THE EFFECTS ON SIGHT SINGING OF VOICE CLASS INSTRUCTION UTILIZING VARIANTS OF TRADITIONAL VOCALISES

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
EUNICE WILCOX
1968

This is to certify that the

thesis entitled

THE EFFECTS ON SIGHT SINGING OF VOICE CLASS INSTRUCTION UTILIZING VARIANTS OF TRADITIONAL VOCALISES

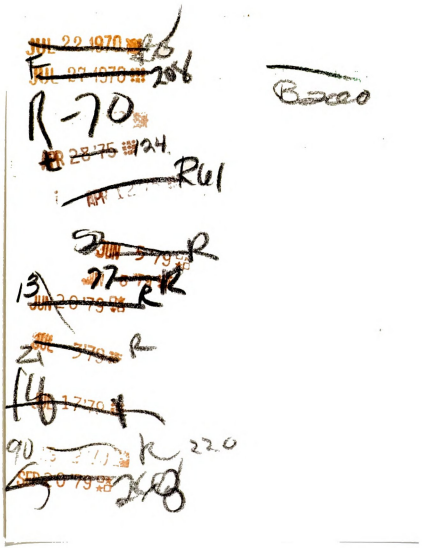
presented by

Eunice Wilcox

has been accepted towards fulfillment
of the requirements for

Ph.D degree in Music

Date July



ABSTRACT

THE EFFECTS ON SIGHT SINGING OF VOICE CLASS INSTRUCTION UTILIZING VARIANTS OF TRADITIONAL VOCALISES

by Eunice Wilcox

Body of Abstract

The purpose of this study was to examine whether the use in voice class of vocalises which are structured on other than major scales and triads would have an effect on the ability of the student to read traditionally structured music, or music built on less familiar sound relationships. Two sections of voice class were used for the study. The experiment occupied a period of one academic year. One class, the control group, used only vocalises of the type traditionally associated with voice study. The other class utilized vocalises structured on chromatic and whole tone scales, on diminished and augmented triads, and on various combinations of these. The general course of study was the same for both classes, with the exception of the vocalises, Each student in the two classes was given several sight singing tests. Before the experiment began, the students were asked to sight sing a melody which included a variety of intervals. At the

end of the experiment they were again asked to sing this intervallic melody. At this time they were also given a melody with a well established tonal center, and a 12-tone melody, to sight sing. All tests were sung individually and were tape recorded. In addition, the Kwalwasser-Ruch Test of Musical Accomplishment, which tests skill with music symbols, was administered. The students completed a questionnaire regarding music training, and the music background page of the Thayer Gaston Test of Musicality. The cumulative averages of the students were also ascertained for possible correlation with sight singing scores.

The basic statistics involved correlation, analysis of variance and covariance.

Of the two types of vocalises employed in the study, the variants of the traditional vocalises, which were structured on chromatic and whole tone scales, on diminished and augmented triads, and on various combinations of these, produced no statistically significant difference in sight singing gain, in ability to read 12-tone music, or in ability to read tonal music.

It may be that the use of vocalises which differ more radically from the traditional, would have a greater effect on the students' ability to read music.

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By

Eunice Wilcox

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Music

1968

ACKNOWLEDGEMENTS

The writer wishes to express sincere appreciation to Dr. William Sur, her Thesis Director and Guidance Committee Chairman, for his wise counsel and his many helpful suggestions throughout this study.

Appreciation must be expressed to others who contributed to this investigation:

Dr. H. Owen Reed; Miss Ethel Armeling; and Mr. Richard Klausli, members of the writer's Guidance Committee, for their advice and direction. Dr. George Duerkson was most helpful in analyzing and presenting the data.

The writer also wishes to thank Culver Wilcox, her father, for his understanding and encouragement.

E. W.

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CHAPTER I

INTRODUCTION

A survey of methods of instruction used to teach sight singing in western civilization seems to indicate that most of the literature on this subject utilizes only major and minor scales and chords. Other combinations of sound are not usually included. The modes of instruction which are used are numerous and varied. Systems which were devised centuries ago are still in use today. One example of this is solfege, or solfeggio, which evolved from a mode of instruction instituted by Guido d'Arezzo in the eleventh century. Other courses of procedure have been developed which also utilize major and minor scale patterns and chord outlines, but which make use of nomenclature other than the syllables of the solfege system. These include: numbers which indicate the scale degree, one, two, etc.; and letter names of pitches, A, B, C, etc.

Most people at one time or another in their education receive an introduction to the notational system. For those who elect to learn more about the elements of music, instruction in music theory is a possibility. Sight singing and ear

training are usually an integral part of music theory. Students may study music privately, and some of them may receive training in sight singing in either private instruction or in the public schools. The ability of most people to sight sing, however, is woefully inadequate. Even those students who read music easily seem to experience difficulty in singing at sight any music whose structure varies from the conventional and familiar major-minor scales and chords.

Studies of transfer of learning tend to yield similar results. Schulz found that, " . . . an organism's present performance in a given situation is to a large extent a function of that organism's past performances in somewhat similar situations."[1] That being so, the study of music should include combinations of sounds representative of the twentieth century, if students are to sight read contemporary music. It might prove useful to include in their training some studies, etudes, or vocalises, which are structured on bases other than major or minor scales or chords.

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[1]Rudolph Schulz, "Problem Solving Behavior and Transfer," Transfer of Learning, ed. Robert F. Grose, Robert C. Birney (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1963), 164.

Problem

The purpose of this study is to examine whether the utilization in voice class of vocalises which are structured on other than major or minor scales and triads will have an effect on the ability of the student to read traditionally structured music, or music which is built upon less familiar sound relationships.

The process of singing at sight, assuming that the student can sing, or, more specifically, can match a given pitch, and can read the printed page, actually involves: (1) recognizing notational symbols, (2) forming a mental impression of the sounds which the symbols represent, and (3) producing those sounds. Lieberman suggests that students be required to practice intervals and tonal studies daily, in order to attain a sure sense of relative pitch.[2] The student must build associations between sight and sound.

The use of vocalises in one form or another is an integral part of the discipline employed by most teachers

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[2]Maurice Lieberman, Ear Training and Sight Singing (New York, N. Y.: W. W. Norton & Company, 1959), preface.

of singing. Some of these vocal exercises are specifically designed to aid in building associations between sight and sound in order to improve the sight singing ability of the student.[3,4] Other vocalises may serve to improve tone quality,[5] to increase vocal agility,[6] to widen the range of the voice,[7] and to warm up the voice.[8]

The student's previously acquired associations with particular structural patterns upon which music is built are likely to have some effect upon his sight reading performance. Assuming this to be true, the student should be exposed to as great a variety of structural patterns as is feasible, in preparation for reading, practicing or performing music which is structured in various ways, including music comprised of unfamiliar sound relationships.

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[3]Edgar Crowe, Annie Lawton, and W. Gillies Whittaker, The Folk Song Sight Singing Series (London, England: Oxford University Press, 1963).

[4]William Appleby, Sing at Sight (London, England: Oxford University Press, 1963).

[5]Harper C. Maybee, Vocal Ensemble Exercises (New York, N. Y.: G. Schirmer, 1936).

[6]Frederick H. Haywood, Universal Song (New York, N. Y. G. Schirmer, 1932).

[7]Niccolo Vaccai, Practical Italian Vocal Method (New York, N. Y.: G. Schirmer, 1923).

[8]Zoltan Kodaly, Epigrams, Choral Method (New York, N. Y.: Boosey & Hawkes, 1954).

Definition of Terms

Non-tonal music is defined as that in which the tonality is in a constant state of flux.

Sight singing is defined as the ability to sing at sight as measured by tests. (See Appendix B)

Twelve-tone music is defined by Dallin[9] as a technique in which,

> ". . . the system consists of setting up a sequence of twelve notes of the chromatic scale and repeating them in a fixed order constantly and exclusively throughout a composition. Twelve different notes are used, and none is repeated. The crux of the series lies in the order of the tones in the intervals between them . . . In addition to transposition, all the methods of systematically modifying the contour of themes and motives are applied also to the series. The use of it in the original form and in inversion, retrograde, and retrograde inversion is part of the fundamental concept of the method."

Vocalise is defined as an exercise or etude used in the study of voice, whose function is to accomplish one or more of the following: to improve tone quality; to increase the range of the voice; to acquire agility; to warm up the voice; and to improve the pupil's sight singing ability.

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[9]Leon Dallin, Techniques of Twentieth Century Composition (Dubuque, Iowa: Wm. C. Brown Company, 1957) 181-184.

CHAPTER II

REVIEW OF RELATED LITERATURE

The singer may be at a greater disadvantage than the instrumentalist in building associations between sight and sound. He forms a mental impression of the sound, then he must reproduce it entirely from within himself, without the help of valves or keys to aid him. According to Kagen, "A singer has no keys, valves, or strings which he could learn to manipulate . . . the singer, above all musicians, needs most the ability to imagine pitch."[10] Bergan suggests, "The correspondence between imagery and pitch implies . . . that whether the musician be composer or performer, his artistic behavior is directed in part by an internal representation of musical sound, that is, by imagery.[11] If the students are not accustomed to forming internal representations of contemporary sounds, will they be able to sing at sight those same sounds?

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[10]Sergius Kagen, On Studying Singing (New York, N. Y.: Dover Publications, 1950), 15.

[11]John R. Bergan, "The Relationships Among Pitch Identification, Imagery for Musical Sounds, and Musical Memory," Journal of Research in Music Education, XV, No. 2, (Summer, 1967), 108.

In view of these suggestions, perhaps exposure to vocalises which are based on augmented triads, diminished triads, whole tone scales, chromatic scales, and combinations of these, will aid the singer in reading either traditionally structured music, or music which is structured on new sound relationships. It is Ottman's contention that the singing of intervals may facilitate sight singing. He found that, " . . . hearing intervals with a melodic background apparently had the highest degree of influence on sightsinging skill."[12]

An investigation by Marquis confirms the fact that the ability to sight sing is substantially correlated with the ability to recognize and use contextual elements of a melody.[13] This emphasizes the need for variety in structure of the elements of music: scalar, harmonic, and tonal, if the sight singer wishes to read music which is structured in a variety of ways.

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[12]Robert Ottman, "A Statistical Investigation of the Influence of Selected Factors on the Skill of Sight Singing," Abstract, Dissertation Abstracts, XVI, 1, (1956) 763.

[13]James H. Marquis, "A Study of Interval Problems in Sightsinging Performance with Consideration of the Effect of Context," Abstract, Dissertation Abstracts, XXIV (1963-64) 767.

The hypothesis that, "Progress in the aural and visual perception of music through instruction based upon atonal organization will transfer to progress in the aural and visual perception of tonal music,"[14] underlies a proposed project upon which Sherman is working. Should this hypothesis prove to be true, it would indicate the need for utilization of more music comprised of unfamiliar sound relationships in learning to sing at sight. Sherman's study is concerned with taped self-instruction drill in intervals, dictation, etc. His subjects are freshman theory music majors and the main concern is programmed instruction. The study being conducted by the writer is concerned with utilization of vocalises based on augmented triads, diminished triads, whole tone scales, and chromatic scales in voice class composed of both music and non-music majors. The conditions of the latter study include a controlled class environment in which immediate and purposive correction by the instructor is possible. It is also feasible that through hearing the attempts of others in the class, the subjects might acquire additional familiarity with the vocalises.

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[14]Robert W. Sherman, "Aural and Visual Perception of Melody Presented in Tonal and Atonal Musical Environments," Council for Research in Music Education, 4 (Winter, 1965), 38.

