THE BEGINNING PIANO CLASS AT THE COLLEGE LEVEL

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

Jacquelyn Aken LeCroy, B. M.
Denton, Texas
August, 1976

The problem was to investigate current thoughts concerning the beginning piano class at the college level. Data were collected from published and unpublished materials from 1964 to 1976.

It was found that class piano instruction usually occurs in a three- to four-semester sequence, with classes meeting from two to five periods per week, containing from four to twenty-five students. Classification of students is by interview, placement test, and/or audition. Varying room arrangements are used with either conventional or electronic pianos, plus a variety of audio-visual equipment. Course content, with varying emphases, includes sight-reading, functional skills, technique, and repertoire. Teaching techniques used are numerous and varying.

Recommendations were submitted for administrators, teachers, and researchers.
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CHAPTER I
INTRODUCTION

Colleges and universities today are attempting to provide piano instruction for a much larger number of students than ever before (5, p. 42). Piano departments are offering piano study to two large groups that have often been neglected in the past. First, there is the music major who is specializing in an instrument other than piano. These are the "secondary" or "piano minor" students. Second, there is also a large group of students who are not music majors (5, p. 42). For both of these groups the music departments of many colleges and universities now provide group instruction in piano (4, p. 120).

The class program is attractive to administration, faculty, and students for several reasons. Since teacher time is not always available for private secondary piano instruction, the class program is desirable for purely economic reasons (3, p. 372). Also, the student usually pays no additional fee for the piano class (4, p. 120). Bastien states that the move toward class piano is justified in more ways than for merely financial reasons: (1) the class student tends to solve problems for himself,
rather than rely on the instructor to do the work for him; (2) ensemble playing is facilitated in a class situation; and (3) group spirit and group dynamics are important factors in motivation to the student who is learning elementary skills.

Since piano study is a requirement (for the piano minor), not an elective, group enthusiasm may play an important role in bridging the gap between those who enjoy the new experience of learning to play the piano, and those who regard it only as a burden (1, p. 285).

According to Robinson, many universities and colleges provide piano classes for beginners and some offer two years of instruction (4, p. 120). The expansion of the class piano program at the college level has increased the need for qualified instructors of group piano. Often, the new or prospective teacher of class piano at the college level is confronted with some confusion in sorting out and adopting materials and methods of teaching. Bishop reported a tremendous expansion of thought concerning group teaching of piano (2, p. 22). There appears to be a need for a synthesis of current thoughts concerning the beginning piano class at the college level.

Statement of the Problem

The purpose of this study was to investigate the beginning piano class at the college level. The answers to the following questions were sought:

1. What are the current thoughts on organization,
facilities, and equipment for the beginning piano class at the college level?

2. What are the current thoughts on course content of the beginning piano class at the college level?

3. What are the current thoughts on teaching techniques for the beginning piano class at the college level?

Definition of Terms

The term current thoughts refers to practices and opinions as evidenced in published and unpublished materials since 1964.

The term beginning piano class refers to a group that has not had previous instruction in piano, either as music majors or non-music majors. In this report, music majors who are studying piano in the group piano class may be referred to as "piano minors" or "secondary piano" students.

The term organization refers to the grouping of students into classes for maximum learning. Considerations include the size of classes, length of instructional period, and frequency of class meetings.

The term facilities refers to the room space used in piano class instruction. Considerations include acoustical properties of room and arrangement of furnishings.

The term equipment refers to those physical furnishings used in piano class instruction, such as conventional pianos,
electronic pianos, silent keyboards, tape-recorders, overhead projectors, slide projectors, screens, and chalkboards.

The term **course content** refers to objectives and subject matter.

The term **teaching techniques** refers to instructional procedures in presenting subject matter.

**Delimitations**

This study deals only with beginning class piano for piano minors or secondary piano students at the college level. It is not concerned with class piano for non-music majors or beginners of other age groups.

This study deals only with published articles, books, and unpublished dissertations from the period 1964 to 1976. This study does not emphasize a criticism of text books or method books.

**Basic Assumptions**

The basic assumption was that written materials, both published and unpublished, concerning the beginning piano class at the college level would provide an accurate answer for the problem and that it would not be necessary to employ normative survey techniques.

**Methodology**

In collecting the data, all available books, periodicals, and dissertations on the subject of class piano at the
college level were examined for current thoughts concerning
the beginning piano class at the college level. The col-
lected data were classified according to information
pertinent to each sub-problem, then presented as a synthesis
of current thoughts concerning the beginning piano class at
the college level.

Plan for the Report

The subject matter for this report is presented in the
following manner:

Chapter II - Background Information - contains a brief
history of class piano followed by a review of related
research studies.

Chapter III - Organization, Facilities, and Equipment -
discusses grouping students into class sections, the size
and frequency of classes, room arrangements, and pianos
and other furnishings.

Chapter IV - Course Content - contains the opinions
of twelve contemporary pedagogues concerning the course
content for the beginning piano class.

Chapter V - Teaching Techniques - presents several
viewpoints about the learning process and a discussion of
teaching techniques in the following areas: reading skills,
functional skills, technical skills, comprehensive
musicianship, and the use of new teaching tools.
Chapter VI - Summary, Findings, and Recommendations - presents summary and findings of the study and recommendations for administrators, teachers, and researchers.
CHAPTER BIBLIOGRAPHY


CHAPTER II

BACKGROUND INFORMATION

Before investigating current thoughts concerning the beginning piano class, it was necessary to examine the history of group piano instruction. The first section of this chapter presents a brief history of group piano instruction. The last section follows with a review of two previous related studies.

Brief History of Class Piano

Group piano teaching is not a new medium of instruction. Richards located an example in Dublin in 1815 (4, p. 7), begun by Johann Bernhard Logier (1770-1846), a German by birth and a resident of England from 1805 until his death (4, p. 6). Logier began his new system of music education with classes containing as many as thirty students ranging in background from the beginner to the more advanced pianist. Logier's teaching procedures were unique. While the beginners played a simple melody, the more advanced pianists practiced variations on the melody simultaneously (4, p. 8). As reflected in his many written documents, Logier was as interested in providing a knowledgeable theoretical background as in piano
performance. "The piano students were sometimes heard individually, in small groups, or simultaneously with the entire group, within a single class period" (4, pp. 9-10).

Richards reports that three volumes of studies for the piano were written by Logier entitled *Theoretical and Practical Study for the Pianoforte* (4, p. 11). The volumes contained selected compositions from such composers as Corelli, Handel, Haydn, Mozart, Clementi, D. Scarlatti, and Beethoven. The rapid growth and acceptance of his system of music education created a demand for teachers (4, p. 12). Logier established training for piano class teachers and charged one hundred guineas for his training. Each teacher trained in the Logierian System was sworn to complete secrecy concerning the procedures of instruction (4, p. 12).

In April, 1817, a series of letters to the editors of the *Weekly Chronicle* and the *Caledonian Mercury*, both of Edinburgh, began to appear attacking the piano instruction of Logier. The anonymous articles were signed "H. M. B." but implied that H. M. B. was a group of educated musicians (4, pp. 12-13). "The antagonists literally captured the spirit of piano class instruction and stated it better than Logier" (4, p. 13). The attacking group granted that there were certain advantages in group instruction, such as a saving of time to the teacher in the numbers of students being taught. They also recognized that group instruction
generated an excitement in learning together not found in the individual lesson; however, the anonymous writers condemned the grouping of large numbers of students together without regard to the individual's level of attainment (4, p. 16). Opponents of Logier pointed the way to the contemporary piano class by advocating smaller numbers of students per class and the grouping of students according to the level of attainment (4, p. 16).

"The Printed Debates" ceased on May 1, 1817, after two months of heated discussion from both the attacking anonymous group and the retaliations of Logier in eight different "Letters to the Editor" of the Caledonian Mercury and the Weekly Chronicle (4, pp. 14-15).

After this, the reputation of Logier was enhanced and the acceptance of his system of piano teaching rose to even greater heights. "Some teaching procedures employed by Logier were as modern as the present day piano class teacher in presenting theory and building musicianship from the first lesson" (4, p. 16). The Logierian System survived through his son, Frederick (1801 - 1867) who went to Cape Town, South Africa, where he continued to present his father's system. "As recently as 1943, the Logierian System was discussed at the South African Association for the Advancement of Science" (4, p. 17).

In 1818, Logier stated that teachers from America were studying his system of piano class teaching (4, p. 21). In Holly Springs, Mississippi, and in southern Tennessee,
piano teachers were instructing groups as early as 1860 (4, p. 23).

In 1887, Calvin Bernard Cady, a great music educator in the United States, began to advocate piano class instruction (4, p. 28).

Professor Cady, University of Michigan, laid the cornerstones of a sound piano class philosophy in this country and continued to build on this firm foundation by stressing primarily the development of musicianship through the group piano approach (4, p. 28).

Cady is known as the father of piano class instruction in the United States because of his contributions in the late nineteenth century (4, p. 28). He advocated not more than three students per class and felt that students would develop a group spirit helpful to the learning process. The three goals which Cady specified to be included in every successful piano class were "development of musical thought powers (musical ideas), development of the power to express those ideas, and musical experience" (4, p. 30). Many of the ideas expressed by Cady were "as contemporary as present day thinking" (4, p. 31).

Near the turn of the century, articles began appearing in music magazines favoring piano class instruction (4, p. 33). A few schools of music wrote of their success in group teaching which encouraged private piano teachers to experiment with groups in their private studios. These piano class teachers wrote of their procedures. Among the
articles written were two by Constantine Sternberg, School of Music, Philadelphia, in 1891 (4, p. 33). Sternberg felt that piano classes would stimulate the average student and that the class tuition fee brought piano instruction within the range of the average family.

James C. Fillmore, U. S. Office of Education, Washington, D. C., began to promote piano class instruction around the turn of the century.

The philosophy of Fillmore was to influence the direction for more than 50 years. He believed that class instruction, because of its economy in groups of at least eight students, was a desirable teaching procedure if the teacher allowed ample time for each class (4, pp. 34-35).

Fillmore also believed that the classroom was the "center of receiving ideas and that the practice was to be done at home" (4, p. 36).

Boston, the cradle of music education in the United States, was among the first to offer piano class instruction in the public elementary schools. H. S. Wilder had taught technique classes at the New England Conservatory in 1904. Inspired by his success in the technique classes, he resigned this position in 1913 in order to give his full attention to piano class instruction (4, p. 49). Wilder reports that in his first experimental class of twenty children, he used flash cards for teaching chords, intervals, and short phrases, tables for "hand culture and rhythmic work," a silent keyboard for technique and memorizing, and
the piano for ear training and the playing of pieces (4, pp. 49-50).

During the years 1913 to 1926, many cities introduced piano class instruction into their public schools (4, p. 40). The school systems in Figure 1 were pioneers in piano class instruction in the public schools.

1913 Boston, Massachusetts
1914 Milwaukee, Wisconsin
1915 Minneapolis, Minnesota
Cincinnati, Ohio
Schenectady, New York
1919 Lincoln, Nebraska
Rochester, New York
1920 Flint, Michigan
Chelsea, Massachusetts
Evanston, Illinois
1922 Kansas City, Missouri
1923 Pittsburg, Pennsylvania
1924 Dallas, Texas
West Orange, New Jersey
1925 Birmingham, Alabama
Cleveland, Ohio

Fig. 1--Pioneer cities in piano class instruction in public schools (4, pp. 48-49).

The number of students per class ranged from eight to thirty. Classes were held both in and out of school time (3, p. 33).

The "piano class explosion" took place between 1926 and 1931 (4, p. 56). A total of 880 school systems had class piano instruction by 1930 (3, p. 35).
In 1918, W. Otto Miessner originated the first small, portable piano especially designed for school use (4, p. 70). "The Miessner Piano was the prototype of the spinet-type piano used in schools and homes today" (4, p. 70). The Miessner Institute, Chicago, was founded in 1924 to promote materials and procedures of piano class instruction (4, p. 70).

The industries which manufactured and marketed pianos attempted to increase the demand by the widespread promotion of piano classes (3, p. 33). C. M. Tremaine had founded the National Bureau for the Advancement of Music as a business venture after his piano company became bankrupt in 1916 (4, p. 57). In 1924, Miss Ella Mason Higbie (later Mrs. Ahearn), a specialist in piano class instruction, joined Tremaine in the Bureau. A piano class committee was formed and met for the first time in New York City in 1928. The result was The Guide for Conducting Piano Classes in the Schools (4, p. 59). Members of the committee were George O. Bowden of Tulsa, Chairman, Otto Miessner, Miss Helen Curtis of Chicago, T. P. Giddings of Minneapolis, and Osbourne McConathy of Evanston (4, p. 59).

A significant address was made by Dr. Joseph E. Maddy, University of Michigan, before a national convention of elementary school principals in 1929. Maddy pointed out some aspects of the piano class lesson, including sight-reading, transposition, and ensemble playing, contrasted
with private piano instruction (4, p. 86). He emphasized the importance of group psychology in the piano class and stated that competition was one of the primary incentives to rapid progress. He contended that class instruction in piano was not a fad or an experiment but that it was pedagogically sound and economical (4, p. 86).

The years 1930 to 1940 are called the "years of refinement" by Richards (4, p. 89). During this period, the qualified piano class teacher emerged. The tremendous expansion of piano classes during the "piano class explosion" far exceeded the number of qualified piano class teachers. Some advocated the training of the general classroom teacher for piano class instruction, but most schools searched for trained piano class teachers or trained private piano teachers for the position (4, p. 92). The demand for qualified teachers resulted in increasing numbers of institutions offering piano class pedagogy (4, p. 105). There were only forty-three schools offering piano class pedagogy courses in June of 1929, but by 1931, the number had increased to more than one hundred and fifty (4, p. 106).

Monsour reports that between 1930 and 1948, there was a decline in piano classes in the public schools (3, p. 35). A survey made in 1948 reported only 221 school systems with group piano instruction, an approximate decrease of 659 from 1929 to 1948 (3, p. 35).
Richards states that piano classes have been generally accepted as a means of musically instruction during the past thirty years (4, p. 109). The range and scope of the piano class are limitless and are "dependent upon the student and the qualifications of the teacher, as in private instruction" (4, p. 119). Piano classes for the beginner are found in studios, public schools, colleges and universities (4, p. 120). Age of the beginning student varies from early childhood through adulthood. The goal is the same, regardless of age: "the development of basic musicianship and skill" (4, p. 120). The adult beginner is in two categories: adults seeking the avocational pleasure of personal expression at the piano and college students striving to equip themselves professionally (4, p. 124).

Some leading piano class teachers in 1962 as listed by Richards were:

Marion Egbert, Vice-President of the American Music Conference and editor of The School Musician;

Mrs. Fay T. Frisch, former Chairman of the Piano Committee, Music Educators National Conference, former editor of Music Educators Journal, and present piano editor of Keyboard Junior;

Polly Gibbs, Professor of Music, Louisiana State University, piano editor of American Music Teacher, official publication of the Music Teachers' National Association;

Dorothy Bishop, Professor of Music, University of Southern California, group piano editor of Clavier magazine;
Dr. Robert Pace, Head of the Department of Piano Class Instruction, Teachers College, Columbia University, present Chairman of the Piano Committee, Music Educators National Conference, piano editor of the Music Educators Journal, Music Educators National Conference, and piano editor of Music Journal (4, p. 124).

The roles of student and teacher have had significant changes. Richards indicates that the student has had the opportunity to act and react in a variety of roles since 1940: as performer, listener, and contributor (4, p. 154). The role of the teacher has gradually changed to that of a guide and moderator.

Richards reports that the number of students per group has gradually diminished from thirty in 1815 to six in 1962 (4, p. 152). His investigation indicates that the piano class movement has been one of gradual refinement.

There has been a gradual tendency for beginning piano instruction to be taught in groups, even at the university level. Increasingly, the intermediate piano student is taught in groups. The near future trend may well be to teach all non-music majors and music education majors, regardless of the major instrument, primarily in groups (4, p. 160).

Review of Previous Related Studies

There have been several studies evaluating materials and procedures of group piano instruction which have relevance to this investigation. The later studies are mentioned in the appropriate chapters of this study. Earlier studies will be reviewed here.
Buchanan conducted a survey in 1962 of band, orchestra, and choral teachers and music supervisors across the country. They reported dissatisfaction with the piano training they had received in college, which consisted mainly of repertoire and technique (1, p. 135).

The survey revealed that of the instrumental teachers who stated that their college training in piano was not adequate, the average number of years of study of piano prior to entering college was 1.1 years, while the average number of years of study in college was only 2.0 years (1, p. 135).

The average number of years that choral directors had studied piano prior to entering college was 1.1 years and 2.7 years when in college (1, p. 135). A high percentage of vocal majors (46 percent) indicated one year or less study prior to entering college (1, p. 136).

The figures indicated that a large group of prospective music educators come to college with little piano preparation. Buchanan asserted that college music education departments must face these alternatives: "they can either lower the standards of piano proficiency or refuse to accept music majors whose piano background is lacking or limited" (1, p. 136). A third possibility would be a change in the curriculum which places more emphasis on functional piano and less on playing scales and memorizing recital pieces (1, p. 136).
Another part of the survey attempted to determine the pianistic needs of music educators in the three classifications: choral, band and orchestra, and elementary music. Buchanan states that the highest ranking keyboard skills needed in all areas of music teaching, according to the survey, are: "accompanying, score playing, sight reading, improvising, playing by ear, and harmonizing" (1, p. 136).

The survey also sought information with regard to piano proficiency examinations required by teacher-training institutions. It was found that over one-quarter of the respondents were not required to pass such a test (1, p. 136).

