# A STUDY TO DETERMINE THE EFFECT OF CERTAIN SCHOOL MUSIC TECHNIQUES ON CHILDREN'S ATTITUDES 

THE IS

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## CHAPTER I

## INTRODUCTION

Statement of Problem
The act of teaching a course does not merely inform the student, but also arouses either pleasure or distaste for the subject. The organism responds broadly and not narrowly to all situations. Everyone acquires not only facts, but also attitudes.

Skinner believes that abiding attitudes are among the most important outcomes of the regulated experiences which the school tries to give. There is a growing tendency to View them as equal or superior to the apparent primary objective of any course of instruction. ${ }^{1}$

How shall we be made to seek beauty, to enjoy good literature or good music? Thorndike's fundamental rule is "Practice with satisfaction." To increase knowledge and skill, one must get more fun out of good music than from poorer specimens in the field. Desired conduct must take place and lead to greater ultimate pleasure than alternative behavior. ${ }^{2}$

[^0]The investigator wished to determine the effect of certain school music techniques on children's attitudes.

## Need for Study

In 1921 the Research Council of the Music Supervisor's Conference set up a standard course of study. This contained aims and standards of attainment for each grade that have served as the potential standards for many schools since. ${ }^{3}$

Many educators feel that the time has come when these standards must be revised. They do not fit the new activity program because the emphasis was placed on notereading at that time. ${ }^{4}$

The fact that we have a "boy problem" in music proves that music has not been vital in the past.

Many of us have been guilty of teaching music -- not children. In the exaltation of an art we have forgotten the child. Instead of telling the child many facts about music, we might use the "Socratic" method of teaching -ask him questions, draw from the sum of his own experience, observation, memory and imagination. ${ }^{5}$
${ }^{3}$ Glenn Gildersleeve, "Standards and the Evaluation and Measurement of Achievement in Masic," Thirty-Fifth Yearbook of the National Society for the Study of Educktion, p. 201.
${ }^{4} J o h n W$. Beattie, "A Need for Re-evaluation of Elementary School Music," Proceedings of the Music Supervisor's National Conference (1931), p. 534 .
$5_{\text {Florence }}$ Cane, "Fostering Creative Work," Progressive Education, VIII (March, 1931), 200.

Ethel E. Holmes' recent experiment challenged the music program by her findings on the popularity of masic. 角sic is fifth, sixth, or seventh among the subjects liked best in the various grades, holding a rank of seven in all grades combined. These results of Holmes' experiment challenges both our teaching and the heavy assignment required, especially since many of the children's comments were based on inability to read notes or to interpret keys. ${ }^{6}$

It is apparent that an attitude against singing does exist. Any experienced teacher of adolescent pupils knows that too large a percentage of boys are banded together in their aversion to singing.

Davison feels that the exaggeration of drill in masicreading is responsible for much of the musical lethargy, since by this drill we have literally destroyed the natural love of music in multitudes of children.?

Kwalwasser emphasizes the fact that although we are concentrating on note reading in our public school music, we are neither developing note readers nor deep enjoyment of masic. "Today public school masic in our elementary schools concerns itself chiefly with notation." 8 Later he

[^1]says, "Elementary school music is not concerned with art, but with the technique of art." 9 Referring to the subject again, he states, "That our teaching procedure needs revising and refining is a notorious fact. ${ }^{10}$

## Proposed Experiment

The investigator planned the use of the parallel-group technique in the experiment. Two groups as nearly equivalent as possible were chosen from the San Gabriel, California, elementary schools, one acting as an experimental group and the other as a control group. The selection of parallel groups was based on grade, chronological and mental age, intelligence quotient, economic status, and race. The experiment extended over one semester of eighteen weeks.

The control group followed the usual plan of study, using The 璺sic Hour and its suggested techniques and working step by step from one skill to another, emphasizing sight-singing, notation, syllables and key signatures. The experimental group had an enriched program consisting of masic integrated with the unit of work, creative music, music literature, toy orchestra, and rhythms.

Tests for attitude were administered both at the beginning and at the end of the semester to determine whether
${ }^{9}$ Ibid., p. 10.
${ }^{10}$ Ibid., p. 133.
or not there was a material difference in the attitudes of the two groups.

The experiment was carried on in three schools of the elementary school district, San Gabriel, California. The four groups were comprised of 128 children. One group included the high-fifth and low-sixth grades; the other included the high-sixth and low-seventh grades. The test used was the Scale of Attitude toward Any School Subject by Ella B. Silance, copyrighted by the Purdue Research Foundation in 1934. Studies have been made concerning the validity and reliability of the attitude scales by H. H. Remmers of Purdue University.

## Plan of the Thesis

Chapter II deals with the means of developing attitude and the place of attitude in the curriculum of today. There is a section devoted to the criticism of attitude development in the traditional school. The chapter concludes with a discussion of what is deemed good attitude.

Chapter III is a presentation of what was actually done in the traditional control group, with descriptions of types of lessons. Chapter IV includes the work presented in the experimental group. Chapter $V$ is an evaluation of the attitudes of the control and experimental groups. Chapter VI includes a short summary, conclusions, and recommendations.

## CHAPTER II

## A CRITICAL ANALYSIS OF THE MEANS OF <br> DEVELOPING ATTITUDE

Place of Attitude Development in the Curriculum The elementaxy school should foster a rich experience with great music in the elementary years through the singing of beautiful songs in order to create the attitude toward masic so essential to enjoyment in later life. If a happy attitude toward music has not been established in the lower grades, little success is to be hoped for in succeeding yeare. ${ }^{1}$

Mursell believes that the aim of public school music is to promote musical activities of various kinds, to induct pupils into amateur practice of music as vocalists, instrumentalists and composers, and to promote the higher, more intelligent, more discriminating, and more deeply enjoyable types of listening. Unless their aims are accomplished, the whole program stands condemned as educationally valueless. Yet a great many schools have as their central aim the teaching of music reading. Such a situation is dis. astrous to attitude. ${ }^{2}$

[^2]The pupil may be acquiring increasing boredom and may be becoming more and more anxious to throw his book out the window, or he may be growing more and more eager to find out about his subject. ${ }^{3}$
"The desire to use a mastery must be the mainspring of motive for acquiring it. ${ }^{4}$ It should be possible to make the music class a place where individually acquired masteries are exhibited and expressed and where inspiration is found for further establishment of such masteries.

Good attitude in a class group can arouse momentum and enthusiasm. It can give musical learning the essential sense of reality. It can foster a sense of cooperative responsibility. A good class attitude demands that a pupil must learn something well enough to present it to his classmates or well enough to be able to do his share in a group entexprise. ${ }^{5}$

Mursell also believes that in musical learning, the attitude and the interest of the learner are far more important in determining what he learns and fails to learn than the number of times he goes over the ground. There is a great difference in learning a song because a child loves it and wants to be able to sing it, and in learning the same song because the teacher prescribes it. ${ }^{6}$

$$
\begin{array}{ll}
3_{\text {Ibid. }}, \text { p. } 176 . & 4 \text { Ibid., p. } 208 . \\
5_{\text {Ibid. }, ~ p . ~}^{\text {Ib }} . & 6 \text { Ibid., p. } 45 .
\end{array}
$$

Music education organized for interest and good attitude is also organized for effort. If our music program succeeds only in boring the pupil, he will turn away from music as speedily as he can. If he gains interest and a positive attitude, he will apply elsewhere what he learns in school.'

The attitude with which a group of children approaches the singing of a song is all-important and has a determining effect on the educative value of the experience. ${ }^{8}$

Harsell and Glenn say that children fail to learn for three reasons:

1. Learners fail to learn because they feel that the task before them ig not worthwhile.
2. Learners fail because of a lack of a positive attitude or definite desire for mastery.
3. Learners fail because of badly directed analysis, and concentration upon the wrong problematic elements. ${ }^{9}$

## Criticism of Attitude Development in the Traditional School

Hany educators have expressed concern over the common assumptions under which teachers have worked since the 1921 plan was inaugurated.
${ }^{7}$ Ibid. 9 p. 319. $\quad{ }^{8}$ Ibid., p. 39.
9 James I. Hursell and Mabelle Glenn, The Psychology of School Music Teaching, p. 62.

Davison states that the indifferent attitude displayed by many young people toward music is wholly incomprehensible until one has made an examination of the aim, methods and materials of modern American music education. 10

The traditional school music has been lacking in skilled motivation. It has stressed long-distance goals, such as facility in music reading or mastery of a technique. All learning should proceed in terms of objectives limited to the range of the pupil's vision and desire. Aims must be set up which can be achieved in relatively short order, such as learning to sing a particular song, to play a particular piece, or to enjoy a particular composition, and analytically attacking and solving only the problems that will directly contribute to the desired result.