A perusal of recently written texts dealing with sight singing reveals an abundance of published materials for use in this area. Of the twelve texts examined which were published between 1954 and 1964, only two used music structured on unfamiliar sound relationships.

An examination of the literature written for use in voice classes, in private vocal study, or in choral groups, reveals much the same situation. Out of a total of ten books, only one mentioned, much less used music structured in other than traditional ways.

Studies on Sight Singing

An examination of studies related to sight reading and sight singing reveals an abundance of published material on sight reading. The amount of research which has been done on sight singing is not so extensive.

Kyme[15] conducted an experiment comparing the effectiveness

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[15]George H. Kyme, "An Experiment in Teaching Children to Read Music with Shape Notes," Journal of Research in Music Education, 8 (Spring, 1960), 3-8.

of different methods of teaching children to read music at sight. Experimental groups were taught this skill through the use of shape notes. Three control groups used traditional methods, i.e., sol-fa syllables for the second verse of a familiar song, numbers used in a similar manner, and supplementary instrumental training. The experimental groups were superior to the control groups at the .01 level of significance. Kyme concludes, "In the light of this evidence, music educators may wish to reappraise the shape note system of teaching sight-singing . . ."

A study was made by Barnes[16] concerning the effect on sight singing of interval drill. He reported that in sight singing intervals and melody the experimental group which was subjected to drill performed significantly better than the control group.

Nye and Nye[17] found that the use of the piano keyboard minimizes many of the problems of understanding music notation.

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[16]James Woodrow Barnes, "An Experimental Study of Interval Drills As it Affects Sight Singing Skill," (Unpublished Doctoral Dissertation, Indiana University, 1960).

[17]Robert Evans Nye and Vernice Trousdale Nye, Music in the Elementary School (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), 377.

> The reason is that the keyboard constitutes a highly significant audio-visual tool for learning. Children enjoy "picking out tunes" and in doing so on the bells or piano they see and feel and hear the interval relationships of tones. This can lead to a real comprehension of the meaning of the notes on the staff -- a comprehension frequently lacking in children whose musical experiences have been confined to a singing approach.

Hargiss' findings are in agreement with this.[18] Her study revealed that, "The piano keyboard . . . provides a space-frame for tonal relationships . . ." This study was conducted with elementary teachers as subjects.

Most of the aforementioned studies have dealt with children as subjects, or with an instrumental approach. Some of them dealt with the use of drill to aid in interval singing.

Need for Greater Utilization of Contemporary Music

The need for more extensive utilization of music which is representative of the present time is stated in a report in Music in American Education, "Time and patience will be needed to convince teacher-training institutions that an experience with, and understanding of, contemporary music is an essential part of the training of music teachers . . ."[19]

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[18]Genevieve Hargiss, "The Development and Evaluation of Self-Instructional Materials in Basic Music Theory for Elementary Teachers," Council for Research in Music Education, 4, (Winter, 1965) 1.

[19]Elizabeth Meloy, "Contemporary Music for American Schools," Music in American Education, Music Educators National Conference, (1955), 239.

Contemporary music is defined in this article as, " . . . that which departs from the conventional in tone or rhythm or both."[20] The same report states, "The modern music educator knows that he must present the whole of musical experience to those students under his guidance, including music of their own time."[21]

It may be that all music study (exercises, etuces, vocalises, etc.) should include music structured on a variety of bases, rather than simply major and minor. This might provide better preparation for reading and performing music structured in old and new ways. According to Darazs, in reference to present teaching methods and materials, "There has been considerable neglect in not using new approaches and materials as a basis for future improvement."[22]

Assuming that the students in the experimental group will show a greater gain in sight singing ability, and that they will be enabled to read tonal, non-tonal, and 12-tone music with greater ease, it may be that these students will more readily accept music which is structured in new ways. They might also

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[20]Ibid., 239.

[21]Ibid., 242.

[22]Arpad Darazs, "The Kodaly Method for Choral Training," Council for Research in Music Education, 8 (Fall, 1966) 60.

be more inclined to perform contemporary music. Fitzgerald suggests that the use of contemporary music as part of the creative activities in elementary school music curriculums is infrequent partly because of, " . . . the limited background of music teachers with respect to contemporary music."[23] Mitchell states it in a different way, " . . . toward the solution to specific and related problems: The need to enlarge the small, constricting world of musical experience in which most of us live."[24]

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[23]R. Bernard Fitzgerald, Introduction to Experiments in Musical Creativity, Contemporary Music Project, Music Educators National Conference, (1966), 1.

[24]William J. Mitchell, "The Role of Music History and Literature in the Development of Musical Understanding," Comprehensive Musicianship, Contemporary Music Project, Music Educators National Conference, (April, 1965), 59.

CHAPTER III

PROCEDURE

The experiment was conducted in the Music Department of Michigan State University during the academic year 1967-68. Two sections of voice class were used for the study: students enrolled in Music 141, 142, and 143; three consecutive terms, or approximately 9½ months. The classes met twice a week, 50 minutes each meeting. One quarter hour credit was given for each of the three terms. The course is required for: (1) music education choral majors whose applied major is not voice; (2) music therapy majors whose applied major is not voice; and (3) applied piano pedagogy majors. For other students the class is an elective. The aims of the class are several: all students should learn to sing alone with some degree of ease; students should learn something of the singing problems of others and possible solutions for these problems; and they should acquire some knowledge of vocal repertoire. The students also practice sight singing, acquire knowledge about diction, and become familiar with books about singing.

Differences Between Control and Experimental Groups

In the control group, 15 students out of the 20 were music majors, while in the experimental group, 12 students out

of the 22 were music majors. The non-music majors represented the areas of agriculture, elementary education, mathematics, dramatics, physical science, speech, social science, literature, and special education. There were more freshmen involved in the study than any other category; however, every class level was included. Females outnumbered males in both groups, with the experimental group numbering 15 females and 7 males. In the control group there were 17 females and 3 males.

The two sections were already intact as university classes. Both classes were of greater size at the beginning of the study; however, schedule changes, withdrawals from school, etc. brought the groups to the above-mentioned sizes.

The music majors in the group took other music courses simultaneously with voice class. These courses were distributed between the two groups as follows: (1) basic theory and aural theory; 6 in experimental group, 7 in control group; (2) advanced theory and advanced aural theory; 4 in experimental group, 8 in control group; (3) instrumental ensemble: 1 in experimental group, 2 in control group; (4) vocal ensemble: experimental group 5 to groups with auditions and 5 to group with no audition necessary, control group 8 to groups with auditions and 6 to group with no audition; (5) private instrumental study: experimental group 9 on piano or organ and 2 on other instruments, in the control group, 13 on piano or organ, and 2 on other instruments.

For the most part, the non-music majors were not occupied with other music courses.

The distribution of music classes taken simultaneously with voice class was much the same for both of the groups. As a consequence, the results of the study were probably not influenced by music courses taken simultaneously with voice class when making comparisons between the two groups.

One class, the control group, used only vocalises of the type traditionally associated with the study of voice. (Appendix C) These are based on major scales and major chord outlines.

The other voice class utilized vocalises structured on whole tones, chromatic scales, augemnted triads, diminished triads, and combinations of these. (Appendix D) The amount of class time spent on the vocalises varied from eight to fifteen minutes per class, a total of twelve hours for the year. Equal amounts of time were spent in the experimental class and in the control class.

Devising the Vocalises

The vocalises for the experimental group were developed over a period of time, with the assistance of singers and theorists on the faculty of Michigan State University. It was felt that

the vocalises should be singable, capable of accomplishing the desired ends, and theoretically correct. Two composers who also taught theory and composition helped in designing them. Two voice teacher-performers on the faculty assisted in verifying the singability of the vocalises.

The experimental vocalises are patterned somewhat after the traditional vocalises while incorporating musical structures which are less familiar, though not too strange, since part of the goal of vocalises is to improve tone quality. Were the students required to sing a series of augmented fourths, for example, they might be entirely preoccupied with achieving the intervals, and give little or no attention to the quality of the tone. By combining minor thirds and minor seconds (Appendix D, numbers 7, 8, and 11), or perfect fourths and minor seconds (Appendix D, number 10), or augmented fourths and minor seconds (Appendix D, number 9), the students perform combinations with which they probably have a degree of familiarity. At the same time, there is enough repetition in the sequential patterning to allow attention to tone quality.

The whole tone and chromatic scales vocalises were used because they lack centralization, and evade tonality, while still retaining a sequential pattern. It was felt that these vocalises might be helpful in the reading of 12-tone music with its usual lack of tonic feeling.

The diminished and augmented triad vocalises were utilized because of their greater degree of dissonance than the major or minor triads. These triads are also probably less familiar to music students generally than major-minor triads.

All these vocalises were also devised with vocal aims in mind. They had to be within a reasonable range for singers with little or no experience. They had to assist in achieving vocal goals. These goals include agility, widening the range, improving tone quality, and warming up the voice.

The same teaching materials and methods were utilized for both classes. The instructor was the same for both sections.

The students in both classes wrote out and transposed, either up or down, the vocalises which were utilized. The justification for this involvement with motor impulses is confirmed in a study by Hargiss. In a study concerned with teaching music theory to elementary teachers, she found that, "The ability to perceive tonal relationships, essential to musical insight, is most easily and rapidly developed when hearing, sight, and touch are employed together, the senses reinforcing one another."[25] In this present study, the motor impulses involved in the notation and subsequent manipulation of the vocalises were intended to

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[25]Hargiss, op. cit., p. 1.

reinforce the reading, hearing, and singing of the vocalises. It was felt that simply copying the vocalises might be a purely mechanical process, but in order to transpose them, the students would have to analyze them. Carlsen also confirms the value of this type of activity, " . . . behavior appropriate to learning, such as writing, playing, or aurally identifying."[26]

In order to give the students additional exposure to music structured in unfamiliar ways, both classes attempted the sight reading of songs by contemporary composers such as Bela Bartok, Arnold Schoenberg, and Igor Stravinsky. The songs which were utilized represented a variety of structure, including tonal and atonal. The sight singing of these songs occurred in the third term for both groups. It occupied approximately fifteen minutes one class period a week, a total of 2½ hours, for both the experimental and the control group. Each class sang through the compositions together, discussed their first attempt, then tried again. If time permitted, they discussed it once more and sang it again.

The students were requested to complete the music background page of the Thayer Gaston Test of Musicality, hereafter

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[26]James C. Carlsen, "The Role of Programmed Instruction in the Development of Musical Skills," Comprehensive Musicianship, Music Educators National Conference, (April, 1965), 29.

called music background. (Appendix E) A specially constructed questionnaire was devised by the writer to ascertain music training. The Kwalwasser Ruch Test of Musical Accomplishment was administered at the beginning of the study to measure skill with music symbols. (Appendix F) This will be referred to as skill with music symbols test. The students' cumulative grade point averages were also used to determine possible correlation with sight singing ability.

The students in both classes were asked to attempt a sight singing test which was designed to emphasize the singing of intervals. This test was given again at the end of the study. (Appendix B, number 3) At this time the students also attempted the sight singing of a 12-tone melody, (Appendix B, number 2), and of a melody with a well-established tonality (Appendix B, number 1). These melodies and the sight singing test were all designed in such a way that the range involved was not more than a tenth, and the rhythm was as free from complexity as possible. All of the tests were administered individually, and were tape recorded. The students were not informed of the reason for the testing. It was felt that knowledge of the experiment might affect their performance.

