

379
N81
No. 3941

AN INVESTIGATION OF ESSENTIAL FACTORS
RELATED TO THE TEACHING OF SIGHT
SINGING TO ELEMENTARY CHILDREN

THESIS

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

For the Degree of

MASTER OF MUSIC

By

Carolyn Wilma Green, Mus. B.

Denton, Texas

August, 1969

Preface

Sight singing has been a concern to musicians since the time music was first notated. Much has been written, particularly in recent years, on the subject of sight singing. However, each of these writings usually presents only one method of teaching sight singing. There appeared to be a need for a single source containing information about related techniques to the teaching of sight singing.

A serious fault of our present music education is that too often young music students are not being taught how to sight sing. It appears that the great majority of music teachers do not realize the importance of sight singing. It is possible they do not know how to teach it.

It is hoped that the findings in this report will benefit both the experienced and the inexperienced music teacher. This study offers a collection of sight singing systems and information on methods of teaching sight singing collected from numerous sources.

TABLE OF CONTENTS

	Page
PREFACE.....	iii
LIST OF ILLUSTRATIONS.....	vi
Chapter	
I. STATEMENT OF THE PROBLEM.....	1
The Problem	
Sub-problems	
Definition of Terms	
Delimitations	
Basic Hypothesis	
Basic Assumption	
Historical Background	
Hereditary, Cultural and Psychological	
Factors Influencing Sight Singing	
Methodology	
Plan of this Report	
II. THE RHYTHMIC ASPECTS OF SIGHT SINGING..	22
Graded Sequence of Objectives for	
Rhythmic Development	
Responding to Rhythmic Stimuli	
Teaching Meter Signature Significance	
Teaching Dotted Note Rhythms	
Teaching Rest Values	
Responding to Accents	
Teaching Syncopation	
Developing Sensitivity to Tempos	
Teaching Auditory Perception	
Practicing Rhythmic Studies	
Reading Unfamiliar Rhythm Patterns	
Special Materials and Equipment	

TABLE OF CONTENTS--Continued

	Page
III. THE MELODIC ASPECTS OF SIGHT SINGING.....	53
Graded Sequence of Objectives for Mel- odic Development	
Systems for Teaching the Melodic Aspects of Sight Singing	
Techniques for Teaching the Melodic Aspects of Sight Singing	
Special Materials and Devices	
IV. SUMMARY AND RECOMMENDATIONS.....	110
Summary	
Recommendations	
BIBLIOGRAPHY.....	115

LIST OF ILLUSTRATIONS

Figure	Page
1. Example of Shaped Notes.	10
2. Loops Showing Strong and Weak Beats. . .	45
3. Marks Indicating Accented and Unaccented Beats.	45
4. Stair-Steps to Aid in Teaching Step- Wise Concept.	56
5. Hand Signals.	69
6. Colors Indicating the Tones of the Scale.	73
7. Umbrella for Use in Interval Drill. . . .	92
8. Melody Contour.	93
9. Melody Contour with Dashes to Indicate Duration of Tones.	93
10. Vertical Lines for Heavy and Light Accents.	94
11. Melody Contour with Exact Vertical Horizontal Lines.	94
12. Dots and Circles Which Follow Melody Contour.	95
13. Tune Placed on Three Sets of Five Parallel Lines.	96
14. Completed Tune on Music Paper.	96
15. Musical Staircase.	97
16. Musical Ladder.	98
17. Fingers Used to Represent the Staff. . . .	102

CHAPTER I

STATEMENT OF THE PROBLEM

The Problem

The purpose of this study was to investigate essential factors related to the teaching of sight singing to elementary children.

Sub-Problems

Analysis of the problem led to subordinate questions, which may be stated as follows:

1. What rhythms should elementary children be able to recognize and perform on sight?
2. How are the rhythmic aspects of sight singing taught?
3. What melodic aspects of sight singing should elementary children be expected to understand and perform at sight?
4. How are the melodic aspects of sight singing taught to elementary children?

Definition of Terms

1. The term "essential factors" refers to those elements which are considered important by most authorities.

2. The term "sight singing" refers to vocally producing correct pitches and rhythms at the first viewing of a piece of music.

3. The term "elementary children" refers to those persons receiving academic training in grades one, two, three, four, five, and six.

4. The term "rhythmic aspects" refers to those elements which pertain to duration in musical sounds.

5. The term "melodic aspects" refers to those elements which pertain to the succession of single tones in the linear structure of music.

Delimitations

1. This study investigated only the factors related to the singing of correct pitches and rhythms at sight.

2. This study did not investigate the quality of the singing voice.

Basic Hypothesis

There was no basic hypothesis in this study.

Basic Assumption

The basic assumption of this study was that the essential factors of teaching sight singing are published and are available for study and therefore personal and direct contact with sight singing authorities living today was thought unnecessary.

Historical Background

The ancient Greeks, including such intellectual giants as Aristotle (384-322 B.C.), Aristophanes of Tarentum (fourth century B.C.), and Pythagoras (582-487 B.C.), who invented the monochord with frets to indicate pitch, sought solutions to the perplexing problem of sight singing. "Aristoxenus developed the Greek modes -- Lydian, Dorian, Phrygian, Hypophrygian, Aeolian, etc. The tones of the modes were named after the seven strings of the lyre, from the highest, 'Hypate', to the middle string, 'Mesa', to the lowest string, 'Nete'. To these basic names were added the prefix 'Para' meaning 'next to'" (15, p. 42).

Solfege is descended from the Greek syllables tah, tā, toh, teh, (Ta, T_h, Tw, T_z) for the tones of the descending tetrachord, A,G,F,E, (1, p. 690). The Greeks employed the principles of both absolute and movable pitch. The Christian church also employed both principles, and the system of neumes which it invented to represent relative pitch was the first musical notation consisting of independent signs, as distinct from letters, in the world's history (9, p. 184).

Approximately one thousand years ago two monks sought to improve the skill of their respective choirs. One of them, Odo of Clugny, chose an instrumental approach to sight singing. He is said to have had his choir learn to

play the monochord, a one-stringed Greek instrument, and then apply this understanding of tone relationships to singing by notation (17, p. 303). The other monk, Guido d'Arezzo (born c. 990 A.D.), is said to have invented the music staff (15, p. 42).