The nature of the piano proficiency examinations was also explored. "In 52% of the schools the piano proficiency examination was the same regardless of the area of teaching emphasis" (1, p. 138). Some thirty percent of the schools reported that their examination was based primarily on functional piano, while twenty-one percent based their test on both functional piano and on solos and technique (1, p. 138). Another ten percent reported that their examination was based primarily on the performance of solos and demonstration of technique (1, p. 138). Buchanan emphasizes that unless a person has had experience in improvising, playing by ear, harmonizing, playing accompaniments, reading scores, and sight reading, he is not sufficiently educated in piano performance to be a music educator (1, p. 138).
In analyzing the educational backgrounds of the class piano teachers in the six state universities of Illinois in 1967, Lyke found that many class piano teachers lacked training in piano pedagogy and educational psychology with reference to teaching group piano to young adults. He also found that the aims and structure of class piano programs differed widely (2, p. 3).

In his review of related studies, Lyke identified some problems of college class piano instruction:

(1) lack of trained class piano specialists;  
(2) large classes;  
(3) poor facilities;  
(4) outdated materials;  
(5) conflicting philosophies with regard to objectives (2, p. 43).

Lyke also identified some trends in college piano class instruction:

(1) increased attention to functional keyboard skills;  
(2) two year programs;  
(3) the adoption of proficiency examinations which measure functional keyboard facility as well as performance (2, p. 43).

Summary

A review of the literature suggests that group piano teaching is not a transitory movement, and that piano class instruction has a history of at least one hundred fifty years (4, p. 160). The first known teacher of group piano was Johann Bernhard Logier, who began his classes in Dublin in 1815. His piano classes had as many as thirty students,
ranging in background from the beginner to the more advanced pianist.

In the United States, group piano instruction was found in some "female" schools as early as 1860. In 1887, Calvin Bernard Cady, a University of Michigan professor, began advocating class piano instruction. He stressed the development of musicianship through the group piano approach and recommended not more than three students per class. Because of his contributions in the late nineteenth century, Cady is known as the father of piano class instruction in the United States.

During the years 1913 to 1926, piano class instruction was introduced into the public schools in many cities. By 1930, a total of 880 school systems had class piano instruction in their curriculum.

The years 1930 to 1940 saw the emergence of the qualified piano class teacher. Since 1940, piano classes have been generally accepted as a means of musicianly instruction. Piano classes for the beginner are found in studios, public schools, colleges and universities, and the age of the beginning student varies from early childhood through adulthood. The number of students per group has gradually diminished from thirty in 1815 to six in 1962.

In a survey conducted in 1962, music educators reported dissatisfaction with the piano training they had received in
college. These keyboard skills were reported as needed by the music educators: sight reading, improvising, playing by ear, harmonizing, accompanying, and score playing. It was found that over one quarter of the respondents had not been required to pass a proficiency examination when in college.

A study was made in 1967 of the six state universities of Illinois. It was discovered that many class piano teachers lacked training in piano pedagogy and educational psychology in teaching group piano to young adults. It also became evident that the aims and structure of class piano programs in the universities differed widely. In connection with the study, a nationwide survey was made of music educators which identified these trends: (1) increased attention to functional keyboard skills; (2) the adoption of two year programs; and (3) the adoption of proficiency examinations which measure functional keyboard skills as well as facility in performance.
CHAPTER BIBLIOGRAPHY


CHAPTER III

ORGANIZATION, FACILITIES, AND EQUIPMENT

The first section of this chapter deals with organization of the college piano class. These aspects of organization are examined: (1) classifying students into homogeneous groups; (2) the number of semesters of class piano offered; (3) frequency of class meetings; and (4) size of classes.

The middle section of this chapter discusses facilities. Physical settings as well as arrangement of furnishings are examined.

The final section of this chapter concerns equipment. The use of conventional pianos in the piano classroom is compared with the use of the electronic piano lab.

Organization

In order for group piano instruction to be successful, students must be classified into homogeneous groups. The class members can advance at approximately the same rate if students are grouped in class sections according to physical and mental capacity as well as musical experience (8, p. 120).

For best results, students should be auditioned before being grouped according to their abilities (4, p. 20). A
good time for this evaluation is the summer orientation period, or shortly before fall classes begin. Students may be grouped at the following levels:

1. Beginning (Students with little or no background in piano).
2. Elementary (Students who have studied for one or two years).
3. Intermediate (Students who have studied for three or four years).
4. Advanced (Students who have studied five or more years) (4, p. 20-21).

According to Joseph Rezits, at Indiana University, the size of their enrollment does not permit the auditioning of each student individually prior to registration (7, p. 376). Those responsible for the groupings maintain similar criteria for placement. One faculty member will interview all freshman students prior to registration and will place those who are eligible into her class sections (7, p. 377). A transfer student would be placed according to his pianistic and theoretical background. Rezits suggests that in beginning the program, it would be well to plan the initial groupings in either or both of the two following ways:

(1) predetermining the type of section, such as first semester, second semester equivalent, or third semester music education majors, etc., and placing the individual student in the most appropriate classification;
(2) pre-classifying by means of audition or interview each student who will study piano in the class program, arranging the results, and constructing the sections accordingly (7, p. 376).
An evident advantage of the latter plan is that it enables one to know in advance of registration exactly what the sections will be, eliminating the possibility of pre-set section times that do not materialize (7, p. 376).

In many schools, the advanced students receive private (studio) lessons as well as class instruction (4, p. 21). "Other schools teach even advanced students in groups of three or four" (4, p. 21).

Dwight Pounds made a study of the use of electronic pianos in comparison to conventional pianos in 1970. In connection with his study, a survey was made to determine the status of group piano instruction in member schools of the National Association of Schools of Music. The survey drew a 74.3 percent total return (5, p. 26). The majority of the responding institutions did not allow music and non-music majors to enroll in the same group class and did not organize special sections for non-music majors. Most respondents organized their group piano courses for either three or four semesters in sequence, or for three quarters in sequence. Public schools tended to organize instruction over longer periods of time than did associate or private schools. A significantly greater proportion of public schools required group instruction of their beginning piano students than did the other subgroups.
At Arizona State University, according to Helene Robinson, class sections are homogeneous as much as possible (8, p. 24). All incoming music majors are auditioned in piano at college entrance time. There are four levels of classification for class piano study. Enrollment is limited to ten per class.

Classes meet three times a week for a period of fifty minutes at the University of Texas (11, p. 2). There is a maximum of ten students per class (11, p. 1).

In 1968, according to Rast, Ohio State University provided four quarters of class instruction for piano minors (6, p. 65). Instrumental majors were required to complete two quarters. Vocal majors were required to complete four quarters.

In his study mentioned earlier, Lyke found that classes in most universities in Illinois met twice a week for a period of fifty minutes.

At North Texas State University, students are classified by verbal interview. Classes are grouped according to past experience at the keyboard. There are three courses offered in group piano: beginning, intermediate, and advanced. Classes meet for a total of three 50-minute periods per week. The maximum enrollment is fifteen students per class.
Bastien prefers daily classes but recognizes that several factors stand in the way of this procedure: "the frequency with which the piano lab is used, the number of students to be provided with group instruction, and the amount of teacher time available" (1, p. 294).

Bastien reports on a study made by E. L. Lancaster in 1971 on class sizes in colleges offering class piano:

| 1. | Maximum number of students in any first year section | 24 |
|    | Mean maximum                                         | 10.5 |
| 2. | Maximum number of students in any second year section | 24 |
|    | Mean maximum                                         | 9.7 |

1. Estimate of ideal first year class size - mean 8.6
2. Estimate of ideal second year class size - mean 8.1

The maximum section size on the average was estimated at thirteen to fourteen students while nine was judged to be the ideal section size (1, p. 294).

According to Starkey, piano classes range from as few as four students to as many as twenty five (9, p. 42).

Robinson makes this statement concerning class size:

The recommended maximum enrollment is ten for first year class, six for the second year, and fewer for more advanced classes (8, p. 120).

It is difficult to measure results in terms of class enrollment, but small classes appear to achieve better results than large classes (1, pp. 293-294). While it is possible to teach as many as twenty four students in the
piano lab, it is more effective with one instructor, pedagogically, if the classes are small (1, p. 294).

Facilities

The piano classroom should have adequate lighting, sound-proofing, and appropriate decor for creating a pleasant atmosphere in which to work. The room should be large enough to comfortably house the number of pianos desired, as well as visual aids, such as an overhead projector and screen. Chalkboard space should be over half the wall area, and adequate storage space should be provided for class materials (1, p. 287).

An item to be considered is the acoustic properties of the classroom (7, p. 373). At Indiana University, according to Rezits, a room was chosen that was completely live: "walls and ceiling of concrete and floors of vinyl tile" (7, p. 374). Conventional pianos were conditioned by placing a large panel of acoustic material on the backs, completely covering the sounding boards; this reduced the sound of the pianos to a comfortable listening level. No further acoustic treatment of any kind was necessary, either to the instruments or to the room (7, p. 374).

In a study made by Vernazza in 1967, thirty-eight colleges in nineteen states were visited. Most of these were state universities; some were teachers' colleges; and a few were liberal arts colleges. Vernazza chose
colleges with varying emphases in order to observe different approaches, and to compare objectives, philosophies, teaching techniques, materials, and physical settings (10, p. 17).

In visiting the piano classrooms, Vernazza found that several things influenced the style of instruments used and their placement in the classroom (10, p. 18).

Budget limitations, tastes of the teacher, the number of students in each class, the size and shape of the classroom, the source of light, practice facilities, other uses of the room, the type of class and teaching techniques, all influenced the physical aspects of the piano classroom (10, p. 18).

Varying arrangements of the pianos were used. In some places, the pianos were set up in rows, back to back. In one school, pianos were arranged back to back in sets of two and placed around the room with walking space in between each set. In another room, the pianos were arranged in rows so that all of the students faced the teacher. In some schools, pianos were placed with their backs to the wall, with chairs arranged in rows as for a lecture class (10, p. 18). The lecture type setup was used in rooms that were also used for other classes or where there were more students than pianos. At Columbia Teacher's College, the teacher's piano was on an elevated platform and pianos were arranged in rows with the keyboards toward the teacher's piano. Frames containing fiberglass had been attached to the backs of the pianos, in order to decrease the sound.
Equipment

There is a move away from the room with several pianos and banks of silent movable keyboards as basic equipment (6, p. 37). In class piano rooms today, one finds from two to eighteen or more conventional pianos or the electronic piano laboratory which would include anywhere from six to twenty-four instruments (6, p. 37). A comparison of dimensions of the various sizes and types of pianos may prove helpful.

Figure 2 is reprinted from "Equipping the Music Studio for Piano Lessons," Clavier, May-June, 1965, p. 17.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DEPTH (keyboard side)</th>
<th>WIDTH</th>
<th>HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grands, concert size</td>
<td>84&quot; to 108&quot;</td>
<td>58&quot;</td>
<td>38&quot; (closed)</td>
</tr>
<tr>
<td>medium size</td>
<td>66&quot; to 70&quot;</td>
<td>54 1/2&quot;</td>
<td>38&quot; (closed)</td>
</tr>
<tr>
<td>small size</td>
<td>61&quot;</td>
<td>54 1/2&quot;</td>
<td>38&quot; (closed)</td>
</tr>
<tr>
<td>Uprights</td>
<td>24&quot; to 27 1/2&quot;</td>
<td>26&quot; to 57&quot;</td>
<td>44&quot; to 59&quot;</td>
</tr>
<tr>
<td>Studio uprights</td>
<td>24&quot;</td>
<td>56&quot;</td>
<td>44&quot; to 46&quot;</td>
</tr>
<tr>
<td>Consoles</td>
<td>24&quot;</td>
<td>54&quot;</td>
<td>40&quot;</td>
</tr>
<tr>
<td>Spinets</td>
<td>24&quot;</td>
<td>54&quot;</td>
<td>38&quot;</td>
</tr>
<tr>
<td>Studio (64-key)</td>
<td>22&quot;</td>
<td>44&quot;</td>
<td>42&quot;</td>
</tr>
<tr>
<td>Electronic (64-key)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Console</td>
<td>22&quot;</td>
<td>42&quot;</td>
<td>34 1/2&quot;</td>
</tr>
<tr>
<td>Portable</td>
<td>21 1/2&quot;</td>
<td>39&quot;</td>
<td>33 1/2&quot;</td>
</tr>
</tbody>
</table>

Fig. 2--Dimensions of various types of pianos

As stated earlier, room size will influence the type of piano selected for the class piano room. Other items of equipment may include the adjustable piano-chair, tape recorder, overhead projector, screen, chalkboard, and storage units.
In the study done by Dwight Pounds, two teaching methods were used (5, p. 159). Four instructors taught beginning piano classes on either conventional or electronic pianos, but not on both. Three instructors taught one piano class section on conventional pianos and one section on electronic pianos. "Conventional and electronic piano subjects whose instructors taught on only one piano system scored higher than did students whose instructors worked with both conventional and electronic pianos" (5, p. 159). In analyzing the results of the "Total Performance, Pitch and Rhythm, and Musicianship" ratings, sixteen differences were significant at the .05 level. "In each case the direction of difference favored the conventional piano students" (5, p. 161). Pounds in no way recommended that use of electronic piano labs be discontinued, although the results of his investigation seemed to indicate that the older electronic piano lab used in his experiment was inferior to the use of conventional pianos in the instruction of basic keyboard skills. "Any definitive conclusions about pedagogical use of electronic pianos should be reserved until further research is completed" (5, p. 162).

In the survey connected with his study, Pounds found that more private schools used conventional pianos than electronic pianos. Over seventy percent of the respondents reported that they had only one piano studio or laboratory for group piano instruction. The associate and public
schools reported more studios specifically designed for group piano instruction than the private schools, although the difference was not significant (5, p. 67).

Vernazza found that classes with emphasis on "functional" piano were more apt to have electronic pianos, while classes with emphasis on performance of piano literature were more apt to use the conventional pianos (10, p. 18). In some instances, Vernazza found electronic pianos in the same room with vertical or spinet pianos (10, p. 18).

Conventional Pianos

Rast makes certain observations concerning the use of conventional pianos in large numbers for functional piano instruction. The full 88-key piano is necessary if the course is to be involved with playing the "giants" of keyboard literature. It is not necessary to have the full keyboard for teaching keyboard techniques.

The use of large multiples of conventional pianos in one room cannot help but create a magnitude of sound which permeates every learning activity, and musical sensitivity may be easily lost in a mass of confused sounds as students attempt to learn together in performance (6, p. 37).

Since many class piano rooms are used jointly for theory, music education courses, and the regular functional piano courses, the scheduling of tuning for the pianos creates a problem. Rast states that the electronic piano laboratory provides certain distinct advantages for teaching keyboard in groups.
Too often, with the use of conventional instruments, individual needs must be overlooked in order to ensure continuity in the class. With the electronic piano laboratory, individual needs can be resolved in addition to permitting all of the valuable aspects of group instruction (6, p. 65).

The conventional piano, on the other hand, permits the student to express all the subtleties of his interpretation and allows the use of a wide dynamic range (7, p. 373). Since the student becomes accustomed to the conventional piano, he is able to perform on other conventional pianos with a minimum of adjustment. Another positive factor is that the 88-note range of the conventional piano permits the use of all piano literature.

The Electronic Piano Laboratory

The electronic piano was designed specifically for use in class piano instruction (2, p. 19). The electronic piano laboratory enables the teacher to take care of various abilities within the same class. It also eliminates unnecessary noise from the classroom (2, p. 19).

Each piano is equipped with a headphone, allowing the student to practice silently, heard only by himself, with the teacher able to "tune in" to correct individual students without disturbing the rest of the class (2, p. 19). The complete laboratory includes an electronic "communications center," electronic pianos, tape recorder and/or record player. The instructor's head set consists of an earphone with attached microphone. Expandable cables between the
communication center and the headset enable the teacher to walk around the class while communicating with the students through their earphones.

As many as twenty-four students in four groups may be instructed at the same time, using either individual or group procedures. Four different activities may be carried on without students disturbing each other: individual instruction in a group situation, instruction by prepared audio on tape, audio on records, and monitored rehearsal (ensemble or individual). Individual or group performance may be recorded on tape for playback (2, p. 19).

According to Rezits, the initial cost of the electronic piano may be half that of the conventional piano (7, p. 372). Maintenance is far less, since most electronic pianos do not require tuning. Because of the size of the instruments, more units may be housed in a given space.

Maintaining musical discipline is greatly simplified, as the instrument may be turned off while the student retains the "feel" of the keyboard during the instructor's explanations or a colleague's performance (7, p. 373).

The electronic keyboard is shorter than the standard piano, restricting literature used.

Page asserts that the piano laboratory provides an effective way to teach the standard piano literature as well as skills and concepts needed by every secondary piano student. He advocates that a combination of group and individual instruction be used in the piano lab.

The piano lab allows for both individual contact and free interaction in which each member's participation stimulates others. It
changes the conventional piano class into a learning center where not only pianistic problems are solved but positive attitudes are formed (4, p. 21).

In the survey made by Pounds, teaching aids used in conjunction with electronic pianos were reported in the following order: (1) headsets, (2) communications console, (3) tape machine, (4) overhead projector, (5) metronome, and (6) other aids.

According to Bastien, the conventional piano has given way to the electronic piano laboratory for class use, and the majority of college music departments now have them or are in the process of acquiring them (1, p. 288). While the electronic piano is a useful teaching device, Bastien believes that it does not replace the conventional piano; therefore, he recommends that at least one conventional piano should be kept in the classroom for periodic performances (1, p. 288).

There are three leading manufacturers of electronic piano laboratories: Wurlitzer, Baldwin, and Musitronic. A description of these may be found in Appendix A. Addresses are also listed.

Summary

In order for group piano instruction to be successful, students must be classified into homogeneous groups. Verbal interview, placement tests, or auditions are advisable.
Piano classes range from as few as four students to as many as twenty-five. Most universities and colleges organize their group piano courses for either three or four semesters in sequence (5, p. 26). Classes meet from two to five periods per week.

