonic dictation materials that he developed. A number of learning traits and variables were studied. The basic design concentrated upon a pre- and posttest in which a comparison was made of group means between the experimental and control groups. The t test for significant differences was used. Correlations were computed between the subtests of the American College Test (ACT) and posttest scores in harmonic dictation to determine if scholastic aptitude, thus measured, related significantly to achievement in harmonic dictation. An analysis of variance was used to investigate the possible interaction between initial ability levels and the two teaching methods used. Finally, an
investigation was made concerning the predictive ability for the music-
theory entrance examination given at the university in which the study
took place.

The subjects were four sections of students entering the standard
music-theory course after having completed a remedial course.
Assignments into experimental and control groups were made on the basis
of pretest scores. The students were paired and then randomly assigned
to either the experimental or the control group. The assignments
produced two groups that subsequently met the test of equivalency.
Twenty-eight pairs of students began the experiment but dropouts reduced
the final total to twenty-six pairs. Eight pairs of students were placed
in each of the low and high ability levels, and ten pairs were put in
the medium ability level. The ability levels were also formed from the
results of the pretest (7, p. 36).

Daniels carefully constructed his linear programed instruction
textbook and the audio tapes to accompany it. After the initial
construction, the materials were pilot tested and refined before being
used in the investigative study.

The criterion test used for pre- and posttesting was a departmental
examination used by the cooperating university and was validated on the
grounds that "no musical concepts were contained in it except those upon
which the course was predicated" (7, p. 34). A test-retest reliability
estimate from forty-nine students was .95.

Included in Daniels's (7, pp. 62-63) conclusions were that:

1) programed instruction can be effectively utilized in teaching
harmonic dictation skills;
2) no significant difference appeared between the results produced by the two different teaching methods;

3) little relationship was shown between scholastic aptitude and proficiency in harmonic dictation;

4) no significant interaction between method and ability levels was revealed; and

5) no significant difference appeared in the length of time used by the two groups in working to achieve harmonic dictation skills.

Wilburn T. Elrod (7) evaluated the use of a published programed series. The achievement variable was evaluated using a time series design and included an analysis of ability levels. Attitude and time variables were also competently researched.

Elrod investigated the effects upon the variables of achievement and attitude of using a published series for ear training dictation to supplement the first semester of college music theory. The dictation series was a self-instructional programed series of audio tapes designed to teach rhythmic, melodic, and harmonic dictation skills.

A variety of testing instruments was used in Elrod's evaluation. Achievement was measured by classroom tests including written harmony and dictation examinations in addition to pre- and posttests of sight singing and of a standardized music achievement test (7, pp. 13-16). Attitude was measured by a Likert-type scale and data were collected for the time variable through self-recording forms (7, pp. 15, 39-40). Both the attitude scale and the form for the time chart were devised by Elrod.
The research sample came from the entire freshman music theory class, fifty-six in number, of the university at which the research took place. The freshman students were placed into six drill-keyboard sections that were equated on the basis of the university music-theory placement examination. The six sections were then randomly assigned to experimental or control groups, three sections each. Five different criteria were used to prove that there were no significant differences in the mean beginning ability levels among the six sections.

Pretests were given of the music achievement test, the Music Theory Attitude Scale, and the Sight Singing Test. The treatment was to assign the experimental group to laboratory work with the programed self-instructional dictation series. A certain amount of work was assigned each week, and students were to record the time needed to complete the required assignments. The control group was given outside written assignments designed to offset the practice time taken by the experimental group.

Beginning ability levels, high, middle, and low, were formed on the basis of the university music-theory placement examination, and tests were made to determine significant differences between the ability levels in mean gain scores of the pre- and posttests.

Elrod (8, pp. 76-89) selected statistics appropriately and provided excellent data. He was careful in making conclusions that included the following:

1) The self-instructional material could satisfactorily be used in place of conventional classroom instruction on ear training skills.

2) A positive attitude change occurred for the experimental group
that was not evidenced for the control group.

3) Low achievers seemed to respond better to the experimental treatment than did high achievers.

The sight singing tests used by Elrod (8, p. 14) were devised by James Barnes and served as models for the sight singing examinations used in the present study. The Music Theory Attitude Scale by Elrod was the model for much of the Music Theory Attitude Survey constructed for the present study. Elrod's research design was also adapted for this study.

**Summary**

The review of related research was intended to be selective rather than exhaustive of the areas included. Research in programmed instruction and computer-assisted instruction was given a general review. Since no studies about computer-assisted instruction were considered relevant to the present research, none was given detailed review. Only selected studies about programmed instruction were specifically reviewed in this chapter.

A study by Chu and Schramm was discussed; this study summarized the research of others in instructional television. Additional studies about instructional television were selected for specific review.

In addition to instructional television, investigation was made of the literature in which self-instructional materials were developed and evaluated. Some of the instructional materials reviewed used multimedia technology; others used audio tapes as an integral part of the self-instructional system.
The studies of the related research involved a variety of courses for which the materials were developed. Evaluations of those materials were made using subjects with varying educational backgrounds. The courses and subjects represented were 1) human biology for sixth-grade pupils, 2) an education course for college nonmusic students, 3) a string-techniques course for music majors without previous background in playing a string instrument, 4) specific fundamentals of music courses or the presentation of elementary concepts of music for college nonmusic majors, and 5) elementary music-theory courses for music majors.

The review of the literature relating to the present study provided direction for this research by

1) providing ideas for the content of the video-tape lessons,

2) providing techniques for the presentation of the subject-matter content,

3) suggesting investigative approaches and evaluative techniques, and

4) giving models for testing instruments and procedures.

In addition to providing positive direction for this study, the research discussed above revealed the following problems to avoid:

1) weaknesses in the selection of research samples for evaluation,

2) insufficient reliability for the tests used in the evaluation,

3) failure to record adequate data associated with test reliability, and

4) failure to record adequate research data so that repetitions or replications of the study could be made.
No research studies were found that directly related to this investigation. The studies discussed influenced the development and evaluation of the materials for this study. The present research differed from, and elaborated upon, the studies reviewed by

1) developing materials to supplement, rather than replace, conventional teaching;

2) conducting a sixteen-week evaluation of the materials developed;

3) having subject-matter content from an advanced music-theory course designed for music majors with a prerequisite knowledge of elementary music theory;

4) using researcher-constructed tests to measure achievement and attitude; and

5) including the subject-matter content of harmony, keyboard, sight singing, and ear training in the evaluation of achievement.
CHAPTER BIBLIOGRAPHY


CHAPTER III

DESIGN OF THE STUDY

The Development of the Supplemental Lessons

The purpose of this study was to develop and evaluate a series of video-tape lessons to supplement the traditional lecture-discussion method of teaching a college course in advanced music theory. The lessons were developed in three stages: 1) selection of the subject-matter content, 2) determination of the video-taping techniques for the presentation of the content, and 3) validation of the content for the supplemental lessons prior to their evaluation within a specific educational setting.

Selection of subject-matter content was determined primarily by the sequence and approach of music theory presented in Advanced Harmony, by Robert W. Ottman (23, pp. 1-158). This course of study is multifaceted, and includes

1) analysis of music from the written score,

2) implementation of the theoretical concepts through keyboard harmonizations and in the form of various quasi-compositional activities,

3) conversion of musical notation into appropriate vocal sound, and

4) interpretation of aural stimuli showing the melodic, harmonic, or formal components of the music presented.

These four facets comprise the two main divisions of the course, Harmony-Keyboard and Sight Singing-Ear Training.
Content of the supplemental lessons was primarily related to the teaching of harmony, with emphasis on instruction in skills and development of concepts that would enable the students to analyze music and to engage in quasi-compositional activities. Lessons were used outside of the regular class time so that more time could be made available in class for instruction and drill in sight singing, ear training, and keyboard.

The music examples and explanatory comments for the supplemental lessons amplified or illustrated the textbook information. The textbook provided the background material necessary for a complete understanding of the video-tape lessons. It was, therefore, essential that the students study the textbook prior to viewing the supplemental materials.

Decisions made concerning the video-taping techniques to be used in presenting the subject-matter content were based on suggestions from professional literature and on the practical experience gained from a pilot study. Aid in structuring the lessons was provided by professional personnel at the university in which the lessons were developed.

Starlin (31) was used as general guide for the video-tape recordings. The criteria that he suggested (31, p. 128) together with Leonhard's admonition to "make music itself the basis for learning" (18, p. 27), provided a foundation for the video-tape lessons.

Twyford (33, p. 369) and Briggs (4, p. 50) were among many researchers of instructional technology who have advocated making behavioral objectives the basis for lesson preparation. Background research in programmed instruction and computer-assisted instruction
had a common factor, that of emphasizing the use of behavioral objectives. The advanced music theory course of this study had objectives that were stated as general goals, as well as terminal and unit behavioral objectives. (Refer to the course syllabi, Appendix K.) The behavioral objectives for the course provided direction for producing the materials and for their evaluation.

On the basis of objectives for each supplemental lesson, scripts were prepared. The scripts contained a narration and the sequence for the illustrative visuals. (See Appendix L.) The lessons were part of an instructional process designed to teach musical concepts and cognitive skills.

The specific approach for video taping the supplemental lessons was suggested by George N. Gordon (13, p. 91):

In teaching skills, a subjective (or "viewer") orientation seems to work better than an objective (or "show and tell") approach. Gordon gave further explanation of the subjective video approach when he said (13, p. 145):

Skill presentations may center entirely upon a close-up demonstration with the teacher as a mere explainer . . . . The teacher is a voice "off camera" explaining what the student sees on the TV screen. . . .

Gordon's approach was used in the supplemental lessons. Music, both heard and seen, was the center of attention, according to Leonhard's injunction; and the off-camera narration, aided by uncomplicated visuals, explained the music and the theoretical concepts presented. (Refer to Appendix L for scripts of the seven supplemental lessons.)

During the 1975-76 school year the first of seven supplemental lessons was prepared and produced as a pilot study for investigating
some of the technical aspects involved in video taping advanced music theory concepts. The research of Adams, Carpenter and Smith (1), Gordon (13, 14), Gropper and Lumsdaine (15), and Schramm (27, 28, 29), and information received from the pilot study were used to revise the first lesson. Scripts and related materials of the other six video-tape lessons were also prepared for production before the fall semester of 1976.

Members of the university instructional technology staff began producing the final version of the supplemental lessons in the fall of 1976. The first unit was previewed by its producers plus a selected group of students who had just completed the lesson's subject matter. Some problems were found with the clarity of visual details. Study guides were prepared for each unit to compensate for some of the identified visual problems. Use of study guides was consistent with suggestions from researchers in instructional technology, such as Gordon (14, p. 79); Gropper and Lumsdaine (15, p. 17); and Schramm (27, pp. 69-70; 29, pp. 58-59). The studies of Burgess (5, p. 43), Sherry (30, p. 9), and Tien (32, p. 4) provided insight in preparing the Study Guides.

The study guides, accompanying each of the seven video-tape lessons, contained

1) music examples for the unit,

2) pretest material allowing students to determine their knowledge of the subject matter before the lesson presentation,

3) material allowing for active student response during the lessons, and
4) unit assignments that were to be completed at the conclusion of the unit of study.

Three music theory specialists evaluated the video-tape lessons for content validity and how well they met the objectives. The theorists also appraised the appropriateness of those objectives to the total course. In assessing the content validity, the three theorists also evaluated the technical aspects of the supplemental lessons.

In April 1977, units one through four, and accompanying study guides, of the seven supplemental lessons were critically evaluated by three music theorists. These included A. Eugene Ellsworth, professor emeritus at Southern Methodist University and author of *Aural Harmony* (11); Janet M. McGaughey, professor of music at the University of Texas at Austin and author of the text and companion workbook entitled *Practical Ear Training* (21); and Robert W. Ottman, coordinator of music theory at North Texas State University, author of the basic text used in the course as well as other music-theory textbooks (23, 24, 25, 26).

Each of these music theorists evaluated each of the four units by responding to a specially prepared questionnaire. The questionnaire was based on suggestions by Gordon (13, pp. 214-215) and Carpenter (7). (See Appendix A.)

The questionnaire items of the Evaluation Form for Video-Tape Lessons (Appendix A) had multiple-choice responses along a five-point graduated range. The graduated scale included responses of most approving, approving, at the midpoint or neutral, disapproving, and most disapproving. A "does not apply" response option was included for
each question. A numerical score of positive 2 was given for the most positive, or the most approving, response to a question. A negative 2 score was given for the most negative, or the most disapproving, response. Positive 1 and negative 1 scores were given for the more moderate responses; and the numerical 0 was awarded the midpoint response, for no response to a question, or for a response of "does not apply" (DNA on the form).

Table 1 summarizes each judge's evaluation of each lesson. The twenty questions of the Evaluation Form were organized into five main parts. The numerical values of the responses by the three theorists provided an empirical appraisal for items and for complete lessons. Comparisons may also be made of the evaluations of the three different evaluators.

Several strengths and weaknesses within the supplemental lessons were indicated by the evaluating panel of music theorists. (Refer to Appendix A for the specific questions of the evaluation form.) Part I, Objectives, received the highest approval of any part of the form. The two questions of this first part asked the extent to which instructional objectives were stated or implied in the lessons, and the extent to which lesson content related to the main objectives. (Refer to Appendix K for the course objectives as delineated in the Course Syllabi and Appendix L for the Objectives stated in the Scripts for the Supplemental Lessons.)

The subject for Part II in the evaluation of the lessons was Content, or the subject matter presented. This was evaluated with regard to what each theorist considered to be appropriate for advanced
music theory, and received a positive evaluation. The fifth question, concerning the extent to which expert up-to-date information was used for the subject matter of the lessons, was not answered by the evaluator who wrote the textbook for the course.

The first two parts of the questionnaire related specifically to the evaluation of content validity for the supplemental video tape lessons. The mean of the numerical scores from the three judges on the items included in Parts I and II was 1.5. Compared to the extremes of the continuum, which are positive 2 and negative 2, the mean of 1.5 is representative of a positive evaluation of the items of Parts I and II. It was concluded that the video tape supplemental lessons had acceptable content validity.

The Evaluation Form for Video Tape Supplemental Lessons (Appendix A) asked the three music theory specialists to assess on other bases than content validity. These judgments referred to the extent to which each lesson was considered an effective communicating instrument.

Part III of the evaluative questionnaire was concerned with the Presentation of Material, including questions about the use of the audio and video of the lessons and the quality of those elements. Two items of this part of the questionnaire, numbers 10 and 15, concerned the effectiveness of the voice commentary used in the lessons. These two items were given a positive 2 rating by all three theory panelists. Question 12, concerning the effective use of musical examples, and question 13, pertaining to the integration of visual and audio materials, also received positive evaluations. Two questions, number 9 regarding the visual clarity, and number 11 concerning the audio
## TABLE I

**NUMERICAL INTERPRETATION OF RESPONSES FROM MUSIC-THEORY PANEL TO EVALUATION FORM FOR VIDEO-TAPE SUPPLEMENTAL LESSONS**

<table>
<thead>
<tr>
<th>Questions</th>
<th>I. Objectives</th>
<th>II. Content</th>
<th>III. Presentation of Material</th>
<th>IV. Learner Stimulation</th>
<th>V. General Evaluation</th>
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\( \text{a}\) Conditional response.  \( \text{b}\) No response given.  
\( \text{c}\) No response given to question referring to text authored by evaluator.  
\( \text{d}\) Response reflects part of the area evaluated positively and another part negatively.
fidelity, were the only items given a negative rating. The ratings were very low for several questions in Part III about the technical production of the lessons. The low rating may have been partially due to an error on the part of the researcher. By mistake, an unedited copy of the Supplemental Lesson for Unit III was shown to the panel and it was inferior to the final product.

Part V, items 19 and 20 of the questionnaire, asked for judgments concerning the length and the overall evaluation of each lesson. The individual evaluators who disapproved of the length of the lessons indicated that: 1) Unit I was somewhat too short (one evaluator), 2) Unit IV was somewhat too short (one evaluator), and 3) Univ IV was much too short (one evaluator).

Item 20 requested a comprehensive evaluation of each lesson. The total numerical score of 16 and a mean of 1.33 represent an evaluation ranging between "Above Average" and "Outstanding" for each lesson.

The panel carefully noted the supplemental role of the lessons and suggested that the importance of studying the text before viewing the video tapes should be impressed upon the students. The theorists agreed that, once corrections and revisions were made, the video-tape lessons would be effective teaching instruments.

Educational Setting and Selection of Subjects

The subjects for whom the supplemental lessons were developed, were students at Oral Roberts University (ORU), a private institution with religious orientation located in Tulsa, Oklahoma. Oral Roberts University is equipped with excellent video-taping facilities and with
professional personnel to assist instructors in using the existing technology. An electronic Dial Access Information Retrieval System (DAIRS) is part of the available hardware, and video-cassette playback units are also accessible to the students.

All ORU students enrolled in the third semester of music theory for the fall semester of 1977 were involved in the evaluation, either in the Theory Section using the supplemental lessons or in the Section that received only traditional classroom instruction. A preenrollment policy at ORU made it necessary that the students in the evaluative study be assigned to music theory sections late in the spring of 1977. Matching was done on the basis of scores made in previous semesters of music theory and on the Aliferis Music Achievement Test—College Entrance Level (2). Matched pairs were randomly assigned to Music Theory Sections A or B.

The matching procedure was chosen over pure randomization to strengthen the selection process according to suggestions made by Lumsdaine and Roshal (20, p. 4) as well as Campbell and Stanley (6, p. 26). The overall design of this study compares favorably with a design using only the posttest plus a multiple time series described by Campbell and Stanley (6, pp. 25-34, 55-57). In discussing selection problems incurred with the posttest only design, Campbell and Stanley (6, p. 26) stated that "in the repeated-testing setting of much educational research, if appropriate antecedent variables are available, they should certainly be used for blocking or leveling, or as covariates." The practice of leveling or blocking was recommended to help increase the statistical strength of the posttest only design to approximate that of the pre- and posttest design.
After the selections were made for preenrollment, Theory Sections A and B were found to have no significant difference in music theory achievement, based on the scores of the harmony final given at the end of the second semester of music theory, spring 1977. It was concluded that the equivalency standard had been met for the two preenrolled sections.

The fifty-one students who preenrolled in the third semester of music theory were to be involved in this evaluation; however, twenty-one students either did not return to ORU for the fall semester, or for some other reason were not a part of the course when the Harmony Examination No. 1 was given in the second class period.

Four transfer students were added to the study during orientation and registration just prior to the beginning of the period of evaluation, fall 1977. These transfer students were matched on the basis of scores from an abbreviated version of the ORU Freshman Harmony Final Examination and from the Aliferis Music Achievement Test—College Entrance Level (2). The matched pairs were randomly assigned to Theory Section A or Theory Section B.

The day before the evaluative study began, a random selection designated Theory Section B to use the supplemental lessons. Both sections met for fifty-minute class periods on Monday, Wednesday, and Friday for a sixteen-week semester; Theory Section A met at 9:50 a.m., Section B at 2:10 p.m.

Five more students from Theory Section A and three from Section B dropped the course before the end of the semester and the close of the period of evaluation. Further alterations were made in the original
selection process when students who had preenrolled found it necessary to change theory sections and when students not involved in the initial testing and selection added the course. Twelve subjects completed the course of study in Theory Section A, and eighteen in Section B.

Preparation of Testing Instruments

Four research problems were investigated in this study. The problems involved evaluations of achievement in music theory and attitude toward music theory and toward the use of the supplemental lessons. Evaluations were accomplished through the use of researcher-constructed testing instruments.

A pilot study for achievement testing for this research began in the fall of 1975. The Aliferis-Stecklein Music Achievement Test---College Midpoint Level (3) was used in the pilot study to determine if this standardized music achievement test had enough content validity to be used as a pre- and posttest for advanced music theory courses following the content outlined in chapters one through eight of Advanced Harmony by Ottman. The Aliferis-Stecklein Test was administered at the beginning and at the end of the third semester of music theory at ORU, at Oklahoma City University (OCU), and at North Texas State University (NTSU). Oklahoma City University is a private institution somewhat smaller than ORU, while North Texas State University is a much larger state-supported institution. The three universities used the same basic textbook and followed similar courses of study for advanced music theory.

Significant differences were sought between the pre- and posttest scores on the Aliferis-Stecklein Test at each of the three universities, but no significant differences were found for any of them on the
composite test or on any of the three subtests. The conclusion was that the Aliferis-Stecklein Music Achievement Test—College Midpoint Level did not have sufficient content validity to register student achievement attained during the third semester of music theory as presented at ORU, OCU, and NTSU. It was decided not to use the Aliferis-Stecklein Test for this evaluative study.

Researcher-made tests were included in the research design from the beginning, but the extent of their use in collecting data was undecided until the spring of 1977. The classroom tests in harmony, keyboard, sight singing, and ear training were constructed during the fall of 1975 for possible use in this evaluation. A decision was made during the fall semester of 1975 to evaluate student achievement for this study, as it was designed at that time, by the exclusive use of researcher-constructed tests in harmony and sight singing. The tests in harmony were to be used in evaluating the harmony-keyboard division of the advanced theory course, while the sight singing tests were to be used in evaluating the sight singing-ear training division. After the pilot study in the fall of 1976 it was considered advisable to include researcher-made tests in ear training and keyboard as part of the evaluation. This was done to lessen the possibility of failing to observe important learner characteristics that might result from the use of the supplemental lessons in ear training and keyboard.

The pilot testing for the eleven achievement tests used in this study began in the fall of 1975. Item analyses were conducted for the tests, and revisions were made based upon the results of those analyses. Pilot testing of the tests continued in the fall of 1976, with further analyses and revisions being made.
The Hoyt and Stunkard (16) formula for unrestricted item scoring was used to estimate the reliability for the harmony and ear training tests. This reliability formula was appropriate because the harmony and ear training test items could not always be judged as absolutely right or wrong, a 1 or 0 numerical value. The test items often had answers that were not completely correct, but might have varying degrees of correctness. A test item awarded a numerical score of 3 for a completely correct answer, for instance, could have any score along the continuum from 0 to 3. The Hoyt and Stunkard formula was devised to provide reliability estimates of tests containing such unrestricted items (16).

The results of the reliability tests for the harmony examinations administered in the fall of 1976 showed Harmony Examination No. 1 (N of 27) with a low reliability estimate of .48. The same twenty-seven students yielded an $r$ of .72 for Harmony Examination No. 2. Two separate testing sessions, one involving twenty students from NTSU, and the other involving thirty-six students from ORU, produced $r$'s of .73 and .79 respectively for Harmony Examination No. 3. The estimates of reliability for Harmony Examinations No. 2 and No. 3 were considered to be high enough for group study. Further study and revisions were made on the harmony examinations, including consultations with theory professors at NTSU and OCU. These consultations produced changes that led to a higher estimate of reliability, particularly for Harmony Examination No. 1. When given during the evaluation for this study, the estimated reliability for the first harmony test was an acceptable .81. (The First Semester Sophomore Harmony Examinations are in Appendix N.)
The three music theory specialists, who evaluated the first four video-tape lessons, also studied the Harmony Examinations No. 1, No. 2, and No. 3. The theorists agreed that these examinations had content validity based upon the course objectives and the content of the textbook used in the course.

The procedures for testing sight singing achievement were patterned after those used by Wilburn Elrod (12) in his evaluation of programed instruction for college freshmen music majors. Two sight singing examples were composed in the fall of 1975 for each of three tests to be used in this evaluative study. Each test was later reduced to only one example to conserve testing time. The tests were designed to relate to the theoretical concepts presented in the total music theory course, and each successive test was to be progressively more difficult than the former one. (First Semester Sophomore Harmony Sight Singing Examinations and a description of testing procedures are given in Appendix 0.)

The evaluation of achievement in sight singing for this study involved the panel of music theory specialists, acting as judges. The grading was based upon criteria that were tested for reliability on two different occasions prior to the period of evaluation. In the fall of 1975 this researcher and a colleague at ORU evaluated a sight singing test for fifty students. The test was given and evaluations were made according to the testing techniques and grading criteria established for this study. The correlation between the two evaluators was .90. A year later this researcher made two evaluations, at different times, of twenty-six students from OCU who had been given a sight singing test
according to the techniques established for this study. The correlation between these two evaluations was .92. It was concluded that the testing techniques and the grading criteria, which used the audio taping of each student's performance, and specific instructions for students, instructors, and evaluators, provided a sufficiently high degree of reliability for testing sight singing achievement. (Instructions for Sight Singing Examinations are in Appendix 0.)

The music theory specialists, who evaluated the supplemental lessons, also graded the three sight singing tests. The music theorists briefly previewed and practiced the procedures for grading these sight singing examinations. Seven taped examples, from one of the sight singing tests administered in the fall of 1976, were heard by the judges. The theorists practiced the grading techniques and discussed the evaluation criteria. General agreement was reached among the panelists concerning how critically judgments would be made in the grading process. Suggestions were made to improve the sight singing tests and the testing procedures; these suggestions were implemented for this research. (See Appendix 0 for Sight Singing Testing Procedures, Examinations, and Grading Criteria.)

The quality of the sight singing tests and the grading techniques were given another critical review by the panel of music theory specialists after the grading had been completed for this study. Each panelist answered an Evaluator's Questionnaire Concerning the Content Validity for Sight Singing Examinations Nos. 1, 2, and 3 (Appendix B). The questionnaire included the investigation of: 1) the extent to which the sight singing tests met the objectives of the course as stated in
the syllabus; 2) the appropriateness of the difficulty level of each test; 3) the extent to which each test became appropriately more difficult; 4) the quality of the tapes on which the tests were recorded; 5) the testing procedures used by the students; 6) the grading procedures used by the judges; and 7) the overall content validity.

The judges directed constructive criticism toward the content of the tests and the procedures for their evaluation. Criticisms were made concerning the awkwardness of the melodic line in test three, the lack of increasing difficulty in the rhythm of the three tests, a need to balance the difficulty level with the assessment of points between the pitch and the rhythm in the tests, and the need to clarify the judging criterion for the element of tempo. The music theory specialists gave a "Good" rating for the comprehensive appraisal of the content validity for the three sight singing examinations.

Ear training tests, constructed in the fall of 1975, were pilot tested and revised twice before they were given for this study in the fall of 1977. Each of the three ear training tests had three main divisions: 1) aural recognition of simple forms, 2) melodic dictation, and 3) harmonic dictation. Most of the examples were from standard music literature. The tests were tape recorded, and each musical example was preceded by appropriate verbal instructions. An estimated reliability of .73 was obtained for the first ear training test when it was given to thirty-eight ORU students enrolled in the third semester of music theory. The Hoyt and Stunkard (16) formula was used.

Only the first ear training examination was tested for reliability before the period of evaluation in the fall of 1977. The remaining two
ear training tests were not measured for reliability prior to this period of evaluation since the research design did not originally include the specific testing for achievement in ear training; the item scores, necessary for estimating reliability, were, therefore, not recorded. Sight singing was to be the only means of evaluating the division of the course content that included both sight singing and ear training. It was spring, 1977, before the decision was made to include separate testing in all four content areas of the course. The Hoyt and Stunkard reliability estimates obtained during the evaluative period of this study were: .69 for the first test, .83 for the second, and .61 for the final examination. (First Semester Sophomore Ear Training Examinations are described in Appendix P.)

The testing procedures used for evaluating sight singing were adapted to measure keyboard achievement. This researcher, as class instructor, made these evaluations. Each student's keyboard test performance was evaluated twice; the estimated reliability was obtained by correlating the scores from the two evaluations. No estimations of the reliability of the two keyboard tests were made before the evaluations of this study, for the same reason that the last two ear training tests were not measured for reliability prior to beginning this research.

The achievement tests were based on the course and unit objectives. The content of the course was focused upon the progressive study of the theoretical concepts of harmony. Content validity for the ear training and keyboard tests was achieved by constructing the tests according to the outline and the specific behavioral objectives of the course.
The measuring instrument to evaluate student attitude was the researcher-constructed Music Theory Attitude Survey (MTAS). A pilot study of the MTAS began in the fall of 1975. A self-report measure was constructed and administered according to Likert (19), Wang (34), Edwards (9, pp. 151-157), Cook (8, pp. 25-27), and Edwards and Kenny (10, pp. 73-74). After item analysis and subsequent revision, a second pilot test was given and further revisions made before the survey was given for the third time in the fall of 1976 to students comparable to those used in the evaluative study. Thirty-one students were tested, and a split-half reliability measure using the Spearman-Brown formula yielded an estimated reliability of .93. Another administration of the MTAS was made in the spring of 1977 using forty-three ORU students in their second semester of music theory; the estimated reliability was again .93.

The MTAS, which was given for this research, was the same test given when the measurements of reliability were obtained, except for the form of the test given to students who viewed the supplemental lessons. The form given to these students differed from the pretested form in the wording of four scaled statements concerning the use of supplemental materials. The wording was altered because the students of Theory Section B viewed the lessons, and students of Section A did not. The Section B students were also asked to respond to one survey item that was not included on the other form. This item, number 25 on the test, asked for suggestions for future use of supplemental materials in music theory at ORU. (See Appendix C for the MTAS for Section A and Appendix D for Section B.)
Accurate class attendance was taken for both sections throughout the semester, and each student was required to complete a Music Theory Work-Study Daily Record (Appendix E). This Daily Record was a self-reporting instrument in which students recorded their time spent in the study of music theory outside of class. These records of study time were collected from the students of both sections every two weeks of the semester. The only information concerning the reliability of these Daily Records was gleaned from comparisons made from check-out cards in the library listening room. That information was inadequate, but it was assumed that the inaccuracies in the Daily Records would not significantly differ between the two sections.

Educational Treatment under Evaluation and Means of Collecting Data

Evaluation of the video tape lessons was dependent upon an equitable comparison of the achievement and attitude of two sections of advanced music theory students at Oral Roberts University. This comparison of student achievement and attitude was made between Theory Section A, which received only traditional classroom instruction, and Theory Section B, which used video tape supplemental lessons in addition to conventional instruction.

The following educational activities and procedures were common to both Theory Sections A and B:

1) fifty-minute class periods on Monday, Wednesday, and Friday each week during the semester according to the usual schedule for the third semester of music theory at ORU;

2) instruction by this researcher;
3) self-help materials in the form of quasi-programed matter and audio tapes relating primarily to ear training;

4) use of study guides (one for each of the seven units studied during the semester);

5) an accurate record of class attendance;

6) collection of self-recording accounts of the study of music theory outside of class;

7) administration of each of the eleven achievement tests on the same day throughout the semester; and

8) comparable scheduling for the administration of the Music Theory Attitude Survey.

The educational treatment was the use of seven video-tape supplemental lessons. This treatment was given only to the students of Theory Section B. At the beginning of each unit of study a video tape lesson, of twenty-five to forty minutes' duration, was scheduled hourly on the Dial Access Information Retrieval System (DAIRS) for a portion of two days. The supplemental lessons could be viewed only in the main university library if the students maintained the scheduling of the DAIRS. A video cassette copy of each lesson was available throughout the semester. The video cassettes could be viewed in the music department listening room where a playback unit was accessible to the students. The following sequence for learning was recommended to the students of Section B:

1) Study the appropriate material from the textbook.

2) Take the pretest from the Study Guide.

3) View the Supplemental Lesson.
4) Attend the follow-up lecture-discussion sessions.

5) Complete the unit assignment.

The eleven achievement tests were scheduled throughout the semester; each test in the four areas of study was cumulative and involved the subject matter studied prior to the test date. All final examinations were cumulative; that is, test items were selected from all of the subject-matter content studied throughout the semester.

The treatment, as originally designed, required the students of Theory Section B to view the supplemental lesson for each music theory unit at the time it was scheduled on the DAIRS; but, after the second supplemental lesson was scheduled, it became evident that the students of Section B were either unable or unwilling to adhere to that schedule. Students had difficulty locating vacant study carrels in the main library where the lessons could be viewed. Some students also failed to allow adequate time for viewing the lessons as scheduled on the DAIRS. The necessary sequencing of the instructional treatment was interrupted for the students of Section B. The original requirement for viewing the supplemental lessons was modified to state that every student of Theory Section B was required to view each video tape lesson at least once during the semester, either on the DAIRS or on a video cassette.