Solmization is a general term for systems of designating degrees of the scale by syllables. The use of syllables for the designation of tones is very old. The Chinese had a system which employed the use of syllables for designation of tones. The earliest notation and nomenclature known, those of the Chinese and Hindus, were based on absolute pitch (9, p. 184). Tone syllables are still used in Hindu music (1, p. 690).

Solmization, or the sol-fa plan, originated when Guido discovered that each phrase of the hymn to Saint John the Baptist began one pitch higher than that preceding (18, p. 93). He used the syllables ut, re, mi, fa, sol, la, as movable names to be used with the hexachord on G, on c, and on F. The name solmization is derived from the combination sol-mi, which denoted the syllable "mi" being understood as belonging to the hexachord on f. Thus, it denotes the change from one hexachord into another (1, p. 690).

Simple as Guido's system was in itself, it is to be remembered that the sol-fa syllables were only used orally. Not for over five hundred years were they written or printed, and then only along-side of staff notation notes, and in a book believed to

be in this respect unique. This was a certain edition issued in 1567 of "les CL Pseaumes mis en rime francoise par Clément Marot et Theodore Beza." The copy in Innerpeffray Library, Perthshire, Scotland, is the only copy known: other editions of the same year do not contain the sol-fa syllables (9, p. 187).

The rhythm of Greek vocal music was inseparable from the rhythm of the poetry with which it was combined. Therefore, notation by letters was adequate, for the reader knew the rhythm of the words and needed only pitch indications given by the letters above the words (19, p. 66).

In the Middle Ages a system was in use in some parts of Europe which had the possibilities of notation of both rhythm and pitch in it. In some monasteries, when monks sang together, one of them as leader, would indicate by the rising and falling of his hand the general direction of the melody. This system was known as "chironomy" from the Greek words for "hand" and "sign" (19, p. 67).

It was natural when these musicians wanted to write down their melodies, that they should evolve a notation which was suggested by the patterns made by the leader's hand. This notation, the "neumes", is reminiscent of the path followed by the hand in chironomy (19, pp. 67-68).

Even with the neumes there was no fixed standard of pitch notation. In the tenth century of the Christian Era some genius thought of drawing a horizontal line to act as a point of reference. Guido d'Arezzo is given credit for this discovery, but it is far from certain that he deserves it, as he is credited with a number of things

done within two hundred years of either side of his life span (19, p. 68).

Almost a century after the one horizontal line was discovered another unsung genius thought of the touch which finally made the system secure -- the adding of a second line (19, p. 68). With two lines not only were those two tones definitely fixed in notation, but the tone between them could be identified by going only half the distance between them, and all the other tones eventually could be shown by marking off the same standard distance (19, p. 69).

The spaces between the lines were used for names of tones, as well as the lines themselves. The great advantage of lines was that it was easy to combine their indications of pitch with the rhythmic notation, merely by setting the desired rhythmic symbol on the appropriate line or space (19, p. 69).

"For the sake of historical accuracy, it should be stated that the first line tried in the tenth century was a line for F; the one for C was added, and later one for A (19, p. 69)." More lines were added in the writing of music so that all the notes were provided with lines or spaces. In fact, for a while Europe went "line-crazy!" There are examples, as late as the sixteenth century, in which the number of lines was dizzying -- sometimes eleven or more (19, p. 69).

Some of the lines had to be labeled with their letter-names as reminders, since the eye could not always grasp their identity among so many. But it would have taken us back to the letter system from which we started and the very purpose of the line method would have been wasted (19, p. 70).

The solution of the line problem was a compromise. One line was removed in the middle of a series of eleven, so that two groups of five each remained. If the middle line is needed to represent that particular note, a small piece of it can be written in (19, p. 70).

The Guidonian syllables were used as the basis of a "fixed do" terminology. About 1600, French musicians began to use Guido's syllables in a fixed position, ut for C, re for D, mi for E, fa for F, sol for G, and la for A (4, p. 5). In order to complete the octave, the syllable "si" was introduced and about 1650 the syllable "ut" was replaced by "do." Early in the nineteenth century the initials of syllables were used alone as an independent notation.

John Curwen's "Tonic Sol-Fa System" provides the basis of today's "movable Do" system. He adapted it from a "sol-fa" system developed by Miss Sarah Ann Glover (1785-1867). By means of a "modulator" (a chart upon which the syllables were placed in proper order) the teacher would point to the syllables, the students would respond by singing (7, p. 12).

In Curwen's tonic sol-fa all bars and beats were equally spaced (4, p. 6).

Origin of the number system has been traced as early as 1665 (7, p. 8). It was in France that a numeral notation was to achieve its greatest success (9, p. 192). In the "Galini-Paris-Cheve system", invented by Pierre Galin (1786-1821), Aime Paris (1798-1866), and Emile Cheve (1804-1864), the numbers were to be looked at while singing with movable syllables (7, p. 8).

The singing of hymns and psalms in New England churches gradually deteriorated until at the beginning of the 18th century many congregations were unable to sing more than a few tunes and no two sang them alike. The dearth of printed music in America, and the lack of any means of music education, afforded little if any opportunity for learning to read music. Music was learned by rote, without the help of professional musicians, by a people who were for the most part musically illiterate. The practice of "lining-out" the psalm-tunes had gradually changed the lively singing of the early Puritans into a slow and often highly embellished type of psalm-singing, later called the "Common" or "Usual Way" of singing (14, p. 43).

The reform movement in New England's singing methods was led by the Reverend Thomas Symmes (1677-1725), the Reverend John Tufts (1689-1750), and the Reverend Thomas Walter (1676-1725) (5, p. 25). Symmes wrote pamphlets and preached sermons on "The Reasonableness of Regular Singing or Singing by Note." He urged the people to return to the ways of the early New England settlers who could sing correctly by note. "It remained for the Rev. John Tufts and the Rev. Thomas Walter to publish the first instruction books with music and to lay the foundation for music education in the United States (14, p. 44)."