The actual administration of the sight singing tests included the following steps: (1) student given pitch; (2) student

allowed 60 seconds to survey the test; (3) student given pitch again and asked to set tempo for himself, and (4) student sings.

The recorded results of the sight singing tests and of the reading of melodies were checked by a panel of five persons, all of whom were on the staff of the music school at Michigan State University. The members of the panel were all given the same directions for checking and scoring the tapes. Each member made his judgments independently of the other members. The panel was asked to score in such a way that one point was allowed for each pitch sung correctly by the student. A note sung incorrectly in pitch received no credit. However, if the next pitch achieved the interval correctly, the student received a point for that pitch and for each interval sung accurately. Frequently, a student would find his way back to the correct pitch. He was not given credit for the first note on pitch again, but for each note sung correctly thereafter, he received one point again.

Questions asked at End of Study

At the end of the experimental period, comparisons were made of the data obtained pertaining to the influence of traditionally structured vocalises and variants of these vocalises on growth in sight singing,facility in reading 12-tone music, and facility in reading tonal music.

1. Is there a difference in sight singing of intervals resulting from the use of traditionally structured vocalises and variants of these vocalises, when music training, music background, grade point average, and skill with music symbols scores are held constant?

2. Is there a difference in tonal sight singing ability resulting from the use of traditionally structured vocalises and variants of these vocalises, when music training, music background, grade point average, and skill with music symbols scores are held constant?

3. Is there a difference in 12-tone sight singing ability resulting from the use of traditionally structured vocalises and variants of these vocalises, when music training, music background, grade point average, and skill with music symbols scores are held constant?

Organization of Data

The following data was printed on index cards, one card for each subject: the scoring of each of the five judges for each of four recorded tests of sight singing; the group to which the subject belonged; the music training score; the music background score; the skill with music symbols score; and the grade point average. The data was then organized on IBM punch cards.

The Michigan State University Computer Center provided all statistical computations, using statistical programs prepared by the Agricultural Experiment Station at Michigan State University to calculate basic statistics.

Five new variables were created from the panel's judgments: four new variables were the mean scores for each of the sight singing tests. The fifth new variable was the sight singing gain score, the difference between the pre-test sight singing mean score and the post-test sight singing mean score. These mean scores were computed for the control group, and for the experimental group.

Comparisons were made of the sight singing scores of the control group and the experimental group. Unmatched t statistics between means were computed for both groups for the significance of the following: skill with music symbols; music training; music background; and cumulative grade point average. Correlations between sight singing scores and all the independent variables were calculated separately for both groups: skill with music symbols; music training; music background; and grade point average.

Correlation was computed between the experimental group's sight singing scores and the control group's sight singing scores and skill with music symbols; music training; music background; and grade point average.

The .05 level of significance was accepted as the standard.

The raw data is to be found in Appendix A.

CHAPTER IV

RESULTS

The two groups with which this study was concerned were composed of individuals who had enrolled in voice class, Music 141, 142, and 143 at Michigan State University in the academic year 1967-68. It was necessary to determine whether there was any statistically significant difference between the two groups. Table I shows the mean scores of: skill with music symbols ascertained by Kwalwasser-Ruch Test; music training; music background ascertained by Thayer Gaston Test; and cumulative grade point average for both groups, along with the standard deviations.

Table I shows that the control group is separated from the experimental group by only a few points in ability to manipulate music symbols. Their music background is also similar. There is a noticeable difference between the two groups as to music training. The experimental group shows a higher score. There is some difference in the cumulative grade point average also, with the experimental group again showing a higher score. The standard deviations on these factors were approximately the same for both groups.

TABLE 1. Mean scores of skill with music symbols, music training, music background, and cumulative grade point average, with standard deviations for both groups

	Skill with Music	Music Training	Music Background	GPA
Control Group	224	140	20	2.60
Standard Deviation	19.2	110.1	2.8	.51
Experimental Group	221	163	21	3.09
Standard Deviation	18.5	93.6	2.6	.62

Table 2 shows the pre-test sight singing scores, post-test sight singing scores, tonal sight singing scores, and 12-tone sight singing scores. Included also are the gain scores in sight singing and the standard deviations for each group.

Table 2 shows that the experimental group scored .77 lower than the control group on the pre-test sight singing. The post-test scores, however, show a difference of 1.69, with the experimental group gaining more than the control group.

TABLE 2. Sight singing scores and gains achieved by control and experimental groups and standard deviations

	Pre-test	Post-test	Tonal test	12-tone test	Mean gain
Control Group	16.68	20.10	17.56	10.63	3.43
Standard Deviation	7.4	6.1	6.0	2.7	6.7
Experimental Group	15.91	21.79	17.50	11.74	5.82
Standard Deviation	5.8	6.5	5.3	3.5	4.3

The gain for the experimental group was 5.82 while the control group achieved a gain of 3.43. The scores on the sight singing of the tonal melody are nearly the same for both groups. The scores for the 12-tone melody show a difference, with the experimental group scoring 1.11 higher than the control group. The standard deviations are approximately the same for both groups.

The level established for achievement of statistical significance was .05.

Table 3 presents the correlations between skill with music symbols (Kwalwasser-Ruch Test) and scores on each of the sight singing tests.

TABLE 3. Correlations between scores on skill with music symbols and scores on sight singing tests

	Pre-test	Post-test	Tonal test	12-tone test	Gain
Control group	.37*	.34*	.42*	.34*	-.10
Experimental group	.36*	.66*	.59*	.55*	.50*

*Statistically Significant

The results of Table 3 show that there was some statistically significant correlation between the control group and the experimental group scores on skill with music symbols and their scores on sight singing tests, with the exception of the control group gain score.

Table 4 presents the correlations between scores on music background (Thayer Gaston Test) and scores on sight singing tests.

TABLE 4. Correlations between scores on music background and scores on sight singing tests

	Pre-test	Post-test	Tonal test	12-tone test	Gain
Control group	.06	.27	.44*	.15	.17
Experimental group	.03	.22	.32*	.00	.29

*Statistically Significant

Table 4 shows that there was negligible correlation between the scores on the sight singing tests and music background, except for the tonal test.

Table 5 presents the correlations between scores on music training and scores on sight singing tests.

TABLE 5. Correlations between scores on music training scores on sight singing tests

	Pre-test	Post-test	Tonal test	12-tone test	Gain
Control group	.17	.11	.19	.07	-.09
Experimental group	-.07	.24	.22	.03	.46*

*Statistically Significant

The results of Table 5 show that there is no positive correlation between the scores on the sight singing tests and music training, which is statistically significant, except for the gain score for the experimental group.

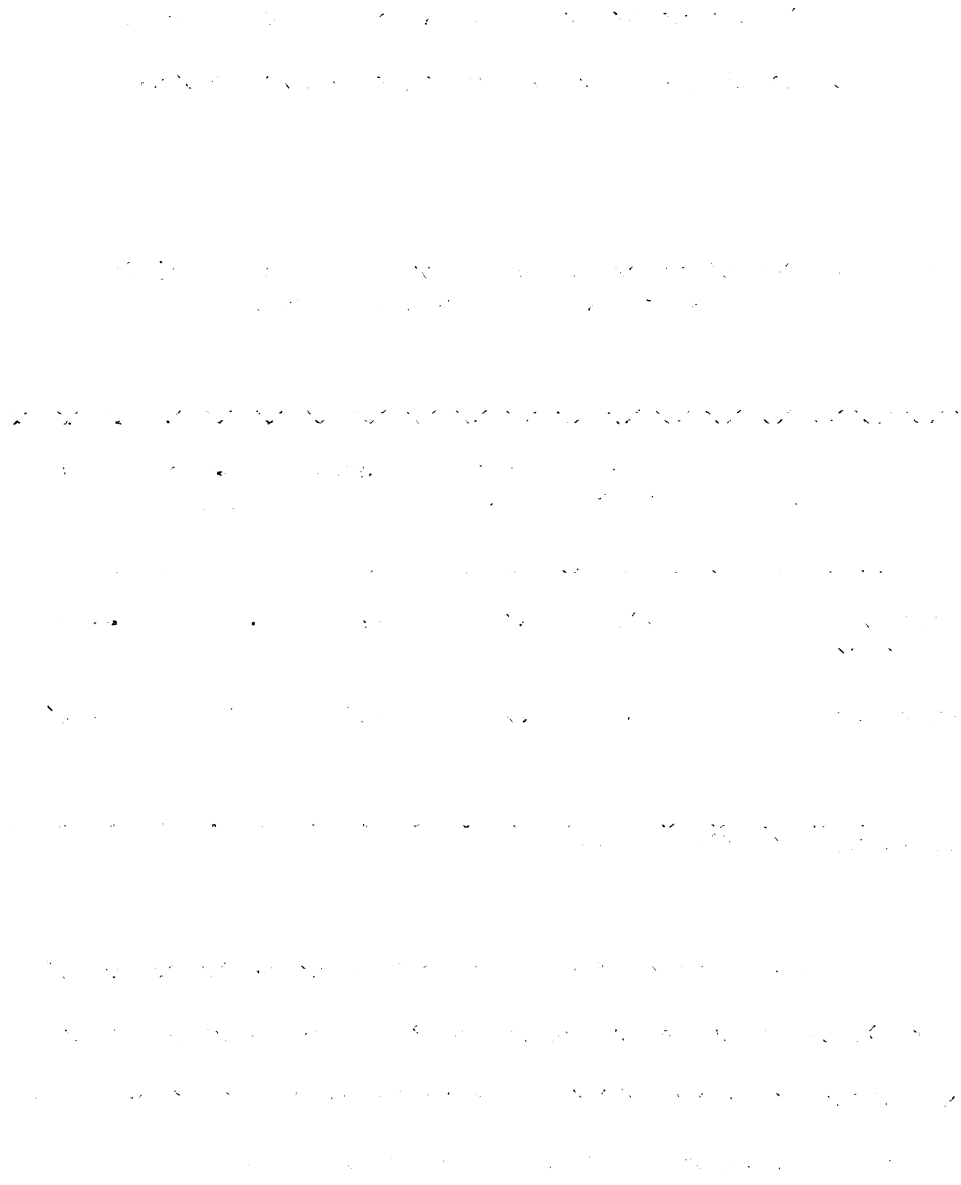

Table 6 presents the correlations between the scores on sight singing tests and cumulative grade point averages of the students.

TABLE 6. Correlations between scores on sight singing tests and cumulative grade point averages

	Pre-test	Post-test	Tonal test	12-tone test	Gain
Control group	.60*	.26	.29	.38*	-.42*
Experimental group	.01	.15	.13	.23	.21

*Statistically Significant

The results of Table 6 show that there is little positive correlation between cumulative grade point averages and sight singing scores. The exceptions are that the control group in the pre-test and 12-tone test showed a correlation between cumulative grade point average and sight singing scores. This table again shows a statistically significant, negative correlation for the control group between gain score and cumulative grade point average. It will be commented on in the Discussion of Results section of this chapter.

Table 7 presents the correlations between scores on various sight singing tests.

TABLE 7. Correlations between scores on various sight singing tests

	Pre-test and Post-	Post-test and Tonal	Tonal and 12-tone	Pre-test and Tonal	Post-test and 12-tone
Control group	.52*	.84*	.76*	.59*	.84*
Experimental group	.76*	.78*	.54*	.65*	.51*

*Statistically Significant

Table 7 shows that there is statistically significant positive correlation between various sets of sight singing test scores. This is perhaps to be expected, and may be attributed, at least partially, to the fact that the sight singing tests presented essentially the same task, in varying degrees of difficulty.

