A COMPARATIVE STUDY OF TEACHING ROTE SONGS WITH THE USE OF VISUAL AIDS AS COMPARED TO THE METHOD NOW USED

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Chapter I

HISTORY OF STUDY

Public School Music started officially in Boston in 1838 after eight years of persistent agitation to have children taught music in school by public authority, as they were being taught in the juvenile choirs (children's singing schools), which had sprung up in and about Boston under the leadership of Lowell Mason and other singing school teachers. Once started in Boston, public school music by public authority soon spread to other major cities such as Buffalo, Pittsburgh, Cincinnati, Chicago, Cleveland, San Francisco, St. Louis, and Philadelphia, as well as to smaller cities and towns. The total number at the close of the Civil War being about 150. But even after that period, the popular music teaching agency in the majority of American communities was the singing school; it gradually disappeared, however, with the resistless spread of music teaching in the public school. The singing school handed over to the public schools its teachers and methods.

Industrial and social changes after the Civil War affected all subjects in the curriculum. New subjects were added and the grade teachers were expected to teach them all, including music, which they had not been trained to do.

In 1870 Luther Whiting Mason brought out the "National Music Course", designed to meet the needs of all the grades and for over a decade it was practically the only series of

music books in use in the schools. In 1884, summer music schools began to fill the demand for trained teachers, with strong emphasis upon the method of teaching music reading. During the last three decades of the century the question of music reading was the burning issue in the schools, and many series of music books were published, each with its own method of solving the problem. Two men, Benjamin Jepson, of New Haven, Connecticut, and Sterrie A. Weaver, of Westfield, Massachusetts, rose to national fame through their success in teaching reading. This issue of the printed page was pushed aside at the turn of the century by other problems attending the child psychology movement and the dawning importance of high school music.

After the lack of interest caused by too much reading for its own sake, the schools began to sing; and the song method evolved, by which singing and reading could go along comfortably together. The song method was embodied in the "Modern Music Series", under the editorship of Eleanor Smith. The general principles underlying the song method have continued in use to the present. During the first decade of the present century, no influence upon singing as a spontaneous expression of childhood compares with that of William L. Tomlins, whose sincerity of purpose carried his somewhat mystical message to the hearts of hundreds of teachers who became his pupils.

Meanwhile, influences springing from attendance at teachers' conventions were stirring the thoughts of music

supervisors, and making them sharply conscious of their responsibilities in helping to create a musical America. In 1884, at Madison, Wisconsin, the music section of the National Education Association was organized, and though small and ineffective at first, it soon began to attract large numbers of professionally-minded teachers to its meetings, where all problems of school music teaching were presented and discussed. Its work and influence were taken over gradually by the Music Educators National Conference which began, in 1907, as a small group of music teachers, who first assembled at Keokuk, Iowa, at the invitation of Philip C. Hayden, widely known as the editor of the magazine "School Music".

No phase of public school music can be mentioned which has not been more or less creatively affected by the Music Educators National Conference and its associated organizations, through speakers at meetings, through the discussions and follow-up work of the various committees, or through supervised activities. The many phases of high school music - instrumental, vocal, appreciative, and theoretical, more often than we realize, owe to Conference influence their incredibly swift development as well as their mounting standards of excellence.

As we look back over the century, we see clearly that from a beginning decidedly lukewarm in community support, public school music, despite some shortcomings and blunders through the years, has come to be looked upon by educators, musicians, and parents as a great national asset, a founda-

tion upon which to build the American musical culture of the future.

The phonograph, radio, and recording machine have contributed greatly to the teaching of music; they have brought the best music of the world to us - the music of the masters performed by masters. Just as these devices have found their way into every music room, so should motion pictures have a legitimate place in the musical equipment of every school system. Their many possibilities should be given serious study and thoughtful consideration by every music educator.

Many of our schools have purchased motion picture machines, magic lanterns, or some other equipment for using projected pictures in the classroom. Pictures are being used in teaching many academic subjects now, and it is believed that in the very near future pictures are going to play a far greater part in the educational program. The editors of the latest courses of study in music education have seen in a small way the part pictures are playing in the educational setup. In these new courses of study each song is illustrated with a picture to create interest. In view of the fact that these pictures have caused so much more interest in the songs, it is felt that a picture to illustrate the meaning of each stanza of a song and shown on a screen should stimulate even more interest.