The music teacher has often been guilty of wrongly directed analysis in learning. A study phase in learning is always bad when it is carried on in isolation from meaningful situations. Many of the elementary music texts force the child to deal with note and note names, with the make-up of the staff and its notation, with musical theory entirely apart from immediate musical meanings and achievements.

Music education has been criticized for over-forcing. Demanding an impossible standard of achievement, giving no

[^3]help, and premature insistence on speed may produce overforcing. ${ }^{11}$

Mursell believes that no teacher can effectively make a pupil work hard. She can make him unhappily go through the motions. Mere pressure is of very little value. The interested pupils learn, but they would do so anyhow. ${ }^{12}$

Children have been known to be so conditioned in their grade-school experience that they have developed a distaste for music and are blocked in their possible enjoyment of it because of a purely technical approach. ${ }^{13}$

In spite of the time and labor devoted to sight-reading, Davison feels that comparatively few children actually achieve the distinction of being real sight readers. If music educators cannot by the end of the grammar grades produce in quantity what they have been striving for, perhaps the goal is wrong. School music teachers devote far too much time to technique and not enough to music itself. ${ }^{14}$

The teaching of technique has often been an obstacle to good attitude in the traditional school. Properly
${ }^{11}$ Ibid., pp. 66-67.
${ }^{12}$ James $L$. Nursell, Human Values in Education, p. 315.
13 Arthur E. Ward, Music Education for High Schools, p. 22.
$14_{\text {Archibald T. Davison, Music Education }}$ in America, p. 46.
understood and properly taught, it is a means of musical development. 15

酮日ic taught in the schools as a routine of dull, dry lessons on notation deprives it of its obvious appeal and value to the child. Knowledge about music is educative only as far as it supports and renders more significant actual musical experiences. Knowledge is secondary and experience primary. Skills are not ends in themselves. Significant musical experience must be the foundation of the program. When we use school singing chiefly as an opportunity for drill on notation and for practicing reading, we pervert its central purpose and meaning. Yet a great many teachers sincerely believe that this is the central, solid, educationally valuable core of school singing. 16

Marsell does not argue for the entire elimination of all formal drill, but he inaists that it must be concomitant with, rather than preparatory to, the actual experience of musical performance and creation.

Badly directed, clumsy teaching imposes enormous obstacles to the functional use of any subject. Music superVisors have concentrated almost entirely upon techniques and procedures of classroom teaching and have ignored the
${ }^{15}$ James L. Mursell, Human Values in Education, p. 253. ${ }^{16}$ Ibid. , p. 38.
broader issues. The teacher's planning had to be devoted to methods. In the scramble to decide whether or not to begin with the scale, or "pattern" or syllables, the final goal was hopelessly lost. ${ }^{17}$

History, science, mathematics, and music are constantly taught in school without any directed relationship to life activities. Again and again it has been clearly shown that, under such circumstances, the subject-matter learning does not influence or transfer to life activities. . . . Here is one of the great troubles with the conventional music lesson, one which simply teaches the musical techniques and leaves to the pupil the entire responsibility for applying them. 18

Mrsell states further that no teaching technique, however smooth, can make formal materials or dead materials Iive. 19

May V. Seagoe takes the position that although both pleasant and unpleasant experiences lead to learning at the moment, the child will in the future seek those experiences which are positively toned and avoid those with negative association. ${ }^{20}$

Kwalwasser summarizes the weaknesses of the present program of music education: ${ }^{21}$

1. Maic was acceptable to school authorities of

17Ibid., p. 169.
${ }^{18}$ Ibid., p. 173.
${ }^{19}$ Ibid. $p .175$.
$20_{\text {May V }}$. Seagoe, "The Learning Process," California Journal of Elementary Education, XV (February, 1942), 154.
${ }^{21}$ Jacob Kwalwasser, Problems in Public School Music, p. 18.
approximately four generations ago because it had factual and technical aspects.
2. Music educators failed to capitalize on the unique art properties of music education and instead they helped to establish it in the schools merely as another academic subject. In other words, the weakest and least distinctive aspect of music replaced the subtle but stronger art qualities of music education.
3. Publishers of music books aided in establishing the music reading objective by issuing music texts based upon music reading problems.
4. Tradition, based upon the teaching practices of four generations of music teaching history, has made its unfortunate contribution. The scientific and not the artistic considerations now dominate masic education.
5. The type of training given to prospective teachers in the public schools has contributed to mal-education in music.
6. We find that what may be easy to teach may unfortunately be hard to learn. The easy and logical schemes of teaching "problems" are not the correct psychological and aesthetic schemes of teaching music.
7. Harking and grading information is so much easier than evaluating the appreciative response that teachers have been encouraged in making musical knowledge rather than musical enjoyment the basis of music education.

Kwalwasser believes that "the child has a right to enjoy his daily music lesson daily. 222

Norton and Norton have listed some basic concepts in music education which should make this ideal function: 23

1. While the teaching of technical music terms is important, it is a means to an end. . . .

22
Ibid., p. 21.
${ }^{23}$ John Norton and Margaret Norton, Foundations of Curriculum Building, p. 408.
2. The public school must train the listener as well as the producer. . .
3. The music program must be closely coordinated with the music activities of the community. . . .
4. Music should be an integral part of the whole school program. . . .
5. The music course should be organized on a psychological rather than a logical or technical basis.
6. Young children should have opportunity for rhythmic response to music. Rhythmic response should never be drill. The stimulus for action should come from a feeling of pulsation within the child. . . .
7. Songs which children learn should have intrinsic musical worth as well as charm.
8. Standards cannot be raised by external edict, but by internal development.
9. Creative work is not a thing apart from, but a concomitant of, school masic activities. . . While the main purpose of every music lesson is to give immediate aesthetic satisfaction through passive or active participation, the teacher must see to it that the lesson also adds to the pupil's knowledge and skill, and thus prepares him for more complete participation. 24

The same authors also give two objectives of elementary music education gleaned from a review of literature on the subject:

1. To develop a love and appreciation of music and to provide every pupil opportunity to enjoy participation in its expression.
2. To provide for emotional development. 25

The psychological approach to music provides for activities and materials suited to the child's level and rate of development. Such an approach also gives opportunity for creative work.
${ }^{24}$ Ibid., p. 412.
$25_{\text {Ibid }}$.

The interpretation of all learning is influenced by acquaintance with the arts, and masic as a cultural subject has the power to enrich the entire school program. Inner meanings and appreciations are found in music itself when the social studies background is a familiar one. Growth comes about through the reconstruction of experience.

The teacher should provide opportunity for many happy and successful experiences for the child in relation to music. Skilful teaching can restore music appreciation which may have been dulled by previous treatment. Appreciation can never be forced upon a child, but it can be induced by the skilful teacher.

A school music program which concerns itself with the development of favorable attitudes toward music must afford a wide range of activities. Enjoyment and understanding of music must come about naturally through actual participation rather than through listening to and being told about music.

If we have as an ultimate objective that the boys and girls shall develop a desire for more music, we will choose material with a wider appeal than we would if we feel that the biggest thing that should come is skill in reading music. ${ }^{26}$

The curriculum should provide a wide variety of musical experiences -- singing, playing an instrument, singing games,

26 Alice Bevins, "What Materials Shall Be Used to Teach Music in Elementary Schools?" Education, LVI (May, 1936), 536.
making songs, free bodily expression to music heard, dramatizing, making instruments on which to play tunes made, reading music, reading about music and musicians. ${ }^{27}$

Fox says that every child should experience music in seven ways. He should sing, play, read, compose, dramatize, dance, and appreciate music. 28

The primary and controling aim of a program of music education in the school is effectively and intelligently to promote musical amateurism. 29

What Is Deemed Good Attitude
A positive attitude is of great importance in any educational situation. Learning should be made a pleasure, not a task. The engagement of the will is wholly essential for genuine education. Hard work is not educative unless it is self-initiated.

Pupils should acquire a positive attitude toward the particular maical undertaking in hand. The whole setting must be planned to generate a firm belief that here is some. thing well worth doing, something truly desirable and enjoyable.
${ }^{27}$ Ibid.
${ }^{28}$ Lillian Hohr Fox and L. T. Hopkins, Creative School鮊sic, p. 14.

29 James I. Hursell, "A Balanced Curriculum in 錎usic Education," Education, LVI (May, 1936), 521.

Pupils should acquire a positive attitude toward masic in general. The effect of the masic work upon the pupils should be to incite them to wish to hear more music, to seek opportunities for musical performance, to desire to create music.