Table 8 presents the significance of the differences between the mean scores of the two groups on skill with music symbols (Kwalwasser-Ruch Test), music background, (Thayer Gaston Test), music training, cumulative grade point average, and sight singing tests.

TABLE 8. Significance of the differences between mean scores on skill with music symbols, music background, music training, cumulative grade point average, and sight singing tests

Group	Mean	t	df	Probability
Skill Mus. Sym.				
Control	224			
Experimental	221	.10	40	>0.05
Mus. Training				
Control	140			
Experimental	163	2.20*	40	<0.05
Mus. Background				
Control	20			
Experimental	21	.70	40	>0.05
GPA				
Control	2.60			
Experimental	3.09	.24	40	>0.05
Sing Intervals				
Control	20.10			
Experimental	21.79	.37	40	>0.05
Sing Tonal				
Control	17.56			
Experimental	17.50	.004	40	>0.05
Sing 12-tone				
Control	10.63			
Experimental	11.74	1.42	40	>0.05
Sing Gain				
Control	3.42			
Experimental	5.82	.77	40	>0.05

*Statistically Significant

At the level of .05, 2.02 would be significant for this size sample. There is a statistically significant difference between the

groups in music training with the experimental group showing more training in music.

Table 9 presents analysis of variance and covariance of pretest-posttest gain scores, holding constant skill with music symbols (Kwalwasser-Ruch Test), music training, music background Thayer Gaston Test), and cumulative grade point average.

TABLE 9. Analysis of variance and covariance of pretest-posttest gain scores holding constant skill with music symbols, music training, music background, and cumulative grade point average

	Source of Variance	Sum of Squares	df	Mean Square	F	Significance
Skill with mus. symbol	Between	68.519	1	68.519	2.158	0.15
	Within	1238.184	39	31.748		
Music Training	Between	55.178	1	55.178	1.725	0.19
	Within	1247.236	39	31.980		
Music Background	Between	46.357	1	46.357	1.503	0.23
	Within	1203.036	39	30.847		
GPA	Between	68.675	1	68.675	2.130	0.153
	Within	1258.625	39	32.272		

In Table 9, the analysis of variance and covariance of gain scores, holding other factors constant, indicates no statistically significant differences between the mean gain scores. None of the variances reached statistical significance at the .05 level.

Table 10 presents analysis of variance and covariance of sight singing intervals scores, holding constant skill with music symbols (Kwalwasser-Ruch Test), music training, music background (Thayer Gaston Test), and cumulative grade point average.

TABLE 10. Analysis of variance and covariance of sight singing intervals scores holding constant skill with music symbols, music training, music background, and cumulative grade point average

	Source Variance	Sum of Squares	df	Mean Square	F	Significance
Skill with mus. symbol	Between	47.867	1	47.867	1.562	.829
	Within	1194.564	39	30.629		
Music Training	Between	21.506	1	21.506	.531	.470
	Within	1579.215	39	40.493		
Music Background	Between	16.541	1	16.541	.421	.520
	Within	1530.299	39	39.238		
GPA	Between	10.823	1	10.823	.271	.606
	Within	1557.223	39	39.929		

The results of Table 10, the analysis of variance and covariance of scores on sight singing intervals, holding other factors constant, indicates no statistically significant differences between the mean scores. Statistical significance would have been reached at the .05 level.

Table 11 presents analysis of variance and covariance of tonal sight singing scores, holding constant skill with music symbols (Kwalwasser-Ruch Test), music training, music background (Thayer Gaston Test), and cumulative grade point average.

TABLE 11. Analysis of variance and covariance of tonal sight singing scores holding constant skill with music symbols, music training, music background, and cumulative grade point average.

	Source of Variance	Sum of Squares	df	Mean Square	F	Significance
Skill with mus. symbol	Between	1.183	1	1.183	.0474	.829
	Within	972.223	39	24.928		
Music Training	Between	1.046	1	1.046	.032	.858
	Within	1253.219	39	32.134		
Music Background	Between	4.279	1	4.279	.149	.701
	Within	1115.578	39	28.604		
GPA	Between	.635	1	.635	.019	.891
	Within	1302.408	39	33.395		

The results of Table 11, the analysis of variance and covariance of scores on sight singing tonal melody, holding other factors constant, indicates no statistically significant differences between the means scores. Statistical significance would have been reached at the .05 level.

Table 12 presents analysis of variance and covariance of 12-tone sight singing scores, holding constant skill with music symbols (Kwalwasser-Ruch Test), music training, music background (Thayer Gaston Test), and cumulative grade point average.

TABLE 12. Analysis of variance and covariance of 12-tone sight singing scores holding constant skill with music symbols, music training, music background, and cumulative grade point average

	Source of Variance	Sum of Squares	df	Mean Square	F	Significance
Skill with mus. symbol	Between	18.187	1	18.187	2.174	.148
	Within	326.142	39	8.362		
Music Training	Between	12.046	1	12.046	1.131	.294
	Within	415.242	39	10.647		
Music Background	Between	11.507	1	11.507	1.083	.304
	Within	414.470	39	10.627		
GPA	Between	8.425	1	8.425	.802	.376
	Within	409.739	39	10.506		

The results of Table 12, the analysis of variance and covariance of scores on sight singing tonal melody, holding other factors constant, indicates no statistically significant differences between the means scores. Statistical significance would have been reached at the .05 level.

Table 13 presents the test scores for the entire group along with the standard deviation for each score.

TABLE 13. Test scores for entire group and standard deviations

Test	Mean	Standard Deviation
Skill with Music Symbols (Kwalwasser-Ruch Test)	223.04	18.69
Music Training	152.60	101.22
Music Background (Thayer Gaston Test)	30.93	2.71
Grade Point Average	2.79	0.75
Pre-Test Singing	16.28	6.62
Post-Test Singing	20.98	6.36
Tonal Singing	17.53	5.65
12-tone Singing	11.21	3.24
Gain in Singing	4.70	5.69

Table 13 reveals a reasonable spread of scores, indicated by the standard deviations, though the test for music training does show unusual spread.

Discussion of Results

In each group, there were individuals who abandoned the attempt at sight singing before they had finished. In some cases, this may have been due to a feeling of the individuals that they were hopelessly lost. It may have occurred when the individual became preoccupied or distracted over having made a mistake. In almost every case, the discontinued attempt occurred with the pre-test singing, with only a few occurring on the post-test. No one gave up on the tonal or on the 12-tone melody sight singing tests.

In the experimental group, 11 out of 22 gave up on the initial test. The majority of these individuals were within a few notes of finishing. Two of these same individuals also abandoned the attempt on the post-test sight singing, again when they were within just a few notes of finishing. In the control group, 9 out of 20 abandoned the attempt. Of these, 7 occurred with the pre-test sight singing. Though they were almost finished, two who had completed the pre-test sight singing gave up on the post-test sight singing. One individual out of the group gave up on both the pre-test and the post-test, though near completion both times. Most individuals in both groups, after a period of

study in voice class, with perhaps other factors outside of voice class being partially responsible, managed to continue to the end. A combined total of 5 gave up on the post-test, as compared to a combined total of 20 who had given up on the pre-test, before the experiment started.

With the exception of 3 persons, all of the students involved in the study made a better score on the post-test sight singing test. Some of the individuals made outstanding gains and some made small gains, with a few staying about the same.

In Table 6, there was a noticeable discrepancy between the experimental group and the control group. The control group shows a negative correlation between sight singing score and cumulative grade point average. The experimental group in this table shows a negligible, but positive correlation between sight singing and that same factor. This discrepancy might be due to any one of several factors, or a combination of them. It may be that certain students who happened to have a higher cumulative grade point average did not exert themselves as much as other students.

CHAPTER V

SUMMARY, RESULTS, AND RECOMMENDATIONS

The purpose of this experiment was to examine whether a student's sight singing ability would improve if he were exposed to variants of traditional vocalises rather than the traditional major scale passages and major triads which usually comprise the vocalises utilized in teaching voice. It was believed that the use of vocalises which were structured on augmented triads, diminished triads, whole tone scales, chromatic scales, and combinations of these, might aid the singer in reading both traditionally structured music and music structured on new sound relationships.

A review of the literature used for teaching voice and literature on the subject of singing, revealed that only a few authors employed or suggested the use of vocalises or music structured on any bases other than traditional major scales and triads.

A review of literature regarding experiments in sight singing and sight reading reveals that most of the experiments dealt with children as subjects, or with an instrumental approach. The subjects for this present experiment were college students, and the approach was through utilization of variants of traditional vocalises.

This experimental study occupied a period of one academic year. Two voice classes were used for the study. In one of the

voice classes, only the traditional vocalises were employed. The other class utilized variants of these vocalises. Both classes were given a pre-test and post-test of sight singing. In addition, they were asked to sing at the end of the year a tonal melody and a 12-tone melody. These two melodies were to be sung at sight. The students were all asked to complete a questionnaire which was concerned with music background, and another one which was concerned with music training. They were also asked to take a test on skill with music symbols. The questionnaires and the test were all given numerical representations for statistical computations, as were the sight singing tests.

Results

The presentation of the statistical comparisons of data obtained relating to the influence of variants of vocalises used in voice class compared to traditional vocalises used in voice class, was the primary purpose of Chapter IV. The questions posed in Chapter III have been answered as follows: The two factors which were statistically significant were skill with music symbols and music training, and even these factors had no great bearing on the results. Factors with negligible significance were: music background, and cumulative grade point average.

There are specific answers to each of the questions posed in Chapter III: Is there a difference in sight singing of intervals resulting from the use of traditionally structured vocalises and variants of these vocalises when music training, music background, cumulative grade point average, and skill with music symbols are held constant? No, there is no statistically significant difference in sight singing of intervals when the other factors are held constant.

Is there a difference in sight singing of tonal music resulting from the use of traditionally structured vocalises and variants of these vocalises when music training, music background, cumulative grade point average, and skill with music symbols are held constant? No, there is not a noticeable difference in ability to sing tonal music resulting from the use of traditional vocalises or variants of these vocalises.

Is there a difference in sight singing of 12-tone music resulting from the use of traditionally structured vocalises and variants of these vocalises when music training, music background, cumulative grade point average, and skill with music symbols are held constant? No, there is no statistically significant difference between the experimental group and the control group in ability to sing 12-tone music when these factors are held constant.

Of the two types of vocalises employed in the study, the variants of the traditional vocalises produced no statistically

significant difference, in sight singing gain, in ability to read 12-tone music, or in ability to read tonal music.

Recommendations

It may be that the use of vocalises which differ from the traditional more radically than those in the present study, would have a greater effect on the students' ability to read music.

An experiment might be conducted in search of an explanation for the students' ability to find the starting note when it was repeated in the melody, even though the student seemed to be completely confused by the intervening notes.