The area where group piano is taught is usually called the piano laboratory (1, p. 287). The piano lab usually consists mainly of multiple pianos, either conventional or electronic. Other items may include chalkboards and a variety of audio-visual equipment. The choice of piano models and the number of pianos contained in the teaching area will be directly influenced by factors such as budget limitations, teacher preference, size and shape of the classroom, other uses of the room, and other considerations (1, p. 287). Varying room arrangements are used.

Both the conventional and electronic pianos have distinct advantages. Installations of electronic pianos take up less space and are usually less expensive to maintain since they do not require periodic tuning (1, p. 288). With the electronic piano lab, noise and confusion are kept to a minimum, and more efficient use of teaching time is possible. The electronic piano keyboard is shorter than the conventional piano's eighty-eight keys. The conventional piano permits the use of all piano literature, and permits the student to express subtleties of interpretation and a wide range of dynamic levels.
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CHAPTER IV

COURSE CONTENT

The subject of course content for the beginning piano class at the college level has been dealt with by various authors. The findings and/or viewpoints of several author-teachers are reviewed in this chapter and are introduced in chronological order based on date of publication. Secondary piano requirements at North Texas State University are also given.

Vernazza

Before deciding on content of the course for the beginning piano class, goals should be established in order to meet the needs of the students. Vernazza asserts that comprehensive musicianship, music fundamentals, functional, and technical skills comprise the framework upon which the beginning piano class is built (13, p. 18). The focus on subject matter may change to meet special needs of the students, but the basic framework remains the same (13, p. 17). Theory and composition majors need the skills of sight-reading and score playing. Vocal majors need emphasis on playing accompaniments, vocalises, and open scores. Organ majors need to develop skills in improvisation, transposition, and modulation. Instrumental majors need to
learn to play easy accompaniments written for their own instruments. All music majors find it important to learn to sight-read, improvise accompaniments and to harmonize and transpose melodies at the keyboard. All students in beginning piano classes need to develop basic techniques and a tactual sense (13, p. 18).

Vernazza found in her study in 1967, that in the different schools she visited, the emphasis on subject matter seemed to vary according to the objectives of the course (13, p. 18). In several schools, there were two or more parallel tracts with the same basic core but with special emphasis.

At Michigan State University, Vernazza found that music majors took one series of courses and music education majors took another. The music major was required to take at least one year of basic piano, which Vernazza defines as elementary piano with emphasis on musicianship, music fundamentals, and functional and technical skills (13, p. 17). The year of basic piano required for the music major included work on scales, chords, simple piano accompaniments for their own instrument and some piano literature. The music education majors, on the other hand, took a similar tract but generally it was delayed until after a theory laboratory course had been taken which included some keyboard harmony. By the time they entered the piano class, they already had some knowledge of music fundamentals (13, p. 17).
Vernazza found that at the University of Florida the music education classes included a piano laboratory once a week. The emphasis was on harmonizing and transposing accompaniments of songs in elementary school texts. Other, more formal, piano classes for music majors used piano texts for adult beginners (13, p. 18).

Dr. Phyllis Clark, coordinator of piano classes at Eastman School of Music in Rochester, New York, had developed the college piano class curriculum in greater detail than most instructors Vernazza visited. The classes were called college preparatory piano classes and were taught by graduate students, working closely with Dr. Clark in planning each area of the course in great detail each week. Functional keyboard, sight-reading, technique, and repertoire were all included simultaneously. Allowances for individual progress were made, making use of much supplementary material. Careful coordination in teaching helped keep the classes more or less standard and prepared the students for a common examination (13, pp. 18, 20).

Vernazza found that a research project in programmed learning at the keyboard was carried on by Dr. Genevieve Hargiss at the University of Kansas (13, p. 20). The study of music fundamentals at the keyboard was directed to the music education student. The concepts were programmed into steps or frames. In these study-steps, listening and
thinking were emphasized. Concurrently with the theory study were practice suggestions for work at the keyboard. The foundation of the organization was a combination of listening, thinking, and practice. The eighty-five music students involved in the research met three times a week. The first meeting was for a lecture. The second meeting was in groups of twenty for discussions. At the third meeting, the students were divided into groups of ten or less for piano laboratory classes. The classes were flexible so that students could progress at different rates of speed. Although not piano classes in the strictest sense of the word, the keyboard assumed an important role in the programming. Vernazza states that watching the class work was like "watching a textbook come to life" (13, p. 20).

Mehr

Mehr states that music reading and performance presupposes musical literacy, and that unless we develop this literacy, we are not teaching music but merely training "robots" to perform certain prescribed motions in a certain way (6, p. 45). Musical literacy includes

(1) the ability to analyze and understand the structure of the music being studied,
(2) skill in keyboard use of harmonic materials, as in harmonizing, arranging, and transposing,
(3) ability to recognize melodic and harmonic features in sight reading and in learning and performing music, and
(4) the ability to recognize melodic, harmonic, and rhythmic features by hearing (6, p. 17).
Mehr concludes that the prime function of a music teacher is not to teach pieces, but to give students the tools of musicianship (6, p. 17).

Starkey

The content of a functional piano class which covers the needs of the music major as suggested by Starkey includes: sight-reading of simple accompaniments, national anthems, and patriotic songs; the study of simple compositions from standard piano repertoire; technique, including scales, arpeggios, chord positions, chord progressions, use of the damper pedal, manner of playing slurs, phrasing, and staccato and legato touch; and functional skills, including harmonization, improvisation, transposition, and playing by ear (12, p. 43).

Certain students should learn some additional skills, according to Starkey. Those students preparing for conducting careers should be able to read open scores, vocal or instrumental. Theory majors must be proficient in realization of figured bass, modulations, and four-part harmonizations at the piano (12, p. 43).

Owens

Various reasons for the teaching of such skills as learning to play by ear, to harmonize, to transpose, and to improvise have been given by Owens. "If learning is to take
place with maximum efficiency, it would seem wise for both teachers and students to be quite clear about the reasons for developing certain skills" (7, p. 44).

Playing by ear is the best kind of ear-training, since it forces the student to analyze what he hears in his mind, thus sharpening his musical perception of ups, downs, skips, steps, repetition sequences, long tones and short tones. It is also an excellent way to learn keyboard topography and provides a basis for the understanding of key signatures. It also has practical value for the music educator (7, p. 44).

Ability to harmonize and play by ear is often a primary goal of the student. Through harmonization, music reading is facilitated; the student learns to read whole measures at a glance. "An integrated approach is psychologically sound. Ear-training, keyboard harmony, and piano study are not put in separate compartments but each reinforces the other" (7, p. 45).

Transposition is an excellent tool for instilling good reading habits, since the student is forced to read by interval, by direction, and by shape. Transposition is an essential skill for singers, music educators, conductors, and players of transposing instruments (7, p. 45).

The ability to improvise is also an essential skill for music educators, music therapists, and kindergarten teachers. Improvisation, besides being interesting and enjoyable, aids
the student in understanding how music is constructed. It provides a strong motivation for studying the work of skilled composers. The ability to be creative has great psychological value for the individual student (7, p. 45).

Richards

Some goals for basic piano instruction for music and music education majors and minors for a two year program as suggested by Richards are

1. Immediate use of the piano in college by developing the ability to:
   a. learn a vocal composition by playing the melodic line on the piano
   b. play harmony and counterpoint assignments
   c. realize figured bass
   d. play all or parts of compositions for analysis
   e. play for personal enjoyment
   f. read instrumental and vocal accompaniments

2. Professional use contingent on music emphasis
   Music education majors: additional skills are needed by both instrumental and vocal majors to read, improvise, harmonize, transpose, arrange, analyze, prepare scores, demonstrate the score in rehearsal, and direct from the piano
   a. Vocal majors emphasize combinations of SATB scores in fourth semester
   b. Instrumental majors emphasize small and large ensemble score in fourth semester (11, pp. 121-122).

Richards also suggests the common core content for foundational courses:

1. Music rudiments pertinent to the printed page
2. Basic technique
   a. Grasp of chord and key material
b. Development of the tactile sense
3. Rythmic security
4. Ear discrimination
5. Principles of tone, phrasing, pedaling
6. Sight-reading
   Grasp of music and structional units - melody, chord, rhythm
7. Transposition
   Transfer of tonal relations
8. Areas of basic piano instruction
   a. Literature
      (1) Communicate musical ideas
      (2) Analyze music performed in terms of form, melody, rhythm, chord structure, and style
      (3) Perform literature representing a variety of periods and pianistic styles
      (4) Use pedals in selected repertoire
   b. Keyboard Harmony
      (1) Transposition
      (2) Modulation
      (3) Cadences
      (4) Harmonization
      (5) Improvisation
      (6) Playing by ear
   c. Sight-reading
      (1) Accompaniments
      (2) One or more parts of octavo music
      (3) One or more parts of band or orchestra music
   d. Score-reading
      (1) Accompaniments
      (2) Individual and combined parts
      (3) Transposing and non-transposing instrumental parts
   e. Technique
      (1) Scales
      (2) Arpeggios
   f. Directing a group while seated and performing at the piano (11, pp. 122-123).

These goals are illustrated in an outline given for the first two years of study by Richards in Teaching Piano in Classroom and Studio, edited by Helene Robinson and Richard L. Jarvis.
Rast

Although there are basic differences in the length of time required for vocal and instrumental majors to spend in the piano class, the content of the courses appears to vary little for each of these areas, according to Rast (9, p. 37). "The problem of inadequate preparation on the part of the students could be considered in direct relation to the content of the functional piano courses themselves" (9, p. 37).

Lyke

The group piano situation can be viewed as a laboratory "where segmented music learnings from courses in music history and theory, for example, can be pulled together, related to music being performed, and used to deepen musical understanding" (5, p. 49). Since piano minor students generally receive only two years of piano instruction, curriculum reflecting the most desirable keyboard skills needs to be constructed. Many surveys have supported the idea that functional keyboard skills merit inclusion in the program of the secondary piano student (5, p. 49). In 1964, Buchanan found widespread dissatisfaction among choral and instrumental directors, as well as general music teachers, with the piano instruction they had received in college (2, p. 136). Respondents to her survey indicated that skills such as sight-reading, accompanying, score playing, playing by ear, harmonizing, and improvisation were essential to
their present music teaching situations. It has been reported that in sixteen states, piano class programs in college include work in the areas recommended in Buchanan's earlier survey.

A danger might be noted at this point. The pendulum has moved strongly in the direction of functional piano, with primary emphasis on keyboard harmony and sight-reading. In many cases, this has de-emphasized or even removed the study and performance of piano literature as a part of the curriculum (5, p. 49).

According to Lyke, students minoring in piano want to play significant piano literature at their appropriate performance level, and desire the technique to accomplish this. Lyke believes that a piano minor program should be based not only on sight reading and keyboard harmony, but on repertoire study, technique, and aural development (5, p. 49).

In 1967, Lyke designed a rating scale listing twenty keyboard musicianship items considered important by piano experts. The scale was sent to class piano teachers and music education instructors across the country. The items were ranked by the recipients according to importance in a two-year program of class piano instruction for music education majors. The following items were on the rating scale: technical development, sight-reading, transposition, playing by ear, repertoire study, score reduction (vocal), score reduction (instrumental), improvisation, accompanying, harmonization of melodies, patriotic songs, critical listening, development of style concepts, chord progressions,
playing before others, ensemble playing, realization of figured bass, modulation, memorization, and analysis (melody, harmony, form) (5, p. 50). In comparing the results, Lyke found remarkable agreement in the skills that achieved high priority with each group. These skills were considered to be most important: sight-reading, critical listening, accompanying, harmonization, playing by ear, chord progression, transposition, analysis, technical development, and improvisation (5, p. 50). "Repertoire study was considered important by piano teachers, but was placed nearer to the end of the scale by music education instructors" (5, p. 50). Agreement was found in skills which ranked at the end of the scale. These were instrumental score playing, memorization, and figured-bass playing. The remaining skills ranged somewhere in the middle.

Lyke then constructed criteria based on the various keyboard skills. Using these criteria, Lyke evaluated seven piano minor programs as either adequate or inadequate. The guidelines set minimum standards for each skill. Minimum standards were met in the areas of repertoire study, playing songs by ear, sight-reading, transposition, harmonization, and piano ensemble performance. Programs were inadequate in the first year, but met minimum standards during the second year (5, p. 53). On the basis of this and other recent studies, Lyke concluded that the subject structure
for the piano class for piano minors should be organized around practical keyboard harmony, aural, and technical skills, as well as piano literature, and that all of this should point toward expressive performance based on musical understanding (5, p. 53).

Page

According to Page, a great deal of thought has been given to secondary piano instruction at the college level recently. Many colleges and universities are examining their requirements as well as the teaching techniques used to bring the student up to the required level of proficiency (8, p. 20). After taking a closer look at the skills needed by the secondary piano student, it becomes apparent that the proficiency requirement can not be satisfied with two or three "little pieces memorized by constant repetition" (8, p. 20). This type of piano proficiency requirement does not meet the needs of the secondary student.

Unless the student is given guided experiences in sight-reading, accompanying, score-reading, harmonization, ensemble playing, transposition, and improvisation, besides repertoire and technique, such skills may never be developed (8, p. 20).

Bastien

Bastien states that the problem of providing a comprehensive program for the piano minor is compounded by several internal factors within the music department. The most serious problem is selecting a qualified teacher. "Lack of
training, lack of interest in the program, and lack of imagination and creativity in the instructor too often undermine the goals of group instruction" (1, p. 286).

Another problem is the proficiency examination, or "jury" system, which functions in most music departments to aid teachers in grading students enrolled in the piano minor program.

It is easier to prepare the class piano student to play five or six repertoire selections and some scales than to devote a great deal of class time to functional skills which may not make an immediate "show" at the examination (1, p. 286).

In order to be effective, however, the examination should cover representative phases of group instruction rather than a limited area.

The class piano curriculum should be constructed to best suit the needs of the students and should be based on practical piano study.

Emphasis should be given to basic objectives rather than exclusive concentration on one area, such as repertoire. Syllabi and proficiency examinations should reflect a comprehensive view including all important phases of musicianship (1, p. 287).

Bastien offers a brief curriculum outline as a guide for planning course sequence for four semesters (1, pp. 295-300). The four main areas outlined are sight-reading, functional skills, technique, and repertoire. According to Bastien, these areas constitute a balanced program designed for progress. A sample of piano proficiency examination
requirements for the piano minor to be given at the end of the fourth semester is also given by Bastien (1, pp. 300-301).

Lindstrom

The skills of the great masters in improvisation are legendary (3, p. 38). Some modern efforts to bring music teaching into line with a more natural and creative approach include the well-known systems of Jacques Dalcroze, Zoltan Kodaly, and Carl Orff (3, p. 38).

Since improvisation is essentially a creative effort on the part of the student, it is important that the teacher provide intelligent encouragement and example. Lindstrom declares that the rationale underlying the teaching of improvisation includes the following factors:

1. Improvisation synthesizes the musical experience.
2. Improvisation promotes technical security and allays psychological fear.
3. Improvisation relates theory study to relevant practise.
4. Improvisation explores the potentialities of the instrument.
5. Improvisation stimulates the imagination of the student.
6. Improvisation develops powers of concentration and hearing.
7. Improvisation provides direct and spontaneous means of musical expression (3, p. 38).

Although Lindstrom is a private piano teacher, his reasons for including improvisation in piano study are equally valid for the class piano teacher. Frustration with note-reading has been observed by Lindstrom to become
noticeably diminished as a direct and immediate result of successful experience in simple melodic improvisation (3, p. 38).

Robinson

At Arizona State University, according to Helene Robinson, the purposes of the required piano courses are discussed in the first class session, so that the student may understand how valuable the piano can be to him in his chosen profession. Course goals are also discussed. These include

1. Acquiring the technical facility to play musically and with ease - music ranging in difficulty from easy through the mid-intermediate level, including: piano solos, accompaniments, ensemble music, and vocal or instrumental parts and scores in one's area of specialization. (If a person cannot play well, without concentrating exclusively on his technique, the piano will be of little use to him.)

2. Acquiring the ability to sight read, transpose, harmonize melodies, improvise, and play simple modulations on the piano (10, pp. 24-25).

Concepts of music structure are emphasized and creative attitudes of experimentation, discovery, and reasoning are encouraged. A vocabulary of note-patterns is acquired by constructing basic tonal patterns by formula and playing in all keys. The patterns include: intervals, scales and modes, all kinds of chords in all positions and styles, chord progressions, double thirds and sixths, octave scales and chords, arpeggios, trills, tremolos, turns, etc. Improvisation
furnishes a culminating experience that tests students' knowledge and skill (10, p. 25).

Lowder

Lowder believes that variety of presentation in the classroom establishes a meaningful learning atmosphere for students (4, p. 42). Performance skills that are usually taught in college piano classes, according to Lowder, include sight-reading, harmonization of melodies, transposition, playing by ear, improvisation, technique, cadences and chord progressions, and piano repertoire (4, p. 42).

Factors which help make learning interesting are

1. Determination of general performance goals prior to the beginning of instruction. The instructor indicates goals within the skills categorized above, such as sight-reading, transposition, etc.

2. Selection of specific performance goals for each student. After the instructor has set a minimum number of requirements under each performance skill, the student chooses and works toward specific goals at his own rate of speed. He is given the opportunity to perform for the instructor and/or his peers several times during each week.

3. Presentation of a variety of skills and problems during each class period. (The instructor) must find a compromise between individualized and group instruction, adapting to the needs of each class (4, p. 42).

Lowder states that alternating periods of performance with lecture/discussion helps maintain a high level of interest in the classroom (4, p. 42).
The course content for secondary piano students at North Texas State University consists of functional skills, sight-reading, technique, and literature from various periods. Every student must pass the secondary piano barrier in order to be graduated.

The teaching of functional skills includes ear training, harmonization, transposition, and improvisation. Sight-reading is done at every class meeting.