Pupils should acquire the attitude of regarding and using music as an expressive art. They should gain a sense of artistic effects and the attitude of saying something to somebody in the tonal medium.

Pupils should acquire the attitude of desiring the highest attainable degree of perfection and of being dissatisfied with musical results less excellent than they are able to achieve. The proper attitude in approaching the acquisition of technique is that one's technical limitations limit musical enjoyment, and so must be overcome by concentrated effort if necessary. ${ }^{30}$

Interest and impulse rank high among the factors of learning. The pupil who is eager to learn tends to make discoveries, to find for himself new and better methods. Therefore the emphasis should be on making the task before the pupil interesting. Formal drill should be used only in an incidental way as an aid which the interested pupil will recognize as necessary and so will appreciate.
${ }^{30}$ James I. Mursell, Human Values in Masic Education, p. 177.

According to Mursell, good attitude is the will to learn. The will to learn sharpens the whole analytic or study phase of learning. The will to learn also produces annoyance with failure. ${ }^{31}$

The first thing the teacher should do is to undertake to produce favorable attitudes in the classroom.

Every piece of learning should be directed as a specific project, and a definite will to learn should be aroused in connection with it. This is brought about by proper motivation, originating from the teacher. 32

There are four principal sources of motivation in the music class. The attitude of the teacher as she looks for and appreciates effort and willingness without sacrificing standards is an important source of motivation. The presence of the group is a powerful source of motivation. The group arouses every child's natural desire to conform, his desire to excell, his desire to cooperate and his desire for group approval. A sense of increasing mastery is another source of motivation. Last of all is the motivetion derived from the music itself.

Every new musical project should be undertaken with an effective participant attitude, a will to learn, and in such a way that each member of the class feels inspired to attack the project.

$$
3^{31} \text { Ibid. } \text { p. } 61 .
$$

The emotional factors in vocal control are extremely important. Unpleasant feelings produce tenseness and a preparation for violent action, while pleasant feelings tend to result in relaxation and freedom from strain. It is evident that anything which interferes with the pupil's pleasant feelings works against proper voice control. 33 Good attitude involves the desire to learn a certain technique because the child wishes to use that technique that he may continue doing the thing which is of great interest to him.

Good attitude is a purposeful attitude toward music which will insure further growth outside of school if the music program has been broad, deep, vital, and full of meaning for the individual. ${ }^{34}$
${ }^{33}$ Ibid., p. 291.
34Beatrice Perham, 冓sic in the New School, p. 62.

CHAPTER III

# PRESEWTATION OR WHAT WAS ACTUALIY DONE <br> IN THE EXPERIMETTAL GROUP 

## High-Fifth and Low-Sixth Grades

Both the experimental and control groups were studying about pioneers and the westward movement. There was much discussion, reading and dramatic play about Indians in the experimental group. The children discovered two Indian songs in their music books, one a song of healing and the other a ghost dance of the plains Indians. They asked to learn both the English and Indian versions. There was a discussion of vocables, of accent, and of ways in which Indian music differed from other folk music that the children knew. One of the boys went to the cupboard to get the drum he had made in work period. Everyone begged to have his turn at creating a drum beat for one of the songs. The boys and girls sang the songs over and over to help each other.

At a later lesson the teacher introduced the idea of making a drum rhythm of the accents in one's name. The children worked out their own names and were amazed to find that each name made a different rhythm.

A few days later the music teacher was asked to come to see a play that had been planned by four of the boys. The
play turned out to be an Indian ceremonial in dramatic play. There was no talking, but there were dramatization, singing, and dancing. The dancing proved to be especially interesting. Each boy improvised his own steps and the drummer worked seriously and lustily at his task.

The class had been writing stories based on their Indian study. It was suggested that the music teacher might help them select one or two to set to music. The children felt that what they needed most at the time was a prayer for rain for their play period. A phrase was chosen from an individual story and the second line was added by the class.

They started by chanting the lines many times to the accompaniment of the drum. When the teacher asked for a melody for the first phrase, several volunteered. The class sang over each suggested melody and voted on the one they thought was best. Then the group sang that phrase together and several other children helped to add the next phrase.

A few days later the children asked to write down their song. The teacher drew a staff on the board and wrote the words underneath. Through the use of syllables, the highest and lowest notes were found and the class decided to start the song on the third space. Then they located "do." As each phrase was sung, a pupil placed whole notes in the correct position on the staff. While the class sang again,
other pupils marked the accents that formed the measures. The next step was to determine the key signature and give the notes their proper values. When the song was completed, staff paper was passed for each child to make his own copy. A comittee was chosen to make a large copy on tagboard to be put up in the classroom.

The class also wrote an Indian lullaby, using the same procedure.

About once a week the class played a music game. Monitors passed cardboard staves and an envelope of eight colored notes to each boy and girl. The teacher told them where to place "do" and sang a tune while the class placed the notes where they belonged. Each tune was sung twice; the second time each pupil checked his work by pointing to the notes and singing with the group. After a few minutes a pupil was chosen to lead the game and he, in turn, chose someone else. Often one of the tunes would remind the class of a song; so they would take time to sing it. Several in the class were astonished to find that tunes were so easy to build.

After the class had learned several simple folk songs, the autoharp was introduced. The teacher played the instrument to accompany their songs. The children were very curious and asked many questions about the instrument; so the teacher mimeographed a plan of the fingerboard and a set
of directions for every child for playing "Billy Boy." The class already knew how to sing the song; so after an explanation by the teacher the class sang and played together at their paper keyboards while the teacher played the autoharp. Then as each child felt that he was able to play the song on the instrument itself, he was permitted to try the autoharp while the other children continued to practice. Enthusiasm ran high and the children were allowed to practice on the instrument at recess and after school. Other songs were added to the class repertoire as the children asked for them. They learned that they could accompany most songs in the keys of $F, C$, and $B^{b}$ and that they were using the I, IV and V chords in those keys.

As a culmination, the class wrote a play, which included several authentic songs. Five autoharps were used for the occasion while the class sang "Sweet Betsy from Pike," "Aunt Dinah's Quilting Party," and "The Blue Juniata." The introductions and interludes in the accompaniment were all planned by the children.

During one portion of their work, the experimental group concentrated a few weeks on the study of lumbering and what the forests meant to the pioneers. From their research they found that the pioneer had many processes to go through before his home could be completed. The class gradually worked out a sequence of rhythms expressing their
idea of the building of a $\log$ cabin. The first day, the steps they wished to portray were worked out on the blackboard and different people gave their ideas for interpretation of the forest itself. Each child was given his opportunity to express his idea bodily. The class evaluated and discussed each one and finally chose those they felt were best.

On the second day, they developed the forest with the breeze blowing through the trees and birds singing. The children tried being trees themselves and using their arms for branches. The breeze was first portrayed by one girl running lightly through the forest while the branches swayed gently. Then one boy who was dissatisfied with that interpretation went to the instrument box and brought out two xylophones. He experimented until the class was satisfied to use rippling glissandos on the xylophone for the breeze.

In the next step, the pioneer came into the forest to locate and mark the trees to be felled. His footsteps were marked by sandpaper rubbing against a block of wood. As the axe marked the tree, a Chinese woodblock was used for the sound effect. The children worked hard to synchronize the motions and sound effects and to please the whole class. Each boy or girl who felt he had something to offer was given a chance to portray his or her ideas of how the pioneer would act.

Each succeeding day they reviewed the rhythms and added the next step.

After the rhythms were complete, several other grades were asked to watch them in the auditorium. A second part to the program was the housewarming after the cabin was built. Several songs and dances were used. Barbara played "Old Dan Tucker" on the harmonica.

The boys and girls liked the song about Captain Jinks very much, but they were puzzled at the numerous versions which were brought to class from parents, stories, and Varied song books. The discussion led to a lesson on folk songs and art songz. The teacher played David Guion's arrangement of "Turkey in the Straw," "Eleanoy," and "Going to Boston" as part of the folk music discussion.

The music teacher volunteered to teach a dance to "Captain Jinks." New words were learned to tell the dancer what steps he should be doing.

After the dance to "Captain Jinks" was mastered, the Virginia Reel was introduced. Two sets were started at one time in the classroom. There was no piano, so the remaining people sang for the dancers. Choosing the songs to be used became quite a problem because everyone tired of singing one tune so long. After much counting, clapping and skipping they decided to use "Sourwood Mountain," "Shuckin' of the Corn," "Buffalo Gals," "Going to Boston," "Captain Jinks,"
and "Skip to lly Lou." The song was changed when each new couple took their turn. It was discovered that only songs having two beats to the measure could be used for the dance.