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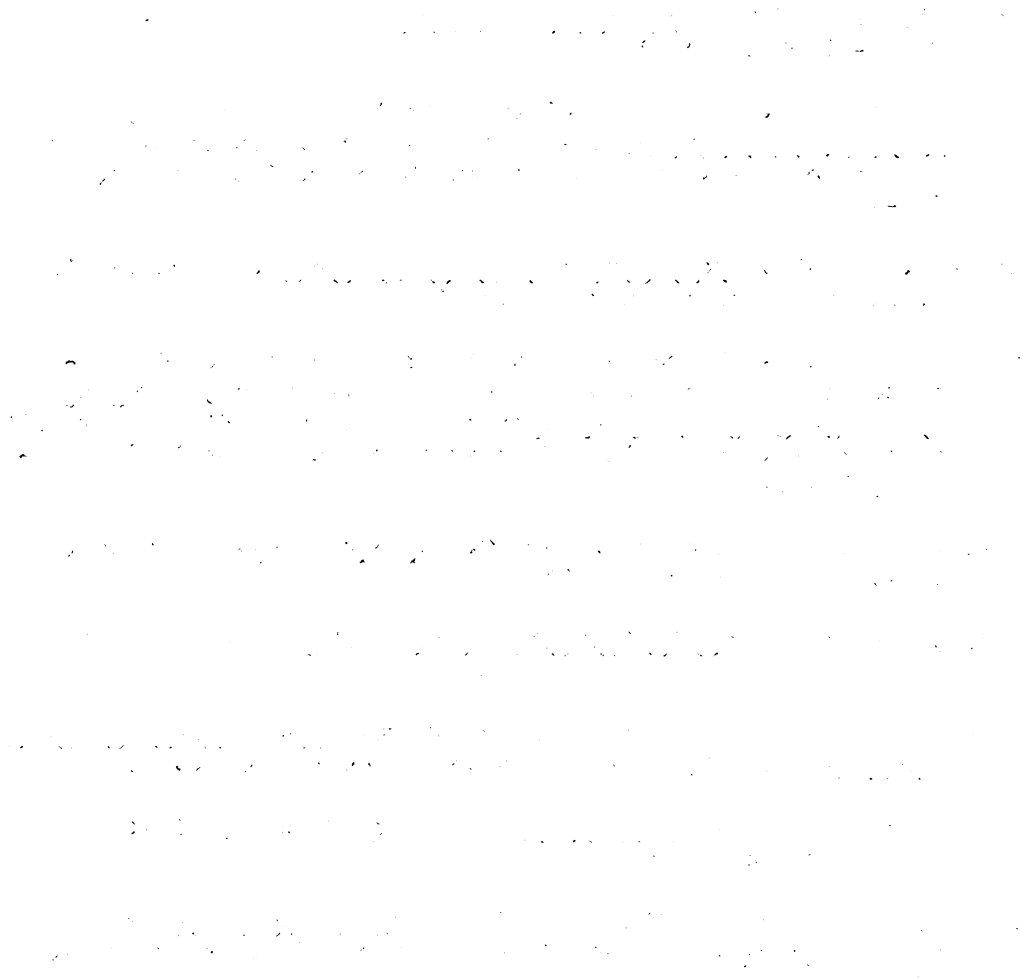


APPENDIX A

TABLE 14

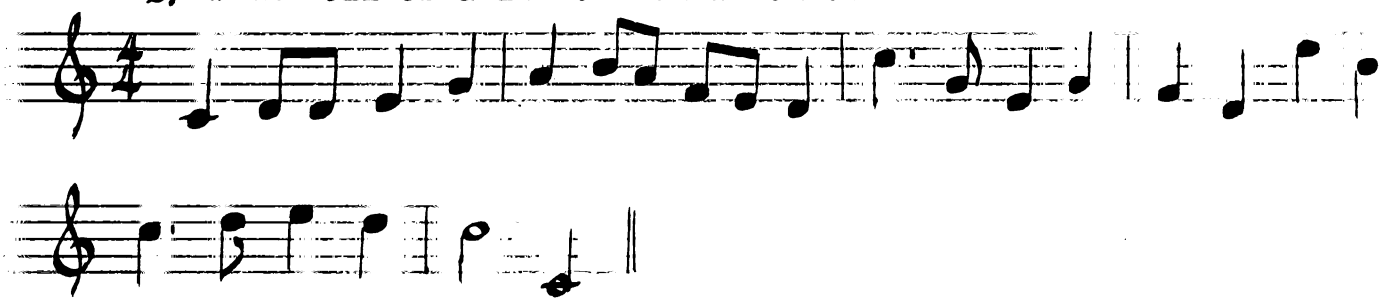
Raw Data

Group	No.	Mus. Train	Back-Grnd	Kwalwasser-Ruch	Pre-test	Post-test	Tonal	12-Tone
1	1	65	15	223	15	20	17	10
1	2	145	23	229	31	32	24	14
2	3	137	18	231	21	24	24	12
1	4	105	24	230	26	32	25	17
2	5	000	14	158	1	8	3	7
1	6	84	22	168	8	12	12	6
1	7	130	23	201	8	7	9	9
2	8	172	21	233	19	15	19	9
1	9	31	17	192	18	16	12	11
1	10	192	19	234	17	28	24	16
1	11	166	23	234	6	16	13	11
1	12	139	21	235	6	25	16	11
2	13	101	21	198	22	29	25	14
2	14	120	23	234	12	24	21	10
2	15	33	20	222	21	22	14	9
2	16	178	25	224	13	19	21	10
1	17	294	24	232	19	28	25	6
1	18	145	22	239	16	32	23	15
2	19	138	17	238	21	12	12	7
2	20	149	23	235	4	16	13	9
2	21	21	18	201	9	12	13	7
1	22	189	23	229	11	22	14	9
2	23	63	16	234	28	32	25	18
2	24	131	21	239	19	17	12	9
2	25	186	23	223	17	22	14	10
2	26	480	23	227	15	19	14	9
1	27	456	24	226	15	24	19	11
2	28	101	21	240	16	19	17	13
2	29	56	19	220	21	13	11	9
1	30	182	20	223	21	28	15	12
1	31	180	22	231	14	18	22	15
1	32	284	24	230	13	20	19	12
1	33	220	19	235	14	23	16	20
1	34	176	19	219	16	17	15	14
1	35	72	21	234	14	19	13	7
2	36	38	21	234	16	26	24	13
2	37	283	22	232	19	23	19	12
2	38	249	23	224	28	24	23	11
2	39	230	24	229	25	25	25	15
1	40	107	24	234	19	25	24	16
1	41	100	18	184	12	16	11	7
1	42	81	19	230	23	23	20	14