The sequence of course activities for the semester was outlined in the syllabus for each section. These syllabi were available to the students throughout the semester, and references were often made to the course objectives and the schedule of activities. The syllabi for the two sections differed only with reference to the use of the supplemental lessons. (The course syllabi are in Appendix K.)
The three harmony examinations were given at the beginning, near the middle, and at the end of the sixteen-week course. The first test was designed to inquire into the degree of mastery or retention of the course material of the previous semester and to investigate the degree of understanding concerning some of the new material to be studied during the ensuing semester. The second test examined the students' understanding of analysis and quasi-compositional concepts that were presented during the first nine weeks of the semester. Harmony examination number three tested the students' cumulative knowledge of the music theory concepts studied during the semester, emphasizing those concepts studied after the first nine weeks. (Harmony examinations are in Appendix N.)

All of the harmony examination papers were graded by this researcher. Anonymity was achieved among the students who took the test by having the only identification of the test taker placed on the first page where test instructions were given; all responses to the examination questions were made on the following pages. Papers from both sections were mixed together prior to grading. No reference was made to student identities until all corrections were made for a given examination. Letter grades were given to the students to provide them with a type of interpretation of the numerical scores.

The first sight singing examination was given during the second week of the semester, the second during the eighth week, and the final examination during the fifteenth week. (The sight singing tests and the testing procedures are in Appendix O.) The procedures used in administering the sight singing tests were also used for ORU students.
during the previous two semesters, and these procedures were explained and practiced in class sessions before each examination. Approximately four students could be tested during fifteen minutes. Most of the tests were completed during the regular class period. Some extra time was scheduled to accommodate the overload. The students took the tests individually.

The following procedures were observed by each student in taking the sight singing tests:

1) Determine the more appropriate key of the exercise (only for tests two and three).

2) Give a single pitch of reference for the exercise.

3) Observe the metronome beat that was given according to the marking on the exercise.

4) Study the exercise for one minute.

5) Make a practice attempt at singing the exercise.

6) Make final corrections in an additional fifteen seconds.

7) Sing the exercise while being tape recorded.

The reference pitch, which the students gave themselves, could be played only one time before the first minute of study, again before and after the practice attempt, and one final time before the performance that was tape recorded.

The tape recording was done on a Roberts Stereo 770X Tape Recorder. Only a monaural taping was done, using a crystal microphone placed on the piano. Each student, upon entering the classroom for a sight singing test, was assigned a number that was recorded on the tape. Each student's number was listed with the appropriate name to provide identification for the tape recorded numbers.
From the original tape, three copies were made by the professional staff of the University Audiovisual Services Department using professional-quality duplicating equipment. Each of the three theory specialists was sent a copy of the tape. The judges used playback equipment that was accessible to them; no stipulations were made with regard to the quality of that playback equipment.

The judges were sent a reproduction of the test example for each student. The reproductions contained the assessment of points for the test. (See Appendix 0.) Each judge marked the errors in pitch, rhythm, and meter on the reproductions. The errors were totaled numerically according to the assessment of points, and the total wrong was subtracted from the possible score to give the individual test score. These scores, from the three judges, were correlated to provide the estimated judging reliability for each test. The averages from the individual test scores that were given by the three judges provided the individual test score that was recorded for this study.

The chronological number, assigned to each student and recorded on the tape, was the only identification used by the judges. The completed evaluations were returned on the test reproductions. Appropriate student names were placed on the reproductions. The necessary scores were recorded; individual scores were converted to letter grades; and all three of the judges' evaluation forms were given to the students to whom they belonged.

Each of the ear training examinations consisted of three parts: 1) aural perception of form to include simple binary and ternary forms, 2) melodic dictation, and 3) harmonic dictation. (See Appendix P.)
These examinations, taken from standard music literature, were prerecorded from disc recordings by the University Audiovisual Services Department staff using professional equipment. Appropriate narration was taped before each music example to provide students with necessary instructions. The students' responses were made on answer sheets that were provided for each test. (See Appendix P.)

A grading criterion or points assessment was developed for the ear training tests during the periods of test construction, pilot testing, and revision. The numerical score of correct responses for each student was calculated, based on the assessment of points, and that score was recorded for the evaluation.

Two keyboard examinations were administered, one after four weeks of course study, and the other during the fifteenth week of the semester. Both tests evaluated the ability of the students to harmonize a melodic line at the keyboard. (See Appendix Q.)

The testing procedures used for the sight singing examinations were adapted for the keyboard tests. Students were given one minute to study the melody, then allowed one practice performance. After another fifteen seconds, in which final changes could be considered, the student harmonized the melody for evaluation. The second performance was tape recorded, and the grading was done from the recording.

Each student's taped performance was evaluated twice. The correlation between the two evaluations served as an estimate of the reliability for each test. The mean score of the two evaluations was the final individual score for each test.
As with the sight singing tests, student evaluations of the keyboard tests were made on reproductions of the test example and given to the appropriate students after the numerical scores had been converted to letter grades.

Evaluation of the keyboard melodic harmonization was based on

1) Selection—choosing appropriate chords to harmonize the melody;
2) Accuracy—the degree of correctness in playing the chords and melody with regard to pitch and rhythm while maintaining a constant tempo; and

3) Style—performing the harmonization with clarity of harmony and melody and in a manner in which both elements were complementary, one to the other. (See Appendix Q.)

The Music Theory Attitude Survey was administered to both sections at the beginning of the second class period of the fourteenth week of the semester. Two students of Theory Section A and three of Theory Section B were absent when the survey was first given; those five students responded to the survey the next time the classes met.

The Music Theory Attitude Survey, which took about ten minutes to administer, was recorded on lead-sensitive IBM computer cards. The students were told to answer honestly and that their answers would not be used in assigning grades. The students were told not to provide any identification on the answer card. The back of each card, however, was coded in order to identify the student who responded on that card. To guard against any bias regarding grade assessment, student identities from the survey answer cards were not obtained until after the semester grades had been recorded by the university registrar.
Scores on the attitude survey were calculated by assigning values of 5, 4, 3, 2, 1 to the responses given on the five-point Likert Scale. The most positive response was awarded a 5; the most negative was given a value of 1. Student scores were summations of the numerical scores representing the responses made to each of the test items. Items for the MTAS were stated both positively and negatively in equal number. The order of items on the test was randomly made. The numerical score for each test item was calculated by summing the values from all student responses to a particular item. Item scores were calculated for each section. (See Appendix C and Appendix D for MTAS forms and Appendix J for the student and item scores of the MTAS.)

Informal information was collected on the amount of time spent in music theory study by the students of each section. A Music Theory Work-Study Daily Record (Appendix E) was collected from each student every two weeks. This self-reporting instrument was used with an accurate class attendance check to obtain the total hours spent in music theory study. (See Appendix G for individual scores on the time variable for Theory Sections A and B.)

Additional data for use in evaluating the video-tape supplemental lessons were collected. These data had to do with the time and money expended to write and produce the seven video tape-lessons. An estimate was made of the time spent to develop the initial script for each unit and to make two subsequent revisions. This estimate included the time spent in preparing the study guides for each lesson or unit. The estimate was based on approximate times logged while preparing the last three supplemental lessons.
Cost estimates for personnel and materials used in the technical production of the lessons were provided by an ORU staff member who helped produce the first four lessons. The cost estimates were made after the pilot lesson had been produced and viewed and after the first four lessons were in production.

Selection of Appropriate Statistics to Test the Hypotheses

After the series of video-tape lessons were developed, four related problems were investigated to evaluate those lessons. Statistical hypotheses were formulated as null statements to test the research problems. This study is not an experimental one, yet statistical tests, commonly used in experimental research, were used in this research to provide an objective, empirical evaluation of the supplemental lessons.

Research Problem One evaluated the effect of the video-tape supplemental lessons on achievement in harmony, keyboard, sight singing, and ear training for students in a college course of advanced music theory. This evaluation was achieved by comparing the achievement, in the four content areas, of music theory students who had the video-tape lessons as supplemental material to the same measurement of achievement of music theory students who had traditional classroom teaching only.

The comparison of student achievement was dependent upon the absence of significant difference between the two Theory Sections on achievement at the beginning of the evaluative period. The first harmony examination, given on the second class period of the semester, provided the test of equivalency for Theory Sections A and B.
The \( t \) test statistic was used to test for no significant difference between the two sections on Harmony Examination No. 1. Use of the \( t \) test was consistent with the strategy presented by McNemar (22, pp. 110-121).

The significance level of .05 was established as the criterion by which a null hypothesis could be rejected. The decision to use the 5 percent significance level was based on the logic presented by McNemar (22, pp. 65-67). The .05 level of significance means that the results obtained, from a particular evaluative experience, would happen by chance on an average of 5 times out of 100, in comparable experiences.

Instability of the selection procedures produced unequal numbers for the sections and posed a question concerning their equivalency. Theory Sections A and B were tested as two independent populations of the third semester of music theory at ORU. The equivalency standard demanded that a hypothesis of no significant difference be retained. The testing results, summarized in Table II, did not give empirical

<table>
<thead>
<tr>
<th>Theory Section</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>df</th>
<th>( t )</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(N=12)</td>
<td>61.58</td>
<td>10.55</td>
<td>28</td>
<td>2.88</td>
<td>.01</td>
</tr>
<tr>
<td>B(N=18)</td>
<td>47.06</td>
<td>14.06</td>
<td></td>
<td></td>
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</tbody>
</table>

The testing results, summarized in Table II, did not give empirical support for the assumption that Theory Sections A and B did not differ significantly in music theory achievement at the beginning of this
evaluative study. Scores for the first harmony test were, therefore, used as a covariate to adjust for the apparent initial differences between the two sections.

The measurement of music theory achievement included student testing in the four areas of harmony, keyboard, sight singing, and ear training; therefore, a question was raised concerning the equity of using an examination in only one content area to adjust for apparent initial differences between the two sections on the composite achievement variable.

The use of Sight Singing Examination No. 1 was considered as a covariate along with Harmony Examination No. 1 to provide the necessary adjustment on the music theory achievement variable. No significant difference in the mean scores on the first sight singing test between Theory Sections A and B was noted. (See Table III.) Low correlations

<table>
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<tr>
<th>Theory Section</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>df</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(N=12)</td>
<td>68.97</td>
<td>12.82</td>
<td>28</td>
<td>1.55</td>
<td>.15</td>
</tr>
<tr>
<td>B(N=18)</td>
<td>61.07</td>
<td>14.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(From .03 to .28) on the tests given in 1976 between harmony and sight singing, however, supported the idea of using two covariates to make adjustments upon the combined test scores in harmony, keyboard, sight singing, and ear training. The correlations between harmony and keyboard scores were similar to those obtained between sight singing
and ear training. The harmony-keyboard correlations for the first and last tests of the semester and for the composite scores were .55, .35, and .49. Correlations, for the same tests, between sight singing-ear training were .61, .45, and .67. The similarity of these two sets of correlations suggested that the first sight singing test could serve as a covariate to represent the Sight Singing-Ear Training division of the advanced music theory course in a similar way as the first harmony test would serve as a covariate representing the Harmony-Keyboard division of the course.

The first sight singing test was administered after the second week of classes, and the students of Theory Section B had been given access to the first supplemental lesson, but both sections had engaged in the same number of sight singing instruction and practice sessions. It was assumed that, during the two weeks of class before the test, the two sections did not differ in ways which could have significantly altered the group means for the first sight singing examination. (Refer to Appendix K for the schedules of class activities in the course syllabi for Theory Sections A and B.)

The scores for Harmony Examination No. 1 and Sight Singing Examination No. 1 were used as covariates for the achievement variable, as measured by the combined totals for all eleven achievement tests. These combined scores were labeled the Composite Achievement Test Totals (CATT).

Statistical Hypothesis One, formulated to test Research Problem One, stated that there would be no significant difference in the group means on achievement—as measured by tests in harmony, keyboard, sight
singing, and ear training—between the music theory students who had the video-tape lessons as supplemental material to traditional teaching and the music theory students who had traditional classroom teaching only. Analysis of covariance (ANOCOVA) was used to test this hypothesis.

The statistical computations made for ANOCOVA, those for analysis of variance, and most of the other computations in this evaluation were provided as part of the preprogramed Statistical Package for the Social Sciences (17). McNemar (22, pp. 413-429) provided the strategy for the use of the ANOCOVA statistical method. The purpose of the covariance method of analysis of variance was presented as:

a precise method for making allowance for an uncontrolled variable and to set forth the sampling error adjustment which is needed in testing the statistical significance of the differences in "corrected" means. The method is applicable whenever it seems desirable to correct a difference on a dependent variable for a known difference on another variable which for some reason could not be controlled by matching or by random sampling procedures (22, p. 414).

A random selection made Theory Section B the group that had the video-tape lessons; Theory Section A had traditional classroom teaching only. The comparisons that are made in this study list the sections alphabetically, Theory Section A, the nontreatment group, before Theory Section B, the treatment group.

The first hypothesis was that there would be no significant difference in the mean scores on the Composite Achievement Test Totals (CATT) between the students of Theory Sections A and B. The analysis of covariance testing this hypothesis used the different teaching techniques or materials (Theory Section A, traditional, compared to Theory Section B, supplemental lessons) as the independent or nonmetric variable. The effect of the independent variable was tested upon the
dependent, or criterion variable, which was the Composite Achievement Test Totals (CATT). Correction was made for the suspected initial differences by using the scores on the first test in harmony and in sight singing as covariates. (See Appendix G for the Individual Scores for Composite Harmony, Sight Singing, Ear Training, and Keyboard, the Composite Achievement Test Totals, Attitude, and Time for Sections A and B.)

Research Problem Two assessed the effect of the video-tape materials on the achievement in harmony, keyboard, sight singing, and ear training for students who had different learning ability levels. This assessment was made by ranking the students of both sections into the high, middle, or low third of the section, on the basis of the combined scores from the first tests in harmony and in sight singing. Patterns of learning achievement for the three ability groups within each Theory Section were investigated separately. The suspected initial differences between the two sections were not considered in this statistical testing since comparisons were made within each Theory Section rather than between the sections.

The statistical hypothesis, formulated to test Problem Two, stated that there would be no significant difference in the means on achievement—as measured by the combined scores of tests in harmony, keyboard, sight singing, and ear training—between the high, middle, and low beginning ability levels among the music theory students who had the supplemental video-tape lessons that would not be evidenced for the same ability levels among the music theory students who had traditional classroom teaching only. Analysis of variance was used to test this hypothesis.
Analysis of variance was described by McNemar (22, p. 285) as an overall test which "can be made for the differences between several means, either correlated or independent." McNemar described ANOVA in slightly different terms before he presented the assumptions upon which this statistic is based. He said, of simple analysis of variance, that:

we have a technique that provides an over-all test of the significance of the differences between several means considered simultaneously.

For all applications, it is assumed (1) that the m cases constituting each group have been drawn from a normally distributed population of scores for the trait or variable as measured and (2) that the G populations have the same variance (22, p. 301).

The small sample size of the present research prevented the testing of the assumption of a normally distributed population. Bartlett's test for the homogeneity of variances was used to test the assumption that the two Theory Sections had the same variance. The requirement for homogeneity of variances was met for the analysis of variance programs, including separate test scores as well as the composite test scores (22, p. 286).

The test for linearity of regression was also made on the ANOVA programs of this research. McNemar (22, p. 314) stated that if the significance of F for the deviation from linearity was beyond the .01 level, the hypothesis of linear regression for the population being sampled would be rejected. McNemar (22, p. 317) continued by stating that a .05 significance in the departure from linearity "calls for drawing another sample or adding cases before we set forth a conclusion." None of the F values for the deviations from linearity were significant at the .05 level. It was concluded that, for all of the ANOVA programs used in this research, the requirement for the linearity of regression was met.
The ANOVA statistic was used in the second hypothesis to test for significant differences between the ability levels of each section separately for the combined scores in achievement, the Composite Achievement Test Totals (CATT). The achievement patterns that were revealed for the ability levels of Theory Section A were then compared to those of Theory Section B. If a significant difference was observed between the ability levels for one Theory Section that was not observed in the other section, a study was made of the various composite achievement tests comprising the CATT and, in some instances of individual tests comprising the composite scores of the tests in the four achievement areas. These additional comparisons were made to discover where differences occurred within the ability levels of the section under investigation. (See Appendix H for Individual Scores, in Beginning Ability Levels, for the Separate Harmony, Sight Singing, Ear Training, and Keyboard Tests for Sections A and B.)

The significant variance between the three ability levels was investigated to determine more specifically where the variance occurred. Contrasts, the equivalent of t-tests, were computed between each pair of the ability levels; that is, high to middle, middle to low, and high to low. These contrasts were made for each significant variance observed on the CATT, and on any of the four content area composite scores where significant variance was observed. Individual tests comprising the content-area composite scores were statistically analyzed in the same way as the composite scores.

Research Problem Three assessed the attitudes toward music theory and the use of the supplemental lessons for the music theory students.
who used the video-tape lessons as supplemental material. This assessment was made by comparing the attitudes of the music theory students who used the video-tape lessons with the attitudes of the music theory students who had traditional classroom teaching only. The null hypothesis that was formulated to test Problem Three stated that there would be no significant difference in the group means on the Music Theory Attitude Survey (MTAS) between the music theory students who had the video-tape lessons as supplemental material to traditional teaching and the music theory students who had traditional classroom teaching only. This statistical hypothesis used the $t$ test statistic. The rationale for the use of the $t$ test was the same as that previously stated.

Research Problem Four assessed the relationship between attitude toward music theory and the use of the supplemental lessons and achievement in harmony, keyboard, sight singing, and ear training for all of the music theory students involved in the evaluative study. Statistical Hypothesis Four stated that for all subjects involved in the evaluation, there would be no significant relationships between the scores of the Music Theory Attitude Survey and the: a) Composite Harmony Scores, b) Composite Keyboard Scores, c) Composite Sight Singing Scores, d) Composite Ear Training Scores, and e) Composite Achievement Test Totals.

The Pearson product moment correlation was used to make the assessment for Hypothesis Four. McNemar (22, p. 122) stated that a "measure which can be computed and which will yield information as to the degree of accuracy and the degree of relationship is the correlation
Coefficient, designated r." One of the six ways in which McNemar (22, p. 152) suggested the correlation coefficient be interpreted was for r to be associated with "the rate at which one variable changes with another. This assumes that the regression line so interpreted is linear." Satisfaction of the requirement for linearity of regression in connection with Statistical Hypothesis Two applies to the correlation coefficients of the present hypothesis as well, since the variables for the two hypotheses were the same.

Significance levels for each correlation coefficient were computed. Relationships were considered significant only when they reached the standard established by McNemar, when he said that "If a sample t reaches the .01 level of significance, one would conclude that it is not a chance deviation from zero, or that some correlation exists between the two variables involved" (22, p. 156).
CHAPTER BIBLIOGRAPHY


CHAPTER IV

PRESENTATION AND INTERPRETATION OF DATA

For a course in advanced music theory, a series of video-tape supplemental lessons was developed to increase the effectiveness and efficiency of the educational process beyond that already achieved with traditional teaching only. An evaluation was conducted that compared use with nonuse of the supplemental lessons. Student achievement, as measured by music theory tests, and student attitudes, as measured by an attitude survey, were compared between the students who had the supplemental lessons and the students who had traditional teaching only. The supplemental lessons were validated by a panel of music theory specialists before being evaluated within a specific educational setting using students for whom the video-tape lessons were prepared.

The first research problem evaluated the effect of the video-tape supplemental lessons on achievement in harmony, keyboard, sight singing, and ear training for students in a college course in advanced music theory. This evaluation was made by comparing the achievement of music theory students who had the video-tape lessons as supplemental material to the same measurement of achievement for music theory students who had traditional classroom teaching only. Theory Section A had only the traditional lecture-discussion method of instruction. Section B had the video-tape lessons to supplement the lecture-discussion method of instruction.
The comparison of student achievement was dependent upon no significant difference existing between the two Theory Sections, in achievement in the four content areas, at the beginning of the period of evaluation. The test for equivalency was the first harmony test of the semester; that test indicated that the two Theory Sections could not be assumed equal in ability. Covariates were used to statistically adjust for the apparent initial differences. The first tests in harmony and sight singing were used as covariates to make correction on the achievement variable, the Composite Achievement Test Totals. The .05 level of significance was the criterion established by which a null hypothesis could be rejected.

The analysis of covariance revealed no significant difference for the variance of the Main Effect. (See Table IV.) The Main Effect was given the designation DTMAT, representing the comparison of different

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covariates (HI, SSI)</td>
<td>216315.81</td>
<td>2</td>
<td>108157.88</td>
<td>48.56</td>
<td>.000</td>
</tr>
<tr>
<td>Main Effect (DTMAT)</td>
<td>1522.31</td>
<td>1</td>
<td>1522.31</td>
<td>.68</td>
<td>.42</td>
</tr>
<tr>
<td>Explained</td>
<td>217838.13</td>
<td>3</td>
<td>72612.69</td>
<td>32.60</td>
<td>.001</td>
</tr>
<tr>
<td>Residual</td>
<td>57913.75</td>
<td>26</td>
<td>2227.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>275751.88</td>
<td>29</td>
<td>9508.68</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
teaching materials. That comparison was between the traditional teaching for Section A and the use of supplemental lessons for Section B.

Table IV arranges the data for the covariates first, followed by the data for the Main Effect. This arrangement, suggested by the Statistical Package for the Social Sciences (2, p. 413), illustrates that the control or correction for extraneous variation in the dependent variable is made "before the effects of a set of nonmetric factors are assessed." The covariates, Harmony Examination No. 1 and Sight Singing Examination No. 1 (HI, SSI) corrected for the assumed initial differences that would affect the dependent variable, the Composite Achievement Test Totals (CATT), before the effects of the different teaching materials were computed.

The remaining statistics of Table IV include the Explained Source of Variation, which was the variation on the dependent variable or criterion measure, CATT, that was caused by the Main Effect (DTMAT) plus the Covariates (HI, SSI). The variation that was left, or not explained, is shown as Residual. The Total is the sum of the Explained and Residual variations.

The value of F and its level of significance for the Main Effect, different teaching materials, were the primary statistics to consider in making a conclusion concerning the null hypothesis. The F value of .68 for the Main Effect, producing a .42 level of significance, indicated that the null hypothesis could not be rejected. (See Appendix G for Individual Scores for the Composite Harmony, Sight Singing, Ear Training, and Keyboard, and the Composite Achievement Test Totals.)
Problem Two assessed the effect of the video tape materials on the achievement in harmony, keyboard, sight singing, and ear training for students who had differential learning ability levels. The ability levels of the Theory Sections were determined by ranking the students of each section into the high, middle, or low third of that section. This ranking was based on the combined scores from Harmony Examination No. 1 and Sight Singing Examination No. 1. Both of these tests were given early in the semester, the harmony test on the second class period and the sight singing test on the sixth meeting of the course.

The assessment for this problem, involving differential learning abilities, was made by testing each Theory Section separately for no significant differences between the high, middle, and low ability levels on the Composite Achievement Test Totals. Analysis of variance was the statistic used to evaluate each section. The results of the two analyses were then compared.

The degree of variance between the differential ability levels of Theory Section A on the Composite Achievement Test Totals (Table V) was

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Ability Levels</td>
<td>2</td>
<td>16705.00</td>
<td>8352.50</td>
<td>2.21</td>
<td>.17</td>
</tr>
<tr>
<td>Within Ability Levels</td>
<td>9</td>
<td>34021.00</td>
<td>3780.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>50726.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
expressed by an $F$ value of 2.21. Theory Section A used only traditional
teaching, and the differences between the ability levels for this section
were not significant for the purposes of this study.

The degree of variance between the differential ability levels of
Theory Section B on the Composite Achievement Test Totals was expressed
by an $F$ value of 9.24. (See Table VI.) This $F$, for the section that
used the video tape lessons, was significant.

### TABLE VI

**ANALYSIS OF VARIANCE BETWEEN ABILITY LEVELS OF SECTION B
ON COMPOSITE ACHIEVEMENT TEST TOTALS**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>$F$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Ability Levels</td>
<td>2</td>
<td>90600.00</td>
<td>45300.00</td>
<td>9.24</td>
<td>.002</td>
</tr>
<tr>
<td>Within Ability Levels</td>
<td>15</td>
<td>73512.00</td>
<td>4900.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>164112.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The significant difference shown between the high, middle, and low
ability levels for Theory Section B was not evidenced for Theory Section
A. Further investigation was made, therefore, on the ability levels for
Section B to determine where the differences occurred. The $t$ test was
used to compute the differences between each pair of means for the
ability levels on the CATT. (See Table VII for the means of the ability
levels.) Significant differences were recorded between the middle and
low and between the high and low ability levels.

The significant difference between the ability levels of Section B
on the Composite Achievement Test Totals suggested that further
investigation be made for the composite scores that comprised the CATT. The investigation was designed to discover where the variance occurred within the four content areas of harmony, keyboard, sight singing, and ear training. (See Appendix H for the Individual Scores, in Beginning Ability Levels, for the Separate Harmony, Sight Singing, Ear Training, and Keyboard Tests for Sections A and B.)

An hypothesis of no significant difference between the differential ability levels for Theory Section B on the Composite Harmony Scores was tested by analysis of variance. (See Table VIII.) An F of .65 was not statistically significant.

### Table VII

**Means of Ability Levels for Section B on Composite Achievement Test Totals**

<table>
<thead>
<tr>
<th>Ability Levels</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>6</td>
<td>671.40</td>
<td>71.98</td>
</tr>
<tr>
<td>Middle</td>
<td>6</td>
<td>603.62</td>
<td>58.01</td>
</tr>
<tr>
<td>Low</td>
<td>6</td>
<td>498.93</td>
<td>78.47</td>
</tr>
<tr>
<td>Total Section</td>
<td>18</td>
<td>591.32</td>
<td>98.25</td>
</tr>
</tbody>
</table>

### Table VIII

**Analysis of Variance Between Ability Levels of Section B on Composite Harmony Scores**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Ability Levels</td>
<td>2</td>
<td>352.31</td>
<td>176.16</td>
<td>.65</td>
<td>.54</td>
</tr>
<tr>
<td>Within Ability Levels</td>
<td>15</td>
<td>4079.88</td>
<td>271.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>4429.19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
No significant difference between the differential ability levels was hypothesized for Theory Section B on the Composite Keyboard Scores; this hypothesis was also tested by analysis of variance. (See Table IX.)

### Table IX

**Analysis of Variance Between Ability Levels of Section B on Composite Keyboard Scores**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Ability Levels</td>
<td>2</td>
<td>1894.50</td>
<td>947.25</td>
<td>10.20</td>
<td>.002</td>
</tr>
<tr>
<td>Within Ability Levels</td>
<td>15</td>
<td>1392.63</td>
<td>92.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>3287.13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An F of 10.2 was statistically significant. The null hypothesis concerning the differential ability levels of Theory Section B on the Composite Keyboard Scores was rejected.

Contrasts were computed between the high and middle, the middle and low, and the high and low ability levels. (See Table X for the means of the ability levels.) The contrasts between the middle and low and the high and low ability levels were significant.

### Table X

**Means of Ability Levels for Section B on Composite Keyboard Scores**

<table>
<thead>
<tr>
<th>Ability Levels</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>6</td>
<td>79.50</td>
<td>8.54</td>
</tr>
<tr>
<td>Middle</td>
<td>6</td>
<td>73.08</td>
<td>10.54</td>
</tr>
<tr>
<td>Low</td>
<td>6</td>
<td>55.25</td>
<td>9.72</td>
</tr>
<tr>
<td>Total Section</td>
<td>18</td>
<td>69.28</td>
<td>13.91</td>
</tr>
</tbody>
</table>
Since significant differences were found between the middle and low and between the high and low ability levels for Section B on the Composite Keyboard Scores, an investigation was made of the two tests that comprised those composite scores. Separate analyses of variance were computed for the three ability levels of Theory Section B on each of the two tests of the Composite Keyboard Scores. (Refer to Appendix I for the ANOVA Tables for the Ability Levels for Section B on the two keyboard tests.)

The analyses of variance for the two keyboard tests revealed significant differences between the differential ability levels for both tests. The contrasts between the middle and low as well as the high and low ability levels were significant for the first test. The high-low contrast was the only significant one for the second. (Refer to Appendix I.)

An hypothesis of no significant difference between the differential ability levels for Theory Section B on the Composite Sight Singing Scores was tested with analysis of variance. (See Table XI.) An F Value of

| TABLE XI |
| ANALYSIS OF VARIANCE BETWEEN ABILITY LEVELS OF SECTION B ON COMPOSITE SIGHT SINGING SCORES |

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Ability Levels</td>
<td>2</td>
<td>11709.13</td>
<td>5854.56</td>
<td>11.98</td>
<td>.001</td>
</tr>
<tr>
<td>Within Ability Levels</td>
<td>15</td>
<td>7332.25</td>
<td>488.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>19041.38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11.98 was significant. The null hypothesis concerning the differential ability levels of Theory Section B on the Composite Sight Singing Scores was rejected.

Contrasts were computed to determine if significant differences existed between the means for each pair of ability levels. Table XII shows the means for the differential ability levels on the sight singing variable. The contrasts between the high-middle, middle-low, and high-middle ability levels were significant.

Because of the significant differences between the differential ability levels for the Composite Sight Singing Scores, separate analyses of variance were computed for the ability levels of Theory Section B on the three tests of the Composite Scores. (Refer to Appendix I for the ANOVA Tables for the Ability Levels for Section B on the three sight singing tests.)

The analyses of variance revealed significant differences between the differential ability levels for Section B on the first and third sight singing tests. Contrasts identified significant differences between the high and low ability levels for both the first and third
sight singing tests. The first test had a significant contrast between the middle and low ability levels, in addition to the high and low contrast. (See Appendix I.)

An hypothesis of no significant difference between the differential ability levels for Theory Section B on the Composite Ear Training Scores was tested by analysis of variance. (See Table XIII.) An F value of 3.78 was significant. The null hypothesis concerning the differential ability levels of Theory Section B on the Composite Ear Training Scores was rejected.

### TABLE XIII

**ANALYSIS OF VARIANCE BETWEEN ABILITY LEVELS OF SECTION B ON COMPOSITE EAR TRAINING SCORES**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Ability Levels</td>
<td>2</td>
<td>9930.31</td>
<td>4945.16</td>
<td>3.78</td>
<td>.05</td>
</tr>
<tr>
<td>Within Ability Levels</td>
<td>15</td>
<td>19712.25</td>
<td>1314.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>29642.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contrasts were computed to determine if there were significant differences between the means for each pair of ability levels. Table XIV shows the means for the differential ability levels on the ear training variable. The only significant contrast was between the high and low ability levels.

Separate analyses of variance were computed for the differential ability levels of Section B on each of the three tests that comprised
TABLE XIV
MEANS OF ABILITY LEVELS FOR SECTION B ON COMPOSITE EAR TRAINING SCORES

<table>
<thead>
<tr>
<th>Ability Levels</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>6</td>
<td>214.67</td>
<td>36.15</td>
</tr>
<tr>
<td>Middle</td>
<td>6</td>
<td>194.00</td>
<td>27.37</td>
</tr>
<tr>
<td>Low</td>
<td>6</td>
<td>157.83</td>
<td>43.43</td>
</tr>
<tr>
<td>Total Section</td>
<td>18</td>
<td>188.83</td>
<td>41.76</td>
</tr>
</tbody>
</table>

The Composite Ear Training Scores. (Refer to Appendix I for the ANOVA Tables for the Ability Levels for Section B on the three ear training tests.)

The analyses of variance showed that the second ear training test was the only one of the three with a significant difference between the differential ability levels. Two contrasts of the second test were significant, those between the middle and low and between the high and low ability levels.

The numerous analyses of variance and contrasts used to investigate Research Problem Two showed Section B, users of the supplemental lessons, had a significant variation between the differential ability levels on the Composite Achievement Test Totals. Section A did not have a comparable variation on the CATT. Harmony was the only content area of the four in which Section B had no significant differences between the ability levels on the composite scores. Significant contrasts of Theory Section B resulted because of the low scores from the low ability level.