A complete set of Stephen Foster song books was loaned to the class for several weeks. They enjoyed renewing their acquaintance with songs they had heard and learning some of the less well known ones. The books also contained stories of the origin of the songs.

Other memory songs learned by the class were as follows:
"A Pledge" -. two-part
"Hail, Columbia:" -- two-part
"Cl'ar the Kitchen"
"Turkey in the Straw"
"The Sod Shanty"
"Blue Bells of Scotland" -- two-part
"Long, Long Ago" -- two part
"The Barn Dance"
"Harvest Song"
"The Blue Juniata"
"Nai No-Otz"
"Wanagi-wacipi Olowan"
"Sweet Betsy from Pike"
Records used included: ${ }^{1}$

Number
P 41

22174

19964
20638

Name
"Music of the Americas" "Miss McCloud's Reel" "Money Musk" "Old Dan Tucker" "Pop Goes the Weasel" "Deer Dance" "Butterfly Dance" "Shuffling Feet" "Turkey in the Straw" "Medley of Reels" "Quadrilles"

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Wong created by the experimental group in the highfifth and low-sixth grades.

High-Sixth and Low-Seventh Grades
Both the experimental and control groups studied the Middle Ages during the second semester. The music work of the experimental group was integrated with the social studies work as much as possible.

From reading references to troubadours and trouveres the class worked back to the beginnings of music in medieval times. Many books were found that contained material on the reading level of the class. Records were played of Gregorian chants and the music of Palestrina and Praetorius. The group studied two numbers from Palestrina, "Summer is I-cumen in," "The Crusader's Hymn," and "The Three Kings." "Duke of Harlborough" and "Sir Eglamore" illustrated the ballad as sung by the troubadours.

During the discussion of instruments, the teacher mentioned the recent revival of shepherd's pipes in England. Thomas Corey of Oakland, California, had succeeded in making perfectly tuned pipes of bamboo. His pupils had been able to make soprano, alto, tenor and bass pipes and to play contrapuntal music.

The class wrote to Corey and he sent them full instructions and one treble pipe. The children were elated and immediately began to bring in bamboo. The instructions had to be followed exactly or the pipes would not be in tune. All pipes were made in the key of $D$ so the class could play
together. It took many days of listening and delicate cut. ting to get each of the six holes in tune. Each operation had to be perfect. The children learned how to raise and lower the pitch by filling in or burning the hole larger.

When the first pipes were complete, the teacher helped a committee to work out a large fingering chart. Because the work was tedious, each child worked at his own rate of speed. He learned first to play the scale of $D$ and then went to various songs. Among them were "America, the Beautiful," "The Ashgrove," "Frere Jacques," and "Old Folks at Home." They practiced at recess, at noon, and at home. After a little work, every child was able to produce a round mellow tone on his pipe. As soon as each pupil learned a song, he was allowed to play it for the class. At the end of the semester they played in assembly as a group and chose a few boys and girls to play solos.

Other memory songs learned by the class were as follows:

```
"Farandole" -- two-part
"Gondoliera" -. two-part
"Dawn at Carmel" -- three-part
"Golden Slumbers" -- three-part
"Amaryllis" -- three-part
"Market Day" -- two-part
"Stars of the Summer Night" -- three-part
"America, the Beautiful" -- three-part
"Santa Lucia" -- three-part
```

Records used included:

Number
21623
21622
21621
20152

Name
"Praetorius"
"Palestrina"
"Gregorian Chant"
"Duke of Marlborough"
"Crusader's Hymn"

## CHAPTER IV

## PRESENTATION OF WHAT WAS ACTUALIY DONE

IN THE CONTROI GROUP

High-Fifth and Low-Sixth Grades
The procedures followed in this class adhered closely to the type of lessons and outlines in the teacher's guide for the 璺sic Hour Series. Nearly every class period was started with tone-blending drills associated with the practice of the two-part songs. These drills consisted of sustaining intervals, usually thirds and sixths. In attacking a new song, the class tried to sing both parts at once by syllables from the first lesson until a difficult figure would demand drill in one part alone.

During the first month, the pitch names of the lines and spaces were learned. The topic of sharp chromatics was stressed in tonembending drills and in the observation songs. The dotted quarter-note beat was the time study. Songs were introduced for Washington's and Lincoln's birthdays. Two minuet records from the music appreciation list were used.

The next month brought more advanced studies in the dotted quarter-note beat, more tone drill and added practice
in the pitch names of the lines and spaces. The waltz was the music appreciation topic and appropriate records were used.

The next month included new reading and study songs using flat chromatics. The names of keys on the piano keyboard were learned through use of the diagram in the back cover of the text. The children read stories of Mendelssohn and Schumann and listened to their compositions played on the victrola.

Stephen Foster was the topic for the next month. The children learned "My Old Kentucky Home," UUncle Ned," and "Old Black Joe." They wrote stories on Foster's life for their notebooks. The piano was introduced from the list of correlating phonograph records.

Rounds were occasionally used to stimalate interest in two-part singing.

The class learned to dance the minuet in connection with the study of Mozart's "Minuet."

Other memory songs learned by the class were as fol10ws:

$$
\begin{aligned}
& \text { "Red, White, and Blue" -- two-part } \\
& \text { "Blue Bells of Scotland" -- two-part } \\
& \text { "Sailor Song" } \\
& \text { "o Worship the King" -- two-part } \\
& \text { "The Beautiful Blue Danube"-- two-part } \\
& \text { "The Crusader's Hymn"-- two-part } \\
& \text { "In Long-ago Plymouth" } \\
& \text { "Minuet" - two-part } \\
& \text { "Sailors of the S. A." } \\
& \text { "Home on the Range" } \\
& \text { "Yankee Doodle" }
\end{aligned}
$$

The following records were used:

## Number

| 6584 | "Blue Danube Waltz" -- Strauss |
| ---: | :--- |
| 6823 | "Anitra's Dance," Peer Gynt |
| 35793 | "Theite--Grieg Death of Ase" Peer Gynt |
|  | Suite -Grieg |
| 1143 | "Moment Misical" |
| 6650 | "Mignon Overture" - Schubert |

High-Sixth and Low-Seventh Grades
The firgt month of the semester included the study of modulation. The procedure suggested in the Music Hour Teacher's Guide was followed. Modulations were pointed out in "The Beautiful Blue Danube Waltz" and in "My Heart's in the Highlands." Changes of key were noted in the study of "Farandole" and "Market Day." Both songs were learned in two parts. The teacher tried to give an awareness of key center by helping the children to sustain a tone and mentally change the syllables.

The group listened to the Standard Symphony Broadcast once a week. There was usually a discussion of the numbers to be heard prepared by the teacher. Strauss and Mendelssohn were discussed through the singing of their songs and listening lessons. The bassoon was introduced through recording, pictures and an oral report.

At the beginning of each class period there was a toneblending drill. The teacher asked for the key signature and
position of "do" and starting tone for parts before singing each song. Sometimes at the end of a lesson, there remained time enough for a choice song from the class.

During the next month there was continued work with modulations, study songs and reading songs in two and three parts. The time problem was the quarter-note beat with four equal notes to the beat. The class did scale building in the sharp keys by the method of building tetrachords containing two whole-steps and one half-step.

The class learned "God Be Our Guide" in three parts, "The American Hymn" in three parts, and "The Tarantella" in unison.

The study of triplets was introduced in "The Fisherman." There was continued work in scale building. "Amaryllis" was taught as a reading song in which special emphasis was given to interpretation.
"The American Hymn" was sung for an assembly program in April; so the group had special drill in that song.

In their study of Schubert, the class learned "Wandering" and "Forth to the Headows" and listened to his "Serenade" and "Ave Maria."

During the next month the class sang "Gondoliera," "Swing Low, Sweet Chariot," and "Soft Is Their Slumber." After they learned "The Anvil Chorus," reports were given on "Aida" and records played from the opera.

During the last month the group learned "America, the Beautiful" in three parts as a memory song. They Iistened to the complete Peer Gynt Suite and studied the life of Grieg.

Other memory songs learned by the class were as follows:
"Amaryllis" -- three-part
"Sweet the Angelus Is Ringing"
The following records were used:
Number
Name
1361 "Gavotti" from Mignon -- Thomas
6927
"Serenade" -- Schubert
"Ave Maria" -- Schubert
20521 "Spanish Dance, No. 1" -- Moszkowski
6648
"Pomp and Circumstance" -- Elgar
20614
1296
"Waltz in D flat" -- Chopin
"Hungarian Dance, No. 6" -- Brahms

## CHAPTER V

EVALUATION OF ATTITUDES OF THE TWO GROUPS

The control group and the experimental group were selected by choosing two regular classes. The reliability of this grouping was validated by comparing the ages, intelligence quotients and music attitudes of the two groups. The groups were comparable on these three items, as will be show in the tables, but the individuals in the two groups could not be matched because of the variability in intelligence quotient and masic attitude.