Technique is taught in connection with literature studied and in drills and exercises. Major and harmonic minor scales and major, minor, dominant seventh and diminished seventh arpeggios are performed in all keys.

Literature for each semester includes one polyphonic work, one sonatina-form or sonata-allegro-form movement, and three pages of standard literature to be memorized. A more complete list of secondary piano requirements at North Texas State University may be found in Appendix B.

Summary

In 1964, Buchanan found widespread dissatisfaction among choral and instrumental directors, as well as general music teachers, with the piano instruction they had received in college. Respondents to her survey indicated that skills such as sight-reading, accompanying, score playing, playing by ear, harmonizing, and improvisation were essential to
their present music teaching situation. Three years later it appeared that functional skills for the music major were the goals of most programs (5, p. 49). Vernazza's study revealed that class piano programs for the secondary piano student placed emphasis on musicianship, music fundamentals, functional, and technical skills. Starkey, Lindstrom, and Owens concurred in the inclusion of functional skills in the piano minor program, while Mehr stated that music reading and performance presupposes musical literacy (which includes the functional skills). The areas of basic piano instruction as recommended by Richards were: (1) performance of literature representing a variety of periods and styles; (2) keyboard harmony (including transposition, modulation, harmonization, improvisation and playing by ear); (3) sight-reading; and (4) technique (scales and arpeggios).

In his study in 1967, Lyke evaluated seven piano minor programs and found that minimum standards were met in the areas of repertoire study, sight-reading, transposition, harmonization, and ensemble performance. Programs were inadequate in improvisation, aural training, analysis, vocal score playing, and construction of keyboard patterns. Lyke reported that by 1969, college class piano programs in sixteen states generally included work in the areas recommended in Buchanan's earlier survey. He noted a danger in that the strong move toward functional piano, in many cases, had de-emphasized or even removed the study and performance of
piano literature as a part of the curriculum. Lyke asserted that all skills should point toward expressive performance based on musical understanding.

By 1973, a more balanced curriculum emerged. Bastien recommended that emphasis should be given to basic objectives rather than exclusive concentration on one area. Bastien outlined four main areas of study which parallel those stated earlier by Richards. These areas are: sight-reading, functional skills, technique, and repertoire. In 1975, Lowder and Robinson agreed that the four main areas of study as outlined by Bastien and Richards were still applicable to the piano minor program.
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CHAPTER V

TEACHING TECHNIQUES

Preceding the discussion of teaching techniques, brief descriptions of several views related to learning processes are presented. The techniques of teaching will include reading skills; functional skills, such as ear training, harmonization, transposition, and improvisation; technical skills; and comprehensive musicianship, including creation, performance, and analysis. The final section of the chapter contains a discussion of the use of tools in the piano class such as overhead projector, slide projector, tape recorder, television, and programmed learning.

The Learning Process

In order to be an effective teacher of group piano, the instructor must develop an understanding of acceptable learning processes. The steps to learning can be explained under four subdivisions: mechanistic, gestaltist, programmed learning, and conceptual learning. These four processes are not always clearly separated but often are combined in various ways to provide a more meaningful learning experience. Robinson, for instance, uses the gestaltist approach in giving experience before rules (37, p. 31). She also states
that drills (mechanistic) are advisable in technique, rhythm, reading, and theory (37, p. 33). Robinson also advises that drills be devised for learning key signatures, meter signatures, physical expression of the beat (foot-tapping, conducting), and transposition. Flash cards are also useful in drills. Programmed learning may be said to be mechanistic and conceptual learning may be said to be gestaltist; however, in this report the four processes are subdivided for ease in handling.

**The Mechanistic View**

The experimental method has produced a mechanistic psychology which views learning as a series of unit responses to units or atoms of experience. According to this view, all behavior is the response to outside stimuli; therefore subject matter must be broken up into small bits and drilled into the student by repetition. "Learning is then a matter of forming correct habits of response. Education based on this psychology is stored knowledge acquired by drill" (29, p. 9).

According to Mehr, this is the view held by the average person and the psychology most commonly practiced by teachers. The whole traditional approach to piano teaching, with its logical organization of material, learning of notes before playing, presentation of beginning material from middle C up and down, early learning of scales - this whole traditional approach assumes a mechanistic psychology of learning (29, p. 9).
The Gestaltist View

As a reaction to the error of applying the mechanistic view to every situation, there is a view which takes cognizance of the more complex nature of man. According to this view, "man responds with his whole being to a whole situation. He has emotions, purposes, will, and intelligence. All of these are involved in learning" (29, p. 9).

Instead of response to stimuli, learning is seen in terms of complete meaningful experiences involving the whole person. Mehr asserts that this concept of mind and learning makes clear that abstract facts and symbols cannot be considered the bases for learning but must be considered the summary, or the generalization of learning which has gone before. This view affirms that to have future value, an experience must have present value.

The psychological features of this idea of the educative process have been developed by the Gestaltists, who say that the unit of learning is not an isolated element but an organization of elements - a configuration - which has meaning. These configurations are not stable; they are constantly changing. They grow larger, and they combine to form new configurations (29, pp. 10-11).

According to this view, we do not learn by trying to master the various parts of a process and then joining them together, but we grasp the distinctive features of an object or idea after we have grasped it as a whole. "Parts do not organize to make a whole. Rather the whole differentiates into parts" (29, p. 11).
Mehr states that Gestalt psychology points to group learning as its ideal expression (29, p. 12). It is impossible to maintain the interest of the group unless correct principles of learning are followed (29, p. 11). Mehr believes it is difficult for group piano to succeed under a mechanistic psychology.

The dynamic psychology of learning suggested here shows us that much teaching is backwards. A person learns notes so that he can play pieces. He should play pieces first until he discovers that knowing the notes will help him. He then learns notes to do better what he is already doing. A person learns the rules of harmony so that he can compose. He should compose first, no matter how crudely. He should attempt to express himself and then study the rules of harmony to compose better, to express his ideas better (29, pp. 12-13).

Mehr also feels that to teach scales first is another backward procedure. According to Mehr, the student should learn chords first, have much experience in transposing, and then the scales and intervals should be taught to explain the experience which the student has already had with music (not to enable him to have such experience) (29, p. 13). The common mistake of many teachers is to teach certain things in order that the student may do more vital things later. Mehr believes that the student should do vital things first, then when he is ready, he can be given facts, theories, and abstractions to illuminate what he has already experienced (29, p. 13).

This concept of learning shows that a student must experience music before he learns about it. Playing by
rote is the first step before learning to read music (29, p. 13). Mehr asserts that the teacher should not think of learning to play the piano as synonymous with learning to read music but should teach the student pieces that move over a wide range of the keyboard, before he is able to read the notes from the page. The student must experience and feel rhythm before he learns to "count time," and must learn to experience music by phrases (29, p. 14).

The so-called logical fundamentals are not really fundamentals as far as experience is concerned. A fundamental for learning purposes is something that is first experience. Logical fundamentals are really secondary, since their function is to explain experience, not to make it possible (29, p. 13).

Programmed Learning

A new concept in the teaching of music has emerged called "programming." In programming, learning is a chain-reaction of association of ideas, beginning with one very specialized point and branching out steadily to another and yet another.

"Programmed" teaching, which is the name given to that kind of pedagogy that provides all the associative links in the learning process, has as its aim the removal of impediments in the flow of the thinking process (5, p. 42).

Everything that is not immediately relevant to the understanding of the concept being taught is left out at that moment. Concepts are developed gradually and systematically. The slow, thorough presentation of material actually cuts
the amount of time needed to learn (5, p. 42). It is the "common sense" way of teaching, according to Bubniuk, since it gives the student the opportunity of success, with every success followed by succeeding successes, until there is a history of successes and the development of self-confidence (5, p. 42).

Rast states that experimentation with instructional media is facilitated by the electronic piano lab (34, p. 67). At Ohio State University, many areas of programmed instruction have been initiated, including a programmed course of keyboard self-instruction for elementary education majors, the use of the tachistoscope with programmed tape instruction, and study of pre-school orientation to music through the electronic piano keyboard (34, p. 67).

**Conceptual Learning**

Duckworth lists some principles of learning for children which also have significance for the adult beginner (11, p. 44). He states that constant evaluation must take place in order for drill to be beneficial. "By focusing our attention on the concepts which pervade all stages of learning, practice and drill would be easily woven into this fundamental knowledge" (11, p. 44). The organization of materials determines to a great extent whether the teacher teaches trivia or concepts which are valid throughout a piano student's life. Duckworth holds the viewpoint that all basic concepts
must be aural.

The student hears a major scale and then deepens his understanding of that sound by trying it in all keys; he creates and hears melodies for their line, continuity, and form; he takes his understandings to the score and sees the individual notes that provide a melodic line, relating his hand to the contour of the music and learning from scanning to have always enough fingers for the range and complexity of the phrases involved. From his sense of keyboard geography, he associates the notes on the score with an arrangement of black and white keys and makes further adjustments for his fingering (11, p. 44).

At Ohio State University, according to Rast, all instruction is geared toward the presentation of concepts rather than the learning of specific pieces of repertoire (34, p. 66). Musical concepts are drawn from the repertoire studied, and are used in a functional way. As the concept presented is expanded and absorbed into the student's functional vocabulary, improvisation of original compositions generally follows. Rast asserts that conceptual teaching must replace the learning of ineffectual literature, and the development of insight and depth in the student must be stimulated (34, p. 67).

Developing Reading Skills

According to Richards, music reading may be defined as the transference of music symbols into appropriate sound (35, p. 54). Music reading is a highly complex mental art involving: seeing symbols, conveying the symbols to thought centers, sending physical signals to the body, and realizing
the tone. Bishop declares that sight-reading at the piano is a complicated process (3, p. 48). It involves playing what is being read on the grand staff with two hands, with fingers numbered in opposite directions, recognizing note patterns in relation to groups of black and white keys. The student is required to notice detail of organization both horizontally and vertically; the rhythmic symbols appearing to the eye must be realized kinesthetically with reference to pulse, accent, and rhythmic design. The eye must be trained to move forward to notice details in advance of the moment of playing. While the eye is taking in details of what is coming, there is the necessity to remember what has just been observed. Bishop states that procedures to strengthen any aspect of the reading process could be called sight-reading experience (3, p. 48).

Chronister asserts that sight-reading is not a gift but a skill that can be learned (9, p. 3). Sight-reading skills as listed by Chronister are: (1) instantaneous response to everything on the page; (2) looking ahead while playing; (3) keep going, no matter what happens; and (4) keeping a steady pulse (9, p. 3).

Pitch Security

Some teachers recommend the presentation of pitch notation by means of "pre-staffed notation" (1, pp. 2-27; 26, pp. 4-10). Notes are arranged by direction (up, down, and
same) without using the lines on the staff. Notes on the staff are introduced gradually.

Richards declares that music reading is not music spelling. Music spelling is individual note naming; music reading involves interval recognition and establishes relationships among notes (33, p. 54).

Rhythm Security

In some texts, rhythmic notation is introduced before pitch notation (1, pp. 6-7; 26, pp. 1-2). Directions for "counting time" include the traditional "one-and, two-and, three, four," for two eighth notes, quarter note, and a half note. Also used by some teachers is the chanting of note values while foot-tapping, e.g. "two-eighths, quarter, half - note" in the rhythm of the note values (1, p. 67; 26, p. 1-2; 36, p. 10; 32, p. 18-19).

According to Bishop, rhythm should be felt first of all in evenness of recurring pulse, since quantitative values of notes are measured in terms of pulse. The following procedure was used by Bishop:

1. Students clap as teacher plays a series of chords without accent.
2. Teacher commences to play accents to produce duple or triple meter; their clapping immediately picks up the accent.
3. Students are asked to continue clapping and to say "one" with each accent.
4. Students continue by counting the intervening beats between the accent and its recurrence.
5. The experience of counting is applied to the sight reading of a melody (3, p. 49).
Bishop suggests practicing the patterns used to conduct various meters while reading aloud (3, p. 49).

The rudiments, including names of notes, are usually best learned in context of the music being studied (3, p. 50). While a good sight reader employs intervallic reading of groups of notes, he must still be able to identify these notes on the staff (3, p. 51).

The Interval Approach

Richards declares that reading by intervals rather than by note spelling facilitates sight reading even in beginning students (35, p. 54). One important reason for reading by interval is the development of aural imagery in the relationship of the sounds. According to Liggett, using the interval approach from the beginning makes it easier for the student to

(1) Play by ear.
(2) Transpose with ease, which increases reading skill.
(3) Finger naturally: seconds step from finger to finger, key to key; thirds skip a finger and a key; etc. Students learn to look over a phrase to locate its highest and lowest notes to determine which fingers will enable them to play with the greatest ease.
(4) Notice simple musical form: parts alike and parts different.
(5) Understand intervals.
(6) Analyze tonality, beginning with analysis of a major pentachord (five tone pattern) in terms of whole and half steps (20, pp. 46-47).

During the first few months of instruction, Richards presents the following areas to promote better music
reading:

1. Five finger hand position at the keyboard (e.g., C, D, E, F, G, played by the right hand with finger numbers 1, 2, 3, 4, 5). If the teacher says "skip a key, skip a finger," this will help establish the five finger position.

2. Keys that step up, step down, or remain the same. Note the picture of these sounds (music).

3. Keys that skip up, skip down, or remain the same. Note the picture of these sounds (music).

4. Keys that skip up or down a 3rd, 4th, 5th, etc. Measure the distance in the air and check it at the keyboard. Note the picture of these sounds (music).

5. Keyboard intervals and their notation; neighbors (a step): line to space or space to line. skip of a third, fifth, or seventh: line to line or space to space. skip of a fourth, sixth or octave: line to space or space to line.

6. The bass clef lines. Have the left hand play G, B, and D as the right hand plays F and A. The white keys that are not played are the spaces (35, pp. 55-56).

Eyes should be kept on the music at all times. Richards believes that students taught to think in terms of intervals will become fluent readers, and that note naming is a skill that will grow naturally from the reading process. Beginning students taught by note naming only usually have a note-for-note sound in their performance, according to Richards; but pianists taught by intervals possess a greater sense of musical flow in playing meaningful groups of notes (35, p. 54).

A mechanistic approach to reading was developed by Rothgarber. He experimented with a supplementary method of teaching reading which had favorable results in the areas of
rapid sight-reading, rapid chord response, and transposition. His system conditioned students to respond mechanically to the intervallic arrangement of notes on the staff (38, p. 40). Staves without clef signs were used in drills for the following intervals:

- **Seconds** - identified as notes from a space to the nearest line, or from a line to the nearest space.
- **Thirds** - identified as notes from a space to the nearest space, or from a line to the nearest line.
- **Fourths** - identified as notes from a space to the next-to-the-nearest line, or from a line to the next-to-the-nearest space.
- **Fifths** - identified as notes from a space to the next-to-the-nearest line, etc.

Sixths, sevenths, and octaves were introduced later in similar fashion (38, p. 40).

After the students had gained proficiency in the exercises for the first four intervals, these were related to the process of chord-reading. Rather than deciphering each note in a chord individually, students were encouraged to identify chords and harmonic intervals by their silhouettes, therefore grasping the chord symbols as entities. Exercises were provided for triad recognitions using patterns (or silhouettes) as follows:

- **Triads** -
  - root position - a third and a third
  - first inversion - a third and a fourth
  - second inversion - a fourth and a third

- **Triads with doubled tone** -
  - root position - a third, a third, and a fourth;
  - first inversion - a third, a fourth, and a third;
  - second inversion - a fourth, a third, and a third;

- **Seventh chords** -
  - root position - a third, a third, and a third;
first inversion – a third, a third, and a second;
second inversion – a third, a second, and a third;
third inversion – a second, a third, and a third.

Incomplete seventh chords
root position – third and fifth; fifth and third.
first inversion – fifth and second; third and second.
second inversion – second and third; second and fifth (38, p. 41).

After considerable time was spent on these drills, the groups were combined in a variety of ways. "The reader was asked to follow the intervallic movement of the lowest note only, and to read each chord as a silhouette" (38, p. 41). When this drill was mastered, it was played in various keys. Rothgarber reported that students who participated in this experiment showed a marked improvement in reading ability (38, p. 41).

Chronister believes that sight-reading skills can be acquired through the use of flash card drills (9, p. 3). Each card should be large enough to be seen easily and quickly and should contain one measure from a piece of music. Chronister has the students look at each card before playing the sequence, and then to play each card twice. "Several cards should be played non-stop so that when a group of cards has been played, the student has actually played a short piece" (9, p. 3). Next, Chronister puts the cards in a different order. As the student is playing the top card,
half way through the repeat, the top card is removed and put out of sight, forcing the student to look ahead to the next measure he will play. Chronister states that in this kind of drill, the student cannot go back, he cannot play a measure over, nor can he take time to figure out what to do. Chronister believes that drills for fluent sight-reading should be done at every class (9, p. 4).

In 1969, an experiment was conducted by Lowder to determine whether the teaching of vertical intervallic relationships according to figured bass principles would improve the ability of secondary pianists to sight-read piano music based on tertian harmony (22, p. 7). The result of his experiment showed no significant difference between the experimental and control groups (22, p. 55). However, Lowder drew certain inferences from his study which should prove helpful in improving the ability to sight-read in the piano class:

1. The first semester of instruction for secondary pianists should include more drills on reading chords by interval. A greater number of errors were performed by both groups when performing chord inversions than when playing chords in root position.

2. There should be closer relationship between the type of fingering used for chord progressions and cadences to the performance style of hymns and chorales.

3. A thorough method of study for secondary pianists should include musical examples of a linear texture, as well as those of a chordal texture.

4. Beginning piano students should not be permitted to develop the habit of stopping at bar lines when sightreading compositions. Errors of
performance on the sightreading test indicated that most errors were usually accompanied by rhythmic pauses. This would suggest the need to maintain sightreading materials at simple levels, gradually utilizing more difficult examples according to the ability of the student. Teachers might devise their own teaching materials without bar lines in order to encourage students to read more fluently. . . .