Research Problem Three assessed the attitudes toward music theory and the use of the supplemental lessons for the music theory students.
who used the video-tape lessons as supplemental material. This assessment was made by comparing the attitudes of the music theory students who used the video-tape lessons with the attitudes of the music theory students who had traditional classroom teaching only. A test of no significant difference was conducted for the group means of the Music Theory Attitude Survey (MTAS) between the students of Theory Section A (traditional teaching) and those of Theory Section B (supplemental materials).

The result of the t test, which is summarized in Table XV, indicated a significant difference between the two theory sections on the MTAS. The null hypothesis was, therefore, rejected.

<table>
<thead>
<tr>
<th>Theory Section</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>df</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A(TRAD)</td>
<td>12</td>
<td>96.92</td>
<td>9.35</td>
<td>28</td>
<td>2.31</td>
<td>.03</td>
</tr>
<tr>
<td>B(SUPMAT)</td>
<td>18</td>
<td>88.33</td>
<td>12.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information was obtained for the assessment of the attitude variable by analyzing the results of two administrations of the MTAS given prior to the testing for this period of evaluation and by comparing the results of the three different administrations of the test. A comprehensive comparison of the mean scores of the three different administrations of the MTAS was achieved by organizing the data into groups with reference to the students who took the tests. (See Table XVI.)
The two groups of students who took the MTAS before the period of evaluation for this study were those who were present on the test day during the fall of 1976 and the spring of 1977. (Refer to the first two divisions of Table XVI.) The number of the subjects involved in

**TABLE XVI**

MEANS FOR MTAS ADMINISTERED IN FALL 1976, SPRING 1977, AND FALL 1977

<table>
<thead>
<tr>
<th>Theory Section</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Date Administered</th>
<th>Subjects Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>31</td>
<td>95.74</td>
<td>11.67</td>
<td>Fall 1976</td>
<td>All who were present on the test day</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>93.16</td>
<td>13.18</td>
<td>Spring 1977</td>
<td>All who were present on the test day</td>
</tr>
<tr>
<td>A(TRAD)</td>
<td>12</td>
<td>96.92</td>
<td>9.35</td>
<td></td>
<td>All who were enrolled in the section; a second testing for absentees</td>
</tr>
<tr>
<td>B(SUPMAT)</td>
<td>18</td>
<td>88.33</td>
<td>12.57</td>
<td>Fall 1977</td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>91.77</td>
<td>12.00</td>
<td></td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>A(TRAD)</td>
<td>11</td>
<td>95.00</td>
<td>8.26</td>
<td></td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>B(SUPMAT)</td>
<td>8</td>
<td>94.00</td>
<td>12.22</td>
<td>Spring 1977</td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>94.50</td>
<td>9.81</td>
<td></td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>A(TRAD)</td>
<td>11</td>
<td>97.10</td>
<td>9.78</td>
<td></td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>B(SUPMAT)</td>
<td>8</td>
<td>88.50</td>
<td>10.70</td>
<td>Fall 1977</td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>93.47</td>
<td>10.80</td>
<td></td>
<td>Students who took the MTAS in the spring and retook it for this research</td>
</tr>
</tbody>
</table>

those testing situations, 31 and 43 respectively, did not include all of the students taking the course at those times. The results obtained were, therefore, incomplete.
The results for the test given in the fall 1977 are presented for each of the two Theory Sections, Section A (traditional teaching only) and Section B (supplemental materials). (Refer to the third division of Table XVI.) The Total results are for the thirty students who took the MTAS at that time.

Eleven students took the MTAS in the spring of 1977 and then became one of the subjects for this evaluation as a member of Theory Section A (traditional teaching only). Eight students took the MTAS in the spring of 1977 and then became a member of Theory Section B (supplemental materials). The means and standard deviations are given for the MTAS that was taken in the spring of 1977 by these students who became subjects of Section A or B. (Refer to the fourth division of Table XVI.)

The nineteen students who took the MTAS in the spring of 1977 and again in the fall of 1977 are grouped again. The results shown this time are from the administration of the test the fall of 1977. (Refer to the fifth division of Table XVI.)

For the three test administrations, the sections and portions of sections that did not use the supplemental lessons had larger means than the sections and portions of sections that used those lessons. (Refer to Table XVI.)

Only the sections labeled B(SUPMAT) that took the MTAS in the fall of 1977 used the video tape lessons. A mean of 88.33 was recorded by all of the subjects of Theory Section B(SUPMAT). Eight students included in Section B(SUPMAT) had taken the MTAS in the spring of 1977. The mean of this subgroup was 88.50 on the MTAS given after using the supplemental lessons. (Refer to the fifth division of Table XVI.)
The mean for the same subgroup was 94.00 on the MTAS given before the lessons were used. (Refer to the fourth division of Table XVI.)

Four statements on the MTAS referred to the use of supplemental materials in the music theory curriculum. To complete the assessment of the attitude variable, an investigation was made of the responses given on these four survey items for the three administrations of the MTAS. Items 3 and 22 made reference to the use of music theory supplemental lessons presented on the DAIRS (the electronic retrieval installation at ORU.) Survey items 8 and 16 made reference to the use of learning aids for music theory, including video cassettes. (Refer to Appendix C and Appendix D for the specific items on the Music Theory Attitude Survey for Sections A and B respectively and to Appendix J for Student and Item Scores for the MTAS for Sections A and B, fall of 1977.)

For the total sample taking the MTAS during the three administrations, items 3 and 22 received the lowest attitude ratings of all the survey statements. The students of Theory Section B, who used the supplemental lessons, gave item 22 the most negative rating of all the survey statements and rated item 3 the fifth lowest statement on the survey.

Items 8 and 16 were given more positive attitude ratings than items 3 and 22. For both sections that took the MTAS in the fall of 1977, however, items 8 and 16 were among the five lowest-rated survey statements after items 3 and 22.

The comparisons of the three administrations of the MTAS could only be informal ones owing to the incomplete data obtained for the test when given in the fall of 1976 and the spring of 1977. No statistical tests were computed to determine significant differences between the mean scores.
The fourth problem of this research assessed the relationship between attitude toward music theory and the use of the supplemental lessons and achievement in harmony, keyboard, sight singing, and ear training for all of the music theory students involved in the evaluative study. This assessment was made by correlating the mean scores on the Music Theory Attitude Survey (MTAS) with those of the Composite Scores in Harmony, Keyboard, Sight Singing, and Ear Training, and the Composite Achievement Test Totals.

A correlation matrix (Table XVII) provides the \( r \) that was computed between each pair of variables. McNemar (3, p. 156) suggests the .01 significance level as the criterion by which "one would conclude that it is not a chance deviation from zero, or that some correlation exists

<table>
<thead>
<tr>
<th></th>
<th>Attitude</th>
<th>Harmony</th>
<th>Keyboard</th>
<th>Sight Singing</th>
<th>Ear Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Harmony</strong></td>
<td></td>
<td>.415*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Keyboard</strong></td>
<td>.237</td>
<td>.456*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sight Singing</strong></td>
<td>.357</td>
<td>.438*</td>
<td>.635*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ear Training</strong></td>
<td>.482*</td>
<td>.607*</td>
<td>.548*</td>
<td>.669*</td>
<td></td>
</tr>
<tr>
<td><strong>Composite Achievement Test Totals</strong></td>
<td>.504*</td>
<td>.748*</td>
<td>.737*</td>
<td>.843*</td>
<td>.901*</td>
</tr>
</tbody>
</table>

*Significant at the .01 level
between the two variables involved." Only the correlations reaching the .01 level were considered significant for this study.

Significant correlations were reported between Attitude and Composite Harmony Scores, Composite Ear Training Scores, and the Composite Achievement Test Totals. These correlations, although significant, were moderate.

Since significant correlations were reported between the attitude variable and three of the five achievement variables, the hypothesis of no significant relationships between attitude and the composite achievement variables was rejected.

Data were collected with regard to the time students spent in music theory study so that this variable could be informally included in the evaluation of the video tape lessons. Accurate class attendance was kept, and a self-reporting instrument was collected from all students. This Music Theory Work-Study Daily Record was used by the students to record the time spent in music theory study outside of class. (See Appendix E.) The time in class was added to the time reported for study outside of class to obtain a score, in hours, on the time variable. (Refer to Appendix G for individual scores on the time variable for Sections A and B.)

The results of a t test failed to reject the hypothesis of no significant difference in mean scores on the total amount of time spent in music theory study between Theory Sections A and B. (See Table XVIII.) Theory Section B (supplemental materials) had a higher mean score than Section A; but the difference was not significant, despite the fact that the Section B students were required to view each video tape lesson to supplement their conventional class activities.
Informal data were collected concerning the cost, in time and money, to develop the series of video tape supplemental lessons. (See Table XIX.)

### TABLE XIX

ESTIMATES OF THE EXPENDITURE OF TIME AND MONEY IN DEVELOPING THE SEVEN SUPPLEMENTAL LESSONS

<table>
<thead>
<tr>
<th></th>
<th>Time Estimates</th>
<th>Money Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Scripts</strong></td>
<td></td>
<td>Salaries</td>
</tr>
<tr>
<td>per lesson</td>
<td>100 hrs.</td>
<td>Producer . . . . $1,680.00</td>
</tr>
<tr>
<td>7 lessons</td>
<td>700 hrs.</td>
<td>Artists . . . . 315.00</td>
</tr>
<tr>
<td><strong>Two Script Revisions</strong></td>
<td></td>
<td>Materials</td>
</tr>
<tr>
<td>per lesson</td>
<td>20 hrs.</td>
<td>Audio Tapes . . . . 66.15</td>
</tr>
<tr>
<td>7 lessons</td>
<td>140 hrs.</td>
<td>Video Tapes . . . . 262.75</td>
</tr>
<tr>
<td><strong>Study Guide Preparation</strong></td>
<td></td>
<td>Slide Photos . . . . 254.75</td>
</tr>
<tr>
<td>per lesson</td>
<td>30 hrs.</td>
<td>Specialized Production</td>
</tr>
<tr>
<td>7 lessons</td>
<td>210 hrs.</td>
<td>(use of equipment for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>video taping and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>editing) . . . . 4,725.00</td>
</tr>
<tr>
<td><strong>Total Time</strong></td>
<td></td>
<td>Reproductions . . . . 150.00</td>
</tr>
<tr>
<td>per lesson</td>
<td>150 hrs.</td>
<td>Total Cost</td>
</tr>
<tr>
<td>7 lessons</td>
<td>1,050 hrs.</td>
<td>per lesson . . . . $1,064.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 lessons . . . . $7,452.40</td>
</tr>
</tbody>
</table>
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

Many educators have urged the use of instructional technology in learning situations. Research in various subject areas has supported the conclusions that use of such technology as the computer and video-tape recordings may enhance learning and improve teaching efficiency.

On the basis of research reports and with a desire to be modern many educational institutions have invested sizable funds in acquiring educational technology. Once the technology is acquired, teachers are urged to apply this technology to their specific areas of instruction. One cannot assume, however, that because research indicates that certain technological equipment can enhance educational activities in certain subject-matter areas, it will necessarily function similarly for all subject-matter areas.

Oral Roberts University has invested substantial sums in acquiring the Dial Access Information Retrieval System (DAIRS). This is an electronic system capable of storing instructional presentations that may be retrieved by students at numerous study locations according to a daily schedule. Video taping production and playback facilities are among the audiovisual resources that may be used with the DAIRS. Faculty members in all subject-matter areas have been encouraged to develop materials using this system of presentation. A minimum amount of research evidence supports a conclusion that the use of the DAIRS and additional
technology is equally efficient and successful in aiding instruction in all subject-matter areas.

This study purposed to develop and evaluate a series of video-tape lessons to supplement the traditional lecture-discussion method of teaching a college course in advanced music theory.

The development of the video-tape supplemental lessons began with the selection of the subject matter. The content of the lessons was selected to supplement the pedagogical presentation of music theory as outlined in the basic text of the course. The lessons emphasized instruction to enable students to analyze music and to engage in quasi-compositional activities.

A pilot study tested and refined the application of advanced music theory content to the video-tape technology. The study included the production and evaluation of the first unit or lesson of the seven video tapes eventually produced. In addition to its importance in selecting content, the pilot study helped in determining appropriate video-tape techniques to use in presenting that content. The decisions regarding the use of particular taping techniques were also based on suggestions from professional literature and assistance from university personnel trained in television production.

Before completing final production, four of the seven supplemental lessons were evaluated by three specialists in the field of music theory. These three theorists evaluated the lessons for content validity and technical worth as communicative instructional aids.

In addition to writing personal comments suggesting specific ways to improve the lessons, each of the three theorists responded to a specially prepared questionnaire. Their responses provided an empirical
appraisal for the first four of the seven supplemental lessons. The questionnaire topics about Objectives and Content related to the evaluation of content validity; other topics included Presentation and Learner Stimulation. A comprehensive evaluation that ranged between "Above Average" and "Outstanding" was given to the four lessons.

The first four lessons were revised to comply with most of the suggestions made by the music-theory specialists, and the remaining three lessons were produced to comply as closely as possible with those suggestions. Based on the evaluations of the theorists and the subsequent revisions, the supplemental lessons demonstrated acceptable content validity. The use of the video-tape supplemental lessons was, therefore, expected to enhance student learning and improve teaching efficiency for the college course in advanced music theory.

Evaluation of the video-tape lessons, in the specific educational setting for which those lessons were prepared, involved a comparative study in which music theory achievement for students using the lessons was compared to the achievement for students using only traditional classroom instruction. The evaluation also included an investigation of the effect of the use of the supplemental lessons on students with differential ability levels. A final comparative study was conducted concerning student attitudes toward music theory and the use of supplemental materials.

As with the supplemental lessons, the measuring instruments that evaluated the effectiveness of those supplemental lessons were pilot tested. Eleven achievement tests were developed in each of the content areas of harmony, sight singing, ear training, and keyboard. The attitude measurement, the Music Theory Attitude Survey was also pilot
tested. When the eleven achievement tests and the attitude survey were used in the comparative evaluation of this study, the estimated reliability of each instrument ranged from .61 to .92.

The subjects for the evaluative study were students enrolled in the third semester of music theory during the fall of 1977 at Oral Roberts University. A randomized block design was used to assign each student to one of two theory sections. Based on the first achievement test, given at the second class meeting, the assumption of equivalency between the two theory sections could not be made. Analysis of covariance statistically adjusted for the apparent initial differences between the two sections.

Both theory sections had the following educational activities and procedures in common:

1) three fifty-minute class periods each week,
2) class instruction by this researcher,
3) self-help materials in ear training,
4) study guides for each unit,
5) accurate class attendance,
6) self-recording accounts of study outside of class, and
7) the same scheduling for the administration of the achievement tests and the Music Theory Attitude Survey.

The educational treatment, for which evaluation took place, was the use of seven video-tape supplemental lessons, which were scheduled on the Dial Access Information Retrieval System and were also available on video cassettes. The recommended learning sequence for the section that used the lessons was to study the appropriate textbook material.
and take the Study Guide Pretest before viewing the video-tape lessons. Lecture-discussion sessions were scheduled to reinforce the video-tape presentations, and unit assignments were given as posttests for each specific lesson. The desired learning sequence was often interrupted, but the students who used the supplemental lessons fulfilled the requirement to view each of those lessons at least once during the semester of the evaluation.

The effect of using the video-tape lessons on student achievement was evaluated by comparing the means of the total achievement test battery for the theory section that had the lessons with the theory section that had traditional teaching only. Analysis of covariance was the statistic used to make this comparative evaluation. The independent variable was the difference in curricular materials (use or nonuse of the video-tape lessons); the dependent variable was the scores of the total achievement test battery; and the scores of the first tests in harmony and in sight singing were the covariates.

The effect of using the video-tape lessons on the achievement of students with different beginning-ability levels was evaluated by comparing the test scores of students in high, middle, and low beginning-ability levels. Based on the combined scores of the first test in harmony and in sight singing, the students of each theory section were ranked in the high, middle, or low third of their section. Analysis of variance was computed for the three ability levels of each section on the composite tests in harmony, sight singing, ear training, and keyboard. Any significant variance among the ability levels of one section not evidenced in the other section was investigated further.
The further investigation determined 1) the pair or pairs of ability levels in which significant variance occurred, and 2) the specific test or tests comprising the composite examinations in which a significant variance or variances occurred.

The Music Theory Attitude Survey was designed to assess the difference between the two theory sections in student attitudes toward music theory and the use of supplemental materials. A t test was the statistic used to determine the degree of difference between the sections.

Significant relationships were sought between the Music Theory Attitude Survey and each of the four composite examinations. These were statistically determined by Pearson correlation coefficients.

Results

Four research problems were investigated in evaluating the video-tape lessons to supplement the traditional lecture-discussion method of teaching a college course in advanced music theory. The statistical treatments discussed above were used to test the following statistical hypotheses:

1. There would be no significant difference in the group means for achievement in harmony, keyboard, sight singing, and ear training, between the music theory students who had the video-tape lessons as supplemental material to traditional teaching and the music theory students who had traditional classroom teaching only.

2. There would be no significant difference in the group means on achievement as measured by the combined scores of achievement tests in harmony, keyboard, sight singing, and ear training between different
ability levels among the students in one theory section that would not
be evidenced for the same ability levels among the students in the other
theory section.

3. There would be no significant difference in the group means
on the Music Theory Attitude Survey (MTAS) between the music theory
students who had the video-tape lessons as supplemental material to
traditional teaching and the music theory students who had traditional
classroom teaching only.

4. For all subjects involved in the evaluation, there would be no
significant relationships between the scores of the Music Theory Attitude
Survey and the composite achievement scores in harmony, keyboard, sight
singing, and ear training.

The .05 level of probability was established as the criterion
necessary to reject a null hypothesis. A .01 probability level was
considered essential to identify a significant correlation.

Statistical Hypothesis One could not be rejected. The mean score
on the Composite Achievement Test Totals, however, was larger for the
students who had traditional classroom teaching only compared to the
students who had the video-tape lessons as supplemental material to
traditional teaching. These results did not support the findings
of Chu and Schramm when they reported that in the majority of the
research studies involving music, students using instructional television
did as well as, or better than, students who had conventional teaching.

The related research of Sanders and of Wilson described the
development of self-instructional materials that were considered to
be effective teaching tools on the basis of significant pre- to posttest gains. Neither study compared use of the materials with nonuse. The present comparative study was not designed to determine whether the lessons were instrumental in producing significant student learning, but whether the use of the lessons produced significantly greater student achievement when compared with traditional classroom teaching alone. The present study cannot support the studies by Sanders nor by Wilson where the developed materials were found to be effective.

Comparative studies by Burgess, Daniels, Elrod, and Tien found no significant difference between the use and nonuse of their instructional materials. The purpose of their materials was to replace traditional teaching of the same content; therefore, a "no difference" result was interpreted to mean that the materials were effective, since the students who used them achieved about the same as those who had traditional teaching. For the present study, the self-instructional or televised tutorial techniques were to supplement, rather than replace, the traditional classroom teaching. The "no significant difference" result between the two sections on the Composite Achievement Test Totals could not affect a positive evaluation of the supplemental use of the videotape lessons.

The results from the first hypothesis of this study support a conclusion by Thornton that traditional classroom instruction is an effective means of teaching. The present study did not verify Thornton's following conclusion, that the interaction of teacher and instructional media was even more effective.
Statistical Hypothesis Two was rejected. The theory section that used the video-tape lessons showed a significant variance between the different beginning ability levels, but a similar variance was not shown for the theory section that used only traditional teaching.

Further investigation of the second hypothesis produced the following results for the theory section that used the video tape lessons:

1. On the Comprehensive Achievement Test Total significant differences were recorded between the middle and low and the high and low ability levels.

2. No significant variances were recorded between the differential ability levels on the Composite Harmony Scores.

3. On the Composite Keyboard Scores significant differences were recorded between the middle and low and the high and low ability levels.

4. Both keyboard tests, comprising the Composite Keyboard Scores, had significant variance among the ability levels.

5. On the Composite Sight Singing Scores significant differences were recorded between the high and middle, the middle and low, and the high and low ability levels.

6. Only the first and third sight singing tests had significant variance among the ability levels. The second test had no significant differences indicated.

7. On the Composite Ear Training Scores a significant difference was recorded between the high and low ability levels.

8. Only the second ear training test had significant variance among the ability levels.
Studies by Burgess and by Elrod were among those that included investigations of ability levels. The results from the second hypothesis of the present study support Burgess's conclusion that high achievers outperform low achievers regardless of the teaching method used. Elrod concluded that low achievers seemed to respond better than high achievers when using his instructional materials. The results from the second hypothesis indicate an opposite response from the low achievers who used the video-tape lessons of this study.

Statistical Hypothesis Three was rejected. A significant difference was indicated between the two theory sections on the Music Theory Attitude Survey. The section that used only the traditional lecture-discussion method of teaching had the higher mean on the attitude survey.

The investigation of student attitudes for the present study relates to the research summations by Chu and Schramm who reported that college students were less receptive to using instructional television than were elementary and secondary students; the results from the third hypothesis of the present research supports that finding.

Statistical Hypothesis Four was rejected. Significant correlations (at the .01 level) were obtained between the Music Theory Attitude Survey and Composite Harmony Scores (.415), Composite Ear Training Scores (.482), and Composite Achievement Test Totals (.504). These correlations, although significant, were moderate.

An investigation of three different administrations of the Music Theory Attitude Survey yielded informal results. The investigation included a comparison of the results from the different subjects who took the survey. For the three survey administrations, the theory
sections or portions of sections that did not use the supplemental lessons had larger means than the sections and portions of sections that used those lessons. A group of eight students took the survey before and after using the supplemental lessons. The mean score for those eight students on the survey, before they used the video-tape lessons, was comparable to the mean scores of the other groups that did not use the lessons. The mean score for those eight students was smaller at the close of the evaluative period in which the supplemental lessons were used and was comparable to the total mean score for the section that used the video-tape lessons.

The investigation of the three different administrations of the Music Theory Attitude Survey, in addition to comparisons of survey subjects, produced informal results about the twenty-four survey items. The total sample who took the survey gave the most negative responses to the two items that referred to the use of supplemental lessons on the Dial Access Information Retrieval System (DAIRS). Two other items that referred to the use of supplemental materials, but without reference to the DAIRS, were more positively rated than the DAIRS items; yet, these items were among the seven lowest-rated survey statements.

Chu and Schramm summarized research that indicated a positive attitude toward instructional television was conducive to learning from that medium. The results from the present study indicate that, before the evaluation began, the subjects had a negative attitude toward the use of instructional television, particularly if programmed on the DAIRS.

The negative predisposition toward the use of the retrieval system also relates to reports by Chu and Schramm that previous instructional
television experience was a factor determining student attitudes toward using television as an instructional resource. The subjects in the present study had previous experience with the DAIRS in nonmusic courses.

An informal comparative analysis was made on the amount of time students spent in music theory study. According to the data collected, the two theory sections had no significant difference in the mean number of hours spent in such study, despite the extra requirement the one section had to view each video-tape lesson as a supplement to conventional class activities.

The practical concerns such as the amount of time spent by the instructor to develop the supplemental lessons and the amount of money spent in their production were included in this evaluative study. Estimates were made of the expenditures in time and money. Summing and averaging those estimates produced the following:

1. An average of 150 hours was expended to prepare each of the seven supplemental lessons and accompanying study guides.
2. The average cost for each lesson was $1,064.63.

Conclusions

Based upon the evaluations prepared by the music theory experts it was concluded that the content of the video-tape lessons had content validity and that they were appropriate for use with an advanced music theory course.

The results of the study support the following conclusions:

1. Students who used the video-tape supplemental lessons did not score higher on achievement tests in harmony, keyboard, sight singing, and ear training than the students who did not use those lessons.
2. Students who used the video-tape supplemental lessons had greater variance among the ability levels on the achievement tests than the students who did not use those lessons; and, for the students using the lessons, those in the low beginning-ability level did not achieve at a corresponding rate with the students in the high and middle-ability levels.

Significant variances were found among the three different ability levels only from the students who used the supplemental lessons. The revealed significant variances resulted primarily from extremely low scores by students in the low beginning-ability level.

3. Attitudes toward music theory and the use of supplemental materials were less positive for the students who used the video-tape supplemental lessons than for students who did not use those lessons.

4. For all students involved in the evaluation of the video-tape supplemental lessons, a significant relationship was found among attitudes toward music theory and the use of supplemental materials and achievement in harmony, keyboard, sight singing, and ear training.

The Music Theory Attitude Survey was the measurement for student attitudes, and it was correlated significantly to the Composite Achievement Test Totals (CATT), the comprehensive measurement for achievement. Significant correlations, however, were found only for two of the four subtests of the CATT, the Composite Harmony Scores and the Composite Ear Training Scores. The correlations, although significant at the .01 level, were moderate in strength.

A formal conclusion with regard to comparative studies of three different administrations of the Music Theory Attitude Survey is
prevented by incomplete data. The evidence emphatically suggests, however, that the participating students had a negative bias toward the use of the Dial Access Information Retrieval System, and manifested no positive changes in attitudes toward the DAIRS as a result of using the supplemental lessons.

Because a reliable measurement for the time spent in music theory study outside of class was lacking, a formal conclusion was not drawn concerning the variable of student time. It was assumed that the self-report measure, which was used to collect data about study time outside of class, would be as accurate for one section as for the other. Combining the self-report data with class-attendance records for each section and comparing the two sections suggested that the students who used the video-tape supplemental lessons did not spend significantly more time in music theory study than the students who did not use those lessons.

No significant difference in the amount of time spent in music theory study between the two sections was recorded despite the requirement for one section to view each video-tape lesson at least once during the evaluative period. The requirement was in addition to the traditional classroom activities. Music theory students appear to spend a certain amount of time in study, and requiring supplemental lessons outside of class apparently will not significantly increase that study time.

Estimated data prevented a formal conclusion concerning the expenditure of time and money for the development of the seven video-tape lessons of this study. The estimates suggest that the video-tape
supplemental lessons did not produce educational benefits commensurate with the time and money spent to produce those lessons.

The practical factors of an instructor's time and the expenditure of money must be considered when educational technology is to be used or technological equipment purchased. It cannot be assumed that the use of educational technology will automatically produce educational benefits; instead, the use of such technology, without testing its effectiveness, can be costly and unproductive.

Educational technology may not be as well suited for use with advanced music theory courses as with other academic courses. It may be, however, that more study is needed to find the best kinds of technology to use for the optimum amount of communicative success for specific courses and students. Video tape, as used in the present research, was not a successful educational aid. Three music theory specialists provided a positive evaluation of the lessons used; therefore, it may be prudent to revise the material using different instructional media.

A sound-slide presentation that synchronizes audio tape with slide photographs might improve the audio fidelity and visual acuity over that obtained by video tape. No movement is possible with sound-slide; but when visual clarity is more important than movement, the sound-slide medium is preferred. The time required for an instructor to prepare sound-slide presentations is about the same as video tape, but the sound-slide medium would cost less.

The educational benefits of the supplemental lessons evaluated for this study might have been enhanced if all students who used the lessons had maintained the recommended learning sequence, particularly if they
had read the textbook material before viewing those lessons. The music theory specialists, in their evaluations, noted the supplemental role of the lessons and stressed the basic and prerequisite role of the appropriate textbook material. Study habits outside of class could not be controlled to ensure the desired educational sequence.

Recommendations

The following recommendations are based on the results and conclusions of this evaluative study:

1. The materials using instructional technology must be tested before concluding that those materials are effective. The evaluation should involve the students, the course, and the instructor for which the instructional materials were designed.

2. Institutions with technological resources similar to those used for the supplemental lessons of this study cannot assume that educational benefits will not result with use. They should, however, use caution concerning the time and money expended to develop materials using instructional technology under the assumption that educational benefits automatically result.

3. Institutions pondering purchase of electronic installations should cautiously regard this study as evidence against such a purchase.

Suggestions for Further Research

Several problems related to the present study deserve further investigation, to wit:

1. To use the video-tape supplemental lessons of this evaluation within the class structure, thereby increasing the possibility that the
desired educational sequence will be more closely followed.

2. To develop and evaluate sound-slide presentations for the advanced harmony concepts similar to those of the supplemental lessons of this study.

3. To develop and evaluate self-instructional materials for a college course in advanced music theory, making use of the electronic facilities available.

4. To investigate student characteristics and types of instructional presentations to fit the most appropriate types of instructional presentations with particular student characteristics.

5. To investigate the use of self-pacing and instructional options for an advanced harmony course.

6. To investigate the possible causes for student dropouts in advanced harmony courses.

7. To compare the achievement of students in an advanced harmony course that meets three fifty-minute class periods per week with comparable students in the same course or a similar course that meets five fifty-minute class periods per week.

Conclusions and recommendations of this study have emphasized the importance of testing educational materials. The caution expressed in this research is not intended to discourage experimentation, invention, or creativity in the further development of curricular materials. New and better materials must be a constant goal of educators in all academic disciplines. The materials must, however, be developed from specific needs; they must have well-defined and educationally sound purposes; and the materials must be evaluated in the educational
setting and with the students and teachers who are to be involved. It is as important to avoid complacency in well-worn materials and thereby neglect possible improvements in the educational process as it is to develop new materials and merely assume that their use will be educationally beneficial.

The task for music educators is to develop new materials using the available technology and to evaluate those materials competently and thoroughly. A final requirement is to report the results of the development and evaluation process so that the entire field of education can benefit. For the present research, that culminating requirement has now been fulfilled.
APPENDIX A

EVALUATION FORM FOR VIDEO-TAPE SUPPLEMENTAL LESSONS

The Evaluation Form for Video-Tape Supplemental Lessons is reproduced on the following four pages as it was used by the music theory specialists in their evaluation of the first four supplemental lessons, except the four pages shown were printed on two pages, front and back.
EVALUATION FORM FOR VIDEO TAPE
SUPPLEMENTAL LESSONS

Name of Lesson/Unit Number ____________________________________________

Date of Viewing ______________________________________________________

Name of Evaluator ___________________________________________________

This form has been designed to study the factors and elements in a unit of instructional material which contribute most significantly to its achievement of excellent quality. For the purposes of this evaluation, quality is defined as those factors which produce the desired behavioral changes in the target population.

Please circle the term which represents your best judgment of the degree to which the program satisfied each criterion. Feel free to add any comments which will help to describe the reasons for evaluation. If you believe the criterion does not apply, please encircle DNA.

I. OBJECTIVES

1. Are the instructional objectives as stated or implied in the lesson clear to the viewer?

   Very clear  Clear  Adequate  Unclear  Very unclear  DNA

   COMMENTS:

2. Does the content of the program relate closely to the main objectives, or are there many irrelevancies?

   Very  Closely  Closely  Adequately  Some  Irrelevancies  Many  Irrelevancies  DNA

   COMMENTS:

II. CONTENT

3. Does the amount of time taken to develop each concept, procedure, or example seem appropriate or inappropriate for the intended audience?

   Highly  Somewhat  Highly  Appropriate  Appropriate  Acceptable  Inappropriate  Inappropriate  DNA

   COMMENTS:

---

1 Adapted from C. Ray Carpenter, "Form for Evaluating the Instructional Effectiveness of Films or Television Programs," Quality in Instructional Television, edited by Wilbur Schramm (Hawaii, 1972), pp. 204-210.
4. Is the content organized and so structured as to facilitate learning?
   Very well  Well  Adequately  Poor  Very poorly  DNA
   COMMENTS:

5. Is the material based on expert, up-to-date professional information?
   Contains  Very  Adequately  Obsolete  Very  DNA
   Latest  Knowledge  Up-to-date  Information  Obsolete  DNA
   COMMENTS:

6. Is the vocabulary level appropriate for the intended audience?
   Highly  Very  Appropriate  Very  DNA
   Appropriate  Level  Inappropriate  Inappropriate
   COMMENTS:

III. PRESENTATION OF MATERIAL

7. Does the presentation provide for optimum repetition of the main ideas?
   (e.g., Summaries or main points from time to time and at end; repetition with variation.)
   Optimum  Adequate  Some  or  Too Little  Far Too Little
   Repetition  Repetition  Repetition  Too Much  Far Too Much  DNA
   (Underline little or much.)
   COMMENTS:

8. Does the program effectively use appropriate visuals? (Number and kinds of visuals are not as important as the way in which they are used to support the instruction.)
   Highly  Above  Moderately  Below  DNA
   Effective  Average  Effective  Average  Ineffective
   COMMENTS:

9. Is the video-photographic presentation clearly perceivable by use of good lighting, appropriate camera shots, sharpness of details, pointers, suitable backgrounds, etc.? (This does not require a highly technical or engineering evaluation but rather a judgment as to whether or not the program is perceptually clear.)
   Highly  Clearly  Barely  DNA
   Perceivable  Acceptable  Perceivable  Unperceivable
   COMMENTS:
10. Is the audio commentary intelligible?