For the present study four new songs were written and photographed. These were used in a comparative study of the effectiveness of teaching rote songs with the use of visual aids, as compared to the method now used. What is it? Picture illustrating song

Chapter II

RELATED EXPERIMENTS

A survey has been made of the experiments and results obtained from the use of visual aids in teaching related subjects, in order to prepare a background for this study.

James Amacker (1) reports an experiment in which he seeks to determine whether or not motion pictures increase achievement in American History. He found that motion pictures, when used in connection with regular instruction, do increase achievement.

Roy Cramer (2) reports an experiment in which he seeks to determine the use of radio and motion pictures in teaching high school Biology. In this study a control group used motion pictures to supplant the regular work in Biology. He found that the experimental group made the greatest gain.

John Edmund Crawford (3) reports an experiment in which he seeks to determine the effect of visual aids, additional to text, on learning in technical electricity theory. This experiment shows that where a good visual-mechanical device was used by the student, even without any special classroom discussion, an appreciable increment in better learning of subject matter involved would result.

A study of pictures from the point of their effective use in the teaching of History in the junior high school is reported by Goldie Luella Curry (4). This study analyzes pictures in recent American History textbooks for junior

high schools, sets up exercises for developing thinking by means of pictures, and presents pictures showing the economic, social, political, educational, religious, and cultural development of the common people and their leaders.

The relative efficiency and economy of teaching General Science to a group of boys and girls in the seventh grade by means of visual aids is reported by Marguerite Gray (5). Her results show that visual aids are of distinct benefit to pupils of average and less than average ability in learning General Science; to pupils of more than average ability there is little indication that visual aids are of particular benefit.

A comparative study of two methods of teaching reading to beginners is reported by Regina Maloy (6). This study shows the relative effectiveness of the use of visual aids, the sterograph and stereoptican slides in teaching reading to beginners.

J. G. Prutman (7) reports an experiment in which he seeks to show the technical use of pictures in diagnosing problem children. This experiment attempts to determine whether the free association responses to pictures of problem children are more emotional than the responses of normal children.

Joseph Wolfe (8) reports an experiment in which he seeks to determine the worth of motion pictures as an aid in class room teaching of social studies. The results show that motion pictures increase the effectiveness of teaching social studies. Superior children profit less from the motion pic-

tures than average or inferior children.

It is especially interesting to note that experimentation with visual aids has been conducted in practically every other teaching field, and in the majority of cases the use of motion pictures indicated the advisability of more extensive use of visual methods.

It may also be pointed out that visual aids have not been used in the past in teaching music, except for some classes in music appreciation.

Chapter III

METHODS

In making a study of teaching rote songs with the use of visual aids, as compared to the method now used, two groups of second-grade children were chosen from the Eugene Field and Jefferson Schools in Stillwater, Oklahoma.

The pupils of the second grade were used as subjects for the experiment for two reasons: First, children in the first grade are ordinarily unable to read at all and are usually taught wholly by rote, unaccompanied by literature or manuscript of any sort. Second, the students of third grade ranking have sufficiently mastered the art of reading that rote songs are necessary only in presenting a pattern of the song to be learned.

During the period of experimentation, the pupils taught in each school ranged in number from twenty-five to thirty-four. The variation in numbers was due to the absence of a number of children on account of illnesses or other causes.

In the past, rote songs have been taught according to a definite procedure as follows: A story is told by the teacher, presenting the theme and character of the song. This is done primarily to stimulate interest and enthusiasm, and to create a readiness in the pupils. The song is then sung a sufficient number of times by the teacher so that the pupils apparently have the song well in mind. Next, the first phrase or line is presented, and the pupils sing it under the leader-

ship of the teacher. When the first phrase is mastered, the second phrase is approached in the same manner, and the same procedure is used throughout the remainder of the song. Upon the completion of the singing of separate phrases in this manner, the entire song is sung and repeated until the teacher is certain that the song is learned.

The following procedure is used in teaching songs with the use of visual aids: The entire song is shown once in order to present the story and character of the song. The showing of the entire song is repeated while the song is sung by the teacher. After this is done the first stanza is presented alone, and is sung by the students until the melody and words are well in mind. The remaining stanzas are presented in the same manner until the children are able to sing the complete song without the assistance of visual aids.