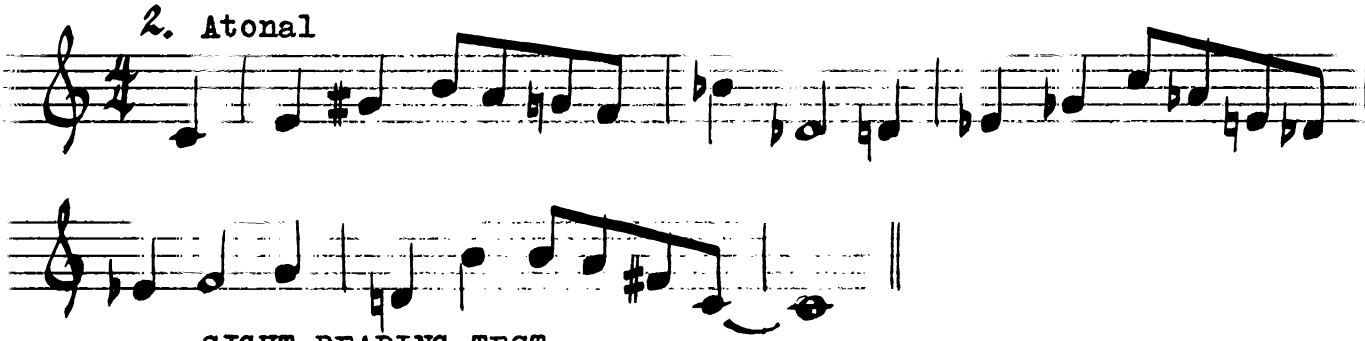
APPENDIX B

MELODY FRAGMENTS FOR SIGHT-READING

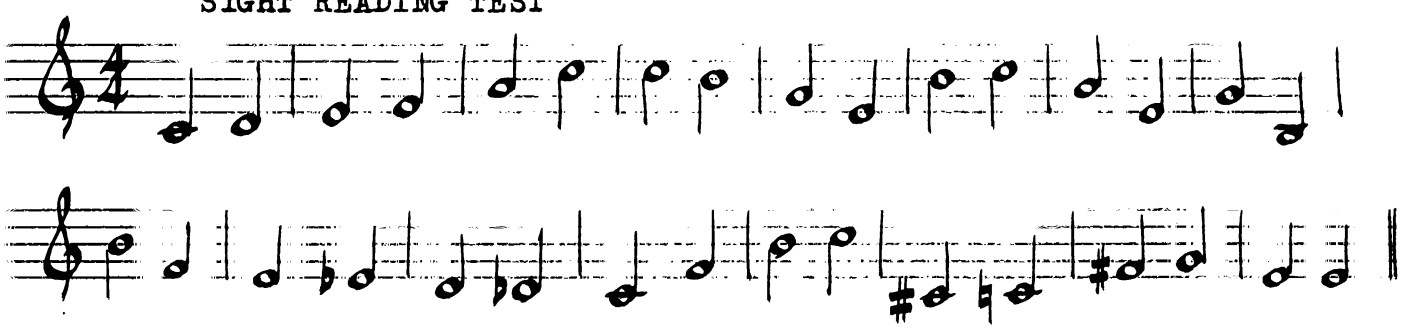
1. With well-established tonal center



2. Atonal



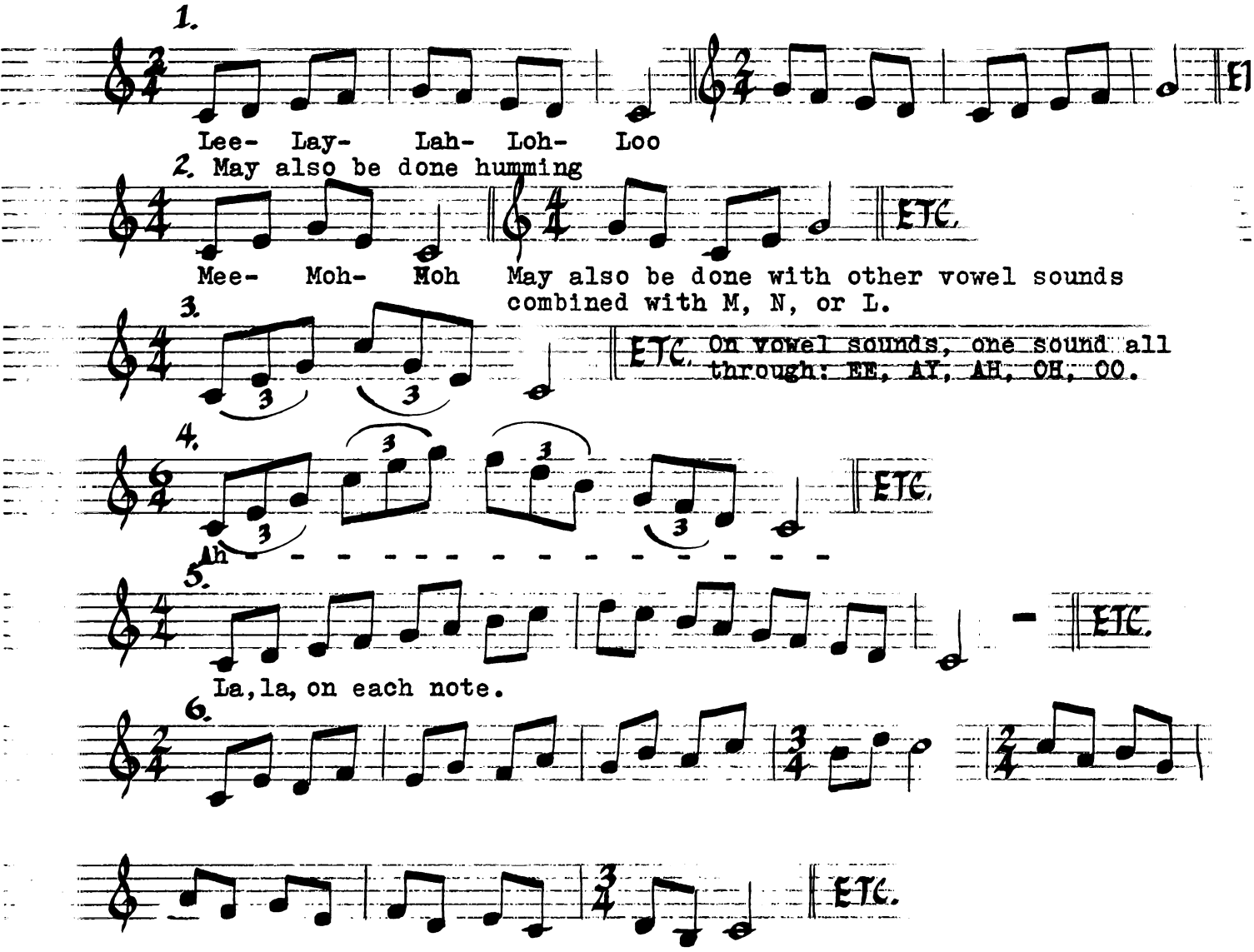
SIGHT READING TEST



APPENDIX C

Examples of Traditional Vocalises

These are done ascending in half steps, and descending in a similar manner. They may be done at varying rates of speed, and at various dynamic levels, and further variety may be obtained by doing them with crescendo or decrescendo marking.

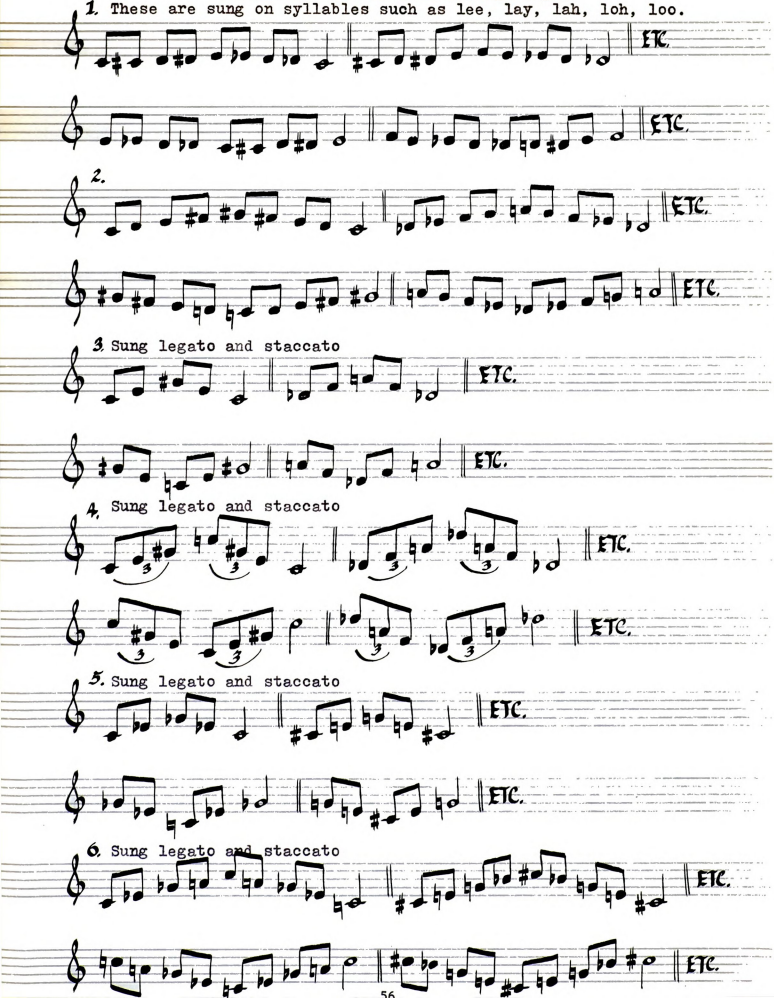


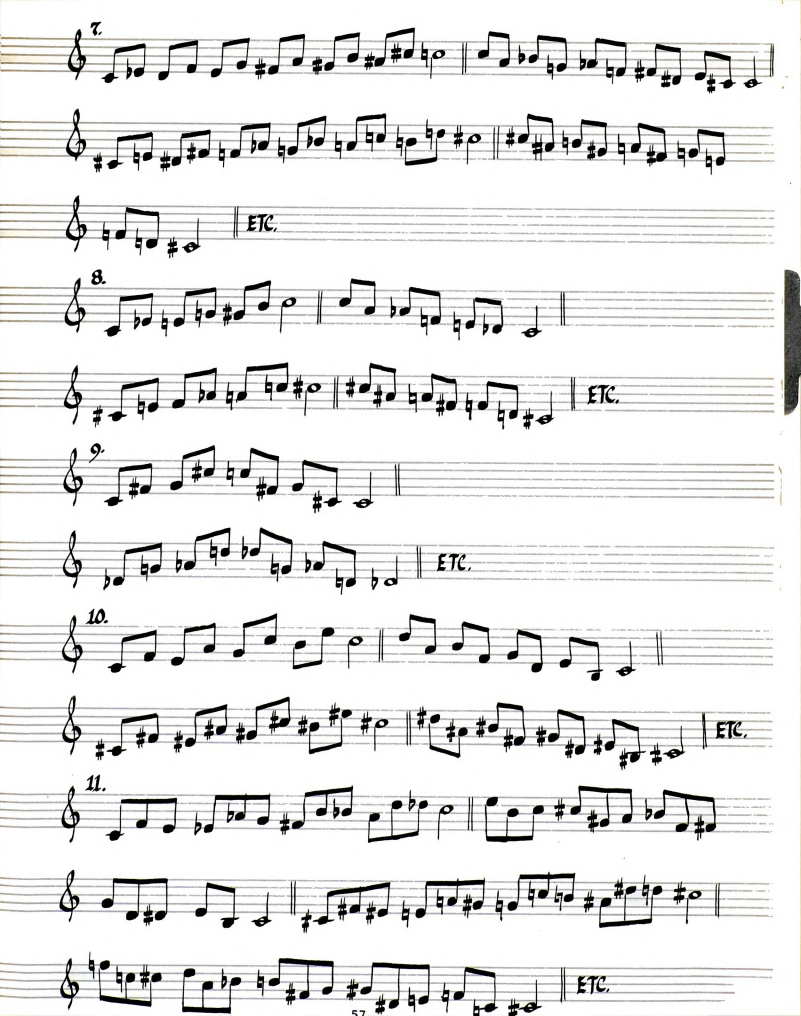
This is first sung two notes to a syllable, such as Loh, or Lah. Eventually it is all sung on one vowel sound such as Ah, or Oh.

Other vocalises may be devised to suit particular needs, using combinations of vowel sounds and notes which are appropriate to the accasion.

APPENDIX D

VOCALISES USED IN EXPERIMENTAL CLASS




7.
ETC.
8.
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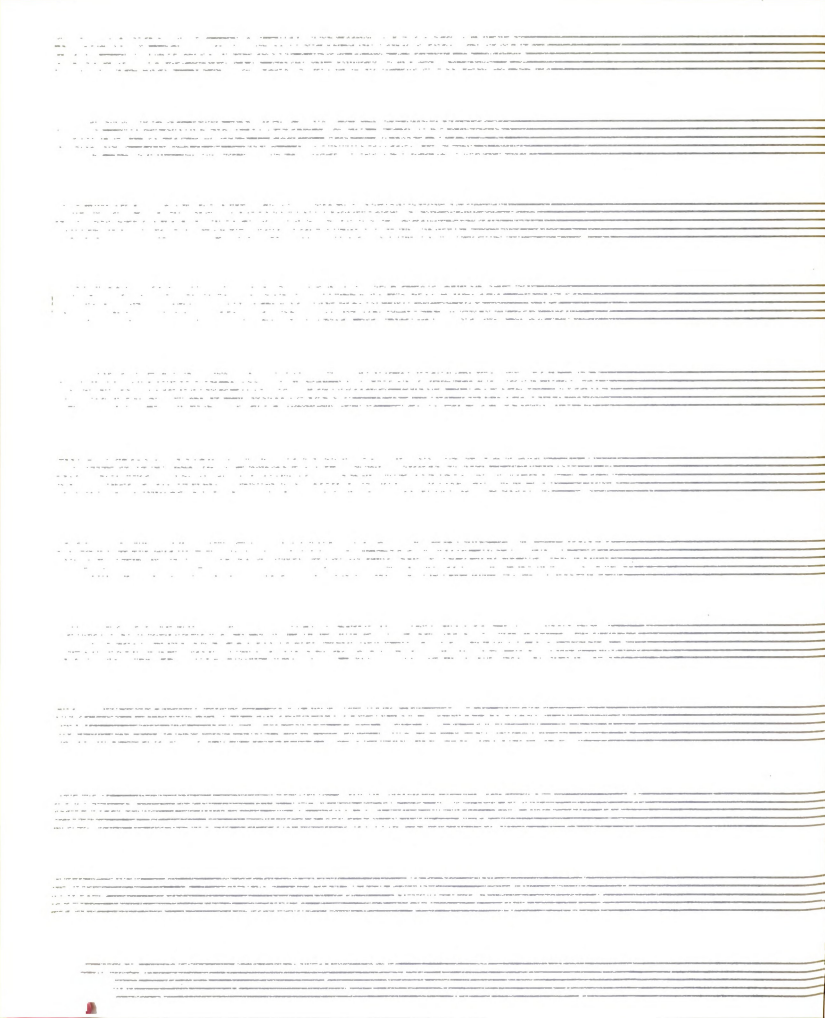
11.
ETC.



APPENDIX E

Test of Musicality

Please answer the following questions by using a cross. (+)

EXAMPLES: Have you ever heard a piano? ..... NO ..... YES .....

Have you ever directed a symphony orchestra? ..... NO ..... YES .....

1. Does your father play a musical instrument or sing? ..... NO ..... YES .....
2. Does your mother play a musical instrument or sing? ..... NO ..... YES .....
3. Did any of your grandparents play or sing? ..... NO ..... YES .....
4. Do any of your brothers or sisters play or sing? ..... NO ..... YES .....
5. Do you have a piano in your home? ..... NO ..... YES .....
6. How many years have you taken lessons on a musical instrument? NONE ..... ONE ..... TWO ..... THREE ..... FOUR or more .....
7. Is a phonograph played in your home? ..... NO ..... YES .....
8. Do your father and mother like music? ..... NO ..... YES .....
9. Have your parents ever told you that they would like to have you study music? ..... NO ..... YES .....
10. Would you like to play in a school band? ..... NO ..... YES .....
11. Would you like to play in a school orchestra? ..... NO ..... YES .....
12. Do you like your school music? ..... NO ..... YES .....
13. Would you like to sing in a chorus or glee club? ..... NO ..... YES .....
14. Do you like to listen to phonograph music? ..... NO ..... YES .....
15. Would you like to be a musician? ..... NO ..... YES .....
16. Would you give up some of your playtime or recreation in order to practice on a musical instrument? ..... NO ..... YES .....