Very Intelligible Above Average Moderately Intelligible Below Average Unintelligible DNA

COMMENTS:

11. Are the music examples of the audio of sufficient fidelity for the intended purpose?

Excellent Fidelity Above Average Fidelity Average Fidelity Below Average Fidelity Poor Fidelity DNA

COMMENTS:

12. Does the program effectively use the music examples?

Highly Effective Above Average Moderately Effective Below Average Ineffective DNA

COMMENTS:

13. Is there an appropriate integration of visual and audio?

Excellent Integration Good Integration Adequate Integration Poor Integration Very Poor Integration DNA

COMMENTS:

14. Do the personality and appearance of the teacher or teachers add to or detract from the effectiveness of the presentation?

Adds Greatly Adds Somewhat Neutral In Effects Detracts Somewhat Detracts Greatly DNA

COMMENTS:

15. Do the characteristics and quality of the instructor's or commentator's voice add to or detract from the effectiveness of the presentation?

Adds Greatly Adds Somewhat Neutral In Effects Detracts Somewhat Detracts Greatly DNA

COMMENTS:
IV. LEARNER STIMULATION

16. Are the techniques designed to provide viewer participation successful or unsuccessful? (Participation means students being involved in the instruction through overt or covert response.)

<table>
<thead>
<tr>
<th>Highly Successful</th>
<th>Moderately Successful</th>
<th>Barely Successful</th>
<th>Partially Successful</th>
<th>Unsuccessful</th>
<th>Totally Unsuccessful</th>
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</thead>
</table>

COMMENTS:

17. Does the presentation motivate the student to do supplementary work and study on the problem? (If so, specify under COMMENTS what the learners might do.)

<table>
<thead>
<tr>
<th>Very High Motivation</th>
<th>High Adequate</th>
<th>Low</th>
<th>Very Low Motivation</th>
</tr>
</thead>
</table>

COMMENTS:

18. Is any testing incorporated into the presentation or presented by the classroom instructor to the students following the telecast to measure the learners' achievement? (Note under COMMENTS how testing is included.)

<table>
<thead>
<tr>
<th>Appropriate Testing Procedure</th>
<th>Too Much Testing</th>
<th>Too Little Testing</th>
<th>No Testing</th>
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COMMENTS:

V. GENERAL EVALUATION

19. Is the length of the program appropriate to the intended purpose?

<table>
<thead>
<tr>
<th>Very Appropriate Length</th>
<th>Somewhat Satisfactory In Length</th>
<th>Much Too Long or Too Short</th>
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</table>

COMMENTS:

20. What is the overall evaluation of the unit?

<table>
<thead>
<tr>
<th>Outstanding Above Average Average Below</th>
<th>Average Average Average Very Poor</th>
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</thead>
</table>

COMMENTS:

21. What other criteria are applicable to this unit? Use these criteria for further evaluation of the unit.
Please submit an answer to each question asked. If the constructed answer options do not fit your response, write your answer under comments. You need not try to find a "best answer." Of course, comments may be made in addition to responding by circling one of the constructed answer options.

1. To what extent did the three sight singing examinations test student achievement of the objectives of the course as stated in the syllabus?

<table>
<thead>
<tr>
<th>Very Well</th>
<th>Well</th>
<th>Moderately</th>
<th>Poorly</th>
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</thead>
<tbody>
<tr>
<td>Comments:</td>
<td></td>
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2. How would you evaluate the degree of difficulty of each test with regard to the students involved and the stated objectives? (Respond with "I, II, III" for exams 1, 2, and 3 respectively.)

<table>
<thead>
<tr>
<th>Much too difficult</th>
<th>Somewhat too difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>About the right degree of difficulty</td>
<td></td>
</tr>
<tr>
<td>Somewhat too easy</td>
<td>Much too easy</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
</tr>
</tbody>
</table>

3. To what extent did each test become appropriately more difficult?

For Exam No. 1 to Exam No. 2:

| Appropriately increased in difficulty. |
| Increased in difficulty, but not enough -- too much. |
| Decreased slightly in difficulty. |
| Decreased considerably in difficulty. |
For Exam No. 2 to Exam No. 3:

Appropriately increased in difficulty.

Increased in difficulty, but not enough -- too much.

Decreased slightly in difficulty.

Decreased considerably in difficulty.

Comments:

4. Considering the intended purpose, how would you evaluate the quality of the tapes you received from which the evaluations were made?

   Excellent   Good   Adequate   Below Necessary Standards   Poor

Comments:

5. How would you evaluate the procedures for the testing process with the students?

   Excellent   Good   Adequate   Somewhat Inadequate   Poor

Comments:

6. How would you evaluate the grading procedures used by you and the two other judges?

   Excellent   Good   Adequate   Somewhat Inadequate   Poor

Comments:

7. What is your overall evaluation of the sight singing examinations with regard to content validity?

   Excellent   Good   Adequate   Somewhat Inadequate   Poor

Comments:

EVALUATOR   DATE

Thank you very much for your help. I will send you a summary of the findings from the evaluative study.
APPENDIX C

MUSIC THEORY ATTITUDE SURVEY FOR SECTION A

MUSIC THEORY ATTITUDE SURVEY

Please mark your personal attitude concerning the following statements about Music Theory. Work rapidly but be certain you understand each statement. Mark only the one response which most nearly reflects your personal opinion. Since the purpose of this survey is purely research oriented, your responses will in no way affect your course work, your grades, or subsequent recommendations from the University.

For each statement, if you strongly agree, mark your answer card A; if you agree, but not strongly, mark B; if undecided, mark C; if you disagree, but not strongly, mark D; and if you strongly disagree with the statement, mark E.

A - Strongly Agree
B - Agree
C - Undecided
D - Disagree
E - Strongly Disagree

1. Music Theory is a boring academic discipline.

2. An important part of the rehearsals of performing groups should be the theoretical study of their music.

3. I am opposed to using Music Theory supplemental lessons presented on the DAIRS and/or with video cassettes.

4. An instrumental music director needs a good background in Music Theory.

5. Sight singing and ear training, as required in Music Theory classes, are important to the music major.

6. Music Theory concepts are helpful aids in performing music.

7. Music Theory is an extraneous course for the music performer.

8. The present Harmony II class structure of three class periods per week needs no additional learning aids.
9. Music Theory is an interesting academic course.

10. Music Theory is irrelevant to my musical interests.

11. Music courses such as history and literature, conducting, vocal and instrumental techniques, music education methods, and applied lessons should incorporate aspects of Music Theory as an integral part of their content.

12. The theoretical study of music is an enjoyable intellectual pursuit.

13. I am frightened by Music Theory as an academic subject.

14. Instrumental music majors should be exempt from the sight singing requirement in Music Theory.

15. A choral director needs a good background in Music Theory.

16. To make available video cassettes of lesson material would be helpful aids for Music Theory courses.

17. Music Theory should be an elective for music majors.

18. Music Theory should be simplified for prospective public school music teachers.

19. My enjoyment of music is enhanced after learning Music Theory concepts.

20. The ear training requirement in Music Theory is too demanding.

21. Music Theory courses tend to make me dislike music.

22. Student time would be conserved in this Music Theory course by having supplemental lessons on the DAIRS and/or with video cassettes.

23. The theoretical study of music is a necessary part of my music education.

24. Studying Music Theory is distasteful to me.
MUSIC THEORY ATTITUDE SURVEY

Please mark your personal attitude concerning the following statements about Music Theory. Work rapidly but be certain you understand each statement. Mark only the one response which most nearly reflects your personal opinion. Since the purpose of this survey is purely research oriented, your responses will in no way affect your course work, your grades, or subsequent recommendations from the University.

For each statement, if you strongly agree, mark your answer card A; if you agree, but not strongly, mark B; if undecided, mark C; if you disagree, but not strongly, mark D; and if you strongly disagree with the statement, mark E.

A - Strongly Agree
B - Agree
C - Undecided
D - Disagree
E - Strongly Disagree

1. Music Theory is a boring academic discipline.

2. An important part of the rehearsals of performing groups should be the theoretical study of their music.

3. I am opposed to using Music Theory supplemental lessons presented on the DAIRS and/or with video cassettes.

4. An instrumental music director needs a good background in Music Theory.

5. Sight singing and ear training, as required in Music Theory classes, are important to the music major.

6. Music Theory concepts are helpful aids in performing music.

7. Music Theory is an extraneous course for the music performer.

8. The Harmony II class structure of three class periods per week does not need the additional supplemental lessons.
9. Music Theory is an interesting academic course.

10. Music Theory is irrelevant to my musical interests.

11. Music courses such as history and literature, conducting, vocal and instrumental techniques, music education methods, and applied lessons should incorporate aspects of Music Theory as an integral part of their content.

12. The theoretical study of music is an enjoyable intellectual pursuit.

13. I am frightened by Music Theory as an academic subject.

14. Instrumental music majors should be exempt from the sight singing requirement in Music Theory.

15. A choral director needs a good background in Music Theory.

16. The use of video cassettes containing lesson material has been a helpful aid in my Music Theory study.

17. Music Theory should be an elective for music majors.

18. Music Theory should be simplified for prospective public school music teachers.

19. My enjoyment of music is enhanced after learning Music Theory concepts.

20. The ear training requirement in Music Theory is too demanding.

21. Music Theory courses tend to make me dislike music.

22. Student time has been conserved in this Music Theory course by having supplemental lessons on the DAIRS and/or with video cassettes.

23. The theoretical study of music is a necessary part of my music education.

24. Studying Music Theory is distasteful to me.

25. In the future, the use of supplemental lessons for this Music Theory class should be:
   A. voluntary as was done this semester.
   B. required by all class members.
   C. required of class members below a certain grade average, but voluntary for all other class members.
   D. discontinued completely.
   E. (If E is marked the precise response should be written at the bottom of the answer card.)
APPENDIX E

MUSIC THEORY WORK-STUDY DAILY RECORD

<table>
<thead>
<tr>
<th>DATE</th>
<th>STUDY ACTIVITY</th>
<th>TIME</th>
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</tbody>
</table>

Enter your total time spent in music theory study outside of class. Please give the date, label the study activity, and give the amount of time spent.

For Example:

10/1 study text 1 hr.
10/3 Aural Harm. tapes 1 hr.
e tc.
APPENDIX F

INFORMED CONSENT FORM AND
SUMMARY OF THE STUDY
INFORMED CONSENT FORM

Name ____________________________ Telephone No. __________

Address ____________________________ Birthday ___ / ___ / ___

month day year

DESCRIPTION OF PROPOSED RESEARCH

Please write a concise (approximately one page) narrative statement about the items in the outline below.

A. Purpose of the Study

B. Research Methodology (including experimental details)

C. Summary of the role the subject will be expected to play in the research. Included in this section should be a description of what will happen to the subject in the experiment, any physical or psychological risks, and an agreement on any financial remuneration for participation that might be involved.

D. Statement which communicates to the subject that he is free to discontinue participation at any time.

This is to inform all concerned that I, the subject, have read and understood the terms of the project described, and I freely give consent to be used as a research subject.

Signature of Research Subject ____________________________

Witness ____________________________ Date _________________

ONLY FOR SUBJECTS UNDER 18 YEARS OF AGE

This is to inform all concerned that I, the parent/legal guardian of (_________________), have read and understood the terms of the project described and I freely give consent to my son/daughter to participate as a research subject.

Signature of Parent/Legal Guardian ____________________________

Witness ____________________________ Date _________________
THE DEVELOPMENT AND EVALUATION OF A SERIES OF VIDEOTAPE LESSONS

TO SUPPLEMENT THE THIRD SEMESTER OF COLLEGE MUSIC THEORY

DESCRIPTION OF PROPOSED RESEARCH

By

David E. Robbins
The purpose of this research project is to develop and evaluate a series of videotape lessons to supplement the traditional lecture-discussion method for teaching the third semester of college music theory.

For this study, the total enrollment of the ORU students in the third semester of Music Theory (Music 2013) have been, or will be, matched and then randomly assigned to Section A or Section B, both to be taught by the researcher. After all enrolling students have been appropriately assigned, one of the two sections will be randomly assigned to be exposed to seven videotape lessons. The appropriate videotape lesson will be scheduled on the DAIRS at the beginning of each unit of study and must be viewed at least once at this time by all students in the section. All supplemental lessons will be available on video cassettes on a reserve checkout basis throughout the semester. The use of the video cassettes is completely optional.

The total time spent in Music Theory study and its relationship to achievement and attitude will be investigated in this study. Both sections will be required to attend class sessions according to the University attendance policy, and the students enrolled in the section exposed to the supplemental lessons will be required to view each videotape lesson at least once. Particular encouragement will be given the section not exposed to the lessons to work with ear training tapes and programmed material. For every unit of study, the students in both sections will be required to keep an accumulative record of time spent outside of class in the study of Music Theory.

The section receiving normal classroom instruction only will be taught in a manner comparable to that of previous years, except that the preparation required to produce the supplemental lessons is expected to result in instructional improvement in this section. One improvement expected is from the use of Study Guides, carefully prepared for use with supplemental lessons, which have been revised for use by the "non-treatment" section.

The achievement tests to be used in the study have been pilot tested and revised for two years previous to their use in the research project.

An attitude survey, which has also been pilot tested for the past two years, is to be part of the study and will be given to both sections toward the end of the semester. Since this is a study of the evaluation of materials, which will not be used by all subjects involved, if any participating student is not satisfied with the instruction received, that student may -- upon notifying the researcher -- change sections or drop out of the study at any time during the semester.
APPENDIX G

INDIVIDUAL SCORES FOR COMPOSITE HARMONY, SIGHT SINGING, EAR TRAINING,
AND KEYBOARD, THE COMPOSITE ACHIEVEMENT TEST TOTALS,
ATTITUDE, AND TIME FOR SECTIONS A AND B

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<th>Student Numbers</th>
<th>Harmony</th>
<th>Sight Singing</th>
<th>Ear Training</th>
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<th>CATT</th>
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APPENDIX H

INDIVIDUAL SCORES, IN BEGINNING ABILITY LEVELS, FOR THE SEPARATE HARMONY,
SIGHT SINGING, EAR TRAINING FOR SECTIONS A AND B

<table>
<thead>
<tr>
<th>Student Numbers</th>
<th>Ability Levels</th>
<th>H#1</th>
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APPENDIX I

ANova TABLES FOR THE ABILITY LEVELS FOR SECTION B ON SIGHT SINGING AND EAR TRAINING TESTS NO. 1, 2, AND 3 AND KEYBOARD TESTS NO. 1 AND 2
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APPENDIX J

STUDENT AND ITEM SCORES FOR THE MUSIC THEORY

ATTITUDE SURVEY FOR SECTIONS A AND B
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Item specifically mentioning the DAIRS use for Supplemental Lessons.

Item referring to the use of Supplemental Lessons, but with no mention of the DAIRS.

Total score for subjects who also took the MIAS in the spring of 1977.
| Student Numbers | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 11'77 | 15'77 |
|-----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| 201             | 3 | 3 | 5 | 5 | 4 | 3 | 2 | 5 | 4 | 4 | 4 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 98 | 100 |
| 202             | 4 | 4 | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 83 | ... |
| 203             | 1 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 2 | 4 | 1 | 1 | 4 | 3 | 2 | 4 | 1 | 3 | 2 | 4 | 3 | 5 | 65 | ... |
| 204             | 5 | 4 | 4 | 5 | 3 | 4 | 5 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 95 | 104 |
| 205             | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 2 | 1 | 4 | 5 | 4 | 4 | 2 | 3 | 2 | 2 | 5 | 4 | 2 | 1 | 82 | 92  |
| 206             | 5 | 5 | 2 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 3 | 5 | 5 | 5 | 3 | 5 | 5 | 1 | 110 | ... |
| 207             | 1 | 5 | 4 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 1 | 3 | 3 | 5 | 5 | 4 | 94 | ... |
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| 209             | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 4 | 2 | 4 | 4 | 5 | 3 | 3 | 2 | 2 | 97 | ... |
| 210             | 1 | 3 | 4 | 5 | 4 | 4 | 5 | 4 | 3 | 5 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 93 | ... |
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| 212             | 5 | 5 | 2 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 4 | 5 | 2 | 5 | 5 | 3 | 99 | ... |
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| 216             | 4 | 3 | 2 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 92 | ... |
| 218             | 3 | 6 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 3 | 2 | 5 | 5 | 4 | 5 | 2 | 4 | 2 | 5 | 3 | 4 | 2 | 88 | 85  |

### Item Totals

| Item Totals | 63 | 65 | 55 | 80 | 58 | 72 | 73 | 58 | 64 | 76 | 69 | 57 | 55 | 82 | 79 | 56 | 80 | 56 | 62 | 54 | 63 | 71 | 74 | 65 | ... |

### Item Means

| Item Means | 3.5 | 1.6 | 3.1 | 4.4 | 4.6 | 4.0 | 4.1 | 3.7 | 3.6 | 4.2 | 3.8 | 3.2 | 3.1 | 4.5 | 4.4 | 3.0 | 4.4 | 3.1 | 3.4 | 3.6 | 2.8 | 4.1 | 3.5 | 88.33 | 94 |

* a Item specifically mentioning the BAIRS use for Supplemental Lessons.

* b Item referring to the use of Supplemental Lessons, but with no mention of the BAIRS.

* c A non-scaled item on the survey form given only to Section E.

* d Total score for subjects who also took the MTAS in the spring of 1977.
APPENDIX K

SYLLABI FOR THE THIRD SEMESTER OF COLLEGE

MUSIC THEORY, SECTIONS A AND B

The Syllabi for Sections A and B, from the beginning until the Calendar, were the same, except for references to the use of the supplemental lessons for Section B. The Syllabus for Section B, compared to the one for Section A, adds the following:

1) an entry, "Supplemental lessons on DAIRS" for each of the seven units under the "Topic and Sequence" subheading; and

2) an entry, under "Bibliography, Special References," indicating the supplemental lessons were available on the DAIRS and on video cassettes.
ORAL ROBERTS UNIVERSITY

THE DEPARTMENT OF FINE ARTS

Paul W. Wohlgemuth, Chairman

A SYLLABUS AND GENERAL GUIDE FOR

STUDIES IN MUSIC 2013A

FALL SEMESTER 1977

Prepared for use in the course Harmony II

by

David E. Robbins
ATTENDANCE POLICY - FINE ARTS DEPARTMENT

University policy as stated in the Student Handbook.

Students are expected to attend class and laboratory periods regularly and punctually. If a student is absent from class, the professor may lower his grade or deny him credit for the course unless the student presents a valid and satisfactory excuse to the professor. When a student knows in advance that he must miss one or more classes and has a valid excuse, he is required to contact his professors prior to the absence. Administratively excused absences for official University business are granted only by the Executive Vice President for Academic Affairs.

FINE ARTS ATTENDANCE POLICY

A. Lecture or Laboratory Classes

No "free cuts" are permitted. Administratively excused absences and sickness absences, which are authenticated by the University Health Service doctor, or nurse, will be honored; however, whenever possible, work must be turned in in advance. Examinations missed must be made up at a time specified by the professors.

B. Applied Music Lessons Policy

The student must notify professor in advance if it becomes necessary for him to be absent. If a student has two or more unexcused absences, he will be dropped from the class by the instructor. Excused absences must be made up at a time specified by the professor.

ACADEMIC DISHONESTY
(Check with the Student Handbook)

It is a basic fact that every person's education is the product of his own intellectual efforts. Oral Roberts University cannot educate a person who will not educate himself. The University sees no value in making its facilities available to a person who evades the responsibility and opportunity for his own education. Every person who enrolls and remains at Oral Roberts University, therefore, understands that to submit work which is not his own violates the purpose of the University and of his presence here. No Christian intellectual community can maintain its integrity or be faithful to its members if violations of its central purpose, for any reason, are tolerated. This principle of intellectual responsibility applies to all work done by students.

Therefore, should a student violate this principle of responsibility, he or she will receive an "F" grade in the course.
Course Description

Harmony II, Music 2013, will employ lecture discussion, demonstration, drill and the use of supplemental lessons on the dial access information retrieval system, and in the form of video cassettes, to present a continuation of Harmony I and Sight Singing and Ear Training. The study will include: (1) analysis of music involving the discernment of binary and ternary forms containing modulations to closely related keys, harmonic resources of all diatonic triads in common and uncommon progressions, all of the diatonic seventh chords, and the altered borrowed chords and secondary dominants; (2) singing melodies containing closely related modulation and lines implying borrowed chords and secondary dominants; (3) part writing more advanced figured bass exercises and melody harmonizations and writing in styles other than four part chorale style; (4) ear training of melody and harmony to complement the music theory concepts presented, some exercises to be taken from standard music literature; and (5) keyboard study involving modulation to closely related keys, borrowed chords and secondary dominants.

General Goals of the Course

Harmony II, Music 2013, is preparing students, primarily music majors, for more advanced study in virtually all areas of the discipline of music. The concepts of the course must be synthesized, transferred, applied and built upon in such theoretical courses as Form and Analysis, Orchestration, Counterpoint, Composition, and Choral and Instrumental Techniques. In a larger sense, the course content is designed to be a vital tool as the student pursues a musical activity involving listening, studying from score, creating, or recreating.

Prerequisites for the Course

Harmony I, Music 1023, and Sight Singing and Ear Training, Music 1041, or evidence of comparable knowledge of music theory and skill in sight singing and ear training are required prerequisites for Music 2013. Transfer students may need to take tests to prove at least minimum proficiency in the course content for Music 2013A.

Topic Listing and Sequence

Unit I: Modulation to Closely Related Keys
A. Harmony Exam No. 1 primarily covering Harmony I, course content.
B. Lecture discussion on closely related modulation.
C. Lecture discussion concerning music with modulation to closely related keys.
D. Lecture demonstration and drill on sight singing and ear training.
E. Announce keyboard assignment and drill on sight singing.
F. Assignment from study guide for Unit I, which includes part writing assignment 1.4, No. 2 from the textbook.
G. Sight Singing Exam No. 1, a melody with closely related modulation.
Unit II: Secondary Dominant Chords
A. Lecture discussion on secondary dominants.
B. Lecture demonstration on keyboard skills involving secondary dominants and/or closely related modulation.
C. Lecture demonstration, drill and practice session on sight singing, ear training and keyboard skills.
D. Assignment from study guide for Unit II.
E. Keyboard Exam No. 1, melody harmonization involving modulation to closely related keys and/or secondary dominants.

Unit III: Binary and Ternary Forms
A. Lecture discussion on binary and ternary forms.
B. Lecture discussion on binary and ternary forms incorporating aural analysis.
C. Lecture demonstration, drill and practice session on sight singing, ear training and keyboard skills.
D. Assignment from study guide for Unit III.
E. Ear Training Exam No. 1, including melodic and harmonic dictation from standard literature.

Unit IV: Less Common Chord Progressions and Part Writing Procedures
A. Lecture discussion on less common chord progressions.
B. Lecture discussion on less common part writing procedures.
C. Lecture demonstration, drill and practice session on sight singing, ear training, and keyboard skills.
D. Assignment from study guide for Unit IV, including Assignments 3.3 from textbook.
E. Sight Singing Exam No. 2 involving a melody with modulation and/or using a secondary dominant and syncopation.

Unit V: Application of Part Writing Procedures to Instrumental Writing
A. Lecture discussion on realizing a figured bass.
B. Lecture discussion on writing accompaniments to already composed tunes.
C. Lecture demonstration, drill and practice session on sight singing, ear training and keyboard skills.
D. Assignments: From study guide for Unit V.
   1. Realization of a figured bass; from the textbook choose one of Assignments 4.1, 4.2, 4.3, 4.4, or 4.5.
   2. Accompaniment to an already composed tune; from the textbook, choose one of 4.7, Nos. 1, 2, 4, 5, 6, 7 or 8; or use another tune of your choosing.
E. Harmony Exam No. 2.

Unit VI: Diatonic Seventh Chords
A. Lecture discussion on diatonic seventh chords.
B. Lecture discussion on original keyboard composition.
C. Lecture demonstration, drill and practice session on sight singing and ear training.
D. Assignments from study guide for Unit VI.
   2. Part Writing from the textbook, assignment 5.3, No. 1.
3. Composition in keyboard style.

E. Ear Training Exam No. 2.

Unit VII: Introduction to Altered Chord and Borrowed Chord
A. Lecture discussion on introduction to altered chords.
B. Lecture discussion on borrowed chords.
C. Lecture demonstration, drill and practice session on sight singing, ear training and keyboard skills.
D. Assignment from study guide for Unit VII, including analysis and part writing assignment 8.3, No. 1 from textbook.
E. Keyboard Exam No. 2 (Final Exam) -- melody harmonization involving modulation to closely related keys, secondary dominants, and/or borrowed chords.

Course Procedures

A. Grading system. The course has two main divisions: Part Writing, Creative Writing, and Keyboard; and Sight Singing and Ear Training. Each division will be evaluated at 50% of the total grade. For any music major to receive credit in the course, a grade of "C" or better must be made in both divisions. If a "C" or better is made in one division, and not in the other, the student may upon taking the course again consider to have tested out of the division in which the passing grade was received and devote all attention to bringing up the division which was not passed. Criterion-based tests are not used for evaluation due to the difficulty of establishing recognizable perimeters of evaluation for such things as analysis of music, sight singing, ear training, and keyboard. The tests given will evaluate with regard to the performance of the total class. Approximately 90% or better of the top score in the class will be a grade of "A", from 89 to 90% a "B", from 79 to 70% a "C", and from 69 to 60% a "D". For all tests effort is made to keep optimum objectivity. Criteria are established for subjective parts of tests in an effort to make consistent judgments and sight singing tests are tape recorded with students maintaining a degree of anonymity. Keyboard tests are evaluated according to a set of criteria which are explained to the student.

B. Makeup Exam Policy. If any scheduled exam is missed for any reason, it will not be made up unless the instructor is notified in advance. Only extreme emergencies can be exceptions to this rule. If the notification is made in advance and the absence is excusable, a makeup exam will be given at a time agreed upon by the student or students involved and the professor. Makeup exams are always more difficult and/or graded more strictly than are the original exams.

C. Credit By Examination. To receive credit by examination, a student must take the terminal exam in all areas of the course,
and as many other exams considered necessary to prove sufficient mastery of the course content. The basic score level of 90% an "A", 80% a "B", 70% a "C", will be maintained unless an ORU "Norm" for each grade level has been established. Music majors must earn at least a "C" in each of the two main divisions of the course.

Bibliography

A. Texts.

B. Special References: Audio tapes with quasi-programmed workbook in the Music Department listening room.
1. Ellsworth, Aural Harmony.

Terminal Objectives

Upon completion of this semester's course, the student should be able to:
A. Make appropriate analysis of music from scores to include:
1. Identification of key relationships including modulations to closely related keys.
2. Recognition of harmonic resources, including diatonic triads and secondary dominants, seventh chords, and borrowed chords.
3. Identification of the melodic formal elements of binary and ternary forms and the smaller elements which comprise these.

B. Demonstrate quasi-compositional skills, including:
1. Four part harmonizations of melodies, figured bass exercises with bass and soprano parts given, and with bass only given—all of which might include all diatonic triads and seventh chords, borrowed chords and secondary dominants and/or modulation to closely related keys.
2. Extending four-part harmonization principles to the writing of chord connections "in styles" other than hymn or chorale.
   a. Realizing a figured bass consistent with Baroque practice.
   b. Writing accompaniments to already composed tunes.
   c. Composing a simple piano piece.

C. Demonstrate sight singing and ear training skills, including:
1. Sight singing melodies in simple and compound meters and involving modulations to closely related keys and for chromatic alterations included in secondary dominants and borrowed chords.
2. Taking dictation of harmonic progressions, including modulations to closely related keys, diatonic seventh chords, secondary dominants and borrowed chords. (Some examples from standard music literature)
3. Take dictation of short examples of melodies, some from standard music literature.

D. Demonstrate proficiency in keyboard harmony including:
1. Harmonizing melodies with diatonic, secondary dominant and borrowed chords.
2. Modulating at the keyboard to closely related keys.

Unit Objectives

Unit I. Modulation to Closely Related Keys. Upon completion of this Unit, the student should be able to:
A. Identify the closely related keys to any given major or minor key.
B. Part write exercises containing modulation to closely related keys.
C. Harmonize melodies containing modulation to closely related keys.
D. Analyze music, identifying closely related modulation.
E. Take harmonic dictation of exercises with modulations to closely related keys, including some exercises from standard music literature.
F. Take melodic dictation of exercises with modulations to closely related keys, from instrumental music and art songs.
G. Harmonize at the keyboard, melodies using modulations to closely related keys.

Unit II. Secondary Dominants. Upon completion of this Unit, the student should be able to:
A. Correctly label secondary dominant chords in music examples.
B. Part write exercises using secondary dominants.
C. Sing choral music and melodies containing secondary dominants.
D. Take harmonic dictation of music containing secondary dominants.
E. Harmonize at the keyboard melodies which make use of secondary dominants.

Unit III. Binary and Ternary Forms. Upon completion of this Unit, the student should be able to:
A. Correctly analyze from score, binary and ternary forms in music examples.
   1. Label and bracket main parts.
   2. Label and/or name the formal components of each main part.
B. Correctly label from an aural stimulus only, a composition or an excerpt given the choices of:
1. Binary
2. Ternary
3. Rounded Binary, or Incipient Ternary, or
4. None of these

Unit IV. Less Common Chord Progressions and Part Writing Procedures
A. Identify in music less common progressions and/or procedures.
   1. Label less common progressions and circle instances of
      less common part writing procedures.
   2. Describe the compositional rationale for less common
      progressions and/or procedures.
B. Harmonize less common chord progressions.

Unit V. Application of Part Writing Procedures to Instrumental Writing.
Upon completion of this Unit the student should be able to:
A. Identify similarities and differences of four part chorale
   style harmonic procedures with instrumental styles.
B. Harmonize a figured bass consistent with Baroque style.
C. Compose "piano accompaniment" to folk songs or other
   traditional tunes.

Unit VI. Diatonic Seventh Chords. Upon completion of this Unit the
student should be able to:
A. Name the different kinds of diatonic seventh chords and know
   the Roman Arabic symbols for each.
B. Correctly label diatonic sevenths in music examples analyzed
   from scores.
C. Spell all diatonic seventh chords in any major or minor key.
D. Part write exercises using diatonic sevenths.
E. Take dictation of exercises using diatonic sevenths.
F. Compose simple original compositions for the piano.

Unit VII. Introduction to Altered Chords and Borrowed Chords. Upon
completion of this Unit the student should be able to:
A. Specify the three main types from which the five groups of
   altered chords are formed.
B. Indicate the correct Roman-Arabic figures to be used for each
   group of altered chords.
C. Correctly label borrowed chords in music examples analyzed
   from the score.
D. Part write exercises using borrowed chords.
E. Sing choral music and melodies containing borrowed chords.
F. Take harmonic dictation of chord progression with borrowed
   chords.

Calendar

The following schedule is based on the 15 week semester (less finals' week) and 3 class periods each week. The schedule is merely a rough guide that may need many revisions.
Week One

Period One: Lecture discussion of Harmony I concepts particularly those directly leading into modulation to closely related keys. Announcement of Harmony Examination No. 1. Distribution of study guide for Unit I.

Period Two: Administration of Harmony Exam No. 1.

Period Three: Lecture discussion on modulation to closely related keys. Unit I.

Week Two

Period One: Lecture demonstration and drill on sight singing and ear training.

Period Two: Lecture demonstration and practice on keyboard skills and sight singing.