In order to make the experiment more valid, the same teacher taught both groups and the children did not know that an experiment was being conducted. This fact was kept from them because it was felt that they should not be stimulated beyond the stimulation given by the technique if the experiment was to be valid. One hundred minutes a week were spent on music by each class.

The only factor that might have influenced the study was the fact that the teacher could have been influenced by her own feelings toward a particular teaching technique. Other factors which could influence such an experiment were music study with private teachers, parental interest in
music, and the emphasis on music in the home. However, since the groups were selected at random, it was felt that these groups were fairly well balanced.

The mean for the test scores on Form A of the standardized test proved to be very much alike for the experimental and control groups. Neither group seemed to rank above the other in attitude and appreciation at the beginning of the semester.

There was very little difference in the scores for the girls of both groups. The mean for the control group exceeded that of the experimental group by only .051 point.

The boys of the two groups were found to be at practically the same level also. The mean for the experimental group exceeded that of the control group by . 012 point.

The sixty-four boys and girls in each group of both grades showed a total difference of only . 019 at the beginning of the semester. That difference was in favor of the control group.

The scores for the test given at the end of the semester revealed the changes discussed in the following paragraphs.

In Form A, given February 16, 1942, the mean for the boys in the high-fifth and low-sixth grades experimental group was 6.945. The mean for the boys in the control group was 7.256. In Form B, given June 15, 1942, the mean for the boys in the experimental group was 8.456 . The mean for the
control group was 7.058. The experimental group showed a gain of 1.511 points, while the control group showed a loss of .198 point.

The mean for the boys in the high-sixth and low-seventh grades experimental group in Form A was 7.960. The mean for the control group was 7.560. In Form B, the mean for the experimental group was 8.460 , showing a gain of .50 . The mean for the control group in Form $B$ was 7.720 , showing a gain of .16.

In Form $A$, the mean for the girls in the high-fifth and low-sixth grades experimental group was 7.822. The girls in the control group had a mean of 8.279. In Form B, the mean for the experimental group was 8.658 , showing a gain of .836 . The mean for the girls of the control group in Form B was 8.427 , showing a loss of .248 .

The boys of the high-fifth and low-sixth grades experimental group showed greater gain through their tests than did the girls of the same grades.

The girls of the high-sixth and low-seventh grades experimental group had a mean of 8.433 and in Form $B$ a mean of 8.600 , thus showing an increase of .167 . The girls of the high-sixth and low-seventh grades control group made a mean of 7.967 on Form $A$, and on Form B a mean of 7.934 , thus showing a loss of .033. The total gain was .659 point more
for the high-fifth and low-sixth grade girls than for those of the high-sixth and low-seventh grades.

In Form A, the mean for the thirty-three boys in the experimental group in the high-fifth and low-sixth grades and in the high-sixth and low-seventh grades was 7.461. The thirty-three boys in the control group had a mean of 7.449. The mean for the experimental group in Form $B$ was 8.458. The mean for the control group in Form $B$ was 6.791. The boys in the experimental group showed a gain of .997 . The boys in the control group showed a loss of. 658 .

The thirty-one girls in the experimental group of both the high-fifth and low-sixth grades and the high-sixth and low-seventh grades made a mean of 8.059 on Form $A$, while the same number of girls in the control group made 8.110 on Form A. In Form B, the mean for the girls in the experimental group was 8.636 , showing a gain of .577 point. The mean for the girls of the control group in Form $B$ was 8.162, showing a gain of .052 point.

It was interesting to note that the boys of the experimental group made . 420 points more gain than did the girls of the experimental group, which might indicate that boys respond to music integrated with their other interests better than girls. Or, the points in favor of the boys might indicate that girls accept formal drill and unrelated work more passively than boys.

The mean for Form $A$ of the high-fifth and low-sixth grade boys and girls in the experimental group was 7.455. The mean for the high-fifth and low-sixth grade boys and girls in the control group was 7.790. The mean for the experimental group in Form B was 8.560 , showing a gain of 1.105. The mean in Form $B$ for the high-fifth and Iow-sixth grade control group was 7.292, showing a loss of . 498.

The mean for Form $A$ of the high-sixth and low-seventh grade boys and girls in the experimental group was 8.171. The mean for the high-sixth and low-seventh grade boys and girls in the control group was 7.741. The mean for the experimental group in Form $B$ was 8.522, showing a gain of .351. The mean in Form $B$ for the high-sixth and low-seventh grade control group was 7.815, showing a gain of .074.

The mean for the sixty-four boys and girls in the experimental group of the high-fifth and low-sixth grades and the high-sixth and low-seventh grades, as computed for Form A, was 7.750. The mean for the sjxty-four boys and girls in the control group in the high-fifth and low-sixth grades and the high-sixth and low-seventh grades was 7.769. In Form B, the mean for the whole experimental group was 8.560. In Form B, the mean for the whole control group was 7.513. The experimental group showed a gain in attitude of . 810 point for the semester. The control group showed a loss of .256 point during the semester.

The interpretation of the mean indicates that the experimental group of the high-fifth and low-sixth grades showed definite improvement in attitude, while the control group of the same grades showed a definite loss. The experimental group of the high-sixth and low-seventh grades showed slight improvement. The control group of the same grade showed a few points less improvement than the experimental group.

Out of the twenty pupils who tested as having the highest intelligence quotients, only two were found to have made low scores in the first attitude test. Those two pupils were in the control group and failed to raise their scores at the end of the semester.

Out of the twenty pupils who tested as having the lowest intelligence quotients, ten made average or high scores, and ten made very low scores in the attitude test. Although quality of singing was not a part of this study, the investigator judged the singing of the experimental groups to be equal to or better than the singing of the control group. Because they had helped to choose songs and plan their work, the experimental group maintained a light, live, spontaneous tone quality.

Sight reading ability was not an object of study in this experiment, but such a topic might be worthy subject for research under the two teaching techniques. It was the
opinion of the investigator that the experimental group gained as much or more through actually using the tools of music building to put their songs on paper and learning to play them than the control group did in their semester of drill.

Table 1 shows the chronological age, mental age and intelligence quotient of each child in each group in the high-fifth and low-sixth grades. The pupils of the control and experimental groups were not matched but numbers were assigned for convenience in recording the four factors. The data in the table are interpreted to mean that so far as intelligence, age, grade, and music appreciation are concerned, the two groups are comparable. There was no effort to match individuals because there was such variation in intelligence quotient and in masic appreciation. Throughout all the tables, the letter $E$ will be used to indicate the experimental group, and the letter $C$ to indicate the control group. Likewise, C.A. indicates chronological age; M.A., mental age; and I.Q., intelligence quotient. Only those pupils were used in the experiment who were in school during the whole semester.

Table 2 shows the data of the experimental and control groups in the high-sixth and low-seventh grades under the headings of chronological age, mental age, intelligence quotient, and grade.

In order to analyze further the attitude of the two groups at the beginning of the study and to determine the improvement that was made during the semester, Table 3 is given. It indicates the test scores for pupils in the highfifth and low-sixth grades for both the beginning and ending of the semester and the gain or loss for each pupil.

Table 4 gives the test scores of the pupils in the high-sixth and low-seventh grades at the beginning and end of the semester and the gain or loss for each pupil.

Table 5 shows the distribution of the pupils on each form of the Silance Attitude Test in each group of the highfifth and low-sixth grades on the basis of the scores made.

Table 6 shows the distribution of the pupils on each form of the Silance Attitude Test in each group of the highsixth and low-seventh grades on the basis of the scores made.

Table 7 shows the median, upper extreme, lower extreme, quartile three, and quartile one for each form of the attitude test for each group of the high-fifth and low-sixth grades and the high-sixth and low-seventh grades.

Table 8 shows that both the experimental and control groups were at the same level of attitude toward music at the beginning of the study. It also shows the mean differences at the end of the semester for each group and combinations of groups.