In the list below (question number 17), are several things which you are to number in the order in which you enjoy them. Place a "1" after that thing which you most enjoy. Place a "2" after that which you enjoy next best. Place a "3" after that which you enjoy next best, and so on until you have numbered each item in the list. Be certain to place a number after every item in the list.

17.

SWIMMING	READING .....
BASEBALL	DANCING .....
MOVIES	FISHING .....
HIKING	RADIO .....
FOOTBALL	HOBBIES .....

In the second list (question number 18), place a "1" after the instrument which you would most like to play. Place a "2" after your second choice and a "3" after your third choice. Number no further than your third choice.

18.

FLUTE	EUPHONIUM .....
OBOE	TUBA .....
CLARINET	SOUSAPHONE .....
BASSOON	DRUMS .....
SAXOPHONE	XYLOPHONE .....
CORNET	VIOLIN .....

First you will hear a single note, and then you will hear a chord. If that same, identical note which you first heard is played in the chord, place a cross after YES. If it is not heard, place a cross after NO. We will first do several practice exercises. Fill in the cross after YES or NO for each of the two practice exercises.

PRACTICE EXERCISES 1. NO ..... YES ..... 2. NO ..... YES .....

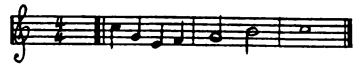
Now we will do five trials in the same manner, beginning with No. 19.

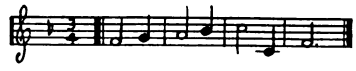
19. NO..... YES ..... 20. NO ..... YES ..... 21. NO ..... YES .....

22. NO ..... YES ..... 23. NO ..... YES .....

Below is the music for three practice melodies and five trial melodies which you will hear played one at a time. You are to compare the melody you hear played with the same melody printed below. If the melody that is played is the same as your melody, then place a cross after SAME. If any notes are changed, place a cross after NOTE. If the rhythm is changed, place a cross after RHYTHM. We will first do the three practice melodies.

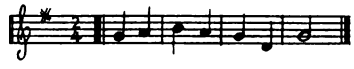
PRACTICE MELODIES

1.  SAME ..... NOTE ..... RHYTHM .....

2.  SAME ..... NOTE ..... RHYTHM .....

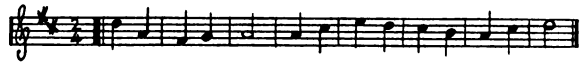
3.  SAME ..... NOTE ..... RHYTHM .....

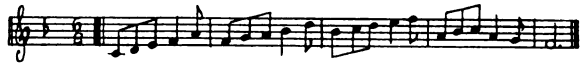
Now read the music of each melody very carefully as that melody is played, so that you may determine whether the melody you hear is the SAME, or has any NOTES changed, or has the RHYTHM changed. It will be only one of these three for each melody, so you will need to place only one cross after each printed melody.

24.  SAME ..... NOTE ..... RHYTHM .....

25.  SAME ..... NOTE ..... RHYTHM .....

26.  SAME ..... NOTE ..... RHYTHM .....

27.  SAME ..... NOTE ..... RHYTHM .....

28.  SAME ..... NOTE ..... RHYTHM .....

You will now hear five melodies, each of which is complete, except that the last note will not be played. If you think that the unplayed note should be higher than the LAST note which you HEARD, place a cross after HIGHER. If you think the unplayed note should be lower, place a cross after LOWER. We will first try two practice melodies.

PRACTICE MELODIES 1. HIGHER ..... 2. HIGHER .....

LOWER ..... LOWER .....

Now we will deal with the next five melodies in the same manner, beginning with No. 29.

APPENDIX F

PLEASE NOTE:

Page 61 "Kwalwasser-Ruch Test of Musical Accomplishment, copyrighted 1924 by J. Kwalwasser and G. M. Ruch not microfilmed at request of author. Available for consultation at Michigan State University Library.

UNIVERSITY MICROFILMS

KWALWASSER-RUCH TEST OF MUSICAL ACCOMPLISHMENT

For Grades IV-XII

By JACOB KWALWASSER, Ph. D.
Professor of Music Education
Syracuse University, Syracuse, N.Y.

And G. M. RUCH, PH. D.
Professor of Education
University of California, Berkeley

Do not open this paper, or turn it over, until you are told to do so. Fill these blanks, giving your name, age, birthday, etc. Write plainly.

Name..... Date .....
(First name, initial and last name)

Age last birthday.....years. Birthday.....
(Month and day)

Grade.. .....Teacher .....

School..... City .....

How many years have you studied music in school?.....

How long have you studied music outside of school?.....
(state your answer in half-hour lessons)

Do not write below this line.

TEST	NAME OF TEST	SCORE
1	Knowledge of Musical Symbols and Terms	
2	Recognition of Syllable Names	
3	Detection of Pitch Errors in a Familiar Melody	
4	Detection of Time Errors in a Familiar Melody	
5	Recognition of Pitch Names	
6	Knowledge of Time Signatures	
7	Knowledge of Key Signatures	
8	Knowledge of Note Values	
9	Knowledge of Rest Values	
10	Recognition of Familiar Melodies from Notation	
TOTAL		

Do Not Turn Over The Page Until The Signal is Given!

Published by the Extension Division, University of Iowa, Iowa City, Iowa.

PRINTED IN U.S.A

TEST 1. KNOWLEDGE OF MUSICAL SYMBOLS AND TERMS

DIRECTIONS: Below are twenty-five questions about music. Five answers are given to each question. Read each question and then draw a line under the right answer. The sample is already marked as it should be.

SAMPLE:  is called a sharp natural flat note rest

---

Begin here.

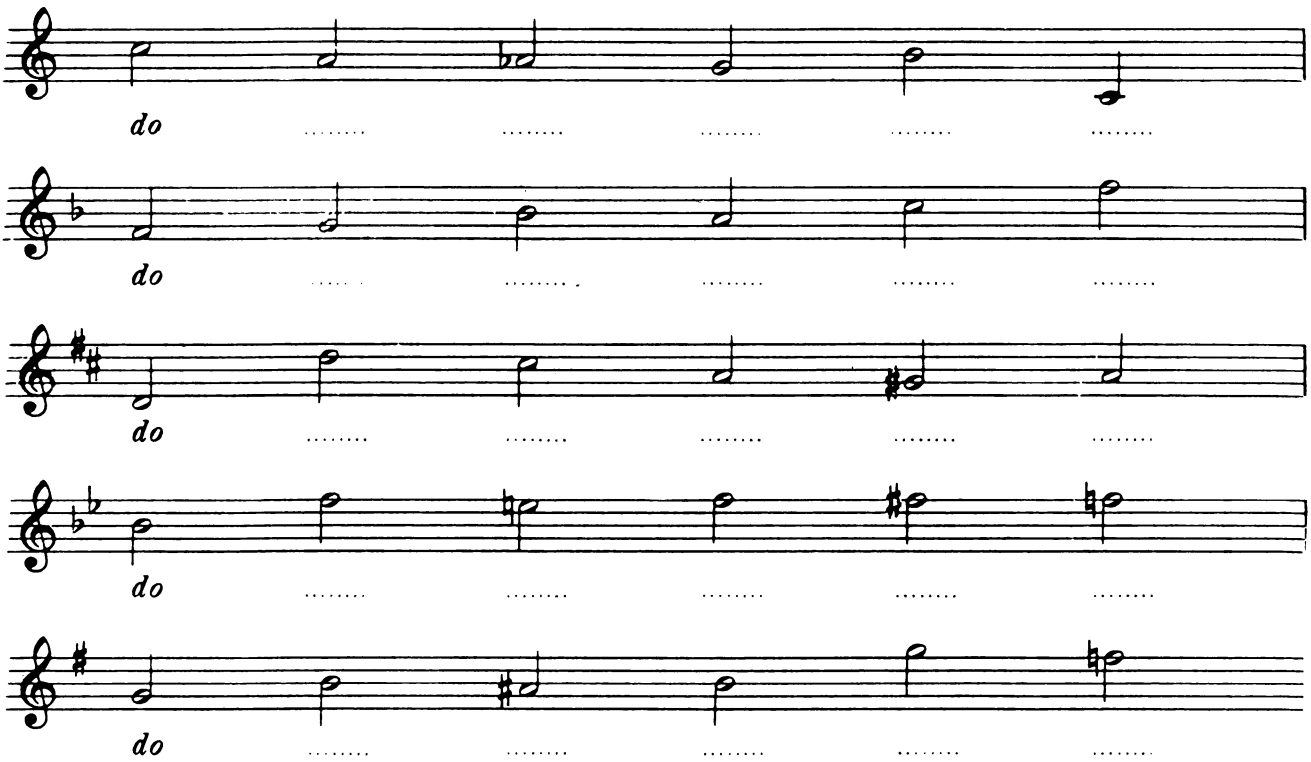
1	The first tone of the scale is	mi re do fa sol	1
2		is called a rest natural sharp note flat	2
3	The fifth tone of a scale is	do fa mi sol re	3
4		is a flat note natural rest sharp	4
5		is a sharp flat natural note rest	5
6		is a slur hold rest double-sharp repeat-bar	6
7		is called a sharp flat natural note rest	7
8	*p*	means soft loud slow fast smooth	8
9		is called a bar staff measure accent clef	9
10		is a sharp flat natural note rest	10
11		is a clef staff measure accent phrase	11
12		is called a clef staff measure accent bar	12
13		is a clef measure staff phrase accent	13
14		the curved line is a slur tie hold accent rest	14
15		is a rest slur hold double-sharp repeat	15
16		the curved line is a slur hold rest tie accent	16
17		means higher lower louder repeat pause	17
18		means higher lower louder softer pause	18
19	*Allegro*	means lively slow repeat accent sweetly	19
20	*f*	means fast loud slow soft smooth	20
21	*cresc.*	means softer louder slower faster smooth	21
22	*dim.*	means smoother louder softer faster slower	22
23	*Lento*	means repeat accent sweetly slow lively	23
24	*Legato*	means soft quick separated connected loud	24
25	*Staccato*	means quick soft separated connected loud	25

Test 1. Number right-Score.....

TEST 2. RECOGNITION OF SYLLABLE NAMES

DIRECTIONS: Below are five lines of notes. The first syllable in each line is "Do"; so the name do has been written below it. You are to write the syllable names on the lines under the other notes.

Begin here.

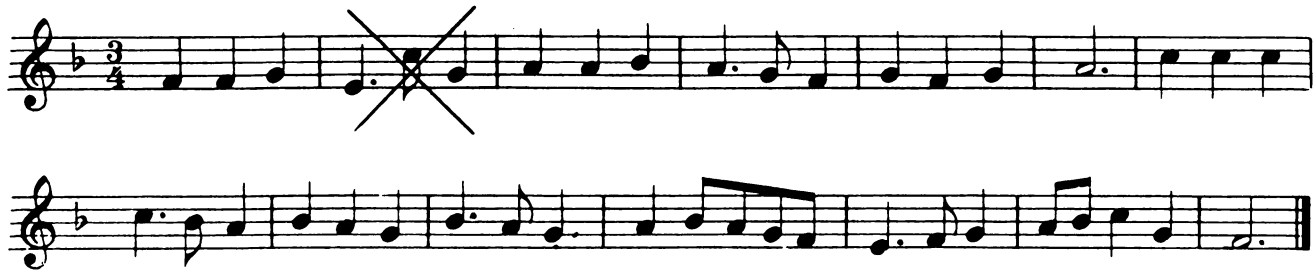


Test 2. Number right = Score.....