5. There should be close rapport between the teacher of music theory and the teacher of class piano as regards theoretical terminology. . . (22, pp. 95-97).

One recommendation made by Lowder was the investigation of speed drills on chord shapes through use of the tachistoscope or metronome and flash cards (22, p. 97).

In the earliest stages, it is not always easy to spot the poor reader. Richards advises looking for the student who always has everything memorized. Often, the student has to memorize because he cannot read. Richards found the following sequence helpful in remedial work:

1. Make sure eyes are on the page.
2. Ask what pitch is being played.
3. Locate the hand position (finger number 1 governs the hand position). Therefore, what finger is being employed with regard to the pitch played and the five finger hand position?
4. Determine the interval distance to the next tone.
5. Decide how the next tone can be played with regard to the five finger hand position.
6. If a large skip is involved, consider its relationship to what has been played, not only the previous note but other nearly adjacent tones too (34, p. 56).
Facilitating Eye Movement

Eye movement and the rhythmic aspects of reading are closely associated. Experiments with the process of reading have told us that the eye moves in jerks (3, p. 49). Only when material is not understood does the eye slow or halt the forward movement.

In looking over the material ahead of the reading, all aspects that might be troublesome can be clarified and analysis is brought into play to facilitate the playing of phrases, intervals, chords, rhythms (3, p. 50).

After careful preparation, the reading that follows should proceed rhythmically with a reasonable degree of accuracy.

In 1967, Fjerstad conducted a study comparing proficiency in sight-reading harmonic notation at the piano acquired through perceptual training, with that acquired through forced response training using tachistoscopic and metronomic procedures within class piano instruction (13, p. 9). The tachistoscope was utilized to control the duration of the projected target, and the metronome was utilized to control the tempo of the response.

In the perceptual training procedure, the duration of the projected image functioned as the experimental variable while in the forced response training procedure, the metronomically controlled tempo functioned as the experimental variable (13, p. 76).

The subjects were two sections of class piano at Southern Illinois University. Two groups were formed in each class: random and experimental. Perceptual training groups were
presented materials with stepped reduction in shutter time to 1/100 of a second. Forced response groups were pre-

sented materials at progressively faster tempos. Electronic pianos were used for the response medium and all subjects received twenty minutes of training during each class period for twenty-seven sessions (13, p. 77).

A sight-reading performance test was administered at the beginning and again at the conclusion of the experiment. There were no significant differences between the mean gains of the two experimental groups (13, p. 78). Pre-test and post-test data of non-participating groups were compared to the participating groups and scores of both training groups were found to be superior to the scores of the non-

participating group (13, p. 80). Fjerstad concluded that "eyes must be trained to see specific chord patterns and the hands must be trained to respond in tempo with related hand shapes and finger sequences" (13, p. 81).

Possibilities for Sight-Reading

Lowder believes that sight-reading is one of the most rewarding activities that can take place in the piano lab. Multiple copies of various types of music, including vocal and instrumental scores, piano solos and duets, should be provided by the instructor. Transparencies for use with an overhead projector may also be used to provide sight-reading experiences (25, p. 43).
Some possibilities for sight-reading as suggested by Lowder are:

1. Assign one or two voices of a four-voice composition to four different groups of students.
2. Have each row of students take turns performing phrases of a composition.
3. Assign single melodic parts of a symphony or string quartet to individual students or rows of students.
4. Perform easy piano repertoire in unison.
5. Perform piano duets in various ensembles:
   a. Primo and secondo divided equally between students in class;
   b. Right-hand or left-hand parts assigned to individuals;
   c. Primo and secondo (or Piano I and Piano II) assigned to various numbers of students.
6. Ask class members to perform a composition individually or in ensemble, at a tempo accessible to the majority of the class, while the instructor performs the same composition.
7. Play either the tape-recorded treble or bass part of a composition while students play one or more parts while reading from a projected transparency or multiple copies of the composition (25, p. 43).

There are endless possibilities for variety, but they require imaginative planning by the instructor (24, p. 57).

**Materials for Sight-Reading**

Sight-reading material should emphasize the elements being studied, such as a particular scale, chords being studied, or certain intervals, etc. (3, p. 51). Music for sight-reading should be chosen to consolidate and facilitate that which is in the present experience of the students and to stretch forward to include new problems, with the necessary guidance to solve these problems (3, p. 51). A list of sight-reading materials will be found in Appendix C.
Developing Functional Skills

As stated previously, many surveys have supported the idea that functional keyboard skills merit inclusion in the program of the secondary piano student (27, p. 49). Functional skills include ear training, harmonization and transposition, and improvisation (40, p. 43). All of these skills are interrelated. (Transposition is ordinarily used in conjunction with the other skills listed.)

Ear Training

According to Burns, the initial experiences in class piano should serve to train the student's ear (6, p. 44). Burns recommends the playing of a simple folk tune in a five-finger position as the very first experience in relating the inner and the outer ear to the keyboard (6, p. 44). After each student has found the melody by ear, Burns recommends dividing the class in half, with one half playing the melody and the other half finding by ear the appropriate chords to accompany the melody. Another way to train the ear is by transposing the melody and then improvising a descant. "Matching" tones or tonal patterns is another device for training the ear (6, p. 45). The student plays or "matches" the tones played first by the teacher. The number of notes is increased so that eventually a student can remember an entire phrase. Matching can also be done with intervals and chord qualities.
"Matching" leads to the forming of consequent and antecedent phrases, frequently referred to as "question and answer". The teacher plays a "question" phrase and the student is required to play a parallel answer. Following this, the questions and answers should be harmonized by ear with primary triads. After the students have gained some competence in giving parallel answers, the class can be divided with some students giving "questions" and others giving "answers" among themselves. This activity can be expanded into group composition, which can lead to the composing of two- and three-part song forms (6, p. 45).

**Harmonization and Transposition**

Most college piano classes require harmonization of melodies (24, p. 57). Lowder believes that melodies chosen for harmonization should include those without, as well as those with, accompanying chord symbols. In addition to the traditional harmonization, Lowder recommends that the student be allowed to create original harmonizations. Chord progressions in many keys should be related constantly to other materials being studied. "The course of study should include not only such chord progressions as I - IV - V7 - I, but also those progressions that require secondary dominant chords and jazz harmonies" (24, p. 57).

Lowder believes that harmonization and the analysis necessary for its use should be a part of every music
student's education. Lowder defines analysis as an examination of something by its separate elements in order to see their relationship to the whole (23, p. 57). Various types of analysis include the dissection of a musical composition into its four main elements: melody, rhythm, harmony, and form. Lowder believes that analysis should accompany performance skills. "Many teachers have successfully utilized harmonization of melodies to develop the ability of their students to realize the importance of the musical phrase in all music performance" (23, p. 36).

In order to harmonize or to improvise simple melodies, the student needs to understand the difference between chord tones and non-chord tones (passing tones, neighboring tones, suspensions, etc.).

Students who have been encouraged to improvise melodies using chord tones and non-chord tones will recognize them more quickly on the staff of a musical score, thereby improving their ability to sight-read musical patterns (23, p. 36).

Lowder sets forth some basic principles of harmonization. The first step is to analyze the melody for outlined chordal patterns, repetition, sequence, melodic direction, etc., remembering that the next to last chord of a phrase ending with the I chord is most often the V or V7 chord. In triple meter, one chord per measure can be used. In most melodies containing four beats per measure, a chord is played on the first and third beats; and 6/8 meter employs the same harmonic rhythm as 4/4, with a chord on the
primary and secondary accents within the measure. When the student is able to analyze a melody in detail and can fit the appropriate triad to the melody, he can begin using varied accompaniment patterns (23, pp. 36-37).

Chastek recommends daily practice of transposition and suggests review of scales, pattern and sequence exercises based on scales, and chords for finger patterns and finger control. Chastek states that transposition is an extension of sight-reading and gives these suggestions:

1. Become familiar with all aspects of the piece in its original key. Analyze the key, meter, and range. Find the hand position of the piece, as indicated by its range. Review this hand position in the given key by a brief exercise, such as the closed-5-finger and primary-chord progression, p. 173. Play the piece, keeping your eyes on the music to develop a sense of touch.

2. Review the hand position used in the original key by playing a brief exercise in the transposed key. See p. 173.

3. Transpose the piece in a slow, steady rhythm.

4. Keep your eyes on the music. Keen observation and listening are necessary as a support to the fingers as they automatically move to positions while maintaining the same finger patterns in the new key.

5. Observe the melodic contour; the stepwise ascending and descending line; upper and lower neighbors and other melodic embellishments; intervals (skips) based on chord patterns; repeated notes; common tones and suspensions. Recognize: the shapes of chord clusters; the moving bass line; the alternating tonic-dominant "jump" bass.

6. Keys using the same letter name (for example, E, Eb; F, F#) have similar notation. That is, they look the same on the staff but sound different.

7. When transposing a third, visualize the notation as if it were starting on the line or space directly above or below the original (8, p. 2).
Throughout the history of music, the art of improvisation has been demonstrated in many ways: by the jubilus (in plainchant, melismatic singing to the final vowel "a" of the Alleluias); by the addition of parts to known melodies, resulting in polyphony; in arias, cadenza, and full works such as fantasias. "In the days of the masters, musicianship was measured by one's ability to improvise" (6, p. 44).

The field of improvisation is a wide area involving many skills (15, p. 42). Keig asserts that the idea that talent for improvisation is either there or is not is a fallacy (15, p. 43). It is the teacher's responsibility to guide, nurture, and cultivate this ability. Improvisation teaching must maintain a delicate balance between creativity and discipline; "it must be flexible, yet directional - logical, but not rigid" (15, p. 43).

Musicianship implies knowledge of rhythm, harmony, melody, form, and tone color. Improvisation demands a working knowledge of all these elements of music; therefore, it is important for the development of musicianship in the student.

According to Burns, improvisational activities must be well structured and some basic tools for improvisation must be given to the student. One way to control improvisation is to start with an ostinato bass built on the pentatonic
scale of the black notes of the piano. Each student in turn plays a simple motive above the ostinato and repeats it until all are playing; then each student drops out, one by one, until the original theme and ostinato are being played. The basis for another simple improvisation is an ostinato composed of the parallel triads, I, II, and III. Half of the class plays the ostinato pattern while the other half takes turns improvising four measures above this ostinato. Students can also improvise on a given melody by adding a new accompaniment, a descant, and new motives.

While engaging in these class activities the student is acquiring tools that will enable him to be successful in his attempts at individual creative endeavor. Such tools include diatonic, pentatonic, and whole-tone scales; a vocabulary of melodic embellishments; the harmonic vocabulary peculiar to a given style; and the rhythms from selections of poetry and from the abstract creation of combinations of "shorts and longs" (6, p. 45).

Jablonsky suggests one way to begin teaching improvisation is to use the theme and variation form. Use a simple eight-measure tune that can be easily harmonized; then vary the range, vary the style of accompaniment, vary both, vary the mode (major to minor). Add neighboring tones to the melody; vary the rhythm; vary the touch (legato to staccato); vary the meter. Introduce new chords in harmonizing the melody (14, p. 44). "Variation form proved an excellent vehicle for teaching improvisation" (14, p. 45).

Keig offers this suggestion: use a bass ostinato and let the student improvise within a certain scale structure (15,
Use the pentatonic scale. Give the student a set pattern such as "Use only 3 notes in various octave ranges to be completed in 1 minute time" (15, p. 43). Work with the whole-tone scale; take a familiar tune and put it in the whole-tone scheme. Try a stylistic approach. Use only two major chord triads throughout the whole piece, such as C-E-F, B\textsuperscript{b}-D-F.

Lindstrom emphasizes intelligent encouragement and example by the teacher. The ingenuity of the teacher will suggest varying approaches to improvisation, according to Lindstrom. The following is a step-by-step procedure used successfully by Lindstrom to introduce improvisation to the student based on use of the pentatonic system and the "folk-rock" style:

1. As an initial step, in order to maintain control of phrase structure, the pupil is taught to count measures carefully and in combination with the beats of the measure: 1, 2, 3, 4, 2, 2, 3, 4, 3, 2, 3, 4, 4, 2, 3, 4, etc. It is important that counting be done aloud... This is essential in order to establish the vital musical element of rhythmic motion.

2. The pupil selects a simple rhythmic pattern of quarter notes... and claps a 4-measure pattern, ending the phrase with a longer note value at the fourth measure. This note represents a cadential goal and a point of mental preparation for another phrase of similar structure.

3. Using the right hand only, the rhythmic pattern is transferred by the pupil to the black keys of the piano, anywhere in the treble range, for which the teacher may improvise a suitable bass accompaniment... The pupil soon discovers that he is free to use the black keys without fear of harmonic disaster. He may also discover the natural tendency of melodic gravitation at cadences. It is advisable for the teacher, at this stage, to
establish good rhythmic impulse by playing a two-measure introduction. . . .

4. Continue as in Step 3 with pupil using the left hand to double the melodic line an octave or two octaves, below the right hand.

5. When four-measure phrase units can be played in this manner with some confidence, it is possible to extend to simple ternary form. . . .

6. Melodic ideas will soon suggest rhythmic variety. The pupil will introduce new measure signatures and combine eighth-note and dotted-note patterns with quarter notes. Patterns should always be planned out and clapped before playing. In order to avoid aimless "doodling," an ordered arrangement is at all times essential. . . .

7. When good habits are well-established, the pupil may take over the bass accompaniment with the left hand, beginning with patterns of fifths: F flat and D flat for major and E flat and B flat for minor. . . .

8. When complete independence is attained, the pupil may transfer the operation to the white keys by transposing upward one half-step (21, pp. 38-39).

Later, melodic and harmonic possibilities are extended beyond the scope of the pentatonic system and the student is challenged to apply his growing knowledge of music theory, along with his imaginative and interpretive powers (20, p. 39).

In order to demonstrate how the functional skills are interrelated, the activities used by Mehr to develop functional musicianship are presented here (30, p. 17). Mehr had students learn to play familiar folk tunes in five-finger position from the contour of the melody before learning to spell notes, distinguishing whether the melody goes up or down, steps or skips. Then the five-finger position is found on a new location on the keyboard and the
melody is transposed. This is an excellent method of ear training, according to Mehr, since it helps the student to see and hear patterns rather than individual notes. After having learned several melodies, the next step is to see how melodies are accompanied by chords. The tonic triad is found by playing scale tones 1, 3, and 5 of the five-finger patterns already learned. This chord is used with some of the melodies learned previously. The next chord, taught by rote, is the dominant seventh in its first inversion with the fifth omitted. Melodies are harmonized with the I and V7 chords. Experimentation with pentatonic melodies and parallel triads is also done. In making their own variations, students begin by changing only one or two notes; later they experiment with the rhythm and discover passing tones, neighbor tones, and appoggiaturas.

Chord drills in all major keys, used by Mehr, are as follows:

1. I IV I, both hands playing the chords in all keys.
2. I IV I V7 I, both hands playing chords in all keys.
3. I IV V7 I with roots in the left hand and triads in the right (30, p. 19).

Scales are introduced using tetrachords; then melodic and harmonic transposition is extended to include the sixth scale step. Chord qualities recognized by ear are major, minor, diminished, and augmented. Improvising is extended to include melodies using the entire scale, with
accompaniments such as Latin American patterns, march rhythms, and waltz rhythms. Experimentation is done with the whole-tone scale and augmented triads. Transposition includes all styles mentioned and is extended to include all scale tones. Keyboard harmony drills are extended to include \( \text{ii}, \text{ii}_6, \text{vi}, \text{I}_6, \) and the \( \text{V}_7 \) of \( \text{V} \) (30, p. 45).

Later, Mehr extends transposing to include chorale, "hymn" style, contrapuntal material, and some of the easier classics. "This is done by a combination of ear and recognition of interval and harmonic pattern" (30, p. 45). By this time, improvising includes many contemporary styles: ostinato with dissonant melody, parallel thirds, parallel fifths, and parallel triads used as ostinato, diatonic melody against chromatic or whole-tone bass. Mehr has students improvise periods and three-part forms.

Music reading and performance presupposes musical literacy. Unless we develop this literacy we are not teaching music but merely training robots to perform certain prescribed motions in a certain way (30, p. 45).

Developing Technical Skills

The most important aim of the piano class is the development of musicianship. Starkey defines musicianship as musical understanding and musical insight (42, p. 43). "The pianist expresses his ability in these areas through his technique and interpretation . . ." (42, p. 43). The area of technique includes scales, arpeggios, chord positions,
chord progressions, manner of playing slurs, phrasing, staccato and legato touch, and use of the damper pedal. "These technical aspects of the keyboard are basic as insights into any music; they also provide a foundation on which to build a greater technical skill" (42, p. 43).

Technical practice should include triads in root, first and second inversions in solid and broken form, dominant-seventh chords in root and commonly used inversions; all major and minor (harmonic form) scales; major and minor (triad-form) arpeggios, and diminished and dominant-seventh arpeggios (42, p. 43). Commonly used chord progression formulas should also be practiced, including the use of secondary chords. Areas of technical practice which may be included are simple modulations and the harmonization of the major scale (42, p. 43).

According to Rast, the student must be able to relate tonal elements to finger dexterity if he is to function well at the keyboard (34, p. 37).

The approach that is unfortunately prevalent in some courses is one in which the student is led to believe that relatively little finger manipulation ever exists as a part of playing the piano (34, p. 37).

Lowder states that many secondary piano students are accustomed to reading only one line of music and tend to be inconsistent in their choice of hand shapes and fingering patterns when performing at the keyboard (22, p. 4).
tactual sense must be developed, since it is a necessary asset to the pianist.