## TABLE 1

CHRONOLOGICAL AGE, MENTAL AGE, AND TNTELLIGENCE QUOTIENT OF EACH CHILD IN EACH GROUP IN THE HIGH-FIHTH AND LOW-SIXTH GRADES


Boys

| 1 | $10-7$ | $10-11$ | $10-9$ | $10-7$ | 102 | 97 | 5 A | 5 A |
| :---: | :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 2 | $10-3$ | $10-2$ | $10-7$ | $10-6$ | 104 | 104 | 5 A | 5 A |
| 3 | $10-9$ | $10-1$ | $12-0$ | $11-9$ | 112 | 117 | 5 A | 5 A |
| 4 | $10-11$ | $11-4$ | $12-4$ | $12-5$ | 113 | 110 | 5 A | 5 A |
| 5 | $10-4$ | $10-9$ | $11-11$ | $12-0$ | 116 | 112 | 5 A | 5 A |
| 6 | $10-10$ | $10-0$ | $12-6$ | $12-3$ | 116 | 123 | 5 A | 5 A |
| 7 | $10-10$ | $10-10$ | $9-9$ | $9-11$ | 98 | 92 | 5 A | 5 A |
| 8 | $10-4$ | $10-1$ | $10-5$ | $10-9$ | 101 | 97 | 5 A | 5 A |
| 9 | $10-7$ | $10-10$ | $10-1$ | $9-10$ | 96 | 91 | 5 A | 5 A |
| 10 | $10-6$ | $10-4$ | $10-2$ | $10-1$ | 97 | 98 | 5 A | 5 A |
| 11 | $10-3$ | $10-11$ | $10-11$ | $11-0$ | 108 | 101 | 5 A | 5 A |
| 12 | $10-2$ | $10-7$ | $10-2$ | $10-0$ | 100 | 95 | 5 A | 5 A |
| 13 | $10-6$ | $10-4$ | $10-3$ | $10-6$ | 98 | 102 | 5 A | 5 A |
| 14 | $10-6$ | $10-0$ | $11-6$ | $11-1$ | 112 | 111 | 5 A | 5 A |
| 15 | $10-11$ | $10-4$ | $11-5$ | $11-3$ | 105 | 109 | 6 B | 6 B |
| 16 | $11-4$ | $11-1$ | $11-8$ | $11-11$ | 103 | 108 | 6 B | 6 B |
| 17 | $11-5$ | $11-1$ | $13-7$ | $13-6$ | 119 | 122 | 6 B | 6 B |
| 18 | $11-1$ | $11-6$ | $12-0$ | $12-5$ | 109 | 108 | 6 B | 6 B |

Girls

| 19 | $10-4$ | $10-3$ | $11-1$ | $11-0$ | 107 | 107 | 5 A | 5 A |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 20 | $10-3$ | $10-7$ | $10-7$ | $10-8$ | 99 | 101 | 5 A | 5 A |
| 21 | $11-1$ | $10-10$ | $12-10$ | $12-8$ | 116 | 117 | 5 A | 5 A |
| 22 | $10-5$ | $10-3$ | $11-1$ | $11-0$ | 107 | 108 | 5 A | 5 A |
| 23 | $10-6$ | $10-6$ | $11-10$ | $11-11$ | 113 | 114 | 5 A | 5 A |
| 24 | $10-8$ | $10-5$ | $10-10$ | $10-10$ | 102 | 104 | 5 A | 5 A |
| 25 | $10-10$ | $10-8$ | $10-10$ | $10-9$ | 100 | 101 | 5 A | 5 A |
| 26 | $10-5$ | $10-4$ | $9-7$ | $10-1$ | 92 | 98 | 5 A | 5 A |
| 27 | $10-8$ | $12-3$ | $13-1$ | $13-7$ | 123 | 111 | 5 A | 5 A |
| 28 | $10-5$ | $10-3$ | $12-4$ | $12-4$ | 119 | 121 | 5 A | 5 A |
| 29 | $10-8$ | $10-4$ | $13-1$ | $12-3$ | 123 | 119 | 5 A | 5 A |
| 30 | $10-4$ | $11-5$ | $10-11$ | $11-0$ | 106 | 106 | 5 A | 5 A |
| 31 | $10-5$ | $9-11$ | $10-10$ | $10-7$ | 104 | 107 | 5 A | 5 A |
| 32 | $10-7$ | $10-4$ | $12-2$ | $10-6$ | 115 | 102 | 5 A | 5 A |
| 33 | $10-1$ | $10-0$ | $11-7$ | $10-9$ | 115 | 108 | 5 A | 5 A |
| 34 | $10-8$ | $11-4$ | $13-1$ | $11-10$ | 111 | 104 | 6 B | 6 B |
| 35 | $11-2$ | $11-1$ | $10-5$ | $10-6$ | 94 | 95 | 6 B | 6 B |
| 36 | $11-5$ | $10-6$ | $11-0$ | $11-0$ | 97 | 105 | 6 B | 6 B |
| 37 | $11-4$ | $11-2$ | $11-1$ | $11-4$ | 98 | 102 | 6 B | 6 B |

## TABLE 2

CHRONOLOGICAL AGE, MENTAL AGE, AND INTELIIGENCE QUOTIENT OF EACH CHILD IN EACH GROUP IN THE HIGH-SIXTH AND LOW-SEVENTH GRADES

| Pupil | C. A. |  | M. A. |  | I. Q. |  | Grade |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | E | C | E | C | E | C | E | C |

Boys

| 1 | 10.6 | 11-6 | 8.11 | $9-7$ | 85 | 84 | 6A | 6 A |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 11.8 | 11-9 | 12-4 | 12-1 | 106 | 104 | 6A | 6A |
| 3 | 10-4 | 11-11 | 12-2 | 13-7 | 118 | 114 | 6 A | 6A |
| 4 | 11.0 | 11-10 | 11-3 | 11-4 | 103 | 96 | 6 A | 6 A |
| 5 | 12-0 | 11-6 | 10-4 | 10-4 | 86 | 90 | 7 B | 7 B |
| 6 | 11-3 | 11-8 | 11-4 | 11-5 | 101 | 98 | 7 B | 7 B |
| 7 | 11-8 | 11.8 | 13-10 | 13-9 | 119 | 118 | 7 B | 7 B |
| 8 | 10-5 | 10-7 | 9-7 | 10-3 | 92 | 89 | 7 B | 7 B |
| 9 | 11-8 | 12-0 | 11-8 | 12-1 | 100 | 101 | 7 B | 7 B |
| 10 | 12-11 | 11-11 | 10-11 | 11-3 | 85 | 95 | 7 B | 7 TB |
| 11 | 12.9 | 11-5 | 9-8 | 9-4 | 76 | 82 | 7 T | 7 B |
| 12 | 11-8 | 11-8 | 14-1 | 13-10 | 121 | 119 | 7 B | $7 B$ |
| 13 | 13-11 | 12-3 | 11.6 | 11-3 | 83 | 92 | 7 TB | 7 F |
| 14 | 13-8 | 12-3 | 12-6 | 12-4 | 92 | 101 | 7 TB | 7 B |
| 15 | 12-6 | 11-6 | 10-7 | 10-9 | 85 | 94 | 7 F | $7 B$ |

Girls

| 16 | $11-3$ | $11-3$ | $9-9$ | $9-6$ | 87 | 85 | 6 A | 6 A |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 17 | $12-5$ | $11-7$ | $12-7$ | $12-7$ | 102 | 109 | 6 A | 6 A |
| 18 | $11-9$ | $11-3$ | $13-4$ | $13-0$ | 114 | 116 | 6 A | 6 A |
| 19 | $11-1$ | $11-3$ | $12-3$ | $12-5$ | 111 | 111 | 6 A | 6 A |
| 20 | $11-5$ | $12-1$ | $14-4$ | $14-3$ | 127 | 125 | 7 B | 7 B |
| 21 | $11-5$ | $11-11$ | $11-7$ | $13-1$ | 102 | 110 | 7 B | 7 B |
| 22 | $11-6$ | $11-11$ | $12-0$ | $12-0$ | 105 | 102 | 7 B | 7 B |
| 23 | $12-6$ | $12-3$ | $11-1$ | $11-0$ | 89 | 90 | 7 B | 7 B |
| 24 | $12-1$ | $11-8$ | $11-9$ | $12-7$ | 107 | 108 | 7 B | 7 B |
| 25 | $11-11$ | $12-8$ | $12-3$ | $12-3$ | 103 | 97 | 7 B | 7 B |
| 26 | $11-4$ | $11-7$ | $14-9$ | $13-2$ | 123 | 114 | 7 B | 7 B |
| 27 | $11-2$ | $11-6$ | $11-9$ | $12-0$ | 107 | 105 | 7 B | 7 B |

TABIE 3
TEST SCORE MADE ON EACH FORM OF THE SILANGE ATYITUDE TEST BY EACH CHILD IN EACH GROUP IN THE HIGH- FIETH AND LOW-SIXIH GRADES AND THE DIFEXRENCES IN SCORE ON THE TWO TESTS

| Pupil | Form A |  | Form B |  | Gain or Loss |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | E | C | E | C | E | C |