Period Three: Administration of Sight Singing Exam No. 1.

Week Three

Period One: Assignments due from study guide. Lecture discussion on secondary dominants.

Period Two: Lecture demonstration, drill and practice session on sight singing and ear training skills. Distribution of study guide for Units III and IV.

Period Three: Lecture demonstration and practice session on keyboard skills involving secondary dominants and/or closely related modulation.

Week Four

Period One: Lecture discussion on analysis of music with emphasis upon discerning the difference between secondary dominants and modulation.

Period Two: Lecture demonstration and practice session on sight singing, ear training and keyboard skills.

Period Three: Administration of Keyboard Exam No. 1.

Week Five

Period One: Assignments due from study guide for Unit II. Lecture discussion on binary and ternary forms.
Period Two: Lecture demonstration and practice session on developing aural perception of binary and ternary forms.

Period Three: Lecture discussion on further analysis of binary and ternary forms.

Week Six

Period One: Lecture demonstration and practice on developing aural perception of binary and ternary forms.

Period Two: Same as the above.

Period Three: Administration of Ear Training Exam No. 1. Assignments due from study guide for Unit III.

Week Seven

Period One: Lecture discussion on less common chord progressions. Distribution of study guide for Units V and VI.

Period Two: Lecture discussion on less common part writing procedures.

Period Three: Lecture demonstration, drill and practice session on sight singing, ear training and keyboard skills.

Week Eight

Period One: Assignments due from study guide for Unit IV. Further drill and practice on sight singing, ear training, and keyboard skills.

Period Two: Lecture discussion on realizing a figured bass.

Period Three: Lecture demonstration on Unit V emphasizing writing accompaniments to already composed tunes.

Week Nine

Period One: Lecture discussion on all of Unit V.

Period Two: Administration of Sight Singing Exam No. 2. Assignments due from study guide, realization, and accompaniment for Unit V.

Period Three: Lecture discussions on concepts of Unit V.

Week Ten

Period One: Lecture discussion review of all harmonic concepts studied this semester.
Period Two: Administration of Harmony Exam No. 2.

Period Three: Lecture discussion on Unit VI emphasizing diatonic seventh chords.

Week Eleven

Period One: Discussion of Harmony Exam No. 2. Distribution of study guide for Unit VII.

Period Two: Lecture discussion on Unit VI emphasizing original keyboard composition.

Period Three: Lecture demonstration, drill and practice session on sight singing and ear training with emphasis upon ear training.

Week Twelve

Period One: Same as the above

Period Two: Same as the above

Period Three: Administration of Ear Training Exam No. 2.

Week Thirteen

Period One: Lecture discussion on Unit VII emphasizing borrowed chords. Assignment due from study guide, part writing and keyboard composition, Unit VI.

Period Two: Conclude lecture discussion on borrowed chords. Work on aural perception of borrowed chords.

Period Three: Lecture demonstration, drill and practice session on sight singing, ear training and keyboard.

Week Fourteen

Period One: Lecture demonstration, drill and practice on sight singing, ear training and keyboard.

Period Two: Same as the above.

Period Three: Lecture discussion review of all harmony concepts studied this semester. Assignment due from study guide and part writing, Unit VII.

Week Fifteen

Period One: Administration of Keyboard Exam No. 2 (Final).
Period Two: Administration of Sight Singing Exam No. 3 (Final).

Period Three: Administration of Ear Training Exam No. 3 (Final).

Week Sixteen

Harmony Exam No. 3 (Final). Date ________ Time ________
ORAL ROBERTS UNIVERSITY
THE DEPARTMENT OF FINE ARTS
Paul W. Wohlgemuth, Chairman

A SYLLABUS AND GENERAL GUIDE FOR
STUDIES IN MUSIC 2013B
FALL SEMESTER 1977

Prepared for use in the course Harmony II
by
David E. Robbins
Refer to A SYLLABUS AND GENERAL GUIDE FOR STUDIES IN MUSIC 2013A, FALL SEMESTER 1977 for the beginning of this syllabus until the Calendar. The references to supplemental lessons made in this syllabus which were not made in the one for Section A are outlined on the title page of this appendix, Appendix K.
Calendar

The following schedule is based on the 15 week semester (less finals' week) and 3 class periods each week. The schedule is merely a rough guide that may need many revisions.

Week One

Period One: Lecture discussion of Harmony I concepts particularly those directly leading into modulation to closely related keys. Announcement of Harmony Examination No. 1. Distribution of study guide for supplemental lessons, Unit I. An announcement of DAIRS schedule for the first two supplemental lessons.

Period Two: Administration of Harmony Exam No. 1. Supplemental Lesson, Unit I on DAIRS.

Period Three: Lecture discussion to follow-up supplemental lesson, Unit I.

Week Two

Period One: Lecture demonstration and drill on sight singing and ear training.

Period Two: Lecture demonstration and practice on keyboard skills and sight singing. Supplemental lessons schedule reminder.

Period Three: Administration of Sight Singing Exam No. 1. Supplemental Lesson, Unit II on DAIRS.

Week Three

Period One: Assignments due from study guide for supplemental lessons Unit I. Lecture discussion to follow-up supplemental lessons, Unit II.

Period Two: Lecture demonstration, drill and practice session on sight singing and ear training skills. Distribution of study guide and DAIRS schedule for supplemental lessons, Units III and IV.

Period Three: Lecture demonstration and practice session on keyboard and ear training skills.

Week Four

Period One: Lecture discussion on analysis of music with emphasis upon discerning the difference between secondary dominants and modulation.
Period Two: Lecture demonstration and practice session on sight singing, ear training and keyboard skills.

Period Three: Administration of Keyboard Exam No. 1. Supplemental Lesson, Unit III on DAIRS.

Week Five

Period One: Assignments due from study guide for supplemental lessons Unit II. Lecture discussion to follow-up supplemental lessons, Unit III.

Period Two: Lecture demonstration and practice session on developing aural perception of binary and ternary forms.

Period Three: Lecture discussion on further analysis of binary and ternary forms.

Week Six

Period One: Lecture demonstration and practice on developing aural perception and binary and ternary forms.

Period Two: Same as the above.

Period Three: Administration of Ear Training Exam No. 1. Assignments due from study guide for supplemental lessons, Unit III. Supplemental Lesson, Unit IV on DAIRS.

Week Seven

Period One: Lecture discussion to follow-up supplemental lessons, Unit IV. Distribution of study guide and DAIRS schedule for supplemental lessons, Units V and VI.

Period Two: Lecture demonstration, drill and practice session on sight singing, ear training and keyboard skills.

Period Three: Same as the above.

Week Eight

Period One: Same as the above. Assignments due from study guide for supplemental lessons, Unit IV. Supplemental Lesson, Unit V on DAIRS.

Period Two: Lecture demonstration to follow-up supplemental lessons, Unit V emphasizing the realization of figured bass exercises.

Period Three: Lecture demonstration to follow-up supplemental
lessons, Unit V emphasizing writing accompaniments to already composed tunes.

**Week Nine**

Period One: Lecture demonstration and practice on sight singing, ear training and keyboard skills.

Period Two: Administration of Sight Singing Exam No. 2. Assignments due from study guide, realization, and accompaniment for supplemental lessons, Unit V.

Period Three: Lecture discussions on concepts of Unit V.

**Week Ten**

Period One: Lecture discussion review of all harmonic concepts studied this semester.

Period Two: Administration of Harmony Exam No. 2. Supplemental Lesson, Unit VI on DAIRS.

Period Three: Lecture discussion to follow-up supplemental lessons, Unit VI emphasizing diatonic seventh chords.

**Week Eleven**

Period One: Discussion of Harmony Exam No. 2. Distribution of study guide and DAIRS schedule for supplemental lessons, Unit VII.

Period Two: Lecture discussion to follow-up supplemental lesson, Unit VI emphasizing original keyboard composition.

Period Three: Lecture demonstration, drill and practice session on sight singing and ear training with emphasis upon ear training.

**Week Twelve**

Period One: Same as the above.

Period Two: Same as the above.

Period Three: Administration of Ear Training Exam No. 2.

**Week Thirteen**

Period One: Lecture discussion to prepare for the supplemental lesson, Unit VII. Supplemental Lesson, Unit VII on DAIRS.

Period Two: Lecture discussion to follow-up the supplemental
lessons, Unit VII. Assignment due from study guide, part writing and keyboard composition, Unit VI.

Period Three: Lecture demonstration, drill and practice session on sight singing, ear training and keyboard.

Week Fourteen

Period One: Same as the above.

Period Two: Same as the above.

Period Three: Lecture discussion review of all harmony concepts studied this semester. Assignment due from study guide and part writing, Unit VII.

Week Fifteen

Period One: Administration of Keyboard Exam No. 2 (Final).

Period Two: Administration of Sight Singing Exam No. 3 (Final).

Period Three: Administration of Ear Training Exam No. 3 (Final).

Week Sixteen

Harmony Exam No. 3 (Final). Date ___________ Time ___________
APPENDIX L

SCRIPTS FOR THE SUPPLEMENTAL LESSONS

UNITS I THROUGH VII
SUPPLEMENTAL LESSONS FOR HARMONY II, MUSIC 2013

UNIT I: MODULATION TO CLOSELY RELATED KEYS

<table>
<thead>
<tr>
<th>Video</th>
<th>Audio</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1</td>
<td>Sign with: MODULATION TO CLOSELY RELATED KEYS</td>
</tr>
<tr>
<td></td>
<td>(V1) Within the music of the common practice period, one means of achieving contrast between various musical elements is to change keys — to move from one tonality to another. The object of this video tape presentation is to acquaint you with some of the basic theoretical procedures involved in modulating to closely related keys. Specifically, this video tape is designed to help you to (V2): name the closely related keys for any given major or minor key; (V3) and identify three important types of modulations which are commonly used when modulating to closely related keys.</td>
</tr>
<tr>
<td>V2</td>
<td>Sign with: NAME THE CLOSELY RELATED KEYS</td>
</tr>
<tr>
<td>V3</td>
<td>Sign with: IDENTIFY 3 IMPORTANT TYPES OF MODULATIONS</td>
</tr>
<tr>
<td>V4</td>
<td>Sign with: B♭ MAJOR-Original Key. (Melodic example)</td>
</tr>
<tr>
<td></td>
<td>What are the closely related keys (V4) to B♭ major? One way to think of this kind of key relationship is to consider key signatures. B♭ major has a key signature of two flats. (V5) With the same key signature is g minor, the relative minor</td>
</tr>
<tr>
<td>V5</td>
<td>Sign with: g minor-Relative Minor Key (Melodic Example)</td>
</tr>
</tbody>
</table>
and a closely related key. With one less flat (V6) in the key signature is the key of F Major. It might occur with one flat in the key signature or with two flats and a cancel of the E♭. (V7) Also with one less flat in the key signature is the key of D minor. (V8) With one more flat in the key signature are the keys of E♭ major and (V9) . . . C minor. (V10) These, then, are the five closely related keys to B♭ major: G, the relative minor; F major, the dominant of B♭ (having one less flat); D minor, the relative minor of F major; E♭ major, the subdominant of B♭ (having one more flat); and C minor, the relative minor to E♭ major.

Another way to think of the closely related key relationships is to determine the keys of (V11) the supertonic, mediant, subdominant, dominant, and submediant of the original major key. Each key will assume the mode equal to the triad quality of that scale degree. (V12) In other words, since the supertonic triad is minor in major keys, the mode of the closely related key having that tone as its tonic
UNIT I, page 3

will be minor, and so on for scale degrees 2 through 6. If a minor key is the original tonality, (V13) you must think of the resources of the natural minor scale and consider keys built on the scale tones of the mediant, subdominant, dominant, submediant, and subtonic. (V14) Again, the mode of each key will be comparable to the appropriate triad quality if the resources of the natural minor are considered.

(V15) So far, the only definition given for modulation has been that it involves moving from one key or tonality to another. One further stipulation needs to be made for the purposes of this course; that is that no modulation (V16) occurs unless it is verified through a cadence in the new key. Refer now to the Study Guide on page 2. Sometimes cadences, (V17) particularly to the dominant, are so brief -- so transient -- that the perception of the new key is not established aurally for many listeners. Confusion often exists between a modulation and the use of the dominant of the dominant and other secondary
dominants. In our next unit, more specific attention will be given to secondary dominants. Look and listen. [Play tape of first two lines of visual Ex. 1 from Methodist Hymnal, page 9 of this hymn tune excerpt in the key of D major.]

It is possible to analyze this excerpt as a common chord pivot modulation to A major, (V18) the key of the dominant. There is no "preparation," however, for the E major triad (the V of A), (V19) and after the cadence using the $G^b$ (V-I in A), the very next chord employs, not $G^b$, but $G$ as it moves toward a strong cadence in the tonic key of D major. For this example, a better analysis is to label (V20) the E major triad the V/V or the dominant of the dominant which goes to the dominant in D Major. Often the rhythmic strength of the cadence as well as the type and degree of preparation given to the possible new key are factors in determining if in fact a modulation occurs.

(V21) Now, let us view and hear the Bach Chorale #27, page 3 of the Study Guide, first as the basis of review, and
UNIT I, page 5

then to proceed further. [Play the recording Bach Choral #27] (Leave V21 on the screen.)

Write in your study guide the key in which this chorale is written. [Wait 15 seconds.] 

(V22) I am sure you wrote $B^b$ major. Now write all five of the closely related keys to $B^b$ major. [Wait 30 seconds.] 

(V23) You should have written the major keys of $E^b$ and $F$ (V24) and the minor keys of $g$, $c$, and $d$.

(V25) Now look at the first short phrase of this chorale. At measure 2 there is an imperfect authentic cadence in $E^b$ major. The $B^b$ major triad is the tonic triad in $B^b$ and the dominant triad in $E^b$ major. The $B^b$ major triad, therefore, is a diatonic chord common to both keys, and it might be considered the pivot chord for a closely related modulation. (V26) Notice that the passing $A^b$ in the tenor voice provides the chromatic indicative of the change from $B^b$ to $E^b$ major. This $A^b$ also gives a dominant seventh effect preceding the resolution to the $E^b$ major triad. (V27) Resulting is a strong root position $V-V^7-I$. 

V22 Sign with: Key of $B^b$ MAJOR

V23 Sign with: $E^b$ and $F$ MAJOR Keys

V24 Sign with: $g$, $c$, and $d$ minor keys.

V25 On V21 show as close a shot as possible of the first phrase (meas. 1-2) and then zoom in on $B^b$ major chord on 2nd beat of measure 2.

V26 On V25 zoom in on $A^b$ in tenor (meas. 2).

V27 On V21 write in the $V-V^7-I$ analysis as shown with RED marking of Visual Ex. 2.
in $E^b$, but does a modulation occur? See what you hear as the first two phrases are replayed. [Replay the first two phrases and the repeat of the Bach Chorale #27.]

You noticed that the $A^b$ (V28) passing tone is immediately naturalized after resolving to the $E^b$ major triad — erasing all indications of the tonality of $E^b$ major. This suggestion of $E^b$ major is best termed a secondary dominant relationship, with a plagal half cadence resulting in the original key of $E^b$ major.

(V29) Now direct your attention to the only other phrase which contains a sign of a cadence in any key other than $B^b$ major. Here in measures 5-6 we find (V30) a perfect authentic cadence in $F$ major. What is the relationship of $F$ major to $B^b$ major? — — — I trust that you realize that $F$ major is the dominant key of $B^b$. At the beginning of this phrase, there is a chromatic indicating the key of (V31) $F$ major occurring early in the phrase and remaining through the cadence. If, then, this is a true modulation to the dominant key, what kind of modulation
UNIT I, page 7

is it? How is the modulation achieved?

(V32) The first chord of this phrase is the B♭ major triad, and after this triad through the cadence the harmony is in F major. Since the B♭ major triad is common to both keys -- the tonic in B♭ and the subdominant in F -- it is the pivot chord from B♭ into F. We have, then, a common chord pivot modulation, or a modulation using a single diatonic triad belonging to both keys as a pivot chord from one key to the other.

(V33) The pivot modulation is used effectively and is used a great deal, particularly in going to closely related keys. (V34) Another category of types of modulations is the direct modulation. For an example of a direct modulation which results from a chromatic movement in one voice, we investigate the Bach Chorale #167, page 4 of the Study Guide. (V35) [Play the recording of Bach Chorale #167.]

You may have noticed pivot modulations to closely related keys. This chorale is a good one to study in that regard also. In fact, you are instructed in your study
On V35 show as close a shot as possible of measure 1-2.

On V35 pan on from V36 to measures 3-4.

On V35 go on to measures 5-6.

On V38, zoom in on chords 1 and 2 of measure 5, the D-D\(^\flat\) in the tenor.

On V38, zoom in on system 2, last two chords of measures 5-6.

On V35 show a close-up of measures 7-8.

On V41 zoom in on the last two chords of measure 7.

On V41 pan on to measure 8.

On V35 pan slowly through the entire Bach Chorale #167.

Sign with: PHRASE MODULATION (also used in V6).

guide to identify and label the pivot modulations of this chord, but I wish to call your attention to the direct modulation. You can see (V36) that the first phrase moves immediately from e minor to G major, and (V37) it stays in G through the next phrase. (V38) In the next short phrase, the dominant triad in G major moves smoothly by a chromatic motion in the tenor (V39) D to D\(^\flat\), to the V triad of e minor. (V40) The cadence is a Phrygian variety resembling a minor iv going to a major V in e minor. (V41) The next short phrase continues in e minor, concluding with a perfect authentic cadence in that key. (V42) The A\(^\flat\) and C\(^\flat\) of the chord you are now viewing are not diatonic to e minor, but neither are they part of another chromatic modulation. (V43) Since the cadence is in e minor it is certain that no modulation occurs. (V44) On the score of your study guide you should determine the location and type of other modulations in the remaining phrases.

(V45) For an example of the third type of modulation to a closely related key, observe this excerpt from the 2nd
movement of Mozart's Piano Sonata in F Major, Koechel 280, which is on page 5 of the Study Guide. (V46) [Play the Kalmus pub., Vol. I, p. 19.]

I trust that you observed that the first phrase (V47) of the excerpt is in the key of f minor, and (V48) that it ends with a perfect authentic cadence in that key. At measure nine (V49) a contrasting musical idea begins immediately in $A^b$ major and (V50) stays in that key for 16 measures ending with a perfect authentic cadence and a musical reminiscence of the first phrase. Review the end of the first phrase and the beginning of the contrasting ideas. (V51) [Play measure 7-12 of Mozart's K280.]

(V52) Notice that after the fermata in measure 8, the close of the first phrase, the contrast begins immediately in the closely related key of $A^b$ major. This is another type of direct modulation, often called a phrase modulation.

Quite often the phrase preceding the modulation and the phrase in which the modulation occurs are related melodically rather than being of contrasting melodic
UNIT I, page 10

construction as is the case with the Mozart excerpt. (V53) For instance, observe this example from Schumann's Album for the Young. It is found on page 6 of the Study Guide. [Play Schumann's "Wilder Reiter," Kalmus pub., pp. 6-7.]

In this example (V54) the contrast is partly achieved by reversing the positions of the melodic line and the chordal accompaniment. (V55) The change of tonality is the second element contributing to the contrast. The close melodic relationship of the first music period in a minor and the second one in F major is very apparent.

This Schumann example is also a direct phrase modulation. Because the keys are closely related, the movement from one key to the other is made smoothly even though the modulation is direct. (V56) Notice that the 3rd of the a minor triad is the 5th of F major and becomes the pick up note for the second period. (V57) After the cadence in F major, the leading tone, E, becomes the pick up note for the return to a minor and the repeat of the first period.
UNIT I, page 11

The last two examples studied are fairly typical of music using phrase modulations.

(V58) By way of review, answer these questions in your study guide. They are found on page 7.

(V59) In general, what is required to stipulate the existence of a modulation? [15 second pause.]

(V60) Your answer should be that a cadence in the new key is needed before we contend that a modulation to that key has occurred.

(V61) Write the 5 closely related keys to E MAJOR. [30 second pause.]

(V62) The 5 closely related keys to E major are: f\# minor, g\# minor, A major, B major, and C\# minor. (The relative key with the same signature and the keys which have one more sharp or one less sharp in the key signature.)

(V63) Write the 5 closely related keys to f minor. [30 second pause.]

(V64) The 5 closely related keys to f minor are: A\#, the relative major key; c minor, the dominant key; E\# major, the
UNIT I, page 12

Name the three types of modulations presented in this unit. [30 second pause]

We first studied the pivot modulation, a key change achieved by way of a common diatonic chord. The pivot may be a single chord or several chords common to both keys. The harmony after the pivot chord or pivot area, however, will be distinctive to the new key and include at least a cadence in that new key.

The other two types of modulation studied fall into the category of direct modulation. One of the two types is characterized by a chromatic movement in one voice, the change of keys is brought about by this chromatic movement. Such a key change is termed a chromatic modulation.

The phrase modulation is also direct and is achieved when a phrase begins directly in the new key and stays in that key at least through a cadence.
THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, MUSIC 2013, UNIT I: MODULATION TO CLOSELY RELATED KEYS.

Prepared by David E. Robbins
UNIT II: SECONDARY DOMINANT CHORDS

Video

VI thru V5 are all signs with:

VI  HAVE YOU STUDIED  
     CHAPTER 8 IN  
     ADVANCED HARMONY  
     TEXT?

V2  SECONDARY DOMINANTS  
    ?    ?    ?

V3  SECONDARY DOMINANTS  
    MAY BE: 
    MAJOR TRIADS  
    MAJOR-MINOR 7THS

Audio

(V1) If you have studied chapter eight of our textbook, you should be able to answer the following questions. The first question is: (V2) Secondary dominants belong to what chord classification or classifications? [Short pause.]

You should recall that secondary dominants (V3) must be of the same chord classification as the true dominant chords. So far we have studied dominant chords as major triads and major-minor seventh chords. Later when ninths, elevenths, and thirteenth are added to our harmonic resources, we will find that secondary dominant relationships are possible involving those more complex chords as well. It should be noted that (V4) the minor v chord found within the minor mode harmonic possibilities should not be considered a true dominant in this sense. A minor chord does not function as a
secondary dominant.

(V5) In labeling the secondary dominants, you may use one of the methods shown on the screen and as presented in the Ottman text. I personally prefer showing the secondary dominant relationship, the V of V or V\(_7\) of bVI. To shorten that designation, the labeling as shown on the bottom row may also be used.

(V6) The second question is: What are the three groups of secondary dominants as categorized by Dr. Ottman?

[Short pause.] You are probably having more difficulty answering this question. You may need to review pages 132 and 133 of the text for a more complete presentation of the three groups. (V7) In Group I the secondary dominants must be altered to make them major triads or major-minor sevenths, and they function as a secondary dominant to a diatonic major or minor triad in the key. (V8) Group II, found only in minor keys, contains unaltered chords that function as a secondary dominant to a diatonic chord.
UNIT II, page 3

(V9) Group III includes altered or unaltered chords that function as a secondary dominant to an altered major or minor triad.

(V10) Secondary dominants abound in music literature and this lesson is designed to present various music examples of this particular harmonic relationship. Four different styles, by three different composers, will be represented. If you apply yourself in individual study and practice and if you take advantage of class discussions and drills, this lesson should help you to correctly identify and label secondary dominant chords in music literature.

(V11) The first example is the introduction to the first movement of Symphony No. 1 by Beethoven. The few measures you are about to hear presented a new listening experience for the Viennese concert goers of 1800. Follow the score on page 2 of the Study Guide as it is performed. (V12) [Play Record Ml.2 .B44 A2 v.1 RD F, Side 1 -- through measure 5 of Exposition.]
UNIT II, page 4

(V13) Look now at the first chord. The key is C major. Incidentally, you can see that all instruments are in C so you will not have to transpose as we study this score. The first chord is spelled C E G B♭, an altered chord in the key of C major. Since this chord is a major-minor seventh on C, it resolves appropriately to the F major triad. (V14) Beethoven has written a C7 chord to an F major triad, a dominant to tonic relationship, (V15) except F is not the tonic. The C7 chord is, therefore, a secondary dominant belonging to Dr. Ottman's Group I. In this example, the C7 chord has a dominant function to a diatonic major triad which is not the tonic. (V16) The C7 chord is the V7 of the subdominant. If you label the chord with a Roman numeral one, you must add the -7 after the Roman numeral, showing that the seventh of the chord is lowered chromatically by a half step. (V17) The -7 labeling must be retained even for inversions of the chord.

V13 On V11 close in on the first 2 chords (meas. 1) and the list of instruments to the left of the music system. Pan up slowly from the bottom of these chords to the top.

V14 Sign with: C7 F
V7 I

V15 Sign with: F = IV

V16 Sign with: I-7 IV
V7/IV IV

V17 Sign with:
-7
\[ \begin{array}{c}
1^6 \\
5 \\
\end{array} \]
-7
\[ \begin{array}{c}
1^4 \\
4 \\
\end{array} \]
-7
\[ \begin{array}{c}
1^2 \\
2 \\
\end{array} \]
UNIT II, page 5

(V18) The additional label distinguishes the C E G B^b chord from the C E G B chord, which is the diatonic I_7 in the key of C major. (V19) The necessity of using the -7 in several instances with secondary dominants is one reason that I prefer the "V^7 of" type of labeling.

(V20) Regardless of the type of labeling used, the introduction begins with a secondary dominant, the V_7 of IV which resolves to IV. In measure two, the tonic is evaded by a V_7 chord resolving to the submediant. (V21) In the next measure another secondary dominant is used, the V^7 of V and it resolves as expected to the dominant. It is possible to consider this a modulation to the dominant, the key of G. Actually, you may regard this as being the first time any key has been established. The key of C major has certainly been avoided since the C major triad is yet to be heard. (V22) In measure four, after the G major triad, the F# chromatics of the previous measure are canceled, and preparations for C major get under way in earnest.
UNIT II, page 6

V23 Slide of Vis. Ex. lb. Add the RED marking of Vis. Ex. lb. (V23) As you view measures five, six, and seven, remember that the root position tonic triad has not yet been used. The V chord of measure seven (V24) goes to the first root position C major triad. Even here (V25) the tonic, C, is not in the melodic position. The result is an imperfect authentic cadence with the continued rhythmic activity minimizing the effect of a close. (V26) You see from the chord symbols how Beethoven increases the tension which is finally released at the down beat (V27) of the Exposition where a perfect authentic cadence concludes the introduction and at the same time begins the Principal Theme. Watch the screen or the score in your study guide and listen to this Introduction once again. (V28) [Play Visual Ex. la, b, c and d again.]

V27 Slide of Vis. Ex. ld. Add RED marking of Vis. Ex. ld.

V28 Same as V12.

V29 Sign with: BEETHOVEN PIANO SONATA NO. 7 TRIO OF MOVEMENT III (V29) In Beethoven's first symphony the secondary dominants are discerned by retrospect, since the key of C major is not established until after the V⁷ of IV and V⁷ of V are heard. In the "Trio" from the third movement of Beethoven's Piano Sonata No. 7 the tonic key is immediately
UNIT II, page 7

evident and the secondary dominants have more of their usual character. Look and listen as the excerpt is performed. Refer to page 3 in the Study Guide. (V30)

[V31] The alternation of G major and D major harmony at the very beginning make it evident that the key is G major. (V32)

On the third beat of measure eight you can see, and I am sure you heard, the D# which combines with the B and F# to form a major triad on the third degree of the scale.

(V33) On the third beat of measure ten the B major triad resolves appropriately to the E minor triad, the submediant of G major. (V34) You know that the B major triad is the dominant of E minor, yet there is no cadence in E minor in the context of G major (V35), therefore, a secondary dominant relationship exists.

(V36) The next system produces yet another secondary dominant. I am sure you can identify it if you have not already done so. Listen to the performance of the excerpt again and get the aural impression
of these secondary dominants. Make your analysis of the secondary dominant in the third system as well. [Play excerpt, Visual Ex. 2, again.]

(V37) I hope that you identified and were able to correctly label the dominant of the dominant of the third system. The $V_7$ of $V$ resolves to $V$ which adds a seventh before resolving to the tonic. With that resolution to the tonic, the material we have just studied repeats except the dominant of the dominant, the $A_7$ chord, is extended and leads back to the key of $D$ major for the menuetto da capo. You may want to listen to the movement in its entirety.

(V38) You are now viewing a section of a Chopin Mazurka, found on page 4 of the Study Guide. This Mazurka, from the beginning to the double bar, is complete in and of itself and contains secondary dominants. Identify all of the secondary dominants and apply a correct label. You will be given just three minutes to do so. (Keep V38 on screen — no audio — for 3 minutes.)
UNIT II, page 9

Three minutes is not much time to make the identifications you were asked to make, but I am sure you were successful at least in part. (V39) Within the context of C major for this excerpt, you are looking for accidentals (chromatics) that will indicate alterations forming major triads or major-minor seventh chords. The C# and D# of measures two and three are merely chromatic passing tones. They are melodic embellishments. In measures five and six (V40), however, the chromatics are part of two different secondary dominants. (V41) The first is built on E, the mediant of C major, E7 by name. It is the dominant seventh of A. The E7 does resolve to A, but instead of going to the diatonic A minor triad, the resolution is to an A C# E G chord -- another altered major-minor seventh chord! (V42) Use one of the two methods you now see to label these chords.

Incidentally, the G# of measure six is a chromatic lower neighboring tone, and the C melodic tone of the previous measure is an upper neighbor to the chord tone B. This excerpt abounds with these non-harmonic
UNIT II, page 10

tones including grace notes and
appoggiaturas.

(V43) I call your attention to
measure seven. Since measure six consisted
of the secondary dominant, $V_7$ of ii, we
expect to see a resolution to the super-
tonic triad. (V44) The resolution is
instead to a major-minor seventh chord
built upon the supertonic scale degree.
This is the $V_7$ of $V$, the dominant of the
dominant. It resolves to the dominant
seventh which in turn leads to the tonic
and a return to the original material.

(V45) Notice that after a repeat of
the first phrase, the $V_7$ of vi or the
secondary dominant on the submediant, are
bypassed as the harmony goes to the
dominant of the dominant and a two-measure
preparation for the dominant seventh which
resolves to the tonic providing a firm
perfect authentic cadence.

(V46) Listen to a performance of
this excerpt. [Play Record M1.2 .C36 M39
RD F, Vol. II, Side 1. Play through the
first 16 measures.]
For the last example, you will see and hear the last twenty-four measures of the second movement of Mozart's serenade entitled, *Eine kleine Nachtmusik*. Watch the score, page 5 of the Study Guide, and listen as the excerpt is played. The excerpt begins at the authentic cadence at letter B. [Play Record "Recordings of The Enjoyment of Music," Side 8. Play the last 24 measures of Movement II.]

The material from letter B to letter C was included to allow you to get a firm feeling for the key center of C major. The portion of the excerpt which is pertinent to this unit begins at letter C.

At letter C there is a varied restatement of material which was presented at letter B. In measure 15 the secondary dominant built upon the submediant scale degree is used. The spelling of the chord is A C# E G, a major-minor seventh chord. You see the labeling to apply and the fact that the resolution is appropriately made to the minor supertonic triad.

In measure eighteen, after a
perfect authentic cadence, there appears the major-minor seventh chord built upon the tonic. The chord is in the first inversion, so the label must be either $V_5^6$ of IV or I minus 7, six-five. The resolution in measure nineteen is a typical one to the subdominant which is followed by the dominant of the dominant -- also in first inversion. The next resolution is to the tonic six-four before going to the expected dominant seventh chord. Can you explain the voice leading in that resolution from the $V_5^6$ of V to the $I_4^6$? This will be a point for class discussion.

THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, MUSIC 2013, UNIT II: SECONDARY DOMINANT CHORDS

Prepared by David E. Robbins
### SUPPLEMENTAL LESSONS FOR HARMONY II, MUSIC 2013

**UNIT III: BINARY AND TERNARY FORMS**

#### Video

<table>
<thead>
<tr>
<th>Video</th>
<th>Audio</th>
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<tbody>
<tr>
<td>V1</td>
<td><img src="image" alt="" /> So far our study of form has been restricted to the basic melodic elements of the motive, phrase, period, phrase group, and double period. This video tape presentation introduces you to two larger forms known as simple (V2) binary and (V3) ternary forms. The objective of this presentation might be stated that, after viewing this video tape, you should be able to attach the name (V4) binary, ternary, or the somewhat interchangeable terms of (V5) rounded binary or incipient ternary to music composed in these forms.</td>
</tr>
<tr>
<td>V2</td>
<td>Sign with: BINARY FORM</td>
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<tr>
<td>V3</td>
<td>Sign with: TERNARY FORM</td>
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<tr>
<td>V4</td>
<td>Sign with: BINARY TERNARY</td>
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<tr>
<td>V5</td>
<td>Sign with: ROUNDED BINARY INCIPIENT TERNARY</td>
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<tr>
<td>V6</td>
<td>Sign with: BAROQUE MUSIC often in BINARY FORM</td>
</tr>
<tr>
<td>V7</td>
<td>Slide of Trio from 2nd Mvt., Beethoven Piano Sonata #12, Op. 26 -- last half of p. 197, Kalmus Score.</td>
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</table>

(V6) Many examples of binary form are to be found in the instrumental music of the Baroque period. Another source for examples of this form is within the Classical Minuet and Trio, and the later Scherzo and Trio. Look and listen to the (V7) Trio from the 2nd movement of
UNIT III, page 2


It is on page 3 of the Study Guide. (V8)

[Play recording of Trio, Op. 26, (II).]
(V9) Looking once again at this Beethoven excerpt, which is in the key of D♭ major even though the movement as a whole is in A♭, you can readily see that there is an obvious physical separation into two parts. (V10) The first part is traditionally labeled with a capital letter A or, in this instance, a small case a could be used since the part is a single 8-measure phrase. The A part ends with a weak authentic cadence in the key of the dominant, A♭ major, and then the part repeats.

(V11) There are several important things to notice about the second part, which begins after the double bar and may be labeled with a capital or small case B.

First of all, its musical material is definitely derived from the A part, but it differs from A in: tonality, starting in A♭ and coming back to D♭; melodic range and flow, the B part being approximately an octave higher than A, and the predominant
melodic tones of B moving scalewise to the highest note of the phrase as compared with the more jagged movement within the A part; and B differs from A in length, being also a phrase but twice as long.

(V12) The B part also repeats after which there are four measures of material composed of the primary motive of the Scherzo which prepares the return of that part of the movement. (V13) Thus, the Beethoven Trio is a two-part or Binary Form. In this case, a fairly uncommon situation prevails; that of each part consisting of a single phrase.

Another example of a binary form comes from (V14) the 2nd movement of the Mozart Piano Sonata #16 in B\textsuperscript{b} major on page 4 of the Study Guide. The movement is in the key of E\textsuperscript{b} major and has an overall Rondo Form (V15). The excerpt which you will see and hear is the second contrasting section, or C, of the Rondo and it is in the key of A\textsuperscript{b} major. (V16) [Play this excerpt from side 12 of Mozart Sonatas Complete, Eschenbach at the piano ML.2 M69 So 111 RD F.]
UNIT III, page 4

After seeing and hearing this excerpt one time, I am sure you observe that two parts are physically achieved through repeats. Because of the adagio tempo and the construction of the music, each part, which is four measures long, (V17) might well be organized into two 2-measure phrases. The first two measures of sequential material would then constitute the antecedent phrase of the music period which would be the first part of the binary form. (V18) You see that the cadence of this first phrase is rhythmically weak and an imperfect authentic in the key of $A^b$ major. (V19) The consequent phrase would be of contrasting construction, ending (V20) with a perfect authentic cadence in the dominant key of $E^b$ major, a cadence which is rhythmically stronger than that of the antecedent phrase. After the cadence, the $E^b$ major triad is modified to become an $E^b_7$ chord which leads back to the $A^b$ tonality. (V21) The second part of the binary form is also a contrasting music period. (V22) The antecedent phrase ends with
UNIT III, page 5

(V23) an authentic half cadence in $A^b$ major and has the same weak rhythmic characteristic as the antecedent phrase of the first part. (V24) A look at the consequent phrase of this B part of the binary form shows that this period is also contrasting. (V25) The cadence is perfect authentic in $A^b$ major and employs (V26) double appoggiatura tones which function similar to 4-3 and 6-5 suspensions.

(V27) Taking one more look at this binary form, we see that each of the two parts consist of a contrasting music period. At the end of the first part, there is a modulation to a closely related key, and the second part makes the return to the original tonality. We also see the traditional repeats for each part.

(V28) The formal designs of the classical musicians and later of the Romantics were often characterized by a return to the original music after the contrast, an A B A design. It is important to note that the traditional ternary form does not consist of three distinctly different parts, (V29) but rather of
UNIT III, page 6

statement, contrast, and restatement -- an A B A formal structure. As will be noted, key relationships are very important in this formal design.

(V30) One example of a binary form came from Beethoven's Piano Sonata #12.

A good example of a ternary form can be found in the 3rd movement of that same work. Look and listen to this excerpt which is on page 5 of the Study Guide.

(V31) Play Beethoven, Op. 26 (III) -- Record M1.2, B44 A2 V.8 RD F -- Play band 3 to the double bar -- through measure 1 of 1st line, p. 199.]

(V32) Taking a closer look at this excerpt, which is the March of a March-Trio-March movement, we see first four phrases which are the regular 4-measure length. (V33) The cadences for these first four phrases are: first, an authentic half cadence in the tonic key of a minor; (V34) second, a perfect authentic cadence in the relative major key of C; (V35) third, an authentic half in b minor (B minor becoming the enharmonic and modal change from C major); (V36) and fourth, a
UNIT III, page 7

V37 On V31 show a close-up of meas. 13-21 and add markings as shown on Vis. Ex. 3.

V38 On V31 show a close-up of meas. 17-25.

V39 On V31 zoom in on meas. 24-25, and show cadence chords as shown on Vis. Ex. 3, Green markings.

V40 On V31 zoom in on meas. 25 and point out the C in right hand of the 1st beat -- as shown on Vis. Ex. 3, Blue marking.

V41 On V31 show close-up of meas. 26-29 and indicate sequences of meas. 27-28 as shown on Vis. Ex. 3, Yellow marking.

V42 On V31 show close-up of cadence chords of meas. 29 and 30. Chord symbols are to be shown as in Vis. Ex. 3, Purple marking.

V43 Add material according to script. Sign with:

\[
\begin{array}{c}
\text{TERNARY FORM} \\
\text{parallel} \\
\text{period} \\
\text{W/ extension} \\
\text{A}\text{b mi to end}
\end{array}
\]

perfect authentic cadence in D major, the relative major key of b minor.

(V37) In measures 17 through 20 the tone D becomes the leading tone of E\textsuperscript{b}, the dominant of our original tonic -- a\textsuperscript{b} minor.

(V38) These four measures may be termed retransition since they lead back to material already stated. (You may recall the retransition material of the first excerpt from this same sonata in which material after the Trio led back to the Scherzo.) (V39) The original material following the retransition has the same authentic half cadence as before. (V40) The second phrase of the first part begins with a slight surprise when the C is naturalized to produce an A\textsuperscript{b} major triad.

(V41) This phrase is extended two measures by sequential statements of its second measure. The extension prepares the way (V42) for the very emphatic perfect authentic cadence in a\textsuperscript{b} minor.

(V43) Once this information has been assimilated, it can be seen that Beethoven's March is a ternary form with A (the first part) being a parallel music period.
UNIT III, page 8

B (the second part) is sequential to A being a minor 3rd -- literally an augmented 2nd -- higher. Between B (the second part) and the return to the first part, a retransition is used to bridge the gap between tonalities.

Look and listen to this excerpt once again. See if the analysis makes the music more understandable to you. (V44) [Play excerpt again as before.]

(V45) The terms "rounded binary" and "incipient ternary" were used at the beginning of this lesson. A form which might carry one of these names would be a binary structure (V46) -- basically two parts -- but which has a least a partial return to the first part. Likewise, (V47) the term "incipient ternary" denotes a hybrid musical construction -- the beginning of a three part form -- a ternary form in the making.

(V48) Although examples of this type of construction abound in music literature, the illustrative model chosen is again from Beethoven's Piano Sonata #12, Opus 26. See page 6 of Study Guide. The first movement
is a Theme and Variations form, and it is the theme itself which you will now view and hear. It is in the key of $A^b$ major.

(V49) [Play the recording of the theme from Beethoven, Op. 26, (I).]

(V50) You saw and heard very regular phrasing and a good deal of repetitive material. (V51) In examining this theme more closely, you see that there is an (V52) authentic half cadence after four measures, and another one (V53) four measures later. The second semi cadence is stronger rhythmically than the first. (V54) The next eight measures repeat the previous eight with very little change and close (V55) with a perfect authentic cadence. What is the name for this type of construction? — — — — I hope you recognize this as a double period. Some theorists might consider the phrasing to be eight measures long instead of four, giving just a parallel music period. The dynamics (V56), however, help to set off the phrasing consistent with a double period analysis.
UNIT III, page 10

(V57) The contrasting material begins with the more prominent melody sounding first in the left hand, and there is an immediate (V58) suggestion for a change in tonality. The contrasting section is actually only one phrase (V59) of eight measures duration plus an extension which follows an evaded cadence. The authentic cadence in E♭ major, the dominant key (I₄ V₇ I), moves into a V₃ of A♭ then returns to the second period or the last half of the first part.

(V60) The exact name to apply to this theme is in question. You can see that the length of material from the contrasting section to the end of the theme roughly corresponds to that of the initial double period material. You can also see that the contrasting section establishes the key of the dominant after which a significant portion of the original material is restated. (V61) The diagram you are viewing summarizes the analysis to this point. Since a ternary form seems to be "in the making," a logical label for the theme is "incipient ternary." An
UNIT III, page 11

outright ternary form is also a possible label, and even the term rounded binary might be used by some theorists. It is more important, however, that you recognize the organization of the music and that we come to agreement in that area than it is for us to agree on the exact name of some of these forms. Nevertheless, do not be reluctant to put an appropriate name to music you analyze.

(V62) You have seen and heard excerpts from the first, second, and third movements of Beethoven's Opus 26. Here is a practice exercise, an excerpt from the fourth movement of that same Beethoven Piano Sonata. (V63) The excerpt will be presented twice in succession with somewhat more time given for visual analysis than for aural analysis. (V64) [Play Beethoven Piano Sonata #12, Op. 26, Record M1.2 .B44 A2 V.8 RD F, side 8, band 4 through to the first beat of system 3, measure 5, of page 201 of Kalmus Score.]

(V65) You are trying to determine the overall form. Observe phrases and their cadences, key changes, and repetition and
UNIT III, page 12

contrasts of melodic ideas. - - - - (V66)
- - - - (V67) - - - - (Repetition of
excerpt as before.) [Play excerpt again as
before. - - - - (V68) - - - - -]

(V69) First you will notice that the
16th note figure in the right hand is an
important motive used throughout the
movement. For the first three measures
(V70), the figure resembles an introduction
to the left hand descending melodic line.
Notice (V71), however, that the right-hand
figure creates a scalewise melody of its
own in contrary motion to the left hand.
In all, (V72) the phrase is six measures
long and ends with an authentic half
cadence. For the next phrase, the right
and left hands exchange melodic ideas — a
technique which is consistently used
throughout this movement. Notice (V73),
however, that this time the "introductory"
material has a counterfigure which
emphasizes the dominant ending of this
section. The second phrase deviates from
the first enough (V74) to achieve an
imperfect authentic cadence at measure 12.
These two phrases then constitute a
UNIT III, page 13
parallel music period.

(V75) In the next three systems of this excerpt, the exchange between right and left-hand melodic ideas continues and is coupled with imitation. Notice (V76) that there is a strong perfect authentic cadence in the tonic key of $A_b$ at measure 20 after eight measures of different -- even though related -- material. The eight measures, constituting the music of the B part, measures 13-20, sub-divides into four 2-measure fragments. The first three fragments make up a series of imitations, and the last two measures of the phrase establish the cadence. Within the eight measures there are suggestions of (V77) modulations to the keys of f minor (measures 13-41) and $E_b$ major (measures 15-16). Because of the tempo and the length of these imitative fragments, it is best to classify the suggestions of modulation as secondary dominant relationships.

(V78) The following eight measures virtually repeat the previous eight. The conclusion of the second phrase (V79),
UNIT III, page 14

however, is considerably more intense than that of the first period from the standpoint of dynamics, range, rhythm, and texture.

(V80) These 16 measures comprise a parallel music period which is complementary in length to the period of the first part.

(V81) Thus, we have a binary form in which both parts are parallel music periods.

(V82) Composers use the motive, phrase, period, phrase group, and double period to (V83) construct a binary form,

(V84) or a ternary form, (V85) or perhaps a rounded binary, (V86) or incipient ternary.

To understand how this is done should make music you (V87) hear and the music you study from score more (V89) meaningful and hopefully more (V90) enjoyable.

THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, MUSIC 2013, UNIT III:

BINARY AND TERNARY FORMS.

Prepared by David E. Robbins
Before beginning this supplemental lesson you should have already read Chapter 3 of Ottman's *Advanced Harmony* text. If you have not done so, this lesson will not be of optimum value to your study.

The material of the unit concerning less common chord progressions and part writing procedures relates very directly to all of the compositional techniques of the common practice period which have been studied so far. Of particular relevance is the table of commonly used chord progressions, first used in elementary harmony and presented again as Table 3.1 in *Advanced Harmony*, to serve as the starting point for this unit of study. The counterpart to the table of commonly used chord progressions is presented on pages 35-36...
Of particular interest in this unit regarding the less common part writing procedures are those procedures which you have studied since the beginning of first semester of music theory. Emphasis will be placed on such things as crossed voices, unusual doubling, and abnormal distance between voices. Appendix 1 in either volume of Ottman's harmony texts supplies a brief summary of the commonly used part writing procedures. It may be a useful reference to you.

The purpose of this supplemental lesson is to present practice examples from music literature of less common chord progressions and part writing procedures. You will be given only a short period of time to identify these techniques and then an analysis will be presented which will allow you to check your conclusions.

Again I stress that this lesson is for practice after you have studied the material in the textbook.

The first practice example is from a Chopin Mazurka. You will see and
V9 Slide of Vis. Ex. 1. Show entire slide as music is played thru one time.

V10 On V9 show a close-up on system 3 with brackets around meas. 1-5 as shown on Vis. Ex. 1, Red marking.

V11 On V10 mark chords as shown on Vis. Ex. 1, Green marking.

UNIT IV, page 3

hear the music through the first three systems, but only the third is pertinent to this particular unit of study. (V9) [Play Record M1.2 .C36 M39 RD F, Side 2, Band 2 only the first 3 systems of the score.]

The key of this excerpt may be somewhat ambiguous to you. (V10) The portion which will be the subject for your analysis, however, is clearly in the key of B major. You will have a few minutes to make an harmonic analysis of these few measures. (Hold V10 for 3 minutes of silence.)

(V11) Your analysis should have been: in B major, a I chord (system 3, 1st chord) to a I₆ (system 3, 2nd chord) to a IV (3rd chord, last of measure 1) and back to the I₆ (measure 2, 1st chord) to a root position tonic (measure 2, 2nd chord) to the submediant (measure 2, 3rd chord) followed by the supertonic triad (4th and last chord of measure 3). All of the chord movements so far belong to the list of commonly used chord progressions. In the next measure (system 3, measure 3), however, the ii chord goes back to the
submediant triad (measure 3, 1st chord).

This vi chord, in first inversion, goes to root position (measure 3, 2nd chord) before going to the subdominant (measure 3, 3rd chord) to the tonic (measure 3, 4th chord), and then the authentic cadence (on through the \( V_7-I \) markings) in B major is achieved.

(V12) Did you recognize that the progression of the ii chord to the vi chord as a less commonly used progression?

(V13) The reason this progression is a logical one, even though less commonly used, can be seen as you study the sequence of chords. The ii chord going to the first inversion of the vi chord is a sequential idea to the IV chord going to the \( I_6 \) of measures 1 and 2 of this system. You may have already realized how important sequences are to this music, not just in this excerpt, but to the entire composition.

(V14) Watch the score as this excerpt is played once more. [Play record of Visual Ex. 1 as before.]

(V15) The next example of less common chord progressions is from a Christmas carol, the tune of which dates back to the
early 15th century. This example is one listed in Ottman's "Self Help in Harmonic Dictation." The excerpt will be played twice with a short pause between playings before any analysis is given. (V16) I suggest that even though the music will be shown on the screen, you only listen and make an aural analysis. Write your analysis in your Study Guide.

(V17) The excerpt is eight measures long in the key of F major and the first chord is the tonic triad. The harmonic rhythm is very consistent, with there being only a couple of exceptions, before the cadence, to the pattern of half note followed by a quarter.

Ready? Here is the excerpt played for the first time. (V18) [Play tape of excerpt one time through. Pause for 1 minute.]

Here is the excerpt played the second time. (V19) [Play tape of excerpt again as before, after which pause for 1 minute and 30 seconds.]

Although you have not had much time, check your aural analysis with the score.
UNIT IV, page 6

If you have not already done so, look now at the score and take just a few more moments to make a visual analysis.

(Holding V19 for 1 minute of silence.)

(V20) The proper analysis, given on page 3 of the Study Guide, is: F major tonic triad (1st chord) to first inversion subdominant triad (2nd chord), then the dominant triad (3rd chord, 1st of measure 2), followed by a root position subdominant triad (5th chord, 2nd of measure 2). You certainly know that the progression V to IV, dominant to subdominant, is not very common. Following the IV chord is a tonic $\text{VI}_3$ (measure 3, 1st chord) to a supertonic $\text{VI}_3$ (measure 3, 2nd chord) which moves to the mediant $\text{VI}_3$ (measure 4, 1st chord) giving an example of another less common chord progression, the ii chord to the iii. This progression is, of course, part of successive first inversion triads and becomes common in this case. The mediant triad then moves very typically to the submediant triad (measure 4, 2nd chord), and then there is a full measure of supertonic harmony (both chords of...
UNIT IV, page 7

measure 5). Measure 6 could be analyzed as a dominant triad with an accented passing tone A (measure 6, beats 1 and 2) or as a mediant 6/3 to the dominant triad. In any event the dominant resolves to the submediant (measure 6, 3rd beat) which moves to a cadential subdominant (measure 7, 1st chord -- beats 1 and 2) to dominant (measure 7, 2nd chord -- 3rd beat) to the tonic for a perfect authentic cadence.

(V21) Notice that the soprano and bass voices fit an expected pattern of contrary motion for the V to IV progression, while the motion for these same two voices in the move from supertonic to mediant is parallel.

(V22) The examples of less common part writing procedures come from two different Bach Chorales, neither of which, incidentally, is among the practice exercises listed on page 45 of the Advanced Harmony text. Those examples listed will therefore provide further practice for you.

(V23) Observe this first example, Chorale #118 which comes from one of Bach's great choral works, the St. Matthew Passion.
You will hear the example as performed from the Passion. As you hear it through twice, follow the score on the screen and try to find four instances of the use of less common part writing procedures. [Play the recording of the chorale from side 103 of collection, The Great Works of J. S. Bach, ML.2. B324 C12 RD F. After the first playing, pause for about 30 seconds and then play it again.]

(V24) Did you see the unusual part writing procedure used in measure two?

(V25) The first inversion $E_b$ major triad of the third beat has a rather unusual doubling, but even more unusual is the voice leading going into and out of that subdominant chord. The tenor and alto voices move from unison $F$'s to octave $B$'s. This kind of movement to successive octaves, even though in contrary motion, is not common. The procedure does, however, (V26) avoid the parallel perfect octaves which would result between bass and tenor if the tenor had resolved from the $F$ to $E_b$. (V27) Just two measures later, another less common part writing procedure occurs.
V28  Same as V27, but add marking as shown on Vis. Ex. 3, Blue marking.

V29  Same as V28, but add marking as shown on Vis. Ex. 3, Purple marking.

V30  On slide V23 show close-up, meas. 6 and add marking as shown on Vis. Ex. 3, Red marking.

V31  Same as V30, but add marking as shown on Vis. Ex. 3, Green marking.

V32  On slide V23 show a close-up of meas. 7.

(V28) As the soprano and alto voices move in contrary motion on the third and fourth beats for a full count, the two voices are more than an octave apart. You can see that at this point the tenor and bass have also been moving contrariwise. The technique in the upper two voices is, therefore, compatible with the total musical effect.

(V29) The octave F's expand to a 9th because of the ascending soprano and the sustaining alto. At this time the harmony becomes a supertonic seventh chord in F major. Since the alto F is the seventh of the chord, its expected resolution is down to E for the V chord. This resolution produces the interval of a minor 10th between the two treble voices.

(V30) Two measures later an instance of crossed voices occurs. (V31) The procedure as used here avoids the parallelism which would result if the alto and tenor voices were reversed.

(V32) In the next measure, measure 7, there begins a series of 3rds between the basses and tenors and also between the sopranos and altos. The two pairs of 3rds
UNIT IV, page 10

move in contrary motion resulting in more than an octave between the tenors and altos. (V33) The chord beginning the contrary movement of thirds is an $E^b$ major triad with a questionable doubling of the 3rd — the C. This chord may, however, be considered a pivot to the c minor cadence (V34), and thus a III chord, making the doubled 3rd a more common part writing practice. Still the interest factor of two pairs of thirds moving in contrary motion seems to be the biggest reason for the use of this procedure.

(V35) The last example of this unit is a chorale from Bach's *Christmas Oratorio*. The chorale is numbered 362 in the editions of 371 four-part chorales. As was done with the previous example, this chorale will be performed twice. Again, try to identify the less common part writing procedures. [Play the recording of the chorale from side 2B of collection, *The Great Choral Works of J. S. Bach*, M1.2 B324 CL2 RD F. After the first playing, pause for about 30 seconds and then play it again.]
UNIT IV, page 11

V36 On slide V36 show a close-up of meas. 3 with marking as shown on Vis. Ex. 4, Red marking.

V37 On slide V36 include marking of V37 and add marking as shown on Vis. Ex. 4, Green marking.

(V36) In the third measure the alto prepares for a suspension and creates more than an octave with the tenor.

(V37) The other examples of less common part writing procedures are instances of crossed voices. All of them result because of melodic emphases, and all occur between the tenor and bass voices. Scalewise progressions and wide leaps preceding these scales are a factor in creating the crossed voices. Scales in contrary motion also exist, and this practice often produces the crossing.

THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, MUSIC 2013, UNIT IV: LESS COMMON CHORD PROGRESSIONS AND PART WRITING PROCEDURES.

Prepared by David E. Robbins
SUPPLEMENTAL LESSONS FOR HARMONY II, MUSIC 2013

UNIT V: APPLICATION OF PART WRITING

PROCEDURES TO INSTRUMENTAL WRITING

Video

V1 Sign with: HAVE YOU STUDIED CHAPTER 4 OF ADVANCED HARMONY TEXT?

Audio

(V1) The part writing procedures which you have studied for some two and a half semesters are applicable to styles of composition other than strict four-part chorale or hymn style. The purpose of this video tape presentation is to aid you in your study of the application of part writing procedures to other styles. You should have already studied chapter four of Ottman's Advanced Harmony text. Your individual study, our class discussion, and this presentation (V2) should prepare you specifically to realize a figured bass consistent with the Baroque practice (V3) and to compose a piano accompaniment to a folksong or other traditional melody.

V2 Sign with: REALIZE A FIGURED BASS

V3 Sign with: FOLK SONG ACCOMPANIMENT

V4 Show slide of Visual Ex. 1.

(V4) You are viewing the last 15 measures of the well-known Italian art song "Amarilli" by Caccini. (You may want to refer to page 5 of the Study Guide.)
UNIT V, page 2

You see the vocal line and the figured bass, approximately the score given the continuo player. From this type of score a realization was achieved to accompany the soloist. Although the Baroque keyboard players improvised their realizations at the keyboard, your task will be to achieve realizations which will be notated on staff paper. You are encouraged to play all of your realizations — with a soloist if possible.

(V5) The first step in achieving a realization is to rewrite the given parts onto three staves and to determine the harmony from the figured bass. You may have failed to observe that the key for this song is g minor. The key signature of one flat is appropriate because the soloist does not sing an E♭ in the entire song and that tone is seldom used in the harmony. You may recognize this as being a carryover from Renaissance modality by this early Baroque composer.

The harmony is relatively uncomplicated, but (V6) you will notice that use of secondary dominants. You are viewing a figured bass
in which a triad above the bass A is indicated with a 4-3 suspension and the 3rd above the bass is to be chromatically raised a half step. It will be a major triad, A C♯ E, built on the second scale degree. You recognize this as the dominant of the dominant -- the major II chord.

(V7) Once the harmonic content is determined, the exact accompaniment can then be added. We will study two different editions in which the excerpt is realized. Refer to page six in the Study Guide. The first example, edited by Jepesen, is considered to be more authentic in every respect including the realization.

(V8) The second example is from the G. Schirmer publication of 24 Italian Art Songs.

(V9) Notice that particularly the Jepesen example, using the bass in the left hand and close-position chords in the right, is very similar to the basic keyboard technique you have been encouraged to use for the keyboard exercises of this course. Notice the consistent harmonic rhythm of half note, activity of some kind is
produced to effectively emphasize the slow two-beats-per-measure pulse.

Several specific things about this realization are important to observe and for you to apply in making your own realizations. First, you can see that although many of the melody or solo line tones are doubled in the accompaniment, not all of them are. Even this very sparse accompaniment (V10) allows for musical activity during the rests of the solo line (V11) and also compliments the motion of the solo line, providing less movement when the solo is most active but giving more reinforcement when the solo line sustains.

(V12) For a good example of an uncomplicated, yet very complementary accompaniment, I call your attention to two different melodic ideas for the "ril" syllable of "Amarilli." The two examples are in measures 6 and 11. (V13) Notice that in the first case, in measure 6, the accompaniment merely sustains a chord and emphasizes the two-beat pulse with the octave leap in the bass. The idea fits very well, however, with the syncopation
UNIT V, page 5

of the solo line and with the final
"embellishing" figure of the measure. (14)
For the same syllable in measure 11 the
soloist sustains the first half-note beat
and an eighth note into the second. The
accompaniment, still consistent in its
simplicity, moves scalewise in quarter
notes to complement the vocal part. (V15)
Notice also that in measure 14 of the
excerpt there is not only a simple and
effective movement in the accompaniment,
but also an increase in harmonic intensity
through the 4-3 suspension and the addition
of a passing-tone 7th to the dominant chord
before the final resolution to the tonic.

(V16) The care taken with the doubling
in this accompaniment is also noteworthy.
Look for instance (V17) at measures 7 and
8 in which the harmonization is a dominant
triad in first inversion. Preceding the V
are the major IV and major II. Notice the
contrary motion between the soprano and
bass and the very logical movement of the
inner parts -- keeping common tones and
moving stepwise. For the dominant six-
three, it is important that the "soprano"
UNIT V, page 6

part is doubled to avoid doubling the leading tone. (V18) Listen to a performance of the excerpt. [Play tape of excerpt Visual Ex. 3.]

(V19) It is now in order to compare the realization just presented with G. Schirmer's publication of the same work. Since in your Study Guide the two examples are placed together on page 6, you can see immediately that the second realization is somewhat busier than the first. Individual preference and taste and the extent to which authenticity of the Baroque style is to be maintained determine the characteristics of the accompaniment. Many contemporary realizations are very Romantic in character.

This particular realization, and more particularly the excerpt selected, is not "overly Romantic," but it differs from the previous one in some important ways. (V20) In the first measure of the second excerpt, for example, you see an eighth-note figure which provides movement in the accompaniment against the sustained vocal line. This is not inappropriate, but it is advisable to
use figures from the vocal line as much as possible or to use such a figuration more than once.

(V21) The idea of filling in under the solo line is further illustrated just two measures later. By comparing this with the same place in the first realization (V22) you can see the greater amount of fill in the example shown at the bottom, the one we are now studying. Make your own judgment as to which is preferable; this will be a topic of discussion in class.

(V23) The next two measures provide a good point of comparison in the two different realizations. Again you see the greater activity of the lower example, the solo line is doubled with the G major triad going to a C major six-four and back. At the same place the upper example maintains the G major triad throughout.

(V24) Notice other differences between the two realizations and the total effect of the second one as it is performed. [Play tape of excerpt, Visual Ex. 4.]

(V25) After studying two different realizations of the same figured bass, we
UNIT V, page 8

should be able to move rapidly through one more example employing this technique. The study will be of an instrumental work for solo violin and continuo by the Italian Baroque composer, Corelli, who wrote a great deal of music for strings and was important in the development of the Baroque musical forms.

(V26) Refer to page seven in the Study Guide as you observe the solo line and the figured bass of this excerpt which is the first part of a binary form. If this were given to you as an exercise to realize, you should first rewrite it on three staves

(V27) Slide of Vis. Ex. 6.

(V27) and determine the harmonic content.

(V28) Slide of Vis. Ex. 6 center on meas. 9-22. Show BLUE marking.

(V28) Notice the pivot modulation to G major — [Pause while panning through system 2.] — and then the use of the same type of modulation to b minor. The second part of the binary form returns to the tonic of e minor.

(V29) Notice once more the predominance of close position chords in the right hand. The accompaniment

(V29) Now study this Corelli excerpt with the realization provided from the Historical Anthology of Music. Notice once
V30 On Vis. Ex. 7 show close-up of meas. 1-4.

V31 On Vis. Ex. 7 show close-up of meas. 3-6 with BLUE marking.

V32 On Vis. Ex. 7 show as close as possible to meas. 3-7 with RED marking.

V33 On Vis. Ex. 7, show a close-up of meas. 14 with BLUE marking.

V34 On Vis. Ex. 7, a close-up of meas. 10-13 with BLACK marking.

V35 Slide of Vis. Ex. 7 showing all markings. Pan down as music is played.

UNIT V, page 9

makes good use, however, of non-harmonic tones, figures from the solo line, and sequential figures

(V30) A look at the beginning shows the importance of the bass line to complement the soloist. The bass imitates the solo line at the start, (V31) and then you see where at least a three-beat-per-measure-pulse movement is maintained through a combination of the solo line and the accompaniment. Especially because of the slow tempo, it is a good practice to maintain this type of movement in the accompaniment.

(V32) At measure seven there is an example of the accompaniment incorporating an important solo figure. (V33) The figure is used again in measure fourteen to give eighth-note movement in contrary motion against the quarter-note solo line.

(V34) An example of the use of sequence in the accompaniment can be seen within measures 10-13. Here the eighth-note melodic figuration and the harmony comprise the sequential material.

(V35) Listen as this excerpt is performed. You may hear a number of devices
(V36) I invite you to turn your attention now to a brief explanation of some of the techniques involved with composing an accompaniment to a folk melody or some other traditional already-composed tune. The explanation will center around the study of two different settings of the same folk song, (V37) "Black Is the Color of My True Love's Hair." The setting which will be studied first (V38) is an arrangement by John Jacob Niles. (V39) Clifford Shaw adapted and arranged the setting which will be studied second.

(V40) You will now hear and view the first stanza of this ballad in the two different settings so that you can recognize some of the obvious differences. (V41) First is the arrangement by Niles. Refer to page nine of the Study Guide. [Play the tape of Visual Ex. 8.] (V42) Compare the Niles arrangement with this one by Shaw. It is on page ten of the Study Guide. [Play the tape of Visual Ex. 9.]
V43 Sign with: FOLK SONGS
DEVELOPMENTAL IN
CHARACTER---ORAL
TRADITION

(V43) You probably noticed the slight
differences in the tune and the different
emphasis in the words. Even though Shaw's
setting is admittedly adapted, the differ-
ences seen in these two arrangements are
not out of the ordinary for folk songs.
Variations in the basic tune and its text
will be found according to the collector.
The arranger, moreover, has the prerogative
to make changes to suit his aims and wishes.

V44 On Vis. Ex. 8 show as
close a shot as possible
of meas. 1-6.

(V44) Looking more closely now at the
Niles accompaniment, you can see that the
short introduction establishes an accompa-
niment idea which prepares the way for the
first phrase of the tune. This accompaniment
consists of a broken chord bass line (V45)
and full or thick right hand chords using
octaves which often sound the vocal line.