Although adults expect that their ability to play the piano will keep pace with their grasp of new knowledge, unfortunately, this rarely happens (10, p. 36). Clark states that the physical and technical control of the older student develops more slowly than does his understanding, and that this can be the point at which frustration and dissatisfaction prevail. "For this reason, adults need almost twice as much work (as children) in the area of technical development, and at least twice as many pieces to play at every step of the way" (10, p. 36). More lesson time needs to be spent on developing technical facility. Most books, according to Clark, fail to take into consideration these important differences, both in learning speed and in the amount and type of music required for the more mature student (10, p. 36).

The tactual sense may be developed from the start by giving a considerable amount of music that lies under the hand (in the five-finger position).

Develop a keyboard ability of how it feels (as well as how it sounds and looks) to play chords, intervals, and scalewise successions of notes in key. The five-finger position should be developed in a variety of keys, not limited to the key of C or a few easy keys (3, p. 49).

Richards believes that an effective manner to teach the spatial feeling for the entire keyboard is to present
the major arpeggio in a hand-over-hand fashion up and down the keyboard. Major triads beginning on white keys may be grouped for easier learning (C, F, and G); those with one black key (D, E, and A) and B with two black keys (35, p. 55).

Starkey declares that if students are encouraged to play by ear, they develop tactual facility (in scale and triad movement) and aural perception (in listening to melodies). The student is able to understand through his fingers, hands, and muscles the concepts of up, down, skip-up, skip-down, and same (40, p. 43).

During research begun in 1970, Starkey was able to classify much melodic material and to relate it to the necessary tactual demands on the hands and fingers. She found that most students can play back a melody that lies under the five-finger hand-shape (spanning a perfect fifth) in melodic dictation, but were unable to perform melody requirements which move about the keyboard (as in scale movement, a new chord position, or the octave position) (40, p. 43). "He has no concept of what the hand and fingers must do to play the melody smoothly" (40, p. 43). A routine designed to develop this ability in the student was developed by Starkey:

1. Teacher announces the tonality and plays the melody at her piano; students listen.
2. Students sing back the melody.
3. Students sing and form with the hand in the air the melodic contour, indicating both scalar and
skipping movements.

4. Tapping, clapping, and counting, students isolate the rhythm to determine the meter.

5. With the aid of a Notation-Guide, students experiment at the keyboard to determine the hand position on the piano. The Guide presents the key, meter signature, handshape, starting tone and finger, the first few notes or the motive, and the melodic frame, i.e., the highest and lowest notes of the entire melody.

6. After the experimentation, teacher goes from piano to piano, giving each student an opportunity to attempt playing the melody by ear. To encourage the flow of the melody, the teacher maintains a constant beat while moving about the room.

7. Tactual aspects are discovered and discussed so that students can play smoothly, rhythmically, and in tempo.

8. Students are introduced immediately to the notation of the entire melody. The entire class plays the melody in ensemble (40, p. 44).

The playing-by-ear Notation-Guides that Starkey prepared for use with overhead projector are believed to be a first in this area of study for piano, according to Bishop (40, p. 43). Starkey asserts that the student can evaluate his degree of success at once through this programmed approach. "I believe that this programmed approach toward a worthwhile objective, the training of the ear, leads to greater playing-by ear achievement, and to the basic goal, a high degree of musicianship (40, p. 45).

A method used by some teachers to introduce the playing of scales in two octaves is to play the groups of fingers "blocked" or in clusters and the thumb alone, e.g., R. H.: 1, 2-3, 1, 2-3-4, 1, etc. (26, p. 116; 28, p. 110). The students learn the scales in two octaves "blocked" and hands
separately first, until they feel secure in the finger patterns. Then the scales are played "broken" with hands together.

In order to cover all major and minor scales extending for two octaves, hands together parallel motion, within the first year of piano study, it is wise to group the scales which are fingered alike into units for successive study (41, p. 45). Some general guides to scale fingerings have been offered by Starkey:

Principle I. All scales starting on white piano keys: use alternating groups of 1, 2, 3, and 1, 2, 3, 4 fingers. The 5th finger is used to end the scale in the RH and to start the scale in the LH. (Exceptions: B Major in the LH; and F Major in the RH.) This is most apparent if the student starts with both thumbs on C and plays the scale contrary motion, 2 octaves.

Principle II. Scales starting on black piano keys: fingers 2, 3, play on the two black-key group or within the group; fingers 2, 3, 4, play on the three black-key group or within this group. (Exceptions: RH - C sharp minor; LH - A flat and B flat Major.) The thumbs come together on white piano keys in most of these scales. The thumbs are not used on black piano keys in scale playing 41, p. 44).

Starkey suggests that the teacher demonstrate the scale first, followed by any necessary theoretical explanations. She recommends teaching the parallel minor along with the major, for pianistic reasons, since the fingerings for the most part are the same. The easiest scales to teach hands together, according to Starkey, are: F Major, F minor; B Major, B minor; F-sharp Major (G flat); C-sharp Major (D flat);
B-flat minor, and E-flat minor. In these scales the thumbs come together. Emphasize legato touch from the beginning, with a relaxed wrist (41, p. 44).

Bishop believes that class practice can do a great deal to strengthen skills, whether these are technical or musical. She advises the teacher to demonstrate frequently in a rote approach which frees the students to concentrate on hand grouping and on getting a sense of the muscular and touch elements, then correlate the tactual solution with the symbols on the page (4, p. 32). She also advises planning a drill to relate to the music the class is currently studying or to new music to be used soon. Some scale drills suggested by Bishop are to have different students play the scale concurrently in different rhythms (4, p. 33). Scales can also be played by different students in contrary motion, in canon style, or played with varying expressive qualities (such as staccato, crescendo, diminuendo, etc.).

In the adult piano class, it is wise for the teacher to show how to work out troublesome spots when presenting new material; then time will not have to be spent later in correcting difficulties (31, p. 38). "Many teachers fail to identify and understand a beginner's problems, then are unable to deal with them once they are discovered" (31, p. 38). Touches, such as legato and staccato, must be demonstrated by the teacher. The manner of playing slurs, using wrist motion, must also be demonstrated by the teacher. All new
concepts of technique should be demonstrated by the teacher. Keeping one's eyes on the music must be constantly stressed by the teacher as well as the necessity of learning to feel one's way around the keyboard. The student's eyes must be watched as well as his hands. The student can develop better practice habits if he has been shown how to find the keys he wants without watching them (31, p. 38).

One technique which the teacher may use to help the student in learning a new piece is to play the piece slowly and thoughtfully, analyzing exactly the moves he is making. Teach the students to find "anchor" notes when preparing to move to a new hand position. A common cause of stumbling in beginners is failure to keep the hands over the keyboard (31, p. 39).

In teaching jump basses, stress: (1) leaping faster than playing: fingers should be in contact with the chord before playing it; and (2) taking the shortest distance between two points, using the fingers as feelers (31, p. 39). Beginners often make a large semi-circle above the keyboard when leaping, instead of taking the shortest route.

The teacher demonstrates first when presenting new techniques, then several students in turn are asked to demonstrate their comprehension of the techniques. In this way, any misconceptions can be readily corrected. Owens asserts that teachers of group piano must have the music they teach memorized so that they can watch both the eyes and the hands
of the students. This kind of preparation requires more time, but the satisfaction of observing the student's greater progress is amply rewarding (31, p. 39).

Keyboard performance - with its unique combination of pitch, rhythm, and harmony - provides tactual knowledge to students who may encounter only the parameters of pitch and rhythm while performing on another instrument (24, p. 56).

Bastien recommends the giving of Hanon, Czerny, or other related technical studies (at the teacher's discretion) during the fourth semester (2, p. 299). Texts which contain exercises throughout or otherwise stress the development of technique are listed in Appendix C.

Developing Comprehensive Musicianship

Lowder believes that the student in the beginning piano class in college should be exposed to the model of "comprehensive musicianship" that has been advocated by the Contemporary Music Project (24, p. 56). Comprehensive musicianship stresses creation, performance, and analysis. If comprehensive musicianship is to be taught, there are certain implications for instructional procedures in the group piano class, according to Lowder.

Creation

The first aspect of comprehensive musicianship is creation. Lowder suggests that instructors involve students in improvising motifs, phrases, and short compositions, and in selecting appropriate accompaniments and harmonic
progressions in harmonizing melodies. One of the simplest ways to encourage improvisation, according to Lowder, is by having the student play a given melody, then create variations on the melody by altering melodic contour, mode, rhythm, or form. The next step is the creation of a music example by a student to demonstrate his understanding of a particular scale, cadence, or harmonic progression.

Creativity has been carried a step further by Ruth Leffelaar in a plan for understanding the fifth Two-Part Invention of J. S. Bach (19, p. 16). Preceding the study of the Invention, students are given the opportunity to "invent", or improvise, a composition similar to Bach's, realizing in capsule form the basic ideas found in the Invention. Each student should be encouraged to improvise a part, after which the class chooses the most successful example. Conclusions should be written on the chalkboard as the students finish each part. Measure-by-measure directions which the teacher might give to accomplish these goals are given by Leffelaar:

Ms. 1-2. Improvise a melody in the R. H.; 2 measures, 4/4 meter, key of C Major (or any other key), 5-finger range. Include: quarters, an eighth, 2 sixteenths. This is the Subject.

M. 1. Improvise an accompaniment for the Subject in the L. H.: have continuous eighth notes with a rest on the initial eighth beat.

M. 2. Complete the accompaniment in the L. H. Continue from the beginning, but vary by a change in the melodic flow on the first and third beats. Change the rhythm if desired. Accompaniment should show three melodic entities. This is the Countersubject.

Ms. 3-4. Invert the two voices of Ms. 1-2; transpose
to the dominant (G).

M. 5. Improvise a one-measure unit. Uppervoice: a musical idea derived from the Subject, sequenced twice, and following the step progressions G, A, B. Lower voice: a musical idea derived from the Countersubject, sequenced twice, and following the step progressions E, F, G. The general motion is ascending. Fill in the remaining beat freely.

Ms. 6-7. Transpose to the relative minor (a minor). Subject in the lower voice, Countersubject in the upper voice.

Ms. 8-9. Transpose to the sub-dominant of the relative minor (d minor). Subject in the upper voice. Countersubject in the lower voice.

M. 10. Improvise another one-measure unit which corresponds to M. 5. Upper voice: idea based on Countersubject, sequenced twice and following the step progressions B-flat, A, G. Lower voice: idea based on Subject, sequenced twice, and following the step progressions G, F, E. The general motion is descending. Complete the remaining beat freely.


Ms. 13-14. Repeat the Subject and Countersubject as in Ms. 1-2. Vary them slightly without changing anything basically. (C Major).

M. 15. Extend the last two measures making a final cadence. Use material from the Subject and Countersubject and something of a sequence (19, p. 34).

After the students have played the entire composition through again from the beginning, a greater appreciation of what is involved in creating such a composition will have taken place, and "they will probably be excited and curious now to explore Bach's work, even initiating the investigation themselves" (19, p. 34).

The Invention is now analyzed, with students playing each part as they go. For a succinct delineation, students could "draw" the architecture, with each measure represented
by a block, as in Fig. 3.

Fig. 3--A picture of the construction of the fifth Two-Part Invention of J. S. Bach (19, p. 36).

The students are then led to recognize the internal properties of the Subject and Countersubject as to form, balance, continuity and variance. After this is done, the consistencies possible in the patterns of fingering are worked out.

After the analysis is completed, a thorough groundwork will have been provided, giving the students "an in-depth understanding of the remarkable counterpoint of this invention, with steps toward its execution" (19, p. 37).

Performance

The second aspect of comprehensive musicianship is performance. According to Stangeland, the teaching of musical performance is frequently divided into two separate areas: technique and interpretation. Physical skills alone will not provide a musical communication; technique and interpretation should go hand in hand with developing basic ideas and principles of performance (29, p. 45). By encouraging
performances of representative selections of Baroque, Classical, Romantic, and Contemporary styles, the instructor can help his students make valuable discoveries about different styles of music (24, p. 57). In listening to a wide variety of piano music, students learn to formulate criteria for the performance of music, identify aspects of style that differentiate historical periods, learn to be critical listeners, and discover those practice and performance techniques that may be applicable to their own performance (24, p. 57). Lowder recommends that much sight-reading be done in the piano class of all textures of music and that a selection of sight-reading materials should include piano solos and duets, melodies and themes, vocal scores, and instrumental scores from all periods (24, p. 57).

Duckworth declares that listening that builds performance must occupy at least as much time in the lesson as playing (11, p. 46). In order to promote the kind of learning which allows students to gradually become independent, the teacher must find ways of teaching in which how one listens and what one hears are consistently tested during the course of a lesson (11, p. 46).

According to Duckworth, the traditional kind of education is one in which the student is required to memorize large amounts of "culturally approved data; his motivations are dependent upon his desire to ingratiate himself with his
teachers, and he accepts yes-no, right-wrong question situations" (11, p. 46). Duckworth condemns this kind of teaching as producing students who obey the letter of the music but not the spirit of it (11, p. 46). In the history of piano playing, all of the famous and near famous pianists from Mozart forward were creative people. Duckworth asserts that piano education became rooted in scholarship after the Rachmaninoff generation.

Now we are concerned with style in performance, accuracy of editions, and complete regard for (what we think are) the composer's intentions. The emphasis now on the language of music at the keyboard is totally on reproduction. What has happened to creative production? How much improvisation do we hear coming from the concert platform today? (11, p. 50).

Duckworth believes that we have made our point with scholarship and possibly have overdone it. "We probably have inhibited our Baroque, Classic, and Romantic performance for several generations to come because of the fetish we have made of the score" (11, p. 50). Duckworth declares that the greater the composition or work of art, the more varied are the possible interpretations for it.

Analysis

The third aspect of comprehensive musicianship is analysis. Lowder believes that the skills of listening and analysis should not be separated in any music class, especially in the college group piano class (24, p. 57). Some ways to improve aural skills as suggested by Lowder,
are to have students: (1) imitate a melodic phrase or rhythmic pattern performed by the instructor or a fellow student, (2) play familiar compositions "by ear," (3) sing and play various intervals and chords. According to Lowder, many teachers over-emphasize visual analysis of the music score, failing to stress the importance of aural analysis in their classes (24, p. 57). As the Hawaii Music Curriculum Project has indicated, the time to begin aural analysis is during childhood. Students should learn to place all music concepts and techniques under seven basic headings: tone, rhythm, melody, texture, tonality, form, and harmony (24, p. 58).

Lowder believes that a class of piano students who have not had previous experience with systematic aural analysis can learn to identify major, minor, augmented, and diminished triads; identify and imitate various types of seventh chords; identify, sing, and play short melodic motifs; identify and improvise music characteristics of parallel or contrasting periods; identify the structure of a music composition; and identify with reasonable accuracy the style of various piano compositions (24, p. 58). The success of students' attempts to become comprehensive musicians depends on integrated experiences made possible through close planning and cooperation by all departments of the college (24, p. 58).
Using New Tools in the Piano Class

Technology has had an impact on all levels of education and as a result, more emphasis is being placed on individualizing instruction within the classroom (17, p. 18). Page states that the electronic piano laboratory allows three kinds of instruction in the college classroom: full class, individual, and small ensemble. Often all three modes of instruction will be included in a successful class lesson (33, p. 21). Most electronic piano labs provide for as many as four small ensembles; therefore, it is possible to have a grouping within a class at the same level.

Page recommends some procedures for use with the piano lab (33, p. 21). After initial instructions are given by the teacher, students may be placed in an individual mode of instruction to experiment and work out details. A few minutes later, the teacher may place them in small ensembles to play parts or all of the composition together. An ensemble leader is chosen to start the group. While one ensemble is busy, the teacher can work with an individual or with another group. With the use of headphones, various activities may be carried on at once without disturbing one another. Instruction can be directed to the entire class when the teacher presents new ideas or new music. Communication through headphones enables the teacher to talk to the entire class while each student plays individually and hears only
the teacher and his own piano. Page warns that utilizing this system of teaching requires careful planning on the part of the teacher (33, p. 20).

In the piano lab, overhead projectors, slide projectors, tape recorders, and even television can be found. Audio-visual equipment and programmed learning offer numerous advantages: (1) they can be used to widen the range of student experiences; (2) they can be used for immediate feedback which helps students determine how well they have learned; (3) they can be used for freshness and variety in the learning situation; (4) "they can save both classroom and practice time by increasing learning efficiency" (16, pp. 29-30).

**Overhead Projector**

Using the overhead projector in the piano lab has many advantages, according to Caton (7, p. 44). Visual stimuli promote rapid learning. Carefully prepared transparencies help create interest for the student and can make any presentation more enjoyable. With the overhead projector, the instructor can point to specific things while explaining; part may be covered, and revealed when needed; the instructor can underline important points, and can add to the transparency while making a presentation. Information about methods for producing transparencies may be obtained by consulting *The Overhead System: Production Implementation*.
Slide Projector

According to Lancaster, an interesting dimension can be added to the piano class with the use of slides. "They are easy to prepare either by photographing the material to be used or by cutting a prepared transparency into small pieces and mounting the parts in 2" x 2" slide frames" (16, p. 32).

Sight reading may be improved through use of the carousel slide projector as a tachistoscopic device. The rate of movement to the next slide can be controlled by the teacher. In this way, reading rate can be increased gradually "without frustrating the slow reader" (16, p. 32). Slides can also be used instead of flash cards in note, chord, and symbol identifications.

Tape Recorder

The term "tape recorder" refers to two types currently in use in the education field: (1) the reel-to-reel tape recorder and (2) the cassette recorder. With electronic pianos, it is possible to have a tape unit at each piano (18, p. 29). According to Larimer, instruction tapes are now being used in many university piano class programs as supplementary drills and to improve practical keyboard
skills (17, p. 19). Recent indications are that non-piano music majors who work regularly with drill tapes make more rapid progress in the development of basic keyboard skills than those students who do not (17, p. 19).