The first song, "The Rabbit and the Tar Baby" was taught with the assistance of visual aids at the Eugene Field School. It was then taught at the Jefferson School without the use of visual aids. The second song "The Little Red Hen" was taught at Jefferson School with the use of visual aids. The same song was then taught at the Eugene Field School without the use of visual aids. The third song "Chicken Little" was taught at the Eugene Field School with the use of visual aids. The same song was then taught at Jefferson School without the use of visual aids. The fourth song "The Three Bears" was taught at the Jefferson School with the use of visual aids. It was then taught at the Eugene Field School without the use

of visual aids.

The teacher kept an accurate record of the amount of time it took to complete the teaching of each song with the use of visual aids. The same amount of time was then spent in teaching the song with the old method. After a period of two weeks, the teacher returned to the respective schools and had each child sing the song alone.

In checking the results of this experiment each child was taken into a room apart from the group where he and the teacher were alone while the test was being made. Every wrong note sung by the child was counted a mistake, and each time the teacher had to prompt the child on the words, or a wrong word was sung, a mistake was recorded. When the child finished singing the song the teacher conducting the experiment totaled the number of mistakes each child had made.

The pictures used to stimulate interest in these songs were taken from some old first readers. All these pictures were colored and Kodachrome film was used in making the pictures so they would appear on the screen in natural color. It was felt that these pictures, if shown in their natural color would be more interesting than they would be if shown in black and white. All of these pictures were photographed in their original colors before the slides were made.

The writer feels that a statement should be made concerning the intelligence quotient of these two groups of second grade children used in this experiment.

The group of children at the Eugene Field School has a

median I.Q. of 112, while the median I.Q. of the group of children at the Jefferson School is 98. The difference in I.Q.'s makes the results of this study even more significant since the children at the Jefferson School have a lower I.Q., and yet each time they were taught songs with the use of visual aids they made fewer mistakes than did the Eugene Field children when they were taught the same songs with the old method, or the method now used.

The pictures of the fourth song "The Three Bears" are shown on the following pages.

Fat Three Bears

THERE LIVED A--LONE THREE NICE FAT BEARS, WAY OUT OF TOWN WITH NO REAL CARE.

THE FA-THER BIG, THE MO-THER SMALL, THE BA--BY BEAR THE LEAST OF ALL.

ONE DAY THEY MADE SOME POR-RIDGE FINE, SET IT TO COOL SO THEY COULD DINE.

WHILE IT GETS COOL LET'S TAKE A STROLL RIGHT THRU THE WOODS TO YON-DER KNOLL.

NOW GOL-DEN HAIR LEFT HOME THAT DAY TO PICK WILD FLOWERS A-LONG THE WAY.

SHE WAN-DERED NEAR, SHE WAN-DERED FAR, CAME TO THIS HOUSE WITH DOOR A-JAR.

"MY SOUP'S BEEN TAS--TED I CAN SEE." AND SO HAS MINE, WHO CAN IT BE"?

AND I'LL HAVE NONE ON WHICH TO SUP. SOME-ONE HAS EA--TEN MINE ALL UP.

THE CRIES A-WOKE THE CHILD SO FAIR AND IN A HURRY GOL--DEN HAIR

JUMPED UP IN FRIGHT-FROM-OFF THE BED RAN TO THE DOOR AND OFF SHE FLED

Chapter IV

STATISTICAL RESULTS AND THEIR INTERPRETATION

It is the purpose of this chapter to reduce the results found from the procedure given in the preceding chapter into statistical tables, and to call attention to deductions which may be made from statistical facts contained therein.

Table I

Table showing the average number of errors of the two groups of second grade children taught with and without visual aids, as well as the significance of the differences between the means of these groups on the first song, "The Rabbit and Tar Baby".

Group	Song	N	Mean of errors	σdist.	Diff.	σdiff.	$\frac{D}{\sigma diff.}$
Visual Aids	1	34	2.23	1.92	24.17	3.4	7.1
Old Method	1	25	26.4	17.15			

Table I shows a comparison of the group taught by means of visual aids with that taught by the old method or non-visual aids. The ratio of the difference to the standard error of the difference $\frac{D}{\sigma diff.}$ is 7.1. Since it is customary to take a ratio of 3. as indicative of complete reliability, a ratio greater than three is taken as indicating just so much added reliability. This critical ratio gives a most significant difference in favor of the visual aids.