The pleasure of meeting together and learning to sing by note in the "Correct Way" led to the establishment of the singing school, which was important in the history of American music education (14, p. 44). "In the last decades of the 18th century the singing school became the principal source of music pedagogy, an important part of the social life, and a stimulus to native composers which lasted throughout the 19th century (14, p. 44)."

The singing school was important in the history of American music education. The singing school term seldom exceeded twenty-four afternoons and evenings. The sessions were three hours long. At the end of the session there was a final "exhibition" which was held at the "meeting house." Here the entire class showed what it had learned. In the "exhibition" singing, all that remained of the solmization practice of the singing school was the chord that was sung before the piece started (4, p. 10). The only method used by the singing school was solmization. From this position it spread into the conservatories, colleges, and public schools (20, p. 2).

"The need for music books eventually resulted in a flow of instruction books with music...(14, p. 44)." The first edition of John Tufts' An Introduction to the Singing of Psalm-Tunes was published in 1721.

In search of a system that would enable "People even of the meanest capacities and Children" to sing a tune at sight, Tufts used a letter notation that

was well known in England and had already appeared underneath the notes in the Bay Psalm Book of 1698. Tufts; however, placed the letters F(a), S(ol), L(a), and M(i) on the staff in lieu of the notes. In his "Short Introduction To the Singing of PSALM-TUNES," he explains the notation, clefs, intervals, scales, keys, and time signatures. Tunes in triple time, he states, "are sung about One Third swifter than Common Time." Significantly, he mentions that the ability to sing intervals correctly is "not to be attained ordinarily, without the help of some skillful Person, or of an Instrument (14, p. 44)."

Thomas Walter's The Grounds and Rules of Musick Explained was published in Boston in 1721. "It was the first music book to be printed with bar lines in the North American colonies (5, p. 26)." Walter advocated "singing the notes as written or printed, without alterations, additions, or embellishments, and in strict time and pitch (5, p. 26)."

William Little and William Smith in 1802 produced a song collection, "The Easy Instructor or a New Method of Teaching Sacred Harmony." Each of the four notes used in this collection was provided with a different shaped head:

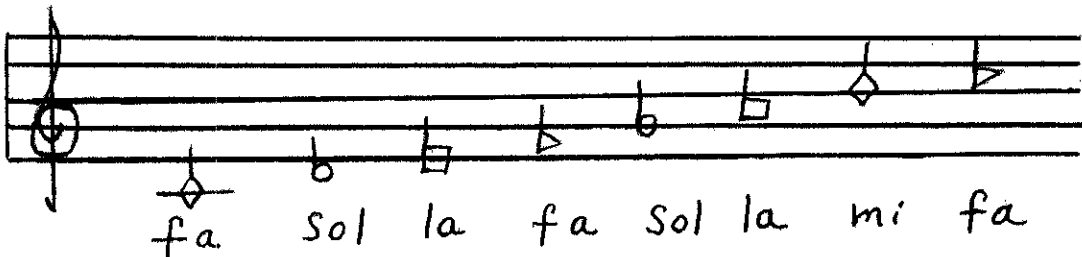


Fig. 1--Example of shaped notes

(11, p. 394)

Shaped notes "had considerable notational vogue at one period and are still in use in some mountain regions of the Southern states. This notation, which seems to have been invented by Andrew Law...used a different shaped note head for each tone of the scale. It is one of the curiosities of notational history (3, pp. 24-25)."

Lowell Mason "exerted a decisive and lasting influence on the course of musical activity in the United States. ...He was instrumental in thrusting the native American musical tradition, as represented by our early New England music makers, into the background, while opening the gates for a flood of colorless imitations of the 'European masters' (5, p. 160)."

Mason, appointed to teach music in the schools of Boston in 1838, was the first American school music teacher. His method of teaching music reading was a three-fold approach using numbers, Latin syllables, and regular note names (17, p. 303). The preceding would seem to indicate that Mason rejected shaped notes.

In 1845 and 1883 methods of teaching music reading were published that represented revolts against the use of Latin syllables, and that unsuccessfully attempted to eliminate syllables by substituting numerals. The preface of Jordan's New Method of Sight Singing stated that methods of sight singing with syllables were too intricate... The Jordan Method began with the numbered C scale, then soon transposed the numeral concept to other common keys. Finally, the neutral syllable la was sung while the student thought the numbers. Chromatics were avoided (17, pp. 303-304).

How to teach music reading became the paramount question during the years 1885-1905 (3, p. 109). Music was placed into the hands of the grade teachers beginning about

1885. This was a great change for school music. It forced attention upon the teaching of music reading, which had in the past been entirely the problem of the special teacher (3, p. 109).

The rote-song approach to music reading became an object of growing distrust. Song-singing itself became an object of suspicion, as being merely entertaining, without helping to attain a mastery of the printed page (3, p. 116).

The music supervisor became more or less a law unto himself, as he had little guidance except in the printed suggestions in the music books, supplemented by his own pedagogical ability. This condition was highly favorable for developing individual initiative and out of it grew a characteristic feature of the period (1885-1905), the editing and publishing of a large number of school music readers (3, p. 112).

Hosea Edson Holt wrote a music course for schools in order to provide material which could be used by the grade teacher. The method was based on mastery of the major scale taught as a melody. From this all the intervals were developed. The Normal Music Course consisted of first, second, and third readers for the elementary grades and a book for high schools (3, p. 115). During its ten year vogue it revealed the fact that though the children mastered the tonal and rhythmic problems by means of elaborate

drills, they could not combine them to read music readily. The Natural Music Course tried to eliminate this weakness by avoiding elaborate drills (3, p. 118).

Holt declared that relative tonality should be made a definite thing in the mind of the child. Others agreed,

"...and the practice sprang up of making several trips over the music as a preliminary to singing. Thus, first the tones were made out either by number, or by syllable, and then the rhythm, by means of time language was given in a monotone. Finally an attempt was made to render the tones and the rhythms together, in other words, to sing the melody at sight -- though evidently not at first sight (3, p. 121)."