**Teaching with tape.**—There are endless possibilities in the use of the tape recorder as a teaching aid. "One of the most valuable functions of the recorder in teaching piano is that of providing the opportunity for extensive ensemble work" (17, p. 19). According to Lees, an enjoyable use of the prepared tape introduces ensemble playing with instruments other than piano (18, p. 29). This can be especially enjoyable in improvisation. Playing along with tapes helps the student develop good reading and listening habits.

If the student plays along with a recorded sound track, he cannot stop and correct mistakes, he must keep going and maintain a steady tempo with the taped line. He must balance the tone level of his part and listen to the dynamics of the recorded line (17, p. 19).

An outline of the possibilities for teaching with tape has been presented by Larimer:

**Reading:**
1. Record one hand of a solo; student plays other hand.
2. Record every other measure of both hands of solo; student fills in blank measures.
3. Record both hands of solo with right hand one octave higher than written and left hand one octave lower than written. Tempos may vary; play first very slowly, then increase the tempo in succeeding recordings of the same piece.
4. Record teacher-part of ensemble pieces for student and teacher.
5. Record one part of piano duet; student plays other part. Be sure to record different parts - not always the secondo.
6. Record an instrumental solo; student plays accompaniment.

Keyboard Theory and Technique:
1. Record scales, chord drills, and finger exercises in different registers, tempos, rhythms, and keys. Student plays same drills in other registers, using same tempos, rhythms, and keys.
2. Student can also vary basic recorded rhythms, double tempos, and change keys for bitonal effect.

Improvisation:
1. Record accompaniment patterns to given chords; student improvises melodies.
2. Record melodies; student improvises accompaniments to chord patterns of melodies.
3. Record chord patterns with block chords in even tempo. Student improvises accompaniments and melodies around the recorded chord pattern (17, p. 19).

The same kinds of activities can be done with reel-to-reel recorders. There are more possibilities for larger ensemble arrangements with the stereo-reel recorder.

Recording the tape.--Prior to recording the tape, write out a detailed script, including everything you want to say. Have a clear knowledge of the organization and structure of the material to be covered so as to avoid having even one unclear explanation or statement.

A creatively prepared tape will allow time for absorption of the presented material and a realistic amount of time for practice, thought, and playback. The student must have sufficient time to participate between passages of instruction (18, p. 29). One aspect of making a tape
successful is to inject warmth, imagination, and enthusiasm (or the human element) (18, p. 29).

One problem in recording should be mentioned. The piano is the most difficult instrument to record and get a good sound (17, p. 19). Piano sound is especially difficult to record well on cassette. Since the cassette tape moves at 1 3/4 revolutions per minute, the slower speed tends to introduce a waver in the sound. A music model cassette recorder with a tuneable pitch control dial has recently been developed by Bell & Howell (17, p. 19). The tape can be tuned to match the pitch of any piano, making it possible for the teacher to make a tape library for loaning to students for practice outside class.

There are several ensemble books on the market today which suggest recorded ensemble possibilities within the text (17, p. 19). Three of these are: Ensemble Music for Group Piano, Cleveland Page, Canyon Press, Cincinnati, Ohio; Easy Together and Easy Pop/Rock Sketches, Frank Metis, Belwin-Mills, Melville, New York.

Television

Lancaster reports that a student often comprehends concepts more readily when several of the five senses are employed; therefore, video tapes can be extremely useful in teaching hand positions, keyboard topography, finger crossing principles, chord inversions, and other concepts. While
using video tapes, the teacher can move around the room to check the progress of individual students. Although video tapes are difficult to prepare at a professional level, the instructor may find help at the campus television studio or learning resource center. Many colleges now have excellent facilities for producing video tapes, with professionals available for helping the teacher prepare the tapes (16, p. 31).

If professional aid is not available, the amateur home movie camera is an excellent way of producing adequate video tapes for the studio. Such tapes could be combined with a companion audio tape. Care should be taken in coordinating the script with the camera movement. It is important that explanations are clear and logical when planning a video tape script (16, p. 31).

While serving as the Co-ordinator of Group Piano at the University of Oregon, Billie Erlings designed an instructional television series for use in the first term of the piano classes for adult beginners (12, p. 44). The series consisted of seventeen video lessons and drills, and a teacher's guide. The video tape was presented on closed-circuit to selected piano classes over a two-year period. Seven of the classes were comprised of music majors, one of general university students, and one of elementary education majors. Classes met twice a week for a fifty-minute session. Enrollment was limited to nine students in each class, and
one television monitor proved sufficient for that size group. The series was tried with standard pianos and with an electronic piano lab. "Both arrangements were satisfactory using the televised instruction" (12, p. 44). The ITV series was designed for use in a team-teaching format, and the video instruction formed only part of the classwork.

The classroom teacher and the television instructor shared responsibility for the total work of the term. Those activities which seemed most suitable for televised presentation were selected from the objectives of the group piano course after much experimentation. The most important advantage the medium offered was in aural-visual demonstrations which the television teacher conducted at the keyboard.

The ITV series was structured in two basic units: (1) activities approached without the musical score, and (2) activities involving music reading. Eight lessons and two drill tapes were in the first category; four lessons and three drill tapes in the second. Activities approached first without the score included: orientation to the keyboard; intervals, scales, and chords; playing by ear and by rote; harmonizing and transposing; rudiments of piano technique. Compositions used in the reading activities were from the *Oxford Book for Older Beginners*. The series was designed so that the classroom teacher could use the *Oxford Book* either as the course text or as a supplement (12, p. 44).

The length of the lessons and drills varied according to content. The average duration of the lessons was twenty to twenty-five minutes; drill tapes averaged about twelve minutes. The video lessons and drills were self-contained, so the classroom teacher could use the series flexibly to
accommodate the needs of a particular group. The first three lessons were used consecutively and provided basic orientation to the course and to the ITV series. After this, the classroom teacher used the lessons and drills at his own discretion as to the sequence and the time interval for video instruction during the term (12, p. 45).

The twelve video lessons were devoted primarily to introducing each different keyboard activity included in the course objectives, with the exception of improvisation, which was introduced and carried on through the term by the classroom teacher. The television teacher was responsible for making the basic or first presentation of each topic, including explaining and illustrating practice routines related to each skill. The classroom teacher was responsible for continuing these activities in increasing levels of difficulty throughout the term.

Six of the lessons were organized similar to the usual group piano lesson. Examples are:

Lesson One was comprised of the following: topography of the keyboard, letter-names of white keys, introduction to intervals on the keyboard, finger numbers, and a simple folk-tune learned by ear-rote combination.

Lesson Two included such things as names of black keys, analysis and transposition of the first melody learned, the major triad, and harmonizing a folk-tune with the tonic chord (12, p. 45).

The other six lessons included major and minor scales, introduction of the great staff and reading keyboard music, transposition from a score, rudiments of piano technique,
and initial sight-reading experiences. The video drill tapes were designed to provide additional guided practice for students who needed it; therefore, the classroom teacher did not have to be present during their use. Content of each drill tape was limited to one topic, which included: (1) aural-visual recognition of intervals on the keyboard, (2) aural, visual, and tactile exercises relating the Great Staff to the keyboard, (3) exercises in visualizing the keyboard, (4) speed recognition of linear and vertical intervals on the staff, and (5) practice in organized reading habits. An extra hour in the piano room was scheduled for each class section. The classroom teachers scheduled drill tapes as needed.

After producing and using the ITV series, Erlings was convinced that television offered many advantages and potentials for group piano instruction. "The initial work is much more time-consuming than planning regular class lessons, but the result can add greater efficiency and effectiveness" (12, p. 45). Erlings believes that the inventive teacher can accomplish much by using portable video machines, which are available today and are relatively uncomplicated to use.

Programmed Learning

Lancaster reports that there are two basic types of programmed units: the linear and the branching. The linear program is made up of small steps leading logically and
slowly through the subject matter from topic to topic. "Each step must be structured carefully to allow information to be presented clearly, responses to be active, and feedback to be immediate" (16, p. 32). The branching programmed unit gives the student a choice of several answers. The student is directed to a specific frame according to the answer he chooses. The frame may tell him that his answer is either correct or incorrect. If the answer is incorrect, the frame may direct him back to the original frame to make another choice or send him through a subprogram which further explains the concept.

Many theoretical concepts normally taught in the piano class can be programmed for student use outside of class. The time thus saved in the classroom can be used for more creative activities. Concepts can be organized into programmed units and distributed to students in the class period immediately preceding the class in which it will be taught. Lancaster lists the following concepts which can be conveniently organized into mini-programmed units: (1) keyboard layout, (2) keyboard direction, (3) building five-finger patterns, (4) note reading, (5) whole and half steps, (6) skips and steps, (7) intervals, (8) key signatures, (9) scales, and (10) chords of the key.
Summary

The learning process may be explained in four basic subdivisions: mechanistic, gestaltist, programmed learning, and conceptual learning. These processes are often combined to provide a more meaningful learning experience. Gestaltist and conceptual learning are closely related, as are mechanistic and programmed learning. The gestaltist approach of giving experience before rules stimulates the development of insight into basic concepts. It has been found that the mechanistic approach through drills is useful in the teaching of reading, rhythm, technique, and theory. Programmed learning can be used successfully in developing concepts by presenting material in a slow and systematic way which allows students to experience success at every step.

Reading Skills

Many pedagogues believe that sight reading is not a gift but a skill that can be learned and that the interval approach to music reading facilitates sight-reading even in beginning students. Some rules which have been given for better sight-reading include the following:

1. Look over the material ahead of reading, using analysis, to facilitate the playing of phrases, intervals, chords, and rhythms.

2. Develop the tactile sense. One must learn to "feel"
one's way around the keyboard.

3. Observe the movement or line of the melody: up or down, in steps or skips, or repeated notes.

4. Read by intervals, rather than spelling out each note.

5. Identify chords and harmonic intervals by their silhouettes, or chord-shapes, for instant recognition.

6. Keep going; a slow, steady tempo is better than playing in "jerks".

**Functional Skills**

Functional skills include ear training, harmonization and transposition, and improvisation. All are interrelated.

Ear training can begin early by

1. Finding a simple folk tune in a five-finger position and playing by ear, then transposing (by ear) to a new location on the keyboard.

2. Improvising a descant for the melody found by ear.

3. "Matching" the tones played first by the teacher.

The number of notes is increased so that eventually a student can remember an entire phrase.

4. "Matching" intervals and chord qualities played first by the teacher.

Matching leads to the forming of "question and answer" phrases, which can eventually be expanded into group composition.
Some basic principles of harmonization in the piano class are:

1. Analyze the melody for outlined chordal patterns, repetition, sequence, melodic direction, etc., remembering that the next to last chord of a phrase ending with the I chord is most often the V or V7 chord.

2. In triple meter, one chord per measure can be used.

3. In most melodies containing four beats per measure, a chord is played on the first and third beats.

4. In 6/8 meter, a chord is played on the primary and secondary accents within the measure.

After melodies have been harmonized, they can be transposed to another key. Some guides to use for transposition are:

1. Analyze the key, meter, and range; find the hand position.

2. Review the hand position used in the original key by playing a brief exercise in the transposed key.

3. Transpose the piece in a slow, steady rhythm.

4. Keep eyes on the music.

5. Observe the melodic contour: steps, skips, repeated notes.

6. Recognize shapes of chord clusters.

7. Observe the moving bass line.

Improvisational activities must be well structured and some basic tools for improvisation must be given to the
student. Such tools include diatonic, pentatonic, and whole-tone scales; a vocabulary of melodic embellishments; the harmonic vocabulary peculiar to a given style; and the rhythms from selections of poetry and from the abstract creation of combinations of "shorts and longs" (6, p. 45).

One way to begin improvisation is to use the theme and variation form. Use a simple eight-measure tune that can be easily harmonized, then vary the range, vary the style of accompaniment, add neighboring tones, vary the rhythm, the touch, or the meter. Introduce new chords in harmonizing the melody.

Another way to teach improvisation is to use a bass ostinato and the students improvise within a certain scale structure. Give the student a set pattern, or set number of measures. Use the pentatonic scale, or the whole-tone scale. Use only two major chord triads throughout the whole piece. Try a stylistic approach. Improvising may include many contemporary styles: ostinato with dissonant melody, parallel thirds, parallel fifths, and parallel triads used as ostinato, diatonic melody against chromatic or whole tone bass.

Musicianship implies knowledge of rhythm, harmony, melody, form, and tone color. Improvisation demands a working knowledge of all these elements of music.
Technical Skills

The most important aim of the piano class is the development of musicianship, or musical understanding and musical insight. Musicianship is expressed through technique and interpretation. The area of technique includes scales, arpeggios, chord positions, chord progressions, manner of playing slurs, phrasing, staccato and legato touch, and use of the damper pedal (42, p. 43).

Technical practice should include triads in root, first and second inversions in solid and broken form, dominant-seventh chords in root and commonly used inversions; all major and minor scales and arpeggios, and diminished and dominant-seventh arpeggios.

Since the physical and technical control of the older student develops more slowly than does his understanding, he needs much work in the area of technical development and many pieces to play at every step. The tactual sense may be developed from the start by giving a considerable amount of music that lies under the hand (in the five-finger position) in a variety of keys. Class practice can do a great deal to strengthen skills. The teacher should demonstrate frequently in a rote approach which frees the students to concentrate on hand grouping and on getting a sense of the muscular and touch elements. Technical drills can be planned which relate to the music being studied or to new music to be used soon.
A common cause of stumbling in beginners is failure to keep the hands over the keyboard. Students must be taught to find "anchor" notes when preparing to move to a new hand position. In teaching jump basses, stress (1) leaping faster than playing, and (2) taking the shortest distance between two points. New techniques should be demonstrated by the teacher, then several students can be asked to demonstrate their comprehension of the technique. In this way, any misconceptions can be readily corrected.

**Comprehensive Musicianship**

The student in the beginning piano class in college should be exposed to the model of "comprehensive musicianship". Comprehensive musicianship stresses creation, performance, and analysis.

Creation involves improvising motifs, phrases, and short compositions, and selecting appropriate accompaniments and harmonic progressions in harmonizing melodies. Music examples may be created by a student to demonstrate his understanding of a particular scale, cadence, or harmonic progression. Group composition can be accomplished by means of measure-by-measure directions given by the teacher. Several students improvise one measure; the class chooses the best one and it is written on the chalk-board. This is carried on to the completion of the group composition. This activity requires much teacher preparation.
Basic ideas and principles of performance may be developed by encouraging performances of representative selections of Baroque, Classical, Romantic, and Contemporary styles. In listening to a wide variety of piano music, students learn to formulate criteria for the performance of music, identify aspects of style that differentiate historical periods, learn to be critical listeners, and discover those practice and performance techniques that may be applicable to their own performance.

The skills of listening and analysis should not be separated in the college group piano class. Some ways to improve aural skills are:

1. Students imitate a melodic phrase or rhythmic pattern performed by the instructor or another student.
2. Students play familiar compositions "by ear."
3. Students sing and play various intervals and chords.

Students can learn to identify major, minor, augmented, and diminished triads; identify and imitate various types of seventh chords; identify and improvise music characteristics of parallel or contrasting periods; identify the structure of a music composition; and identify with reasonable accuracy the style of various piano compositions. The success of students' attempts to become comprehensive musicians depends on integrated experiences made possible through close planning and cooperation by all departments of the college.
Using New Tools in the Piano Class

In the piano lab, more emphasis is being placed on individualizing instruction. Programmed learning and a variety of audio visual equipment can be found in the classroom.

There are several advantages in using the overhead projector and the slide projector in the piano lab. Visual stimuli promote rapid learning and can make any presentation more enjoyable. With the overhead projector, the instructor can point to specific things while explaining; parts may be covered and revealed when needed; important points may be underlined; and the instructor can add to the transparency while making a presentation. The slide projector may be used in drills instead of flash cards; it may also be used as a tachistoscopic device to aid in increasing reading speed.

Instruction tapes are now being used in many university piano class programs as supplementary drills and to improve practical keyboard skills. Recent indications are that non-piano music majors who work regularly with recorded drill tapes make more rapid progress in the development of basic keyboard skill than those students who do not.

There are endless possibilities in the use of the tape recorder as a teaching aid. One possibility for use is in providing the opportunity for extensive ensemble work. Playing along with tapes helps the student develop good
reading and listening habits. Improvisation and keyboard drills can be made more enjoyable through the use of tapes.

In recording the tape, careful and detailed planning must be done. A creatively prepared tape will be clear in explanations, organization, and structure, and will allow a realistic amount of time for practice, thought, and playback on the part of the student.

Television offers many advantages and potentials for group piano instruction. Probably the most important advantage is in aural-visual demonstrations conducted at the keyboard by the television teacher.

Activities which may be approached through video instruction include the following:

1. Activities involving music reading, such as initial sight-reading experiences and transposition from a score.

2. Activities approached first without the score, such as orientation to the keyboard; intervals, scales, and chords; playing by ear and by rote; harmonizing and transposing; and rudiments of piano technique.

Programmed learning can be used effectively in teaching many theoretical concepts. A saving in class time can be achieved by distributing mini-programmed units to students in the class period immediately preceding the presentation of new concepts.
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CHAPTER VI

SUMMARY, FINDINGS, AND RECOMMENDATIONS

Many colleges and universities now provide piano classes for beginners, and many offer two years of instruction. With the expansion of the class piano program has come the need for a synthesis of thought concerning the beginning piano class at the college level.

Summary

The purpose of this study was to investigate the beginning piano class at the college level. The following areas were examined: organization, facilities, and equipment; course content; and teaching techniques. This report was concerned with classes for piano minors, or secondary piano students, in college who have had no previous training in piano. It was decided that the answers for the problem could be determined from published and unpublished materials of active piano teachers rather than employing normative survey techniques.