Boys

| 1 | 8.6 | 2.5 | 8.7 | 2.2 |  | - |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | 6.5 | 6.7 | 8.6 | 2.1 |  | - |
| 3 | 7.7 | 8.6 | 8.6 | 8.6 |  |  |
| 4 | 5.3 | 8.2 | 8.4 | 8.5 |  |  |
| 5 | 8.3 | 7.2 | 8.7 | 7.3 |  |  |
| 6 | 9.1 | 7.9 | 8.5 | 8.4 | - |  |
| 7 | 7.2 | 8.4 | 8.6 | 8.8 |  |  |
| 8 | 3.1 | 6.6 | 7.4 | 6.8 |  | - |
| 9 | 8.2 | 8.2 | 8.5 | 7.9 |  | - |
| 10 | 8.7 | 8.1 | 8.6 | 8.5 | - | - |
| 11 | 3.5 | 8.3 | 8.7 | 7.4 |  | - |
| 12 | 8.5 | 4.7 | 8.6 | 2.5 |  | - |
| 13 | 8.2 | 7.3 | 8.5 | 2.8 |  |  |
| 14 | 5.7 | 7.9 | 8.6 | 8.4 |  | - |
| 15 | 2.9 | 8.1 | 4.5 | 8.4 |  | - |
| 16 | 7.7 | 7.3 | 8.7 | 2.4 |  | - |
| 17 | 8.6 | 5.9 | 8.7 | 2.5 |  | - |
| 18 | 3.1 | 7.3 | 9.1 | 2.5 |  | - |

Girls

| 19 | 8.5 | 8.4 | 8.8 | 8.6 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 20 | 8.1 | 8.5 | 8.5 | 8.5 |  |  |  |
| 21 | 8.4 | 8.3 | 8.7 | 8.2 |  |  |  |
| 22 | 8.5 | 8.2 | 8.8 | 8.3 |  |  |  |
| 23 | 7.1 | 7.0 | 8.7 | 6.2 |  |  |  |
| 24 | 8.2 | 7.7 | 8.4 | 8.5 |  |  |  |
| 25 | 7.7 | 7.8 | 8.8 | 8.4 |  |  |  |
| 26 | 6.7 | 9.6 | 8.9 | 9.1 |  |  |  |
| 27 | 7.7 | 9.0 | 8.8 | 8.2 |  | - |  |
| 28 | 3.3 | 8.6 | 8.7 | 8.6 |  | - |  |
| 29 | 8.5 | 7.6 | 8.4 | 9.0 | - |  |  |
| 30 | 8.5 | 8.6 | 8.7 | 8.7 |  |  |  |
| 31 | 7.5 | 8.2 | 8.7 | 8.4 |  |  |  |
| 32 | 5.9 | 8.3 | 8.8 | 8.8 |  |  |  |
| 33 | 7.6 | 8.3 | 8.6 | 6.8 |  | - |  |
| 34 | 8.5 | 8.4 | 8.5 | 8.5 |  |  |  |
| 35 | 8.6 | 8.4 | 8.7 | 8.6 |  | - |  |
| 36 | 7.7 | 8.4 | 8.5 | 8.3 |  | - |  |
| 37 | 7.6 | 7.0 | 8.8 | 7.7 |  |  |  |

TABLE 4
TEST SCORE MADE ON EACH FORM OF THE SILANCE ATTITUDE TEST BY EACH CHILD IN EACH GROUP IN THE HIGH-SIXTH AND LOW-SEVENTH GRADES AND THE DIFHERENCES IN SCORE ON THE TWO TESTS

| Pupil | Form A |  | Form |  | Loss or Gain |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | E | C | E | C | E | C |

Boys

| 1 | 3.5 | 8.1 | 7.9 | 6.8 |  | - |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | 8.4 | 8.1 | 8.6 | 8.2 |  | - |
| 3 | 8.3 | 8.6 | 8.7 | 8.6 |  |  |
| 4 | 8.9 | 5.8 | 8.4 | 5.7 | - | - |
| 5 | 8.6 | 8.3 | 8.5 | 8.5 | - |  |
| 6 | 6.5 | 7.0 | 8.4 | 8.7 |  |  |
| 7 | 8.7 | 8.1 | 8.8 | 8.3 |  |  |
| 8 | 8.2 | 8.4 | 8.5 | 7.9 |  | - |
| 9 | 8.4 | 8.1 | 8.5 | 7.6 |  | - |
| 10 | 6.8 | 8.5 | 8.0 | 8.3 |  | - |
| 11 | 8.8 | 8.3 | 8.5 | 8.6 | - |  |
| 12 | 8.7 | 3.1 | 8.9 | 4.1 |  |  |
| 13 | 8.6 | 5.8 | 8.0 | 8.7 | - |  |
| 14 | 8.2 | 8.1 | 7.9 | 8.4 | - | - |
| 15 | 8.1 | 6.1 | 8.4 | 5.8 |  | - |

Girls

| 16 | 8.6 | 7.5 | 8.9 | 7.9 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 17 | 8.1 | 8.6 | 8.4 | 7.7 |  | - |
| 18 | 8.8 | 8.4 | 8.9 | 8.3 |  | - |
| 19 | 8.3 | 8.1 | 8.6 | 8.5 |  |  |
| 20 | 8.6 | 8.3 | 8.8 | 8.5 |  |  |
| 21 | 8.8 | 8.2 | 8.6 | 8.5 | - |  |
| 22 | 7.9 | 5.9 | 8.2 | 6.8 |  |  |
| 23 | 8.5 | 6.1 | 9.0 | 5.8 |  | - |
| 24 | 8.8 | 8.9 | 8.6 | 8.6 | - | - |
| 25 | 8.6 | 8.5 | 8.4 | 8.1 | - | - |
| 26 | 8.4 | 8.9 | 8.2 | 8.4 | - | - |
| 27 | 8.7 | 7.9 | 8.5 | 7.7 | - | - |

TABLE 5
DISTRIBUTION OF THE PUPILS ON EACH FORM OF THE TEST IN EACH GROUP OF THE HIGH-FIFTH AND LOW-SIXTH GRADES ON THE BASIS OF THE SCORES MADE

| Score Range | Form A E Group |  | Form B <br> E Group |  | Form A <br> C Group |  | Form B <br> C Group |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 9.5-9.9 |  |  |  |  |  | 1 |  |  |
| 9.0-9.4 | 1 |  | 1 |  |  | 1 |  | 2 |
| 8.5-8.9 | 4 | 7 | 14 | 17 | 1 | 2 | 3 | 8 |
| $8.0-8.4$ | 3 | 3 | 1 | 2 | 6 | 10 | 3 | 6 |
| 7.5-7.9 | 2 | 5 |  |  | 2 | 3 | 1 | 1 |
| 7.0-7.4 | 1 | 1 | 1 |  | 4 | 2 | 2 | 1 |
| 6.5-6.9 | 1 | 1 |  |  | 2 |  | 1 | 1 |
| 6.0-6.4 |  |  |  |  |  |  |  |  |
| 5.5-5.9 | 1 | 1 |  |  | 1 |  | 1 |  |
| 5.0-5.4 | 1 |  |  |  |  |  |  |  |
| 4.5-4.9 |  |  | 1 |  | 1 |  |  |  |
| 4.0-4.4 |  |  |  |  |  |  |  |  |
| 3.5-3.9 | 1 |  |  |  |  |  |  |  |
| 3.0-3.4 | 2 | 1 |  |  |  |  |  |  |
| 2.5-2.9 | 1 |  |  |  | 1 |  | 4 |  |
| 2.0-2.4 |  |  |  |  |  |  | 3 |  |
| Total | 18 | 19 | 18 | 19 | 18 | 19 | 18 | 19 |

TABLE 6
DISTRIBUTION OF THE PUPILS ON EACH FORM OF THE TEST IN EACH GROUP OF THE HIGH-SIXTH AND LOW-SEVENTH GRADES ON THE BASIS OF THE SCORES MADE

| Score Range | Form A E Group |  | Form B E Group |  | Form A C Group |  | $\begin{aligned} & \text { Form B } \\ & \text { C Group } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 9.5-9.9 |  |  |  |  |  |  |  |  |
| 9.0-9.4 |  |  |  | 1 |  |  |  |  |
| $8.5-8.9$ | 6 | 8 | 8 | 7 | 2 | 4 | 5 | 3 |
| 8.0-8.4 | 6 | 3 | 5 | 4 | 8 | 4 | 4 | 4 |
| $7.5-7.9$ |  | 1 | 2 |  |  | 2 | 2 | 3 |
| 7.0-7.4 |  |  |  |  | 1 |  |  |  |
| $6.5-6.9$ | 2 |  |  |  |  |  | 1 | 1 |
| $6.0-6.4$ |  |  |  |  | 1 | 1 |  |  |
| 5.5-5.9 |  |  |  |  | 2 | 1 | 2 | 1 |
| $5.0-5.4$ |  |  |  |  |  |  |  |  |
| 4.5-4.9 |  |  |  |  |  |  |  |  |
| 4.0-4.4 |  |  |  |  |  |  | 1 |  |
| 3.5-3.9 | 1 |  |  |  |  |  |  |  |
| $3.0-3.4$ |  |  |  |  | 1 |  |  |  |
| 2.5-2.9 |  |  |  |  |  |  |  |  |
| $2.0-2.4$ |  |  |  |  |  |  |  |  |
| Total | 15 | 12 | 15 | 12 | 15 | 12 | 15 | 12 |