TEST 3. DETECTION OF PITCH ERRORS IN A FAMILIAR MELODY

DIRECTIONS: The song "America" is written below. One measure has been crossed out because the melody is wrong. Five other measures are wrong. Hum over the melody to yourself and cross out all five wrong measures.

Begin here:

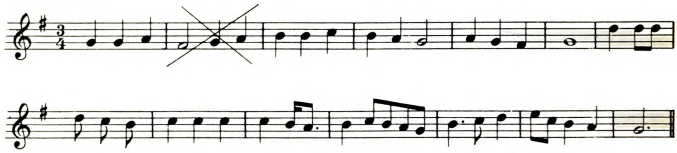


Test 3. Number right.....×5 = *Score*.....

Test 4. Recognition of Time Errors in a Familiar Melody.

Directions: The song "America" is written below. One of the measures has been crossed out because it has the wrong number of beats. Five other measures are wrong. Hum over the song and cross out all five wrong measures.

Begin here:

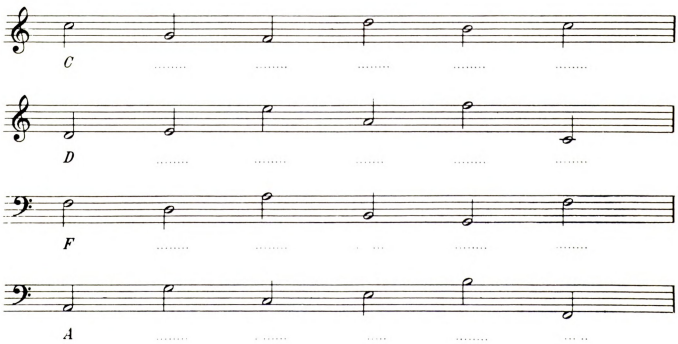


Test 4. Number right.....× 3 =Score.....

Test 5. Recognition of Pitch Names.

Directions: Below are four lines of notes. The first note in each line is already marked as it should be. You are to write the pitch or letter names on the lines under the other notes.

Begin here:



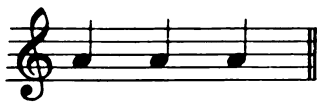
Test 5. Number right = Score .....

Test 6. Knowledge of Time Signatures

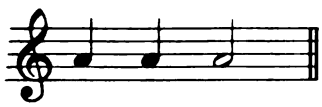
Directions: Below are ten full measures. At the right of each are five time signatures. You are to draw a line under the correct time signature for each measure. The sample is marked as it should be.

Sample.  The time signature is $\underline{\frac{2}{4}}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{6}{8}$ $\frac{3}{8}$

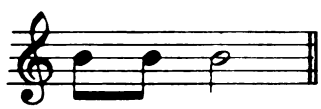
Begin here:

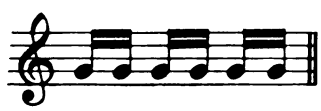
1  The time signature is $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{3}{8}$ $\frac{9}{8}$ 1

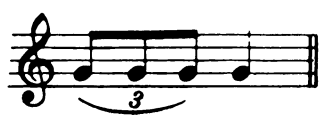
2  The time signature is $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ $\frac{6}{8}$ $\frac{9}{8}$ 2

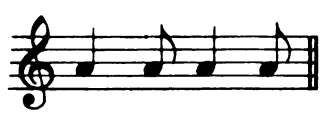
3  The time signature is $\frac{3}{4}$ $\frac{4}{4}$ $\frac{6}{8}$ $\frac{9}{8}$ $\frac{3}{8}$ 3

4  The time signature is $\frac{6}{8}$ $\frac{4}{4}$ $\frac{5}{4}$ $\frac{3}{8}$ $\frac{2}{4}$ 4

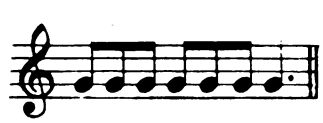
5  The time signature is $\frac{2}{4}$ $\frac{5}{4}$ $\frac{4}{4}$ $\frac{3}{8}$ $\frac{3}{4}$ 5

6  The time signature is $\frac{3}{8}$ $\frac{2}{4}$ $\frac{4}{4}$ $\frac{3}{4}$ $\frac{6}{8}$ 6

7  The time signature is $\frac{5}{4}$ $\frac{4}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{6}{8}$ 7

8  The time signature is $\frac{3}{8}$ $\frac{9}{8}$ $\frac{2}{4}$ $\frac{6}{8}$ $\frac{4}{4}$ 8

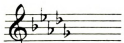
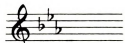
9  The time signature is $\frac{2}{4}$ $\frac{3}{2}$ $\frac{4}{4}$ $\frac{6}{8}$ $\frac{3}{8}$ 9

10  The time signature is $\frac{2}{4}$ $\frac{6}{8}$ $\frac{9}{8}$ $\frac{3}{4}$ $\frac{4}{4}$ 10

Test 6. Number right .....×2 = *Score* .....

TEST 7. KNOWLEDGE OF KEY SIGNATURES

DIRECTIONS: At the left below is a column of ten major key signatures. At the right is a column of five minor key signatures. You are to write the names of the keys on the lines at the right of each signature.
Notice that there are two columns, one for major keys and one for minor.

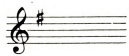
SAMPLES:  D flat  C minor

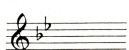
---

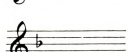
Begin here.

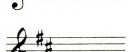
MAJOR KEY SIGNATURES

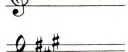
1  1

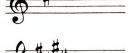
2  2

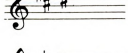
3  3

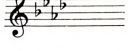
4  4

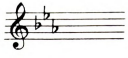
5  5

6  6

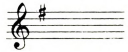
7  7

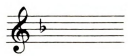
8  8

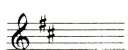
9  9

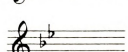
10  10

MINOR KEY SIGNATURES

11  11

12  12

13  13

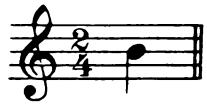
14  14

15  15

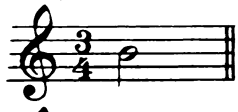
Test 7. Number right .....×2 = *Score* .....

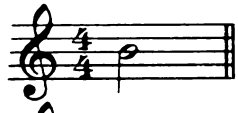
Test 8. Knowledge of Note Values

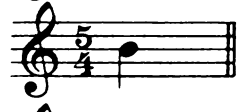
Directions: In the measures below a note has been left out of each. You are to draw a line under the note needed to complete the measure. The sample is already marked as it should be.

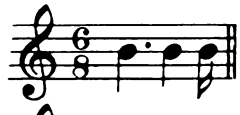
Sample:  The note needed is 

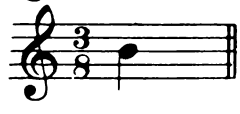
Begin here.

1  The note needed is  1

2  The note needed is  2

3  The note needed is  3

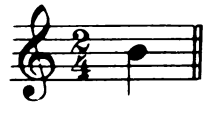
4  The note needed is  4

5  The note needed is  5

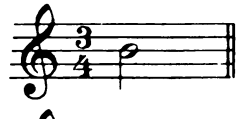
Test 8 Number right ..... *× 3 = Score* .....

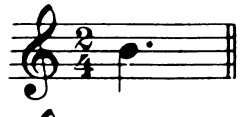
Test 9. Knowledge of Rest Values

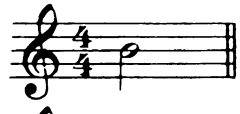
Directions: The five measures below are incomplete and need a rest to complete them. You are to draw a line under the rest needed to complete the measure. The sample is already marked as it should be.

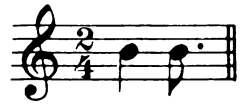
Sample:  The rest needed is 

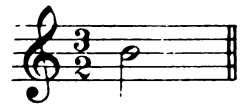
Begin here.

1  The rest needed is  1

2  The rest needed is  2

3  The rest needed is  3

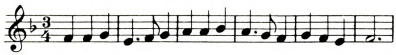
4  The rest needed is  4

5  The rest needed is  5

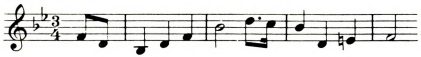
Test 9 Number right ..... *× 3 = Score* .....

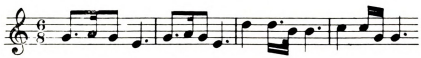
TEST 10. RECOGNITION OF FAMILIAR MELODIES FROM NOTATION

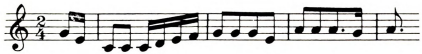
DIRECTIONS: Below are phrases from ten songs that you know. Hum each line to yourself and then write the name of the song or the words of the phrase on the line at the right.
The sample is already marked as it should be.

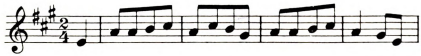
SAMPLE.  *America or My Country 'tis of Thee*

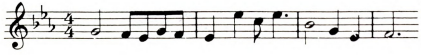
Begin here.

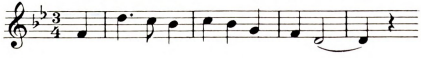
1  1

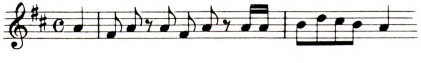
2  2

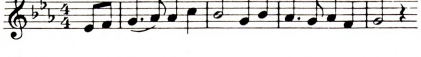
3  3

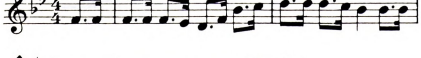
4  4

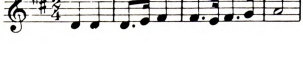
5  5

6  6

7  7

8  8

9  9

10  10

Test 10 Number right.....X5 Score.....

APPENDIX G

Name _____

Class Level _____

College Music Courses Prior to Voice Class _____

_____

		No. of Semesters
History of Music	_____	_____
Conducting	_____	_____
Theory	_____	_____
Others	_____	_____

_____

_____

_____

Number of Persons in High School Graduating Class _____

Number of Music Teachers Employed in High School

Vocal _____ Instrumental _____

Check any of the following which apply to you. If the study occurred while in elementary school, place an E under class level; J for junior high school; S for senior high school; and C for college.

Music Study

		Class Level	Number of Months
Private Piano	_____	_____	_____
Private Instrumental (specify instrument)	_____	_____	_____
Class Piano	_____	_____	_____
Class Instrumental (specify instrument)	_____	_____	_____

Music Courses in Junior-Senior High School

		Class Level	Number of Semesters
Music Literature	_____	_____	_____
Music Theory	_____	_____	_____
General Music	_____	_____	_____
Music Appreciation	_____	_____	_____
Other (specify)	_____	_____	_____

Performance Experience

Junior-Senior High School		Number of years
School Chorus	_____	_____
Band	_____	_____
Orchestra	_____	_____
Small Ensemble	_____	_____
Stage Band	_____	_____
Church Choir	_____	_____
Church Instrumental	_____	_____
Other (specify)	_____	_____

College		
University Chorus	_____	_____
University Orchestra	_____	_____
State Singers	_____	_____
Women's Glee Club	_____	_____
Men's Glee Club	_____	_____
Marching Band	_____	_____
Informal Groups	_____	_____
Other (specify	_____	_____

_____

_____

Recreational Instruments

		Number of years
Guitar	_____	_____
Ukelele	_____	_____
Banjo	_____	_____
Accordian	_____	_____
Other (specify)	_____	_____

_____

_____