[Short pause.]

V45 On Vis. Ex. 8, a
close-up of meas. 1
and then pan thru to
meas. 9.

(V45) At the second full measure of
the vocal part, measure 5, the accompaniment
becomes less active and then resumes the
eighth-note movement when the vocal part
sustains. At the words "are something" the
accompaniment doubles the vocal line, both
leaping along the F minor triad. (V47)

V46 On Vis. Ex. 8 show a
close-up of meas. 4-6.

V47 On Vis. Ex. 8 show a
close-up of meas. 7
with RED marking.
UNIT V, page 12

As the melody continues to be doubled by
the right hand, the left hand sounds octaves.
The B♭ to B♭ octaves provide rhythmic
interest complementary to that of the right
hand. (V48) At measures 7 and 8 the left
hand plays in contrary motion with the vocal
line while the right hand part parallels
the voice. (V49) Notice also the contrary
motion between extreme parts at the end of
the stanza after a very inactive measure.

(V50) Watch and listen to just this
first stanza once again. [Play tape of
Visual Ex. 5 again as before.]

(V51) Shaw’s arrangement is much less
busy. It seems that he tries to convey the
idea of using a plucked string instrument
for the accompaniment. He uses, as does
Niles, sevenths and ninths to achieve a 20th
century element along with the modal scale
system. Listen again to the first stanza
of this setting while you can still easily
remember the previous one. [Play tape of
Visual Ex. 9.]

(V52) The introduction is much less
busy than was Niles’ and it is used to set
the mood, the key, the style, and so forth,
but does not contain material to be used under the vocal line—in this stanza or any other.

(V53) When the voice begins there is no doubt but that the accompaniment is subservient to the solo line. Notice the simple chordal ideas and the clever addition of the staccato bass notes. This adds to the suggestion of a plucked string instrument.

(V54) At the melodic rise which ends the stanza, measures 13 and 14, Shaw uses, as does Niles, contrary motion between his outer parts.

(V55) Notice how the accompaniment complements and reinforces the vocal line with a very simple melodic idea of its own.

(V56) You have seen two very different accompaniments applied to the same folk tune. Follow through with this study by completing the assignments in your Study Guide before attempting to compose an accompaniment of your own.

THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, MUSIC 2013, UNIT V: APPLICATION OF PART WRITING PROCEDURES TO INSTRUMENTAL WRITING.

Prepared by David E. Robbins
UNIT VI: DIATONIC SEVENTH CHORDS

<table>
<thead>
<tr>
<th>Video</th>
<th>Audio</th>
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<tbody>
<tr>
<td>VI through V9 are all signs with:</td>
<td>(VI) This lesson is designed to (V2) further expose you to (V3) uses of diatonic seventh chords (V4) in music literature (V5) and (V6) to present certain techniques of composing (V7) for the piano.</td>
</tr>
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</table>
| VI  MAJOR-MINOR SEVENTHS  
  V7 in maj. & min. 
  Possibly in minor:  
  IV7 and VII7 | |
| V2  MINOR-MINOR SEVENTHS 
  (MINOR SEVENTH3) 
  Maj. Keys: ii7, iii7, vi7 
  Min. Keys: i7, iv7 | |
| V3  MAJOR-MAJOR SEVENTHS 
  (MAJOR VII7) 
  Maj. Keys: I7 and IV7 
  Min. Keys: III7 and VI7 | |
| V4  DIMINISHED-MINOR SEVENTHS 
  (HALF DIMINISHED VII7) 
  Maj. Keys: vii7 
  Min. Keys: ii7 | |
| V5  DIMINISHED-DIMINISHED SEVENTHS 
  (DIMINISHED VII7) 
  ONLY vii7 in Minor Keys | |
| V6  SCHUBERT VALSE 
  DEUTSCHER TANZ | |
| V7  From SCHUMANN'S ALBUM 
  FOR THE YOUNG 
  "Trälerliedchen" | |
| V8  ADVANCED HARMONY TEXT 
  Chapter Five 
  DIATONIC SEVENTH CHORDS | (V8) Again it is emphasized that in order for this video tape to benefit you most, you should have already studied chapter five in the Advanced Harmony text |
UNIT VI, page 2

After your individual study, participation in class discussions and drills and viewing this lesson, you should be able to correctly identify and label diatonic seventh chords in music and to apply the part writing procedures in composing a short composition for the piano.

Refer to the Study Guide, page four for a very good example of the use of diatonic seventh chords. From one of Robert Schumann's song cycles, the excerpt will be performed by baritone Dietrich Fischer-Dieskau with Gerald Moore at the piano. As you listen to the performance, follow the score and use the ear and the eye to identify the diatonic seventh chords.

Here is Schumann's "Ich grolle nicht." [Play Record M1.2 339 D53 RD F just through the three systems shown on Visual Ex. 1.]

The key is obviously C major. Tonic and subdominant triads comprise the first two measures. In measure three there are two sevenths: the first is an altered chord built on the supertonic; and the other
UNIT VI, page 3

V14 On Vis. Ex. 1 center on meas. 3, the first chord in measure. One is the dominant seventh. (V14) Even though we will study it more thoroughly in the next unit, can you classify this seventh chord which has the supertonic as its root? [15 second pause.]

V15 Slide of Vis. Ex. V15 (half-dim 7th chord). (V15) The tones of the chord are D F A♭ C. You recall that the classification of sevenths is made by classifying the triad, which in this case is diminished, and then the type of seventh existing from the root to the seventh of the chord. Here the seventh is minor; therefore, the chord is a diminished-minor seventh chord or the half-diminished seventh. (V16) The dominant seventh is, of course, a major-minor seventh chord.

V16 Slide of Vis. Ex. V16 (maj-min 7th chord). (V17) The last chord of the first system is an example of a type of altered chord which will be part of next semester's study. It is important to see that with this fourth measure the scalewise bass line begins.

V17 On Vis. Ex. 1 center on meas. 3-4. (V18) Beginning at the second system, after the A minor triad, a series of seventh chords begins. The descending scale in the bass is very important in the

V18 On Vis. Ex. 1 center on meas. 5-8. Show BLUE marking.
development of a sequence of sevenths.
The bass is alternately the fifth and then
the root of the successive sevenths.
Notice that in measure six for the IV,
E -- the seventh of the chord -- does not
resolve down by step as expected. The E,
however, is taken over by the bass in the
next chord where, in keeping with the
descending bass line, the desired resolution
is made. This happens twice more, once in
each of the next two measures. (V19)
Incidentally, in C major as in all major
keys, the tonic and subdominant sevenths
are major-major seventh chords; the submedi-
ant and supertonic sevenths are minor-
minor; and the leading tone seventh is a
diminished-minor seventh chord.

(V20) The third system constitutes a
preparation for the cadence, evasion of that
cadence and then, finally, the fulfillment
in an imperfect authentic cadence. The
only diatonic seventh in this third system
is the dominant seventh of measures one
and three.

(V21) Listen once more to this
excerpt. Try to hear the different types
The next excerpt provides an excellent example of the use of the leading tone seventh chord in a minor key. The excerpt, found on page five of the Study Guide, is the first twenty-two measures of Beethoven’s Piano Sonata, Op. 10, No. 1.

Except for the cadential progression, virtually every other chord within these twenty-two measures is either the tonic triad or the leading tone seventh.

In the excerpt, the leading tone seventh chord, a fully diminished seventh, is usually in first inversion, but the second inversion and root position are also to be found. With the chord symbols now revealed, listen again to the performance of the excerpt. [Play record of Visual Ex. 2 again.]
(V27) The next excerpt comes from a Bach organ arrangement of an earlier concerto by Vivaldi. (V28) The excerpt will be performed three times and the score will be shown on the screen. You may wish to avoid looking at the example on page six in the Study Guide and to disregard the video portion of this presentation in order to make your analysis by ear alone. Short periods of silence will be provided between playings to allow time for you to write the chord symbols in your study guide. (V29) The excerpt is in the key of D minor with eight measures of 4/4 meter and in an allegro moderato tempo. (V30) The harmonic rhythm is outlined for you in the study guide. (V31) The harmonic resources used in just these short eight measures comprise, as you see on the screen, a variety of seventh chords, but all are diatonic in D minor. (V32) Here is the first performance of the excerpt from the Vivaldi-Bach Organ Concerto in D Minor. [Play tape of Visual Ex. 3, Ml.2 .B324 C635 RD F, after which give 30 seconds of silence.]
(V33) Here is the second performance of the excerpt. [Play tape of Visual Ex. 3, after which give 45 seconds of silence.]

(V34) Here is the third and final performance of the excerpt. [Play Visual Ex. 3, after which give one minute of silence.]

(V35) If you recognized the sequence of sevenths in root position, probably much of your analysis was correct. After the tonic triad which begins the excerpt, the sevenths proceed around the circle of fifths. (V36) This is followed by a descending chromatic scale in the bass from the tonic to the dominant with sevenths used to accommodate that bass line.

(V37) Now turn your attention to the task of applying the part-writing procedures to composing for the piano. (V38) To augment your own study of the compositional techniques associated with writing for the keyboard, two contrasting compositional styles will be studied. Both, though short, are complete compositions. In each of the examples you should consider the style used to project the harmony and melody.

(V39) "Deutscher Tanz" or "German
UNIT VI, page 8

Dance" by Schubert, found on page seven of the Study Guide, will be studied first. The performance of this little waltz will be postponed until the visual analysis has been completed. Strive to allow the visual/intellectual study of the work to give you an aural impression as well. In other words, hear the music in your mind.

(V40) The typical waltz left hand is used throughout with the notable exception coming at the point of greatest deviation from what was expected musically. This occurs at measure twelve. In fact, the cessation of the usual waltz "oom pah pahs" helps provide the unexpected or surprise element within this most intense moment of the small composition. But what about those "oom pah pahs?" Closer inspection of this work may help you to avoid several pitfalls and to use, in a very positive way, some of the refinements to be found in Schubert's style.

(V41) In the first part, which is soft, the bass note beginning the waltz figure is sounded without an octave doubling. Notice the selection of the two
UNIT VI, page 9

chord tones which follow the bass root.

For the V₇ chord, the root and 7th of the chord are used. This gives a thin texture to go with the soft dynamics and yet outlines the desired chord. (V42) It is important to see that the 7th of the chord, a strong tendency tone, is not doubled here. In the next measure, however, the Eᵇ is doubled as the melodic line has a scale-wise ascent from D through the Eᵇ on to F. In this instance, no change in the waltz figure is needed since the Eᵇ in the melody has a passing function, and it resolves in the opposite direction of the Eᵇ of the waltz figure. (V43) In measures three and four when the tonic is the harmony for the waltz figure, Schubert uses the complete chord but spreads it out to encompass more than two octaves. (V44) When the tonic triad is used at the end of the first part, Schubert compacts the waltz figure, thickening the texture somewhat.

(V45) In measure seven of this first part, Schubert's technique avoids a common mistake, that of writing the same note for the left hand waltz figure that you have for...
UNIT VI, page 10

the right hand. You see that Schubert writes a D for the left hand on the second beat of measure seven, but moves off of it on the third beat when the right hand is to play that tone. Generally crossed voices should also be avoided when using a waltz figure.

(V46) The second part of the binary form begins forte and Schubert adds a sonority doubling to the bass. For the $B^b_7$ of measures 9 and 10 the selection of tones for the left hand also complements those used in the right hand. For the beginning student this selection of tones for the waltz figure may be the most critical part of composing waltzes.

(V47) Measures 11 and 12 are important to study in order to again stress the concept of doublings. At measure 11 the climax to the work is reached. Components of dynamics (the sforzando), harmony (the $B^b_7$ chord suspension into a measure of $B^b$ major harmony) and texture (the octave-doubled bass and sonority doubling of the two following chords) help to reinforce the climax. The $B^b$ octaves in the left hand
help emphasize the harmony and provide a richer sonority while helping to increase the dynamic level of the climax. The $E^b$ octave moves to a C octave as the distinctive measure twelve begins. Parallel octaves and fifths appear within this progression resulting, however, from the sonority doubling of the $E^b$'s in measure eleven. Even so, observe how within these two measures the third of the $E^b$ major triad is cautiously not doubled and how the altered tone, $B$, receives the same cautious treatment.

(V48) The concluding cadence is consistent with the technique already discussed. The $I_4^6$ chord has desirable doubling; in the dominant 7th chord, the leading tone is not doubled and the 7th of the chord resolves appropriately; and the doubling of the final chord can serve as a model for students.

Surely all of this analysis has given you an idea as to how this composition sounds. Check your impression with this performance. (V49) [Play tape of Visual Ex. 4.]
V50 Slide of Visual Ex. 5, Schumann's "Traellerliedchen"—4 Systems. Show the entire work.

V51 On Vis. Ex. 5 show markings. (Continue with this visual through the rest of the script.)

(V50) On page seven of the Study Guide is also the "Traellerliedchen" by Schumann which uses a different type of compositional style.

(V51) This composition was chosen as an example of artistic use of very simple compositional devices. There exists a three-part texture or three-voiced writing throughout; there are two simple but complementary melodic lines used with a reiterated tone which is either G or D; scalewise movement is used for the most part with quite a few leaps of thirds, a few leaps of a fourth and still fewer leaps of a fifth; and only four measures of material form the basis for the entire work with the contrast being achieved very simply. Nothing but diatonic chords, moreover, are used, and these are triads for the most part, but because of the reiterated tones the analysis can include seventh chords. Of course, the programmatic idea of a little humming or warbling song is aptly conveyed.

Listen to the performance of this work from Schumann's Album for the Young and study it closely to determine how simple
elements can be effectively and artistically used. Part of the assignment for this unit will involve further analysis of this composition. [Play record of Visual Ex. 5.]

THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, MUSIC 2013, UNIT VI:
DIATONIC SEVENTH CHORDS

Prepared by David E. Robbins
SUPPLEMENTAL LESSONS FOR HARMONY II, MUSIC 2013

UNIT VII: INTRODUCTION TO ALTERED CHORDS AND BORROWED CHORDS

Video

V1 Cartoon of: Video Tape Lessons -- Supplementing -- Individual Study, Class Discussions, Class Drills, and Class Lectures.

V2 Sign with or Cartoon of: HAVE YOU STUDIED CHAPTERS 6 and 7 IN THE OTTMAN TEXT??

V3 Cartoon of: ALTERED CHORDS being introduced. The first one presented is BORROWED CHORDS. (Other altered chords include: Secondary Dominants, Secondary Leading Tone Chords, Augmented Triads, Neapolitan 6th, Augmented 6ths.)

V4 Cartoon of: identifying and labeling borrowed chords.

* Perhaps V1 thru V4 can be a sequence of related cartoons expressing the ideas of the first paragraph of the audio.

V5 Sign with: THE 5 GROUPS OF ALTERED CHORDS ?? ?? ?? ?? ??

Audio

(V1) These video tape lessons are supplemental to your individual study of the text and the classroom discussions, drills, and lectures. (V2) Before viewing this lesson, you should have already studied chapters six and seven in the Advanced Harmony text. (V3) This lesson is designed to review one basic idea relating to the introduction of altered chords and then proceed to show uses of borrowed chords in music literature. (V4) It is, therefore, the purpose of this video tape that after viewing it you will be able to correctly identify and label borrowed chords as they occur in music literature.

(V5) Concerning the introduction to altered chords generally, of the five different groups of altered chords which Ottman categorizes, how many can you name? Write them at the top of page 4 in your
UNIT VII, page 2

Study Guide. Each group is a specific topic of study with regard to altered chords, one of which has already been studied, another is the topic for this unit, and the remainder will constitute a good deal of the course content for next semester. [1 minute pause.]

The group of altered chords already studied is (V6) secondary dominants. In the present unit we will study a second group called, (V7) borrowed chords, and next semester's study includes: (V8) secondary leading tone chords, (V9) augmented triads and the Neapolitan chord, and (V10) the augmented sixth chords. It is important to keep in mind that (V11) all of these altered chords are built in thirds, as is the case with the diatonic chords. The altered chords then are still of tertian construction, and in spite of their alterations, they will consist of major and minor thirds except for the chords of the last group, the augmented sixths.

(V12) For the first example of borrowed chords, I remind you of an excerpt.
UNIT VII, page 3

from the previous unit. It is on page four of the Study Guide. (V13) The first phrase of Schumann's "Ich grolle nicht" from the *Dichterliebe* song cycle has a borrowed chord. (V14) The chord is the first one of measure three and is spelled D F A♭ C. Since the key is C major, there is an obvious alteration. What is the classification of this chord? [15 second pause.] You realize that it is a seventh chord in root position and built upon the second degree of the scale. The chord, furthermore, resolves functionally as expected to the dominant seventh chord. (V15) I am sure that you remember or have by now discovered that the chord is a diminished-minor or half-diminished seventh chord. Surely you also realize that in C major's parallel or tonic minor key, C minor, the chord in question is a diatonic seventh chord. In other words, the D F A♭ C chord in C major is borrowed from C minor, the tonic or parallel minor key. Notice the symbol used for the chord in question.

(V16) Borrowed chord relationships are found between the major key and its
parallel or tonic minor. To determine the possibilities for triads and seventh chords as borrowed chords in a given major key, (V17) merely compare the scale resources involved. You are viewing a comparison of the C major and c minor triads. On the bottom staff you see the triad spelling and the labeling for the most common borrowed triad on each scale degree. Notice that some of the borrowed chords (V18) are built upon altered scale degrees. When this is the case, the labeling of the chord denotes that alteration.

(V19) You are now viewing a similar comparison of seventh chords. It may be helpful to keep in mind that chords are borrowed with a relative frequency approximately equal to their usage in the minor key. This means that uncommonly used chords in minor keys are found as borrowed chords with less frequency than are the more commonly used chords.

(V20) In the excerpts which follow, some different examples of borrowed chords will be presented. The first excerpt is from Mendelssohn's Songs Without Words,
(V21) and the second is a Chopin Mazurka.

(V22) The excerpt from Number 15 of Mendelssohn's *Songs Without Words* is on page five of the Study Guide. The key is E major. (V23) You see the perfect authentic cadence, after which there is a $I_A^6$--E major triad--followed by an e minor triad in the same position. (V24) This is an example of borrowing the tonic triad from e minor. You see that to label this chord you merely use a small case Roman numeral one. Notice that Mendelssohn uses dynamics to emphasize the use of the borrowed chord. Listen to this excerpt. [Play Visual Ex. 4, M1.2 .M45 L53 RD F -- side 2 (band 6)]

(V25) There are definitely two different borrowed chords used in this Chopin excerpt--possible three. See if you can identify and label them correctly. [Short pause] You recognize the key of $A^b$ major. Remember you are looking for a type of altered chord. In a major key, the use of some kind of chromatic is essential. Since borrowed chords relate from the major key to its parallel or tonic minor, there exists a key signature of three more flats
UNIT VII, page 6

or three less sharps in the borrowing relationship. Because of that key signature difference, chromatic additions to the flat side of the original key may indicate borrowed chord relationships. Take one minute to make your harmonic analysis of this excerpt. [Pause for one minute.]

(V26) The different borrowed chords are used successively in each of the two repeated phrases of the excerpt. (V27) After the initial tonic triad, comes the first borrowed chord, (iv\(^b\)) a minor subdominant triad in six-four position.

The G in the right hand may be classified as an accented lower neighboring tone. Because of the ascending scale of the right hand melodic line, the next chord adds a B\(^b\) to the D\(^b\) F\(^b\) A\(^b\) which repeats in the left hand. The chord could, therefore, be labeled a borrowed supertonic seventh chord—a half-diminished seventh—instead of a repeated minor iv chord. Either way it is subdominant harmony borrowed from A\(^b\) minor. The next chord also contains the F\(^b\) alteration combining with G B\(^b\) D\(^b\) to produce a diminished-diminished seventh, commonly
UNIT VII, page 7

abbreviated to just diminished seventh, on

the leading tone. Note the label, a

small case Roman numeral with a small d7

added. This altered chord is perhaps the

most commonly used borrowed chord, probably

because of its use in modulation.

(V28) These same three chords, all

having the F alteration in common, are

repeated exactly in the next phrase,

measures five and six. Listen to this

excerpt. (V29) [Play Record M1.2 .C36


Because of the fast tempo, you may have

missed the sound of the borrowed chords.

Listen once more to this short excerpt.

[Play recording again as before.]

(V30) You may have already realized

that in addition to the difference in key

signatures between a major key and its

parallel minor, another way to think of

the borrowed chord relationship is to

consider the different chord possibilities

when a major key has lowered third, sixth,

and seventh scale degrees. This is, of

course, the difference between a major key

and its parallel or tonic minor. (V31)
UNIT VII, page 8

Just remember that a chord which is not diatonic in major, but which may be found as a diatonic chord in minor may be borrowed from the minor and used in the major key.

THIS CONCLUDES THE SUPPLEMENTAL LESSON FOR HARMONY II, UNIT VII:
INTRODUCTION TO ALTERED CHORDS AND BORROWED CHORDS.

Prepared by David E. Robbins
APPENDIX M

STUDY GUIDES FOR THE THIRD SEMESTER OF COLLEGE

MUSIC THEORY, UNITS I THROUGH VII
STUDY GUIDE FOR HARMONY II, MUSIC 2013

UNIT I: MODULATION TO CLOSELY RELATED KEYS

NAME _______________________________ DATES FOR LESSON ON DAIRS ________________

IMPORTANT TERMS FOR THIS UNIT

<table>
<thead>
<tr>
<th>Modulation</th>
<th>Direct Modulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closely Related Keys</td>
<td>Chromatic Modulation</td>
</tr>
<tr>
<td>Pivot Chord—Common Diatonic Chord</td>
<td>Phrase Modulation</td>
</tr>
<tr>
<td>Pivot Modulation</td>
<td>Secondary Dominant</td>
</tr>
</tbody>
</table>

The first example page is a Self-Test for this unit. Make the analysis requested and then grade yourself by referring to the correct answers on the reverse side of the Self-Test. The Self-Test should indicate how much you presently know about the material for this unit and how much you need to know.

SELF-TEST -- Analysis to include:

1. Circling each cadence and indicating the key of each
2. Identifying and giving the specific location of any modulation(s).
3. Naming the type of each modulation.
4. Showing how each modulation moves from one key to another by the use of appropriate labeling.
Schnitterliedchen
The Reapers' Song  Chanson de faucheurs
Nicht sehr schnell  M.M. = 120
Allegro ma non troppo

82. BACH CHORALE NO. 26

Gentle sleep! Thy sweet sleep! Would prove a cordial balm for the weary!

[Music notation]
Schnitterliedchen

The Reapers' Song   Chanson de faucheurs

Nicht sehr schnell  M.M.  \( d_\# 180 \)

Allegro ma non troppo

---

Study Guide, Unit 1

SELF-TEST ANSWERS

#1.

---

#2.
Know how to determine the 5 closely related keys to any major or minor key.

1. Name the closely related keys to $b^{b}$ MAJOR ______ ______ ______.

2. Before we conclude that a modulation has occurred in a piece of music, there must be a ______ in the new key.

Ex. 1 (first 2 systems of p. 9, Methodist Hymnal)

I'll Praise My Maker While I've Breath

Psalm 146
Isaac Watts, 1674-1748
Alt. by John Wesley, 1703-1791

Unison

1. I'll praise my Maker while I've breath; And when my voice
2. Happy the man whose hopes rely On 'srael's God;
3. The Lord pours eyesight on the blind; The Lord supports
4. I'll praise him while he lends me breath; And when my voice

Unison

is lost in death, Praise shall employ my nobler powers.
he made the sky And earth and seas, with all their train.
it the fainting mind; He sends the laboring conscience peace.
is lost in death, Praise shall employ my nobler powers.
Recognize a PIVOT MODULATION.

Ex. 2 (Bach Chorale 27)

27. Vain Foolish Men Absurdly Boast

HYMN: Martin Luther, 1524, (Psalm 14)
MELODY: Martin Luther(?), 1524

ES SPRICHT DER UNWEISEN MUND WOHL

TR.: Anonymous (Moravian Hymn Book, 1754)

1. The Chorale is in the key of __________, and its
   5 CLOSELY RELATED KEYS are __________.

2. Review of a secondary dominant relationship.

3. Modulation through a pivot chord which is diatonic to both keys.
Recognize a CHROMATIC MODULATION -- a type of DIRECT MODULATION.

Ex. 3 (Bach Chorale #167)

167. Thou Man of Sorrows, Hail
HYMN: Adam Thibelin, 1663
MELODY: Martin Janus(?), 1663
TR.: Arthur Tozer Russell, 1851

The Chorale is in the key of _____, and its 5 CLOSELY RELATED KEYS are _______ _______.

2. Modulation through a chromatic movement in one voice.

3. At the conclusion of the video tape, make additional analysis on the score to include:
   a. The name of the cadence key of the phrase ending with "anguish Lord." Determine if a modulation occurs and if one does, name it as to type.
   b. The keys in which the last three phrases cadence.
   c. The name and location of any modulation(s).
Recognize a PHRASE MODULATION -- another type of DIRECT MODULATION.

Ex. 4 (Mozart Piano Sonata, K. 280, Mvt. II)

Modulation in which the original key concludes cadentially and the next phrase begins abruptly in the new key.
Another example of a PHRASE MODULATION.

Ex. 5 ("Wilder Reiter" by Schumann, Album for the Young)

Wilder Reiter
The wild Rider   Cavalier sauvage
REVIEW

1. To conclude that a modulation has occurred in a piece of music, there must be a ________ in the new key.

2. The 5 CLOSELY RELATED KEYS to E Major are ________ ________ ________ ________ ________.

3. The 3 types of modulation studied in this lesson are ________, ________, ________, and ________.

THIS CONCLUDES THE STUDY GUIDE FOR HARMONY II UNIT I.

Please respond to the following questions honestly and as accurately as possible.

I read the chapter in the textbook. YES NO

I did not view the supplemental lesson on the DAIRS or on Videocassette. YES NO

I estimate that I spent ________ working with audio tapes and/or record discs for each training practice.
UNIT II: SECONDARY DOMINANT CHORDS

IMPORTANT TERMS AND SYMBOLS FOR THIS UNIT

- Secondary Dominant
- Major-Minor Seventh Chord
- Altered Chord

Because of the close connection to modulation to closely related keys, secondary dominants — one of the altered chords — will be presented at this time. Be sure to study Chapter 8 in Advanced Harmony.

The first page of examples is a Self-Test for this lesson. Make the analysis requested and then grade yourself by referring to the correct answers on the reverse side of the Self-Test. The Self-Test should indicate how much you presently know about the material for this unit and how much you need to know.

SELF-TEST -- On the examples given:

1. Circle every secondary dominant used.
2. Label each secondary dominant with appropriate Roman-Arabic symbols.
SELF-TEST EXAMPLES

51. (from Beethoven Piano Sonata 82, Mvt. II)

My days of praise shall never be past, While life and thought,
His truth forever stands secure, His trust unpressed,
He helps the stranger in distress, The widow and
My days of praise shall never be past, While life and thought,
and being last, The in-mortal - ly endures
He feeds the poor, And none shall fear His promise bare,
the fatherless, And grant the captive sweet release,
and being last, Or immortal - ly endured. Amen.
SELF-TEST ANSWERS

#1. (from Beethoven Piano Sonata #2, Mvt. II)

#2. (from Old 113th harmonization)
What classification or classifications of chords can be secondary dominants?

Name the 3 groups of secondary dominants. (Refer to pp. 132-133 of text.)

Ex. 1 (Introduction, Beethoven Symphony No. 1)
Label the secondary dominant of the 3rd system. (meas. 12-14)
Ex. 3 (Chopin Mazurka No. 24)

Label all secondary dominants.
At measure 19, take notice of the resolution from the $\frac{5}{3}/V$ to $\frac{3}{4}$. Can you explain the voice leading there?
UNIT ASSIGNMENT

For the example below circle all secondary dominant chords and apply the correct chord symbols.

I read in the textbook the chapter appropriate to this lesson. YES  NO

I did not view the supplemental lesson on the DAIRS or on VIDEOCASSETTE. YES  NO

I estimate that I spent (amount of time) working with audio tapes and/or record discs for ear training practice.

I estimate that I spent (amount of time) working on the unit assignment which I am turning in with this guide.
STUDY GUIDE FOR HARMONY II, MUSIC 2013

UNIT III: BINARY AND TERNARY FORMS

NAME __________________________   DATES FOR LESSON ON DAIRS ________________

BE SURE TO READ CHAPTER TWO OF ADVANCED HARMONY

IMPORTANT TERMS FOR THIS UNIT

<table>
<thead>
<tr>
<th>Review Terms</th>
<th>New Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Period</td>
<td>Binary Form</td>
</tr>
<tr>
<td>Phrase Group</td>
<td>Ternary Form</td>
</tr>
<tr>
<td>Double Period</td>
<td>Rounded Binary and/or</td>
</tr>
<tr>
<td></td>
<td>Incipient Ternary Forms</td>
</tr>
<tr>
<td></td>
<td>Transition</td>
</tr>
<tr>
<td></td>
<td>Retransition</td>
</tr>
</tbody>
</table>

SELF-TEST

This Self Test is designed to allow you to determine your understanding of the concepts presented in this lesson. The answers will be found on the reverse side of this page. The Self-Test should indicate how much you presently know about the material for this unit and how much you need to know.

Draw models (pictorial designs or representations) for typical binary, ternary, rounded binary, and incipient ternary forms. For each include:

1. Letter symbols depicting each main part.
2. A depiction of the division or the components of each main part.
3. A design of the key relationships involved.
only a single phrase. Each main part of a binary or ternary form usually consists of more than a phrase, even though one part -- usually the contrasting section -- may be the original key; minor. Other key relationships may occur, however. The contrasting relationships are usually Tonic to Dominant and back when the original key is major, The usual modulation is from Tonic to Relative Major when the Tonic

ANSWERS TO SELF-TEST
Notice that the two parts are "physically" separated by repeat signs. This is very common with binary forms.
Ex. 2 (from Mozart Piano Sonata #16, Mvt. II)
What is the form of measures 1-16, the makeup of the first main part?
Ex. 4 (Theme, Beethoven Piano Sonata #12, Mvt. I)

Sonate № 12.

Andante con Variazioni.
Ex. 5 (from Beethoven Piano Sonata No. 12, Mvt. IV)

In analyzing for form: 1) look for natural, physical divisions in the music which might indicate different parts; 2) observe repetition of melodic material; and 3) observe contrasts in tonality, melody, texture, dynamics, harmony, timbre, etc.

Allegro.
UNIT ASSIGNMENT

The following music examples are to be turned in as a unit assignment.

Analyze each to include:

1. Brackets and labels for the main parts.
2. Names of all cadences and the keys in which they occur.
3. Locations and types of modulations used.
4. Names and/or labels showing the components of form within each main part.

Also, be sure to answer analysis question concerning Ex. 3, page 5.

THIS CONCLUDES THE STUDY GUIDE FOR

HARMONY II UNIT III

Please respond honestly and as exactly as possible to the statements which follow.

I read in the text book the chapter appropriate to this lesson. YES NO

I did not view the supplemental lesson on the DAIRS or VIDEOCASSETTE.

YES NO

I estimate that I spent _______ working with audio tapes and/or record discs for ear training practice.

I estimate that I spent _______ working on the unit assignent which I am turning in with this guide.
UNIT ASSIGNMENT EXAMPLE THREE

Mazurka

F. CHOPIN, Op. 33, No. 3
STUDY GUIDE FOR HARMONY I, MUSIC 2013

UNIT IV: LESS COMMON CHORD PROGRESSIONS

AND PART WRITING PROCEDURES

NAME ___________________________ DATES FOR LESSON ON DAIRS ________________

BE SURE YOU HAVE READ CHAPTER THREE OF ADVANCED HARMONY

IMPORTANT TERMS FOR THIS UNIT

Commonly Used Chord Progressions               Crossed Voices
Less Common Chord Progressions                  Unusual Doubling

Voice Spacing

The first example page is a Self-Test for this unit. Make the analysis requested and then grade yourself by referring to the correct answers on the reverse side of the Self-Test. The Self-Test should indicate how much you presently know about the material for this unit and how much you need to know.