TABLF 7
THE UPPER EXTREME, QUARTIIE THRTE, MEDIAN, QUARTILE ONE, AND LOWER EXTREME OF THE SCORES MADE ON EACH FORM OF THE ATTITUDE TEST FOR EACH GROUP IN THE HIGH-FIFTH AND LOW-SIXTH GRADES AND HIGH-SIXTH AND LOW-SEVENTH GRADES

| Percentile Points | High-Fifth and Low-Sixth |  |  |  | High-Sixth and Low-Seventh |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Form A |  | Form B |  | Form A |  | Form B |  |
|  | E | C | E | C | E | C | E | C |
| Upper extreme | 9.1 | 9.6 | 9.1 | 9.1 | 8.9 | 9.0 | 8.9 | 8.7 |
| Quartile three. | 8.5 | 8.4 | 8.8 | 8.6 | 8.7 | 8.7 | 8.5 | 8.5 |
| Median ........ | 7.7 | 8.1 | 8.7 | 8.4 | 8.5 | 8.5 | 8.1 | 8.3 |
| Quartile one.. | 6.5 | 7.3 | 8.5 | 6.9 | 8.1 | 8.2 | 7.0 | 7.6 |
| Lower extreme. | 2.9 | 2.5 | 4.5 | 2.1 | 3.5 | 7.9 | 3.1 | 4.1 |

## TABLE 8

THE LEAN SCORES OF THE BOYS AND THE GIRLS IN EACH GROUP AS COMPUTED FROM THE RESULTS OF THE TESTS GIVEN

| Sex |
| :---: |
|  |

High-Fifth and Low-Sixth

| Boys ....... | 6.945 | 7.256 | 8.456 | 7.058 |
| :--- | :--- | :--- | :--- | :--- |
| Girls ...... | 7.822 | 8.179 | 8.658 | 8.427 |
| Total $\ldots . .$. | 7.455 | 7.790 | 8.560 | 7.292 |

High-Sixth and Low-Seventh

| Boys $\ldots \ldots .$. | 7.960 | 7.560 | 8.460 | 7.720 |
| :--- | :--- | :--- | :--- | :--- |
| Girls $\ldots \ldots .$. | 8.433 | 7.967 | 8.600 | 7.934 |
| Total $\ldots . .$. | 8.171 | 7.741 | 8.522 | 7.815 |

High-Fifth and Low-Sixth -- High-Sixth and Low-Seventh

| Boys . . . . . . | 7.461 | 7.449 | 8.458 | 6.791 |
| :--- | :--- | :--- | :--- | :--- |
| Girls ...... | 8.059 | 8.110 | 8.636 | 8.162 |
| Total ...... | 7.750 | 7.769 | 8.560 | 7.513 |

## CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMETDATIONS

Summary
The problem of this study was to determine the effect of certain school music techniques on children's attitudes. A control group and an experimental group were chosen for the study. Both groups were tested for chronological age, mental age, intelligence quotient, and attitude toward music. They were taught by two different music techniques and were tested for attitude toward music again at the close of the semester. Each class devoted 100 minutes a week to music. The conclusions which follow are based on the data which have been shown in detail in the previous chapters.

Conclusions
It would seem from the results of the tests that the pupils in the fifth and sixth grades were more receptive to the type of work done in the experimental group than were the seventh-grade pupils.

The fact that the whole group of boys made a greater gain than did the girls might indicate that boys respond better to music integrated with their other interests than
girls. Or, the points in favor of the boys might indicate that girls accept formal drill and unrelated work more passively than boys.

The results of the study also indicate that a psychological sequence of experiences is better for child development than a logical organization of subject matter.

The investigator believes that music in the elementary school should have a two-fold purpose: (I) children should experience music for their own development, and (2) music should enrich other areas of learning whenever there is an opportunity to do so.

Recommendations
It is suggested that the school music teacher explore the enormous field for developing right attitudes toward masic. It is the belief of the investigator that children can be guided into deep interest in masic through continuous and broadening experiences.

It is hoped that the music educator will explore further other means of helping children to appreciate music and that other means of measuring attitude and appreciation may be found.

The investigator believes further that the emphasis on attitudes of growing children rather than on fixed standards
of achievement should bring about a new conception of the meaning of appreciation.

The ideal program in masic education will be a composite of the educator who brings the principles of child development to bear on masic, and the well-rounded musician who believes that the development of the child through the agency of music is the prime aim of school music education.

APPENDIX

A SCALE FOR MEASURING ATTITUDE TOWARD ANY SCHOOL SUBJECT
Ella B. Silanae Edited by H. H. Rammers
Form A
Please fill in the blanks below. (You may leave the space for your name blank if you wish.)

Name $\qquad$
Boy Girl (encircle one)
Date $\qquad$
Age when school started this year $\qquad$ Grade (encircle one) $7,8,9,10,11,12$ What occupation would you best like to follow? $\qquad$

## Directions:

Following is a list of statements about school subjects. Place a plus sign (-) before each statement with which you agree with reference to the subject or subjects listed at the left of the statements. The person in charge will tell you the subject or subjects to write in at the head of the columns to the left of the statements. Your score will in no way affect your grade in any course.


1. No matter what happens, this subject always comes first.
2. I would rather study this subject than eat.
3. I love to study this subject.
4. This subject is of great value.
5. This subject has an irresistible attraction for me.
6. I really enjoy this subject.
7. This subject is profitable to every body who takes it.
8. This subject develops good reasoning ability.
9. This subject is very practical.
10. Any student who takes this subject is bound to be benefited.
11. This subject teaches me to be accurate.
12. This subject is a universal subject.
13. This subject is a good subject.
14. All of our great men studied this subject.
15. This subject is a cultural subject.

All lessons and all methods used in this subject are clear and definite. (over)


Form B
Please fill in the blanks below. (You may leave the space for you name blank if you wish.)

Name $\qquad$
Boy Girl (encircle one)
Age when school started this year...... Grade (encircle one) 7, 8, 9, 10, 11, 12
What occupation would you best like to follow? $\qquad$

## Piroctions:

Following is a list of statements about school subjects. Place a plus sign (t) before each statoment with which you agree with reference to the subject or subjocts listed at the loft of the statements. The person in charge will tell you the subject or subjects to write in at the head of the columns to the left of the statoments. Your score will in no way affect your grado in any course.


1. I am "crazy" about this subject.
2. The very existence of humanity depends upon this subject. If I had my way, I would compel everybody to study this subject.
3. This subject is one of the most useful subjects I know. I believe this subject is the basic one for all high school courses.
4. This is one subject that all young Americans should know.
5. This subject fascinates me.
6. The merits of this subject far outweigh the defects. This subject gives pupils the ability to interpret
7. situations they will meet in life. This subject will help pupils socially as well as intellectually.

This subject makes me efficient in school work. There are more chances for development of high ideals in this subjoct.

This subject is interesting.
This subjoct toaches mothodical reasoning. This subject serves the needs of a large number of boys and girls.
All methods used in this subject have been thoroughly tested in the classroom by experionced teachers. fover)


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[^0]:    ${ }^{1}$ Charles E. Skinner, Educational Psychology, p. 104. ${ }^{2}$ Ibid. . p. 102.

[^1]:    ${ }^{\text {Ethel E. Holmes, "School Subjects Preferred by Chil- }}$ dren," Sixteenth Yearbook of the National Elementary Principals, p. 339 .
    ${ }^{7}$ Archibald T. Davison, 舀usic Education in America, p. 47.
    ${ }^{8}$ Jacob Kwalwasser, Problems in Public School Music, p. 6.

[^2]:    $1_{\text {Arthur E. Ward, Music Education for High Schools, p. } 25 .}$ $2^{2}$ ames L . Hursell, Human Values in Music Education, p. 270 .

[^3]:    10 Archibald T. Davison, Masic Education in America, p. 8.