Background for the Study

A review of the literature suggests that group piano teaching is not a transitory movement and that piano class instruction has a history of at least one hundred fifty
years. The first known teacher of group piano was Johann Bernhard Logier, a German who resided in England. His classes, begun in 1815, had as many as thirty students, ranging in background from the beginner to the more advanced pianist. Group piano instruction was found in some "female" schools in the United States as early as 1860. In 1887, Calvin Bernard Cady began advocating piano class instruction. Because of his contributions to the piano class movement, Cady is known as the "father of piano class instruction in the United States." Cady advocated not more than three students per class and stressed primarily the development of musicianship through the group piano approach.

During the years 1913 to 1926, many cities introduced piano class instruction into their public schools. By 1930, 880 school systems had class piano instruction. The years 1930 to 1940 saw the emergence of the qualified piano class teacher. During the past thirty years, piano classes have been generally accepted as a musicianly means of instruction. Piano classes for the beginner are found in studios, public schools, colleges and universities, and the age of the beginning student varies from early childhood through adulthood. The number of students per group gradually diminished from thirty in 1815 to six in 1962.
Related Literature

In a survey conducted in 1962, dissatisfaction was found among music educators with the piano training they had received in college. It was discovered that over one quarter of the respondents had not been required to pass a proficiency examination when in college. These keyboard skills were reported as needed by the music educators in their present positions: sight-reading, playing by ear, harmonizing, improvising, accompanying, and score playing. In another survey made five years later, these trends were identified: (1) increased attention to functional keyboard skills; (2) the adoption of two year programs; and (3) the adoption of proficiency examinations which measure functional keyboard skills as well as facility in performance.

Methodology

All available books, periodicals, and dissertations on the subject of class piano at the college level during the years 1964 to 1976 were examined for viewpoints and thoughts concerning the beginning piano class. The collected data were classified according to each subproblem and presented as a synthesis of thought concerning the beginning piano class at the college level.

Findings

Many practicing pedagogues in group piano instruction have dealt with the subjects of organization, facilities,
equipment, course content, and teaching techniques. Textbooks and other materials have been written by many pedagogues for use in the beginning piano class at the college level.

Organization, Facilities, Equipment

Most colleges and universities organize their group piano courses for either three or four semesters in sequence, with classes meeting from two to five periods per week. The number of students per class ranges from as few as four to as many as twenty-five. In classifying students into homogeneous groups, verbal interview, placement test, and/or auditions are recommended.

The piano lab consists mainly of multiple pianos, either conventional or electronic. Other items may include chalkboards and a variety of audio-visual equipment. Varying room arrangements are used. The choice of piano models and the number of pianos contained in the teaching area are directly influenced by factors such as budget limitations, teacher preference, size and shape of the classroom, other uses of the room, and other considerations.

Course Content

Vernazza's study in 1967, revealed that minor piano class programs placed emphasis on musicianship, music fundamentals, functional, and technical skills. Starkey, Owens, and Lindstrom concurred in the inclusion of functional
skills in the minor piano program, while Mehr stated that music reading and performance presupposes musical literacy (which includes the functional skills). Also in 1967, Richards recommended these areas of basic piano instruction: (1) performance of literature representing a variety of periods and styles, (2) keyboard harmony (including harmonization, transposition, improvisation, modulation, and playing by ear), (3) sight reading, and (4) technique (scales and arpeggios). In 1969, Lyke noted a danger in that the strong move toward functional piano, in many cases, had de-emphasized or even removed the study and performance of piano literature as a part of the curriculum. Lyke asserted that all skills should point toward expressive performance based on musical understanding. By 1973, a more balanced curriculum emerged. Bastien recommended that emphasis should be given to basic objectives rather than exclusive concentration in one area. The four main areas of study outlined by Bastien parallel those stated earlier by Richards. These areas are: sight-reading, functional skills, technique, and repertoire. In 1975, Lowder and Robinson agreed that the four main areas of study as outlined by Bastien and Richards were still applicable to the piano minor program. Lowder emphasized the need for exposing the student in the beginning piano class to the model of "comprehensive musicianship," which stresses creation, performance, and analysis.
Teaching Techniques

Techniques used in the development of reading skills, functional skills, technical skills, and comprehensive musicianship in the beginning piano class in college have been dealt with by a number of pedagogues. These techniques are a combination of mechanistic, gestaltist, and conceptual approaches to learning.

Reading skills.--Some rules which have been suggested for improving sight-reading skills include the following:

1. Look over the material ahead of reading, using analysis, to facilitate the playing of phrases, intervals, chords, and rhythms.

2. Develop the tactile sense by "feeling" the keyboard, always keeping the eyes on the music.

3. Observe the movement or line of the melody: up or down, in steps or skips, or in repeated notes.

4. Read by intervals, rather than spelling out each note.

5. Identify chords and harmonic intervals by their silhouettes, or chord-shapes, for instant recognition.

6. Keep going; a slow, steady tempo is important.

Functional skills.--Functional skills include ear training, harmonization and transposition, and improvisation. All are interrelated.
Ear training can begin early by the finding of a simple folk tune in a five-finger position by ear and then transposing to a new position. Another form of ear training is the use of "matching". The teacher first plays several tones then the student is required to match the tones played. The number of notes is gradually increased until eventually a student can remember an entire phrase. Matching can also be done with intervals and chord qualities. Matching leads to the forming of "question and answer" phrases, which can eventually be expanded into group composition.

Some basic principles of harmonization which have been recommended are:

1. Analyze the melody for outlined chordal patterns, repetition, sequence, melodic direction, etc., remembering that the next to last chord of a phrase ending with the I chord is most often the V or V7 chord.

2. In triple meter, one chord per measure can be used.

3. In most melodies containing four beats per measure, a chord is played on the first and third beats.

4. In 6/8 meter, a chord is played on the primary and secondary accents within the measure.

After melodies have been harmonized, they can be transposed to another key. Some guides for transposition are:

1. Analyze the key, meter, and range; find the hand position.
2. Review the hand position used in the original key by playing a brief exercise in the transposed key.

3. Transpose the piece in a slow, steady rhythm.

4. Observe the melodic contour: steps, or repeated notes, or skips.

5. Observe the moving bass line.

6. Recognize shapes of chord clusters.

7. Always keep eyes on the music.

Improvisation demands a working knowledge of rhythm, harmony, melody, form, and tone color. Some basic tools for improvisation should be given to the student, such as:

(1) diatonic, pentatonic, and whole-tone scales and modes;

(2) melodic embellishments;

(3) harmonic vocabulary peculiar to a given style; and

(4) a vocabulary of various rhythms.

Improvisational activities should be well structured; there must be freedom with discipline.

Technique.--The most important aim of the piano class is the development of musicianship, or musical understanding and musical insight. Musicianship is expressed through technique and interpretation.

The area of technique includes scales, arpeggios, chord positions, chord progressions, manner of playing slurs, phrasing, staccato and legato touch, and use of the damper pedal. Technical practice should include triads in root, first and second inversions in solid and broken form,
dominant-seventh chords in root and commonly used inversions; all major and minor scales and arpeggios, and diminished- and dominant-seventh arpeggios.

The teacher should first demonstrate a new technique then ask several students to demonstrate their comprehension of the technique. In this way, any misconceptions can be corrected.

The physical and technical control of the older student develops more slowly than does his understanding; therefore, adults need much work in the area of technical development and many pieces to play at every step. Class practice can do a great deal to strengthen skills.

Comprehensive musicianship.—Comprehensive musicianship stresses creation, performance, and analysis. Creation involves improvising motifs, phrases, and short compositions, and selecting appropriate accompaniments and harmonic progressions in harmonizing melodies. Basic ideas and principles of performance may be developed by encouraging performances of representative selections of Baroque, Classical, Romantic, and Contemporary styles. The skills of listening and analysis should not be separated in the college group piano class.

Class piano teachers can improve students' aural skills by developing the ability to: (1) identify major, minor, augmented, and diminished triads; (2) identify and imitate
various types of seventh chords; (3) identify, sing, and play short melodic motifs; (4) identify and improvise music characteristics of parallel or contrasting periods; (5) identify the structure of a music composition; and (6) identify with reasonable accuracy the style of various piano compositions.

The success of students' attempts to become comprehensive musicians depends on integrated experiences made possible through close planning and cooperation by all departments of the college.

Use of new tools.--In the piano lab, a variety of audiovisual equipment can be found. Individualized instruction within the classroom is possible through programmed learning.

Visual stimuli promote rapid learning and can make any presentation more enjoyable. Both the overhead projector and the slide projector offer advantages in the piano class. With the overhead projector, the instructor can point to specific things while explaining; parts may be covered and revealed when needed; important points may be underlined; and the instructor can add to the transparency while making a presentation. Slides may be used in place of flash cards in drills; or the slide projector may be used as a tachistoscopic device to aid in increasing reading speed.
Recorded instruction tapes are now being used in many university piano class programs as supplementary drills and to improve practical keyboard skills. Recent indications are that non-piano music majors who work regularly with drill tapes make more rapid progress in the development of basic keyboard skills than those students who do not. The tape recorder also provides the opportunity for extensive ensemble work. Playing along with tapes helps the student develop good reading and listening habits while also developing technical skills.

Careful and detailed planning must be made in recording the tapes. A creatively prepared tape will be clear in explanation, organization, and structure, and will allow a realistic amount of time for practice, thought, and playback.

Television offers many advantages and potentials for group piano instruction. Activities which may be approached through video instruction include the following:

1. Activities involving music reading, such as initial sight-reading experiences and transposition from a score.

2. Activities approached first without the score, such as orientation to the keyboard; intervals, scales, and chords; playing by ear and by rote; harmonizing and transposing; and rudiments of piano technique.
Programmed learning can be used effectively in teaching many theoretical concepts. A saving in class time can be achieved by distributing mini-programmed units to students in the class period immediately preceding the presentation of new concepts.

Recommendations

Several recommendations are offered as a result of this research.

For Administrators:

1. Piano pedagogy courses should include methods in group teaching for adults, with supervised practice teaching for group piano.

2. Colleges and universities should select only those teachers trained in class methods for their group piano classes.

3. Group piano classes should meet daily during the first semester.

For Teachers:

1. A balanced curriculum should be developed with equal emphasis on developing reading skills, technical skills, functional skills, and comprehensive musicianship.

2. The basic curriculum should be flexible enough to provide for the particular needs of individual students.
3. More attention must be given to developing technical skills.

4. More attention must be given to developing sight-reading skills.

5. Proficiency exams should cover representative areas of group instruction rather than repertoire only.

For Researchers:

1. Further research is needed in the use of the electronic piano as opposed to the conventional piano in group piano instruction.

2. Further research is needed in the adaptability of television for use in the piano lab.

3. Research is needed in the feasibility of using the electronic piano lab in music theory, music education, and other music classes, as well as in the group piano class.

4. Pedagogical research into the development of rhythm skills is needed.

5. Pedagogical research into the development of technical skills in the adult beginner is needed.
APPENDIX A

DESCRIPTION OF ELECTRONIC PIANOS

Wurlitzer Electronic Piano

Address: Wurlitzer Educational Products
1700 Pleasant Street
DeKalb, Illinois 60115

Specifications:

Keyboard 64 keys, note range from A to C
Dimensions Height, 32-7/8"
Depth, 18-9/16"
Keyboard height, 26-1/4"
Width, 40"

Weight Approximately 130 lbs.

Action Simulated grand piano type; control stroke dynamics, action, weight, ring time and let-off similar to a conventional piano.

Hammers 3-ply maple covered with mothproofed felt.

Tone Source Sandvik Swedish steel reeds; the stroke of the hammer causes a reed to vibrate in a polarized electrostatic field.

Pedal Sustaining pedal permits tone to sustain as in a conventional piano.

Tuning Tuning not required

Power 40 watts; operates from 117-volt, 50/60 cycle AC.

Amplification Solid state.
Baldwin Electropiano

Address: Baldwin Electrosystems
1801 Gilbert Ave.
Cincinnati, Ohio 45202

Specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard Dimensions</td>
<td>Full 88-note keyboard; 64-note pianos are also available. Height, 31(^\frac{1}{4})&quot; Depth, 17&quot; Keyboard height, 28&quot; Width, 56&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>215 lb.</td>
</tr>
<tr>
<td>Action</td>
<td>Vertical piano action with conventional key-touch weight and travel, piano action let-off and dynamic range.</td>
</tr>
<tr>
<td>Hammers</td>
<td>Solid birch molding covered with grand type hammer felt.</td>
</tr>
<tr>
<td>Tone Source</td>
<td>Strung, cast piano plate. Copper wrapped bass strings, single treble strings. When hammer strikes the piano string, the string vibrations are detected by pressure-sensitive transducers and amplified electronically.</td>
</tr>
<tr>
<td>Pedals</td>
<td>Conventional damper sustain pedal, electronic soft pedal.</td>
</tr>
<tr>
<td>Tuning</td>
<td>May be tuned by an experienced piano tuner, using a standard tuning hammer. The tuning stability has shown to be equal with the Baldwin Hamilton piano.</td>
</tr>
<tr>
<td>Power</td>
<td>30 watts 117 Volts 50/60 cycle A.C.</td>
</tr>
<tr>
<td>Amplification</td>
<td>Solid state.</td>
</tr>
</tbody>
</table>
Musitronic Keyboard Systems

Address: Musitronic Learning Systems
2125 4th Street NW
P. O. Box 441
Owatonna, Mn. 55060

Specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard Dimensions</td>
<td>61 to 88 note keyboards; portable and consolette available</td>
</tr>
<tr>
<td></td>
<td>Height, 38½&quot;</td>
</tr>
<tr>
<td></td>
<td>Width, 39½&quot; to 46½&quot;</td>
</tr>
<tr>
<td></td>
<td>Depth, 11&quot; to 21 3/4&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>25 lb. and 125 lb.</td>
</tr>
<tr>
<td>Pedals</td>
<td>Damper and sustain pedals</td>
</tr>
<tr>
<td>Tuning</td>
<td>Tuning not required</td>
</tr>
<tr>
<td>Power</td>
<td>Two amps: 117 volt 50/60 A.C.</td>
</tr>
<tr>
<td>Amplification</td>
<td>Solid State</td>
</tr>
</tbody>
</table>
NORTH TEXAS STATE UNIVERSITY

Secondary Piano Requirements

Each semester's work consists of five categories:

1. **Technique**: to be done each semester, in all keys: major and harmonic minor scales; major, minor, dominant seventh and diminished seventh arpeggios. First semester, one octave, one note per beat at M.M. 200. Second semester, two octaves, two notes per beat at M.M. 112. Third semester, three octaves, three notes per beat at M.M. 84. Fourth semester, four octaves, four notes per beat at M.M. 72.

2. **Study**: one study by Streabog, Czerny, Heller, etc.

3. **Polyphonic**: one work by such composers as Bach, Hindemith, Persichetti, Casella, etc.

4. **Larger Form**: one sonatina-form or sonata-allegro-form movement.

5. **Additional Repertoire**: three pages, to be memorized.

Barrier Requirements (Secondary Piano IV)

1. **Technique**: in all keys: major and harmonic minor scales; major, minor, dominant seventh and diminished seventh arpeggios, four octaves, four notes per beat at M.M. 72.

2. **Study**: one Czerny Op. 299, or its equivalent in difficulty.

3. **Polyphonic**: one Bach Two-Part Invention, or its equivalent.

4. **Larger Form**: one Sonata-Allegro-Form movement, preferably by Haydn, Mozart or Beethoven. However, the Beethoven Sonatas, Op. 49, Nos. 1 and 2, and the Mozart Sonata in C (K. 545) are disallowed.
5. **Additional Repertoire**: to be memorized: "My Country 'Tis of Thee" in either the key of F or G major; "Star-Spangled Banner" in either the key of A flat or B flat; and two pages of standard compositions.

6. **Sight Reading**: ability to read a third-grade level composition.

Every music major must pass the secondary piano barrier in order to be graduated (piano concentrations and majors are the only exemptions). This barrier should be passed at the earliest opportunity, as it must be completely passed before a student may apply for student teaching. The barrier must be taken at the time of "Juries" at the end of the semester.

If the piano barrier is passed before the prospective band or orchestra director has completed the required hours in a secondary (three hours - 1962 Degree Plan, four hours - all previous plans), the remainder of the hours of secondary may be taken in some other applied field that may help him become better prepared to pass other proficiencies (oboe, cello, etc.). Unless the student feels himself exceptionally strong in piano, however, he might better continue with its study to build musicianship and to assist him in the passing of the Keyboard barrier in Theory.

Even though the piano barrier is passed, a student pursuing the Choral Degree plan should continue with piano study. It is impossible for the vocal music teacher to obtain too much pianistic skill -- regardless of the grade level at which he teaches.

The jury may (and will) require extra hours above the Degree Plan if the barrier is not passed. The jury is interested in a standard of skill -- not in the number of completed hours.
APPENDIX C

SELECTED MATERIALS FOR CLASS PIANO

Texts


**Functional**


Technical Studies


**Sight-Reading: Solo and Ensemble**


34. ________, *Ode to Joy* (four parts), New York: Marks Music Corp., 1970.


**Literature**


BIBLIOGRAPHY

Books


Articles


Bishop, Dorothy, "What Do We Mean by Drill?" Clavier, VII (May-June, 1968), 32-33.


Caton, Benjamin, "Using the Overhead Projector in the Piano Lab," Clavier, XIII (February, 1974), 44-47.


Duckworth, Guy, "What Are We Teaching – Concepts or Details?" Clavier, III (May-June, 1964), 45-50.


Jablonsky, Atarah, "Can You Teach Students to Improvise?" Clavier, XIV (November, 1975), 44-45.


Larimer, Frances, "Teaching With Tape," Clavier, XIV (September, 1975), 18-19.


Page, Cleveland, "'Secondary Piano' Student (A Sometime Disaster at the College Level)," *Clavier*, XII(September, 1973), 20-21.


Unpublished Materials