In 1899 Francis E. Howard of Bridgeport, Connecticut, compiled the Novello Music Course, published by H. W. Gray Company. This course emphasized learning by doing (3, p. 122).

By 1899, "...the prevailing method of teaching sight reading, the scale-drill method, had been on trial for 15 years with widely varying results. ...general practice in the school room tended to emphasize knowledge rather than skill (3, p. 123)."

Sterrie A. Weaver was the first exponent of tests and measurements in sight reading. The key to Weaver's method of teaching reading was the individual singing child (3, pp. 125-126).

Thus by devious routes and a variety of methods the problem of music reading was worked out in this epoch. The outstanding successes were made by those who discovered the necessity

of individual work and of keeping the issue clear of non essentials (3, p. 128).

In the United States, in spite of the fact that the history of music in the public schools has often revolved around the issue of sight reading vs. rote singing, we have, with notable exceptions, tended to "let nature take its course." Only those students with marked flair and motivation have become proficient readers (8, p. v).

Sight singing is an established discipline the importance of which has been recognized by musicians for the past 300 years. It is doubtful that any other course in the entire music curriculum has enjoyed such prominence in history (2, p. v).

Hereditary, Cultural, and Psychological Factors

Influencing Sight Singing

Approximately three-fourths of the nation's children have no opportunity to learn to read music except through the public school music program. Many music teachers indicate that a child who can learn to sing a song can learn to sing a sight. Wheeler and Wheeler state that there are no sex differences in the ability to read music (22, p. 446).

Music educators, through study and observation, show that factors other than rhythm and melody study contribute to the learning of sight singing.

Both Hutton and Snyder consider the educational and family background of the student of positive importance.

In both the reading of words and of music from a printed page, the progress of the student depends to a great extent upon his background. The student must have an accumulation of experiences which will serve as a framework into which

the unfamiliar must fit before it can be understood (10, p. 119).

Skills in music reading come from a broad, general, varied, and rich background in music participation. Enjoyable and meaningful experiences in music are essential to the elementary school child. The teacher can help children acquire musical skills by offering interesting musical situations in the classroom (21, p. 55).

Student interest is vital to efficient, rapid, learning. Children are not interested in learning to read musical notation unless they find the notation useful for purposes that they consider of immediate importance.

It is believed by Crowell that love of music is also of importance. "If love of singing and rhythmic feeling are not established in the first two years, then, indeed, does the actual sight reading become a bugbear (6, p. 252)."

Sight singing skill has a close relationship to school marks and intelligence ratings, a lesser relationship to piano training, and very little relationship to choir experience, observations of Buchanan (4) reveal.

The musically superior child needs to be given many opportunities to develop music reading competence. The ability to reason can be brought out through music. In reading music a great deal of reasoning is involved.

Myers and Pierce make statements concerning physical development:

Ability to sing, visual and aural maturation, and muscular coordination and development as exemplified in rhythmic control are aspects of physical development basic to ability to read (16, p. 180).

Equally influential in determining a child's response to music at a particular time is his physical condition. If he is tired or not well, he may not like certain compositions or he may not want to play, sing, or listen (18, p. 28).

The ability to read music is a matter of sequential growth which is developed over a period of years. Each new step toward music reading takes two or three weeks of classroom time. The amount of work covered through the years and the facility with which children read music depends upon the teacher, the aptitude of the pupils, and the time given to the subject.

A relaxed, friendly relationship between teacher and pupil sets the stage for natural emotional appreciation of the aesthetic. It takes courage for a child to reveal himself through musical activities. He can do so only when he learns by experience that he can count on the teacher's support and understanding. The teacher may have to wait patiently for growth that can be pointed out to the pupil as an example of what he really can do; but the teacher must watch alertly for that constructive sign, and praise it, so that the child sees it too.

The child must never have the experience of being laughed at, for this hurts and paralyzes a child even more than a sharp criticism. Love and encouragement are far more

productive forces in children's lives than correction and criticism, for it is in an atmosphere of love and understanding that learning flourishes, even in the face of obstacles.

Nervousness is sometimes a hazard and everything possible should be done to eliminate it. Difficulties resulting from negative attitudes or inadequate musicianship should be analyzed and solved in terms of students' individual differences.

Desirable relationships within a group of children can be fostered through responding to music through expressive bodily movement, because it offers excellent opportunities for winning group appreciation for individuals within the group. Self-confidence is important in sight reading. "The student who says 'I know I'm a bad reader' will never be anything else (13, p. 92)."

Usually elementary school children achieve skill in reading music much more successfully as a group activity than as individuals.

If the student is not comfortable for one reason or another, or if he is tense or nervous, his reactions are likely to be unfavorable. Usually desirable responses are brought about when music and work connected with it fall within the children's powers of comprehension and musical skill.

Attitude, good or bad, may be contagious, communicated from one pupil to another and sometimes caught from association with adults. It is highly undesirable for either teacher or child to accept unfavorable attitudes as final. Emotional state and attitude are, in fact, frequently transitory and insignificant.

Practice is of the utmost importance. Children need to read music outside the classroom. Fish and Lloyd declare: "Remember, the important thing is that you practice sight reading often and regularly (8, p. xii)."

Lawton says: "Ear-training requires keen concentration and is therefore fatiguing: better results are obtained by short practising periods of five to ten minutes twice or thrice daily than by one half-hour (12, p. viii)."

A new reading song should be easy so that the children feel that they have successfully accomplished something new.

Methodology

The data for this thesis was collected from books, periodicals, and unpublished research studies on the subjects of music reading, sight singing, rhythm, ear training, and music in the education of children. These sources were carefully studied in order to obtain selected information related to the various factors involved in the subject of this study.

Plan of This Thesis

The following chapters are designed to present information concerning the essential factors related to the teaching of sight singing to elementary children.

Rhythm in sight singing is the subject of Chapter Two. The various rhythms which elementary children should be able to understand and perform at sight are identified and defined. Many ways of teaching rhythmic sight singing and some of the devices used to aid in teaching are presented.