SELF-TEST — On the examples given:

1. Circle and name all instances of less common chord progressions and/or uncommon part writing procedures.

2. Explain the use or the compositional rationale for each uncommon progression or procedure.
Study Guide, Unit IV

SELF-TEST EXAMPLES

Intended: God showed His good will toward men. And peace shall dwell on earth again; Oh, thank Him for His goodness.
Study Guide, Unit IV

SELF-TEST ANSWERS

friend

ed; God

show-ed; His

good

ward men. And

peace shall dwell on

earth again; Oh

thank Him for His

good

Sing me a song;

ended up

shorter

Senn.

I

That is, the bass scale is

sounded a 3rd higher in the treble. Some

uncommon progressions result. I-V-I, V-I

When bass remains the same this is fairly common)

I

E-III, V-I

successive 1st inversions moving scalewise.
Ex. 1 (Chopin Mazurka #33, Op. 56, No. 1)

Within **System 3, Measures 1-5** find the less common chord progressions.
Study Guide, Unit IV

Page 3

Ex. 2 (Quem Pastores, 1410) — HARMONIC DICTATION PRACTICE

Take harmonic dictation and circle any less common chord progressions.

\[ \begin{array}{c}
\text{3 F Maj.} \\
\text{4 F Maj.}
\end{array} \]

Ex. 2 (Quem Pastores, 1410) — SCORE

Bid-ding them be not a-maz-ed, Heav'n's all-glo-rious King is born. Wor-shipped, bow-ing low be-fore him, Reigns as King this hap-py morn. An-gels vie with one an-oth-er, Praising him be-yond the sky. A-men.
Ex. 3 (Bach Chorale #118, from St. Matthew Passion)

Find four instances of less common part writing procedures.

118. In Thee, Lord, Have I Put My Trust

see also: 77
SOURCE: St. Matthew Passion, 1729
HYMN: Adam Reissner, 1533, (Psalm 31)
MELODY: Sethus Calvisius(?), 1581

see also: 11

SOURCE: St. Matthew Passion, 1729
HYMN: Adam Reissner, 1533, (Psalm 31)
MELODY: Sethus Calvisius(?), 1581

TR.: Catherine Winkworth, 1863, alt.

In Thee, Lord, have... Leave me not in... help less in... The dust... let... my... hope... be... shame... less... And still sus...
Ex. 4 (Bach Chorale #362, from Christmas Oratorio)

Find the less common part writing procedures.

362. Beside Thy Cradle Here I Stand

see also: 260
SOURCE: Christmas Oratorio, 1734
HYMN: Paul Gerhardt, 1653
MELODY: Anonymous, 1535

Soprano, Oboe I, II, Violin I
Alto, Violin II
Tenor, Viola
Bass
Organ and Continuo

"Beside Thy cradle here I stand, O
And bring Thee with a willing hand Thee
Thou that ever livest,
ever gifts Thou givest.
Accept me, 'tis my mind and heart,
My
soul, my strength, my every part, That Thou from me requir est.

ICH STEH AN DEINER KRIPPEN HIER

ES IST GEWISSLICH AN DER ZEIT

UNIT ASSIGNMENT

The following part writing and analysis exercises are to be turned in as a unit assignment.

1. Assignment 3.3, page 46 in Advanced Harmony. Choose one major and one minor progression. You may select the specific key.
UNIT ASSIGNMENT

2. On this excerpt from Bach Chorale #201, circle all uncommon part-writing procedures and explain their use.

This concludes the study guide for Harmony II, supplemental lesson unit IV

Please respond honestly and as exactly as possible to the statements which follow:

I read in the textbook the chapter appropriate to this lesson. YES NO

I did not view the supplemental lesson on the DAIRS or on VIDEOCASSETTE.

YES NO

I estimate that I spent _______ working with audio tapes and/or record discs for ear training practice.

I estimate that I spent _______ working on the unit assignment which I am turning in with this guide.
Realization of a Figured Bass According to Baroque Practice

The material of pages 2 and 3 provide a Self-Test for this unit. You are to realize the figured bass given. It is very unlikely that you have had very much previous experience at this kind of exercise, if any. By taking the Self-Test you will have some indication of what you need to know concerning that particular quasi-compositional skill. The realization according to the HISTORICAL ANTHOLOGY OF MUSIC is printed upside-down on page 4. There is no pretest of your ability to compose or arrange a piano accompaniment to an already composed tune, but the unit assignment includes a "test" of your ability in this area.

SELF-TEST—Realization of a Figured Bass

1. Use the staff paper on page 3 to realize the figured bass exercise shown of page 2, Auf, mein Geist by Heinrich Albert (1604-1651).

2. Provide the harmonic analysis (chord symbols).
Auf, mein Geist

Heinrich Albert (1604-1651) Aria

Gottes Güt und Vatertherz, Er ist der so lang ich lebe Mich macht mir

Sorgen Frei, Orum auch Ehr als Ehr zu

Ehren sich mein Spiel soll lassen hören.
SELF-TEST ANSWER

Be sure your chord symbols are the same as those given and that you used the same basic style, a style which roughly corresponds to the keyboard technique which you have been encouraged to use in Harmony I and II. Compare your realization with the one given. Note the use of melodic imitation and sequence within a basically simple presentation.
Ex. 1 (Last 15 measures of Caccini's "Amarilli")

Ex. 2 (Ex. 1 on 3 staves, with chord symbols)
Ex. 3 (Realization by Jepesen)

Ex. 4 (Realization from G. Schirmer edition)
Ex. 5 (From Corelli's Opus V, No. 8)

Ex. 6 (Ex. 5 on 3 staves, with chord symbols)
Ex. 8 ("Black Is the Color of My True Love's Hair," collected and arranged by John Jacob Niles)

With great tenderness

Black, black, black is the color of my true love's hair, Her lips are something rosy fair, The pert-est face and the dain-ti-est hands— I love the grass where-on she stands.
Ex. 9 ("Black Is the Color of My True Love's Hair," adapted and arranged by Clifford Shaw)

BLACK IS THE COLOR OF MY TRUE LOVE'S HAIR

Traditional Appalachian
Mountain Ballad

Intensely, but with simplicity

Black is the color of my true love's hair, His face is something wondrous fair. The clearest eyes and the strongest hands, I love the ground whereon she stands.
UNIT ASSIGNMENTS

1. On the staff paper provided, realize one of the figured bass exercises from the Advanced Harmony textbook. Choose one from Assignments 4.1, 4.2, 4.3, 4.4, or 4.5 on pages 68-74.
UNIT ASSIGNMENTS

2. On the staff paper provided, write a piano accompaniment to an already-composed tune. You may choose one from the textbook, Assignment 4.7, Nos. 1-8 on pages 77-81, or you may use a tune of your own choosing.
THIS CONCLUDES THE STUDY GUIDE FOR

HARMONY II UNIT V

Please respond to the following questions honestly and as accurately as possible.

I read the chapter in the textbook. YES  NO

I did not view the supplemental lesson on the DAIRS nor on VIDEOTAPES.

I estimate that I spent working with audio tapes and/or record discs for ear training practice.

I estimate that I spent working on the unit assignment which I am turning in with this guide.
STUDY GUIDE FOR
HARMONY II, MUSIC 2013
UNIT VI: DIATONIC SEVENTH CHORDS

NAME ___________________________ DATES FOR LESSON ON DAIRS _______________________

IMPORTANT TERMS FOR THIS UNIT

Diatonic Seventh Chords
Classification of Seventh Chords
Major-Minor Sevenths
Major-Major Sevenths
Minor-Minor Sevenths
Diminished-Minor Sevenths
Diminished-Diminished Sevenths

The following is a Self-Test for this unit. You may check yourself by referring to the answers on page 3. The self-test should indicate how much you presently know about the material for this unit and how much you need to know.

SELF-TEST

1. For major and minor keys, give the classification and show the chord symbols for the most common diatonic seventh chord for each scale degree.

<table>
<thead>
<tr>
<th>MAJOR KEYS</th>
<th>MINOR KEYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>Class</td>
</tr>
<tr>
<td>TONIC</td>
<td></td>
</tr>
<tr>
<td>SUPERTONIC</td>
<td></td>
</tr>
<tr>
<td>MEDIAN</td>
<td></td>
</tr>
<tr>
<td>SUBDOMINANT</td>
<td></td>
</tr>
<tr>
<td>LEADING TONE</td>
<td></td>
</tr>
</tbody>
</table>

2. Give the chord symbols for the excerpt on page 2, a reduction taken from Puccini's La Boheme, Act IV, and indicate the classification of all diatonic seventh chords.
SELF-TEST EXAMPLE FOR ANALYSIS

Puccini (1858-1924), La Bohème, Act IV

Andante calmo

So-no an-dà-tì? Fin-ge-vó di dor-mi-re per-chè
Are we a-lone now? I pre-tend-ed I was sleep-ing

vol-li con-te so-là re-stà-re Ho tan-te co-se che ti vo-glio
hop-ing they'd leave us here to-geth-er so man-y things my heart de-sires to

di-re ou-na so-la, ma gran-de co-me il ma-re.
tell you for my love is as bound-less as the o cean.
Study Guide, unit VI
Page 3

SELF-TEXT ANSWERS

2. (From Production) Act IA

*Diagram of musical notation*

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Class</th>
<th>Minor Keys</th>
<th>Major Keys</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(From Production) Act IA
Ex. 1 (Schumann, *Dichterliebe*, Op. 48, No. 7)

Nicht zu schnell:

Ich *groß*le nicht, und wenn das *Herz* auch *bricht*,

I'll not *complain* al-though my *heart* should break,

*e-wig verlor's* Lieb,

*Love ev-er lost to me,*

ich *groß*le nicht.

I'll not *complain.*
Ex. 2 (Beethoven, Piano Sonata No. 5, Op. 10, No. 1)

DREI SONATEN
für das Pianoforte

von

L. van BEETHOVEN.

Der Gräfin von Browne gewidmet


Allegro molto e con brio.

Sonate № 5.
Ex. 3 (Aural analysis)

Allegro Moderato

d min.: 4 4 5 6 7 8

(Insert musical notation here)
Study Guide, Unit VI

Ex. 4 (Schubert, Deutscher Tanz)

Ex. 5 (Schumann, "Traellerliedchen" from Op. 68)
UNIT ASSIGNMENT

1. On the score of Visual Ex. 5, "Traellerliedchen," page 7, give an analysis to include: a. The name of every cadence and the key in which it occurs; b. If there are any modulations, name the type or types; c. Show with appropriate symbols the formal elements of the composition and give a name to the overall form; and d. Describe how Schumann achieves unity, contrast, and balance in this composition.

2. (From Assignment 5.3, Advanced Harmony, p. 104, exercise #1) Complete the exercise by filling in the alto and tenor voices. Make harmonic analysis. Check each seventh chord to see that the seventh is correctly approached and resolved. Note that in most music, seventh chords are usually not so heavily concentrated as in the few measures of these exercises; they are heavily concentrated here to provide a maximum of part-writing experience. Overuse of seventh chords can produce a texture overly rich and even cloying; ordinarily, they should be sparingly used.
UNIT ASSIGNMENT

3. On the staff paper below compose any original piece for keyboard of sixteen to thirty-two measures in length. The form should be simple binary or ternary.
THIS CONCLUDES THE STUDY GUIDE FOR

HARMONY II UNIT VI

Please respond to the following questions honestly and as accurately as possible.

I read the chapter in the textbook. YES NO

I did not view the supplemental lesson on the DAIRS: nor on VIDEOCASSETTE.

I estimate that I spent _______ working with audio tapes and/or records discs for ear training practice.

I estimate that I spent _______ working on the unit assignment (amount of time) which I am turning in with this guide.
STUDY GUIDE FOR
HARMONY II, MUSIC 2013
UNIT VII, INTRODUCTION TO ALTERED CHORDS;
AND BORROWED CHORDS

NAME__________________________________ DATES FOR LESSON ON DAIRS________________

IMPORTANT TERMS FOR THIS UNIT
Altered Chords Tertian Construction of Chords
Five Groups of Altered Chords Borrowed Chords

The following is a Self-Test for this unit. Check yourself by referring to the answers on page 3. The Self-Test should indicate how much you presently know about the material for this unit and how much you need to know.

SELF-TEST

1. For each scale degree in the key of A major, spell and give the chord symbol for the most commonly used BORROWED triad and seventh chord.

<table>
<thead>
<tr>
<th>SCALE DEGREES—A MAJOR</th>
<th>TRIAD SYMBOL</th>
<th>SEVENTH SYMBOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TONIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPERTONIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDIAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBDOMINANT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOMINANT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBMEDIAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEADING TONE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Give the chord symbols for measures 56-65 of the excerpt on page 2, which is from the first movement of Mozart's Piano Sonata in F Major, K. 332.
SELF-TEST EXAMPLE (Mozart Piano Sonata in F Major, K. 332, Mvt. I, Meas. 56-65)
SELF-TEST ANSWERS

1. $f, P$ fits. 1.

2. The key is C major, I. $X_1$ $i$ $V_7$ $v_7$ $i$ $V_7$ $i$ $V_7$ $i$

3. The key is C major, I. $X_1$ $i$ $V_7$ $v_7$ $i$ $V_7$ $i$ $V_7$ $i$

4. The key is C major, I. $X_1$ $i$ $V_7$ $v_7$ $i$ $V_7$ $i$ $V_7$ $i$

5. (Harmonic analysis)

- Leading tone (Subtonic)
- Supertonic
- Dominant
- Subdominant
- Mediant
- Subdominant
- Tonic

The scale degrees—A major: Tria
d Sevemt
Tonic
Study Guide, Unit VII

Page 4

Name the 5 different groups of altered chords: 1. 
2. 3. 4. 5.

Ex. 1 (Schumann's Dichterliebe, Op. 48, No. 7)

Nicht zu schnell

I'll not complain although my heart should break.

Ewig verlor'nes Lieb, Ewig verlor'nes Lieb! Ich
Love ever lost to me. Love ever lost to me! I'll

Ich grüle nicht, und wenn das Herz auch bricht.

I'll not complain. I'll not complain.

Excerpt from Schumann's Dichterliebe, Op. 48, No. 7, depicting the musical notation and lyrics.
UNIT ASSIGNMENT

1. (From Advanced Harmony, p. 129, Assignment 7.3, exercise #1)

Fill in the alto and tenor voices. Make harmonic analysis.

2. Give the chord symbols for the following excerpt from Mozart Piano Sonata No. 12, K. 332.
THIS CONCLUDES THE STUDY GUIDE FOR
HARMONY II UNIT VII

Please respond to the following question honestly and as accurately as possible.

I read the chapter in the textbook. YES  NO

I did not view the supplemental lesson on the DAIRS ______ nor on VIDEOCASSETTE_______.

I estimate that I spent __________ working with audio tapes and/or (amount of time) records discs for ear training practice.

I estimate that I spent __________ working on the unit assignment (amount of time) which I am turning in with this guide.
APPENDIX N

HARMONY EXAMINATIONS NO. 1, 2, AND 3
Make all responses on the music examples.

For test items 1 - 5, example one is the musical model. (21 points)

1. Name the closely related keys to the key in which this exercise is composed.

2. Provide a term or give a description of the "accompaniment" in the left hand of measures 1 through 3, 5 and 6, and 14 and 15.

3. Mark and name all cadences.

4. Within measures 1 through 8, indicate the location of any modulation or modulations and give the keys involved.

5. Name or describe the form of this excerpt.

For test items 6 and 7, example two is the musical model. (25 points)

6. For example two, supply the most appropriate meter signature.

7. By the use of appropriate symbols, provide an harmonic analysis of example two showing: the key; the name of all cadences; and symbols for the chords for measures 1 through 4.

For test items 8 - 10, example three is to be used. (14 points)

8. Think of measures 1 and 2 of example 3 in a major key. Name that key.

9. Think of measures 3 and 4 of example 3 in a minor key. Name that key.

10. Considering the Dominant 7th (V7) chords of example 3 to be in either a major or a minor key, resolve each to a different cadential chord. Give the chord symbols.

For test item 11, example four is to be used. (20 points)

11. Part-write the bass and soprano of example four. Provide an harmonic analysis (chord symbols).

This is not a figured bass exercise. Use your choice of harmony that will fit the two given parts.

PART-WRITING = 10
Ex. 1 (Test Items 1-5)

Example 1
Ex. 2. (Test Items 6-7)

Ex. 3. (Test Items 8-10)

Ex. 4. (Test Item 11)
I. Analyze the excerpt of Mendelssohn's Op. 82 (40 points)
   On the score, give your analysis to include:

   1. The key of the excerpt and its closely related keys.  
      6 points
   2. The name of each cadence and the key in which it occurs.  
      10 points
   3. A detailed harmonic analysis of the music from the 
      pickup to measure 13 through the down beat of 
      measure 16. Include the chord symbols, the names 
      of all non-harmonic tones, and the location and 
      type of any modulation.  
      11, 2, 3 points
   4. The form of the excerpt. Bracket and label each main 
      part and name the formal design.  
      6, 2 points

II. Supply a piano accompaniment to the excerpt from Stephen Foster's 
    "Beautiful Dreamer". Give the chord symbols for the harmony you 
    use. (30 points)

    5 points
    Selection + Use of Chords  = 15
    Style 10
232. Mendelssohn (1809-1847), Andante con Variazioni, Op. 82

Andante assai espressivo
II. From Stephen Foster's "Beautiful Dreamer"

Moderately

Beautiful dreamer, wake up to me,

Beautiful dreamer, A-wake un-to me.
FIRST SEMESTER
SOPHOMORE HARMONY EXAMINATION NO. 3

NAME ____________________________  DATE ____________

I. Analysis of Florio by Franz Schubert (17 points); on the score, starting with the vocal part, give an analysis to include:

6 1. The key in which this composition is written and the closely related keys to that key.

6,2 2. Bracketing and labeling each main part and naming the overall formal design.

3 3. The harmonic content of measures 15 and 16 (harmonic analysis).

II. Chord Study (32 points); to be noted on exam page 2 after the analysis example:

A. Borrowed Chords

5 1. In four-part harmony, write five borrowed chords in the key of E major. Three are to be triads and two must be seventh chords.

5 2. Progress—or resolve—each borrowed chord to one other chord, either diatonic or altered.

10 3. Provide an harmonic analysis.

B. Secondary Dominants

The first chord of each measure is a SECONDARY DOMINANT chord.

4 1. State the key for each measure, taking into consideration the key signatures provided.

8 2. Give an harmonic analysis for each chord in each measure.

III. Realization of a Figured Bass (42 points) -- from Corelli (1653-1713);
    on exam page 3:

  1. Realize the figured bass to the excerpt given. The solo line is written for violin.

  10 Analysis = 14
II. CHORD STUDY

A.

B.
III. REALIZATION OF A FIGURED BASS

\[ \text{Largo} \]

Staff notation image
APPENDIX 0

SIGHT SINGING TESTING PROCEDURES:
EXAMINATIONS NO. 1, 2, AND 3;
AND GRADING CRITERIA
INSTRUCTIONS FOR SIGHT SINGING EXAMINATIONS
FIRST SEMESTER HARMONY II

I. Equipment and Supplies:

1. Adequate tape recording equipment, including either a monaural or stereophonic recorder, microphones for the recorder, and tape.

2. Metronome.

3. Quiet room equipped with a well-tuned piano.

4. Accurate watch with sweep second hand or a stop watch.

5. Sight singing exercises.

6. Materials to keep track of students taking the test.

II. For the Instructor:

1. Read the instructions to students (below) for each test participant. (It is suggested that the instructions be discussed with the students before the day of the test.)

2. Do not give advice or suggestions during the testing time. (Once students have learned the procedures, the instructions to students may be shortened.)

3. Make no attempt to hide the fact that the test is to be recorded for more objective evaluation.

4. Be sure to allow plenty of time to set up the tape recording equipment before the test is to begin. Allow approximately 3-5 minutes for each student to take the test.

5. If possible, arrange the tape recorder and piano in such a way as to allow each student to give himself the pitches.

6. Announce the number of each student onto the tape rather than the name. Be sure to have a record of the student who belongs to each number. (Consecutive numbering in order of appearance is satisfactory.)

7. In the case of examinations in which alternative keys are provided, allow the students to choose the more appropriate of the two possible keys.
8. Remember that only the second attempt at each exercise will be recorded. Be sure that the pitch and the metronome beat are recorded onto the tape.

III. For the Students:

1. Your sight singing test will consist of one melody. You will be evaluated on accuracy of pitch, rhythm and tempo. You will sing the exercise twice, but only the second attempt will be recorded for subsequent evaluation.

2. Look at the two possible keys and select the more appropriate key for your voice range.

3. Take a few seconds to determine the single pitch you wish to give yourself. That pitch cannot be changed for this examination, and may be sounded only before and after each practice trial and the test run itself.

4. After giving yourself the single pitch of your choice for the exercise, you will be given three measures of the beat according to the metronome marking on the music.

5. You will then be given one minute to study the exercise.

6. When the minute has elapsed, you are to give yourself the same pitch as before; three measures of the beat will again be given, and then you are to sing the example through.

7. After the first attempt, you will be given 15 seconds for a review. You may give yourself the chosen pitch for the exercise immediately after the first attempt.

8. After the 15 seconds have elapsed, the tape recorder will be started. You are to give yourself the pitch, three measures of the beat will be given, and you are to sing the exercise the second time. Only the second attempt will be taped and subsequently evaluated.

* For tests having transposition alternatives.
FIRST SEMESTER SOPHOMORE
SIGHT SINGING EXAM NO. 1

STUDENT NO. ____________________________  SCORE ____________________________

POINTS:  LINE  MELODY  RHYTHM  TEMPO  TOTALS
1       18    8     4      30
2       17    8     4      29
3       16    8     4      28

TOTALS  51  24    12     87
FIRST SEMESTER SOPHOMORE
SIGHT SINGING EXAM NO. 2

STUDENT NO. ____________________________

SCORE ____________________________

(MAY BE IN THE KEY OF F MAJOR—WRITTEN UP A PERFECT 4TH.)

POINTS: LINE MELODY RHYTHM TEMPO TOTALS
1 24 13 4 41
2 19 14 4 37

TOTALS 43 27 8 78
FIRST SEMESTER SOPHOMORE
SIGHT SINGING EXAM NO. 3

STUDENT NO. ___________________________ SCORE ___________________________

(MAY BE IN THE KEY OF A MAJOR—WRITTEN A PERFECT 4TH LOWER.)

<table>
<thead>
<tr>
<th>POINTS:</th>
<th>LINE</th>
<th>MELODY</th>
<th>RHYTHM</th>
<th>TEMPO</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>13</td>
<td>4</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>12</td>
<td>4</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>12</td>
<td>4</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>37</td>
<td>37</td>
<td>12</td>
<td>86</td>
<td></td>
</tr>
</tbody>
</table>
GRADING CRITERIA FOR SIGHT SINGING TESTS

Only the second attempt of the sight singing exercise will be recorded on magnetic tape for each student. It is the recording of that attempt which will be evaluated.

1. One mistake is counted for each incorrect pitch.

2. One mistake is counted for each note sung with incorrect duration. In some instances, however, one mistake is counted for incorrect duration within the particular unit of beat. The means of evaluating the durational component of each melody will be specifically presented.

3. One mistake is counted for each measure in which the tempo noticeably differs from the marking or from the tempo that is given.

4. Total the number of errors for the exercise.

5. Subtract the number of errors from the total possible for the exercise. This is the individual total score.
APPENDIX P

EAR TRAINING EXAMINATIONS

NO. 1, 2, AND 3
FIRST SEMESTER SOPHOMORE
EAR TRAINING EXAM NO. 1

NAME _______________________________ DATE __________________________

PART I. AURAL ANALYSIS OF FORM. Circle the best description of the form for each example.

Ex. 1. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

Ex. 2. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

Ex. 3. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

(Example 1 was "Dance of Haymakers" from Act 3 of The Fairy Queen by Purcell. Answer: a. BINARY.
Example 2 was "Symphony" from Act 5 of The Fairy Queen by Purcell. Answer: d. NONE OF THESE.
Example 3 was Mazurka No. 11 by Chopin. Answer: b. TERNARY.
Each example was played twice.
Points: 3 for each correct answer, extra point if all three answers are correct.)

PART II. MELODIC DICTATION. Notate as accurately as you can the pitch, rhythm, and meter of the melodic line of the example played. Use the treble clef, with duple meter, in the key of G major.
(Melodic Dictation Example was measures 1-8, repeated, from the Second Movement of Symphony No. 104 by Haydn. Example was played four times with increasing amounts of silence between each performance.
Points: 27 for pitch, 18 for rhythm and meter.)

PART III. HARMONIC DICTATION. Provide the chord symbols for the harmonic content of the examples played.

Ex. 1. b minor

(Example was measures 9-16 of "Waltzer in B Minor," from 8 Valses Sentimentales and Walzer for Piano Solo, Kalmus Edition.
Answer: b: \[ \begin{array}{c|c|c|c|c|c} & 1 & V & 1 & V & 1 \nonumber \end{array} \] \[ \begin{array}{c|c|c|c|c|c} & 1 & V & 1 & V & 1 \nonumber \end{array} \]
Points: \[ \begin{array}{c|c|c|c|c|c} & 1 & 1 & 1 & 1 & 2 \nonumber \end{array} \] \[ \begin{array}{c|c|c|c|c|c} & 1 & 1 & 1 & 1 = 10; \nonumber \end{array} \]

Ex. 2. c minor

(Example was a hymn-style chord progression, researcher-composed.
Answer: c: \[ \begin{array}{c|c|c|c|c|c} & 1 & vii6 & iv & iv & (III) & 1 \nonumber \end{array} \] \[ \begin{array}{c|c|c|c|c|c} & 1 & vi & VI & 1 & 1 \nonumber \end{array} \]
Points: \[ \begin{array}{c|c|c|c|c|c} & 1 & 2 & 2 & 2 & 2 \nonumber \end{array} \] \[ \begin{array}{c|c|c|c|c|c} & 1 & 1 & 1 = 14; \nonumber \end{array} \]

Both examples were played four times with increasing amounts of silence between each performance.)
FIRST SEMESTER SOPHOMORE  
EAR TRAINING EXAM NO. 2  

NAME __________________________ DATE __________________________

PART I. AURAL ANALYSIS OF FORM. Circle the best description of the form for each example.

(10)

Ex. 1. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

Ex. 2. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

Ex. 3. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

(Example 1 was "Minuetto" from the Third Movement of Symphony No. 45 by Haydn. Answer: c. ROUNDED BINARY.
Example 2 was the Minuet of Suite No. 2 in B Minor by Bach. Answer: c. ROUNDED BINARY.
Example 3 was Mazurka No. 18 by Chopin. Answer: b. TERNARY. Each example was played twice.
Points: 3 for each correct answer, extra point if all three answers are correct.)

PART II. MELODIC DICTATION. Notate as accurately as you can the pitch, rhythm, and meter of the melodic line of the example played. Use the treble clef, with quadruple meter, in the key of C major.

\[ \text{Example was measures 1-4 of Phantasie Nr. 1 mit Fuge by Mozart.}
The example was played four times with increasing amounts of silence between each performance.
Points: 22 for pitch, 21 for rhythm and meter.\]
PART III. HARMONIC DICTATION. Provide the chord symbols for the harmonic content of the examples played.

Ex. 1. G Major, M.M. = 54

(Example was measured 1-8, repeated, of "Ein Choral," Album for the Young No. 4 by Schumann.)

Answer: G: $\begin{align*}
\text{I} & \rightarrow \text{V6} \\
\text{V6} & \rightarrow \frac{3}{V} \rightarrow V \\
\text{V/VI} & \rightarrow \text{VI} \\
\text{vi} & \rightarrow \text{V} \\
\text{I} & \rightarrow \frac{17}{4} \rightarrow \frac{6}{4} \\
\text{V} & \rightarrow \text{IV} \\
\text{I} & \rightarrow \text{I}
\end{align*}$

or mod. $\frac{4}{3}$ $\rightarrow$ I $\rightarrow$ V $\rightarrow$ I

Points: 2 1 2 3 2 3 2 2 2 2 2 3 2 1 1 1

Total = 29.)

Ex. 2. C# minor

Sehr langsam

(Example was measures 1-8 of the second stanza of "Der Wanderer" by Schubert.)

Answer:

$\begin{align*}
\text{C#} & \rightarrow \frac{6}{5} \rightarrow \frac{6}{5} \rightarrow \frac{6}{5} \rightarrow \frac{6}{5} \\
\text{i} & \rightarrow \text{iv} \rightarrow \text{I} \rightarrow \text{iv} \rightarrow \frac{6}{5} \rightarrow \text{i} \\
\text{V7} & \rightarrow \text{i} \rightarrow \text{iv} \rightarrow \frac{6}{5} \rightarrow \text{i} \\
\text{vi} & \rightarrow \text{V} \rightarrow \text{I}
\end{align*}$

$\begin{align*}
\text{Points:} & \\
3 & 2 3 3 2 3 2 2 1 1 3 2 3 2 3 3 2 4 2 2 2 2 2 1 = 50
\end{align*}$

To E major = 3; Total = 53.)

Both examples for harmonic dictation were played four times with increasing amounts of silence between each performance.
PART I. AURAL ANALYSIS OF FORM. Circle the best description of the form for each example.

Ex. 1. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

Ex. 2. a. BINARY b. TERNARY c. ROUNDED BINARY or d. NONE OF INCIPIENT TERNARY THESE

(Example 1 was Wiegenlied by Brahms. The two stanzas were performed once. Answer: a. BINARY.
Example 2 was "Trio" from the Third Movement of Symphony No. 41 by Mozart. It was played twice. Answer: c. ROUNDED BINARY
Points: 5 for each correct answer.)

PART II. MELODIC DICTATION. Notate as accurately as you can the pitch, rhythm, and meter of the melodic line of the example played. Use the treble clef, with duple meter, in the key of E major.

(Example was measures 1-8 of "Frühlingsgesang," Album for the Young No. 15 by Schumann. The entire Schumann composition was played for the first performance; after which the first sixteen measures, which included the problem repeated, were played four times with increasing amounts of silence between each performance.
Points: 32 for pitch, 34 for rhythm and meter.)
PART III. HARMONIC DICTATION. Provide the chord symbols for the harmonic content of the examples played.

Ex. 1. B♭ Major.

Trombone solo

Bass solo

(Example was measures 1-7 of No. 3 from Requiem Mass by Mozart. It was played four times.

Answer: \( \text{Answer:} \)

Points:

Ex. 2. B♭ Major.

Soprano solo

Bene-dictus qui venit— in no-mi-ne Do--- mi--ni.

(Chorus)

in no-mi-ne Do--- mi--ni. Bene-dictus qui venit

in no-mi-ne Do--- mi--ni in no---mi-ne-- Do----- mi--ni

Problem begins here:
(Example was from "Benedictus" from St. Cecilia Mass by Gounod. The excerpt was played the first time as it was shown on the answer sheet. Only the problem was played the next three times.

Answer: \( I \vert \text{vi} \vert I \vert I \vert IV \vert I \vert I \vert I \vert II \vert I \vert I \vert I \)

Points: 1 2 1 1 2 1 1 1 3 1 1

Answer: Orchestra

(1) \( I \vert \text{bIII} \vert IV \vert \text{vi} \vert II \vert V \vert I \vert I \)

Points: 1 3 3 3 3 2 1 Total = 32.)
APPENDIX Q

KEYBOARD EXAMINATIONS

NO. 1 AND 2
Grading Criteria: Chord Selection 0-10

Accuracy (Chords and Melody—Pitch, Rhythm, Tempo) 0-15

Style 0-10

Total possible score = 35
FIRST SEMESTER SOPHOMORE
KEYBOARD EXAM NO. 2

STUDENT NO. ___________________  SCORE ___________________

```
Slow
```

Grading Criteria: Chord Selection  0-15

Accuracy (Chords and Melody--Pitch, Rhythm, Tempo)  0-20

Style  0-15

Total possible score = 50
BIBLIOGRAPHY

Books


**Tests**


**Articles**


Reports


Publications of Learned Organizations


Encyclopedia Articles


Unpublished Materials