Table II

Table showing the average number of errors of the two groups of second grade children taught with and without visual aids, as well as the significance of the differences between the means of these groups on the second song, "The Little Red Hen".

Group	Song	N	Mean of errors	σdist.	Diff.	σdiff.	$\frac{D}{\sigma diff.}$
Visual Aids	2	31	8.8	4.01	8.87	1.72	5.1
Old Method	2	28	17.675	8.70			

Table II shows a comparison of the group taught by means of visual aids with that taught by the old method or non-visual aids. The $\frac{D}{\sigma diff.}$ is 5.1. This critical ratio is somewhat lower than in the first song taught, however it is indicative of complete reliability and gives a most significant difference in favor of the visual aids.

Table III

Table showing the average number of errors of the two groups of second grade children taught with and without visual aids, as well as the significance of the differences between the means of these groups on the third song, "Chicken Little".

Group	Song	N	Mean of errors	σdist.	Diff.	σdiff.	$\frac{D}{\sigma diff.}$
Visual Aids	3	27	2.94	2.31	6.11	1.4	4.3
Old Method	3	29	9.05	7.20			

Table III shows a comparison of the group taught by means of visual aids with that taught by the old method or non-visual aids. The $\frac{D}{\sigma diff.}$ is 4.3. Here again the critical ratio shows that visual aids are favored with a significant difference.

Table IV

Table showing the average number of errors of the two groups of second grade children taught with and without visual aids, as well as the significance of the differences between the means of these groups on the fourth song, "The Three Fat Bears".

Group	Song	N	Mean of errors	σ dist.	Diff.	σ diff.	$\frac{D}{\sigma diff}$
Visual Aids	4	28	2.3	2.5	3.1	.75	4.1
Old Method	4	27	5.4	3.09			

Table IV shows a comparison of the group taught by means of visual aids with that taught by the old method or non-visual aids. The $\frac{D}{\sigma diff.}$ is 4.1. This critical ratio indicates very reliably the significant difference in favor of visual aids.

Chapter V

CONCLUSIONS

Two groups of second grade children were chosen from the Eugene Field and Jefferson Schools in Stillwater, Oklahoma for the subjects of this experiment of teaching rote songs with the use of visual aids as compared to the old or method now used.

The retention of the two groups was ascertained on four songs taught with the visual aids, and the same four songs taught using the old method. The first song, "The Rabbit and the Tar Baby" was taught with the assistance of visual aids at the Eugene Field School. It was then taught at the Jefferson School without the use of visual aids. The second song "The Little Red Hen" was taught at Jefferson School with the use of visual aids. The same song was then taught at the Eugene Field School without the use of visual aids. The third song "Chicken Little" was taught at the Eugene Field School with the use of visual aids. The same song was then taught at Jefferson School without the use of visual aids. The fourth song "The Three Bears" was taught at the Jefferson School with the use of visual aids. It was then taught at the Eugene Field School without the use of visual aids.

The teacher kept an accurate record of the amount of time it took to complete the teaching of each song with the use of visual aids. The same amount of time was then spent

in teaching the song with the old method. After a period of two weeks, the teacher returned to the respective schools and had each child sing the song alone.

In checking the results of this experiment each child was taken into a room apart from the group where he and the teacher were alone while the test was being made. Every wrong note sung by the child was counted as a mistake, and each time the teacher had to prompt the child on the words, or a wrong word was sung, a misteke was recorded. When the child finished singing the song the teacher conducting the experiment totaled the number of mistakes each child had made.

The conclusions based on the results of these comparisons are:

1. Since the critical ratio in each table gives a difference great enough to indicate complete reliability, it is very evident that the method of teaching rote songs to children on the primary level with the use of visual aids is far superior to the method of teaching rote songs without the use of visual aids.
2. It is felt that the use of pictures creates more interest in the song and helps the child to form a vivid picture in his or her mind, which enables him to retain the words of the song longer.
3. It is further believed that songs taught with the pictures held the undivided attention of all of the children and that some of the children who seemed only mildly interested in the songs taught the old way, were enthusiastic

about the songs taught with the use of visual aids.

The results shown by this experiment seem to the writer to be distinctly in favor of the visual method over the old method. If these conclusions are justified, it would follow that the visual method could be instituted with profit in the second grade and probably throughout the elementary schools as soon as the proper materials are made available.

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