Chapter Three defines the melodic aspects of sight singing which elementary children should be able to understand and perform at sight. Numerous ways of teaching melodic sight singing and a number of the devices in current use are presented.

Chapter Four presents the summaries and recommendations to researchers, publishers, school administrators, and teachers.

CHAPTER BIBLIOGRAPHY

1. Apel, Willi, "Solmization," Harvard Dictionary of Music, Cambridge, Harvard University Press, 1945, 690-691.
2. Benward, Bruce, Sightsinging Complete, Dubuque, Iowa, W. C. Brown Co., 1965.
3. Birge, Edward Bailey, History of Public School Music in the United States, Washington, D. C., Music Educators National Conference, 1928.
4. Buchanan, Walter, "Comparison of Fixed and Movable Solfege in Teaching Sight Singing from Staff," unpublished doctoral dissertation, University of Michigan, Ann Arbor, Michigan, 1946.
5. Chase, Gilbert, America's Music, 2nd ed., New York, McGraw-Hill Book Company, 1966.
6. Crowell, Wilhna S., Beginning Sight Reading, Yearbook of the Music Educators National Conference, Thirtieth Year, 1937, Chicago, Music Educators National Conference.
7. Darazs, Arpad and Stephen Jay, Sight and Sound, Oceanside, New York, Boosey and Hawkes, Inc., 1965.
8. Fish, Arnold and Norman Lloyd, Fundamentals of Sight Singing and Ear Training, New York, Dodd, Mead, 1964.
9. Harris, Clement Antrobus, "The War Between the Fixed and Movable Doh," Musical Quarterly, IV (April, 1918), 184-195.
10. Hutton, Doris, "A Comparative Study of Two Methods of Teaching Sight Singing in the Fourth Grade," Journal of Research in Music Education, I (1953), 119-126.

11. Jackson, George Pullen, "Buckwheat Notes," Musical Quarterly, XIX (October, 1933), 393-400.
12. Lawton, Annie, Foundations of Practical Ear Training, London, Oxford University Press, H. Milford, 1933.
13. Lovelock, William, Common Sense in Music Teaching, London, G. Belland Sons, Ltd., 1965.
14. Marrocco, W. Thomas and Harold Gleason, Music in America, New York, W. W. Norton and Company, Inc., 1964.
15. Miessner, W. Otto, "The Art of Tonal Thinking," Music Educators Journal, Vol. 48, (January, 1962), 42-45.
16. Myers, Louise Kifer, Teaching Children Music in the Elementary School, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1961.
17. Nye, Robert Evans and Vernice Trousdale Nye, Music in the Elementary School, 2nd ed., Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1964.
18. Pierce, Anne Elise, Teaching Music in the Elementary School, New York, Henry Holt and Company, 1959.
19. Shanet, Howard, Learn to Read Music, New York, Simon and Schuster, 1956.
20. Silvey, Clel T., A Study of Personal Reactions to the Solmization Method of Teaching Music Reading, Nashville, Tennessee, George Peabody College for Teachers, 1937.
21. Snyder, Alice M., Creating Music with Children, New York, Mills Music Company, 1957.
22. Wheeler, Lester R. and Viola D. Wheeler, "The Relationship Between Music Reading and Language Reading Abilities," Journal of Educational Research, 45 (February, 1952), 439-450.

CHAPTER II

THE RHYTHMIC ASPECTS OF SIGHT SINGING

The two basic elements in music are pitch and rhythm. A keen sense of rhythm is, therefore, necessary for the musician. Response to rhythm is an important part of the child's music education. The time to begin formal rhythmic training is in the elementary school years.

Some music educators believe that rhythmic problems comprise the most neglected area of music education and that rhythm is the prime determinant of music reading difficulties. Many think it wise to keep rhythmic problems slightly ahead of the complexities of pitch relations in the teaching of sight singing.

Movement plays an important role in the child's understanding of music. The child forms concepts of rhythm by participating in music through movement of his arms, feet and body (15-1, p. vi). Much of the child's bodily movement comes from an innate necessity to move and a love of movement for its own sake (27-1, p. 8).

Individual work should not be neglected in rhythmic development. Each child should have an opportunity to experience rhythm alone at least once a week if it is at all possible (11, p. xi)."

Graded Sequence of Objectives for Rhythmic Development

Music educators seem to be in general agreement as to their objectives for the rhythmic development of elementary children. Several authorities on sight singing express their opinions on this subject. These opinions are representative of a large number of music educators whose writings were investigated.

Grade One

Rhythmic sense may be developed in the first year through creating movements that fit the music and express its basic pulse, playing a simple rhythm instrument in time with the music, acting out songs with finger play, hand movements, and simple dramatizations, and through playing simple singing games (16-1, p. xviii).

Nye and Nye list objectives for rhythmic development of the first grade children:

Ability to respond to fundamental movements with large free motions: walking, running, jumping, hopping, skipping, and combinations of these.

Ability to respond to rhythm with movements such as swinging, bending, twisting, swaying, stretching, pushing, pulling.

Ability to do simple dance steps, skills, and formations including galloping, sliding, skipping, bowing, circling, singing circle with partner on the right.

Creative response to rhythm (rhythmic dramatization).

Comprehension of whether the music swings in two's or three's (duple or triple meter).

Understanding of the relation of rhythmic movement to quarter, eighth, and half notes (walking, running, and step-bending or bowing), and ability to use these rhythms by playing them on percussion instruments (22, p. 98).

Children's bodily responses to music are more important as a basic for musical understanding than drill reactions to printed notation. Whole, half, quarter, eighth notes, and dotted notes are introduced, not as mathematical units but as units expressed through movement, such as walking and running. Their proper names should be used as they are introduced.

Rhythmic patterns to be used for study and practice should be extracted from the context of songs. The child may be led to observe the rhythm of phrases through such questions as: "(1) what phrases have the same rhythm; (2) what phrases have different rhythms; and (3) what kinds of notes are in this song (2, p. 1)?"

Grade Two

Mary Helen Richards expects great strides in reading difficult rhythmic patterns in the second year. Meter is stressed and syncopation is introduced in this year.

Second grade children should

Have so developed their physical coordination in feeling patterns, beats, meters, phrases, and tones, that there is a definite kinesthetic foundation present to assist them in reading notation. ...

Be able to read without hesitation rhythmic patterns containing simple dotted rhythms as well as ordinary sixteenth, eighth, quarter, half, and whole note and rest combinations. ...

Be able to take musical dictation, notating simple rhythms and simple intervals (25, p. 97).

Boardman and Landis, in Exploring Music, recommend the following objectives for second grade children:

Is increasing in ability to interpret music through simple dance movements.

Displays in dance interpretations increasing recognition of over-all rhythmic movement.

Shows a growing knowledge of phrase structure, same-different sections, in planning dance interpretations.

Exhibits understanding of rhythmic pattern by singing simple rhythmic patterns accurately.

Is developing ability to maintain simple rhythmic patterns as accompaniment.

Identifies even, uneven rhythmic patterns in notation:



Distinguishes between beat, accent, and rhythm pattern.

Demonstrates knowledge of beat, accent, pattern, by clapping and stepping.

Interprets notation of simple rhythmic relationships using quarter, eighth, half notes.

Reveals knowledge of rhythmic elements when planning own accompaniments.

Recognizes importance of beat and pattern in developing own compositions (4, pp. xvi, xvii).

Children will make definite progress in rhythmic development if activities are organized to help them feel and respond to definite aspects of movement in music:

1. The regular basic pulse.
2. The natural grouping of pulses by twos or threes.

3. The rhythmic organization of music by measures.
4. The variation of rhythmic pattern within the regular framework of counts and measures (16, p. xvii).

Grade Three

Nye and Nye give their rhythmic objectives for third grade children:

Mastery of rhythmic understandings taught in kindergarten through the second grade.

Recognition of the musical phrase through bodily movement.

Ability to clap, step, and write in notation simple rhythm patterns played by the teacher.

Ability to step the note-rhythm of selected familiar songs.

Continued development in understanding beat, patterns, accent, meter, and form through bodily response.

Ability to interpret songs and recordings with rhythmic movement.

Ability to perform combined movements of walk-run, step-hop, step-slide, skip-hop, slide-hop, and to use these steps in dances such as the waltz and schottische and in creative dances and dramatizations.

The transfer of rhythmic understandings gained from bodily responses to note and rest values, including the dotted note.

Recognition and identification of 2-, 3-, and 4-beat measures in recordings or in the singing and playing of the teacher.

Knowledge of conductor's beat patterns for the following meters: 2/4 and fast 6/8, 3/4, and 4/4.

Ability to create percussion accompaniments to songs and recordings (22, pp. 98-99).

Grade Four



The fourth grade child should further develop the ability to sense the basic pulse of songs, isolate rhythmic patterns and step or clap the notation. He should review

the fundamental rhythms, learn simple dance steps and continue the use of rhythm instruments (16-1, p. xviii).

The student needs to learn that any of his movement patterns can be expressed accurately in rhythmic notation and that the page of music really shows him how the music moves, if he learns to interpret its meaning (16-4, p. viii).

Fourth year students should recognize, clap and/or play and sing these rhythm patterns with increasing fluency: whole, half, quarter, eighth, sixteenth notes and corresponding rests, a triplet figure and simple patterns in syncopation (28-Teacher's Edition 4, p. 11). They should recognize and be able to produce accurately common note relationships within rhythm patterns based on 2-1 or 3-1 relationships. The children should be able to interpret meter signature to establish meter and determine relationships of various notes (4-Book 4, p. vii).

Grade Five

In the fifth year the child should learn to interpret meter signature in order to establish accent groupings and relationships of note values (3, p. 27). Children at this level should be able to create and notate rhythm patterns in 2/4, 3/4, and 6/8 meter. They should be able to analyze the difference between  and  (16-Book 1, pp. 225-229).

The child should look for a repeated pattern in the uneven rhythm of the notes that will help him to know what to expect as the song continues. ...

1. Often a short, rhythmic figure occurs repeatedly. ...
2. If a phrase begins with a pick-up note, others may begin likewise.
3. Sometimes the rhythm of the entire phrase is repeated.
4. Phrases often go in pairs (6-5, p. viii).

Moving the hand and forearm in the pattern of the conventional conductor's beat will help the child to know where he is in the measure and to give him a frame against which the note patterns can make rhythmic sense (16-5, p. vii).

Grade Six

In the sixth grade attention should be given to unusual rhythmic patterns (2-6, p. 2). The sixth grade child should exhibit understanding of meter and rhythmic relationships and be able to maintain complex rhythmic patterns independently when playing on melody or percussion instruments (4-6, p. xvi).

Nye and Nye recommend that fifth and sixth grade students acquire

Mastery of all rhythmic skills taught in kindergarten through the fourth grade.

Ability to dramatize work songs and ballads.

Increased skill in moving to and in reading the notation of more complex rhythm patterns.

Some creative interpretation of music's feelings and structure through movement.

Understanding syncopation through movement and through use of percussion instruments (22, p. 99).

Responding to Rhythmic Stimuli

"Children should be taught to feel rhythm using the body as a whole (13, p. 109)." For free bodily rhythmical expression, the child must be able to use his entire body and express himself by the movements of the large muscles. Rhythmic experiences demand space (5, p. 144). It is advisable, therefore, that teachers use the large areas in the school: music center, gymnasium, playground (18, p. 6).

Before children can make suitable responses they must learn to listen in order that they may feel the rhythm and express their feeling in some satisfactory way. Rhythmic consciousness is developed through much experience in physical response (11, p. vii). Every opportunity should be given for the children to listen independently and then interpret the music for themselves. In this way they will develop the power of close attention to music that is essential if they are to respond rhythmically (11, p. 9).

There are a number of ways in which to introduce rhythm. Rhythm may be introduced through the tic-toc of a clock. Composer's names and children's names may be set to these tic-tocs (20, p. 90). "The use of word-rhythms is an excellent simple and natural way to introduce rhythmic response. There is rhythm to be discovered in the spoken word, and children use and enjoy this rhythm in their play (22, p. 75)." Echo-clapping is one way to

introduce rhythmic instruction. Normal school age children have the physical coordination to do it with ease (22. pp. 71-72).


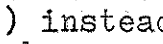
The Children who find it difficult to respond accurately to the rhythmic pattern of the song should participate often with those who have a strong feeling for the rhythm and respond correctly. A student who is weak in his response to rhythm needs a great deal of this type of experience, for it is easy and enjoyable, and will teach him to relax and gain control of his muscles so that he can follow the steadily recurring pulsations of the music. The acquisition of muscular control will result in a positive improvement in the poise and self-assurance of the pupil (11, p. 2).

The free, uninhibited, and untaught rhythmic actions of children are virtually unlimited in scope and variety. Running and walking, skipping and tripping, trotting and galloping, hopping and jumping, pushing and pulling, bending, and swaying, patting and stroking, beating and banging, rising and falling, creeping and crawling, twisting and turning, rolling and tumbling -- these are only a beginning of basic themes upon which children improvise endless variation (24, Vol. 1., p. 83).

Hood and Schultz (11) suggest ways to develop recognition of and response to accents in music:

1. Swinging arms, pendulum fashion.
2. Pushing both hands downward on strong beats and bringing them upward on each weak beat.
3. Say the word "strong" with every heavy, accented beat, and the word "weak" with the light, unaccented beats, while physically responding as in 1 and 2.

While the students are learning to recognize and respond to accented and unaccented beats in music, action songs which emphasize these accents through movements are very helpful (11, p. 108). For action songs which require strenuous movement the class may be divided; one half of the group singing the song; the other half expressing the "action" or rhythmic movement. This will help to insure good tone production on such songs (11, p. 2).

Folk games in which the measure signature is $6/8$, $9/8$, or $12/8$ are invaluable as a means of developing sure and accurate muscular response to this kind of rhythm. Such games also increase the feeling for the division of the beat into three parts () instead of the two parts () which have been used so extensively (11, p. 163).

"Folk dances are usually very suitable for the experience of responding to like and unlike phrases because the short melodies permit much repetition of the phrases in a natural manner (11, pp. 83-84)."

Free creative rhythmic experience is important. If the teacher is able to adapt her playing at the piano easily, a good type of activity is to ask one child to cross the room in the way he would like to move. As he does so, the teacher fits the rhythm of her playing to his movement so that the music expresses his actions (16-1, p. viii).

"As soon as children are able to distinguish easily between the natural rhythms suggested by the music they hear, and are able to show this by rhythmic response, they are ready to proceed to the use of music in which the rhythms change without warning (11, p. 37)."

Mary Helen Richards suggests that children move to the beat as they chant rhymes. She lists the following steps to foster rhythmic awareness, using songs children know:







1. Sing the song together.
2. Think the song and step the beat.
3. Think the song, step the beat, and feel the accent of the metric group by bending their knees.
4. Think the song, step the beat, feel the accent, and clap the rhythmic pattern of the words.
5. Think the song; step the beat; feel the metric accent; clap the rhythmic pattern of the words; and turn to the right with the first phrase, to the left with the second phrase, to the right with the third, etc.
6. Sing the song, step the beat, feel the metric accent, clap the rhythmic pattern of the words, and turn the phrases.
7. For a difficult but challenging variation, clap the beat, step the rhythmic pattern, and turn the phrases (25, p. 8).

. . . children may learn to follow the sequential flow of the rhythm of the melody as they:




1. Design the longer and shorter sounds with their hands.
2. Describe them using the words long and short.
3. Observe and follow the music from a large experience chart or chalkboard written in blank notation or in staff notation.
4. Follow the score in music books, and observe the notation of music in which the rhythm of the melody is:
 - A. The same for each phrase.

- B. Identical for two phrases and contrasting for a third.
- C. Identical for two or three phrases and contains silences indicated by rests (8, pp. 17-19).

To help develop concentration and steady rhythm a rhythmic sequence of four to eight measures may be written on the chalkboard, or a song from the books may be used. The notes should be read rhythmically, either like a round or a canon, by rows or tables.

Unless pupils can recognize and respond to music played using , notes promptly and accurately, they are not yet prepared for the association of these rhythms with their notation (11, p. 89). When children observe and study notation, it may help if they apply these experiences: walk to quarter () , run to eighth () , and walk slowly or pause to half () , dotted half () and whole () notes (23, p. 83).

Music for walking activities should include only selections in 2/4, 3/4, or 4/4 measure, in which the melody consists almost entirely of quarter notes (11, p. 28). Running music should be confined to 2/4, 3/4, or 4/4 measure in which the melody consists almost entirely of eighth notes (11, p. 29). Music for skipping usually has one of the following beat groups or patterns predominating in the melody:

- a.  in 2/4, 3/4, and 4/4 measure.
- b.  or  in fast 6/8, 9/8, or 12/8 measure (11, pp. 31-32).

Teaching Meter Signature Significance

"Meter is the grouping together of rhythmic pulses by means of regular, or fairly regular, accents or stresses." To find the meter:

1. Tap the basic pulse of the composition.
2. Find the measure accent, thus determining the meter of the composition.
3. Clap the pulse, emphasizing the measure accent (7, pp. 34-35)."

When beginning work on meter signature, if the children inquire about the lower number, explain that the lower number 4 stands for the quarter note. The upper number really tells us how many notes of the kind indicated by the lower number will be needed to fill a measure (11, p. 121).


It is essential to rhythmic progress that children discover that some beats in music are stronger than others, and that each measure includes one strong beat and one or more weak beats (11, p. 101).

In music, beats are represented by note symbols, any one of which may denote one beat. These same symbols may also have more or less than the duration value of a single beat, but for the present we need only recognize that any one of them may be used

to represent a single beat. They are time symbols, and do not represent any particular sound, high or low, until they are placed on a music staff (17, pp. 5, 6).

It should be pointed out to pupils that the half note and the eighth note may at times be the beat notes. Many songs are printed with a $3/4$ measure signature which should be played and sung at a fast enough tempo that the students will feel one beat in a measure instead of three (11, p. 172). Attention needs to be called to the fact that in many songs printed in $4/4$ measure the beat note is actually the half note (\downarrow), with two beats to the measure. There are examples of music in $2/4$ measure which move so slowly that the measure feeling is actually quadruple: four beats to the measure, the eighth note (\updownarrow) being the beat note (11, p. 173).

...in $6/8$ measure, there are usually two beats in each measure and not six. Much confusion will result later if the class is taught that the upper number of the measure signature indicates the number of beats in the measure and that the lower indicates the kind of note that gets one beat. This should not be emphasized. Rather it is important to call attention to the fact that the upper number indicates how many notes of the kind denoted by the lower figure, or the equivalent, will be needed to fill a measure (11, p. 121).








Three tones equal in value may occupy a beat. Since there is no note-symbol indicating a third-of-a-beat value, a makeshift is used. Three notes are grouped together by a curved line or bracket which encloses a small figure 3, over or under the group . This 3-note group is called a triplet. Each note of the triplet equals a third-of-a-beat (17, p. 108).





Only music in 6/8, 9/8, and 12/8 measures should be used for studying music in which the ♩. is used as the beat note. The tempo should be rapid (11, p. 156). It is apparent on hearing and on looking at songs in 9/8 and 12/8 where the tempo is rapid, that the rhythmic patterns are the same as those in 6/8 measure, with ♩. as the beat unit (11, p. 161).











Application of measure bar and meter signature:


(1) The teacher writes on the chalkboard a familiar melody in 2/4, 3/4, or 4/4, without measure bars or measure signature. (2) The children sing the song with words, indicating the accented or strong notes as they sing. Show the "strong notes" by putting an accent mark, > , or the letter S over the proper notes in the melody on the chalkboard. (3) When all the "strong notes" have been located and properly marked, some pupil puts in the measure bars, one immediately preceding each strong beat. When a phrase begins on an accented beat the first bar line is omitted. A double bar, indicating the conclusion of the song, is placed at the end of the second phrase. (4) The children notice that three quarter notes fill a measure in the song. The figure 3 is written in the two upper spaces, just before the first note of the first phrase. Some pupil writes the figure 4 in the two lower spaces, indicating that three quarter notes are required to fill a measure (11, pp. 121-122).


Teaching Dotted Note Rhythms













Much of the music sung, played, and heard has the dotted-quarter note () as the beat unit. It is important for pupils to learn to recognize this type of rhythmic pattern (11, p. 156). Real understanding of the   figure requires that the two notes  and  be learned together (11, p. 147). Rhythms of phrases from familiar songs in which the figure   occurs, may be sung from memory and the rhythmic pattern written on the board by the pupils or on plain paper at the desks (11, p. 149).

Unfamiliar songs in 2/4, 3/4, and 4/4 measure using   and other familiar patterns may be read rhythmically with the class clapping the notes. It frequently helps students to coordinate voice and movement if they chant some neutral syllable, such as tah, with each note (11, p. 148). Further experience in recognizing the   figure can be gained through the use of piano music which the children hear but do not see. Songs may also be used (11, p. 153).

Music in 2/2, 3/3, 4/2, or \emptyset measure can seldom be used for studying the rhythmic figure   , since the beat note is usually  , and the figure to be studied,   , becomes the combination used for skipping, similar to   when  is the beat note. Music in 3/8, 4/8, 6/8, or 12/8 measure must not be used for studying the rhythmic figure   , since the quarter note is





not the beat note in these measures. Music in which the quarter note is the unit of beat, probably in 2/4, 3/4, and 4/4 or C measure, must be used in learning the rhythmic figure  (11, p. 145).

Procedure for teaching  as suggested by Hood and Schultz (11).

1. The class sings from memory a song containing .
2. Children clap, one clap for each note sung.
3. Pupils realize by ear and by muscular feeling that some of the music for certain words was "uneven," "jerky," etc.
4. Action is repeated with books open.
5. Children discover that music in uneven places includes  in each case.
6. Pupils notice as they clap again that they always have an inclination to give an extra swing or sway between the long note, , and the short note, . They are already familiar with other dotted notes through  and  and can be expected to recognize that  will be of longer duration than . It is a natural impulse to give an extra swing or sway between  and .
7. Capitalize on this natural impulse and have the class develop a definite feeling for .
8. The sound of the clapping is essential to the development of ability to recognize by ear the uneven rhythmic pattern of .
9. A silent swing is vital to sustain muscular feeling for regular beats.

To quote Hood and Schultz:

No study need be made of the mathematical value of the dotted-quarter and eighth note group. ...If the ear and muscles are trained to recognize and produce such rhythms when seen by the eye, the intellectual understanding will follow as a natural result for those children who are capable of acquiring it (11, pp. 146-147).

It may help the group in thinking of 6/8 measure as duple or two-beat measure to consider the  as the walking note,  as the running notes, and  as the skipping notes, while  is the two-beat note (11, p. 158).

It is important that the pupils compare the use of the eighth note in $2/4$, $3/4$, and $4/4$ measures, where there are the two running notes, to a beat (♩), with the use of the eighth note in $6/8$ measure, where there are three running notes (♩♩♩) to one beat. Understanding of this fact is essential to the development of skill and ability to read music in $6/8$, $9/8$, and $12/8$ measures (11, pp. 158-159).

Measures of typical rhythmic patterns with $6/8$ as the measure signature can be put on the board for recognition by the class. These measures may be read in several different ways. (a) Clapping, (b) Rhythm instruments, (c) Chanting -- as pupils clap they can also chant to these notes, using a neutral syllable. Vocal response insures the ability to reproduce notation vocally, (d) Flash cards. Children's songs in their music books may also be used for these activities. Songs can also be read rhythmically with words (11, pp. 159-161).

No mathematical study of the function of the dot after the half note need be made when the dotted half is first presented (11, p. 92). Music used to develop an understanding of dotted half notes should be in $3/4$ measure. There should be little else in the right-hand melody line than dotted half notes (11, p. 68).

Teaching Rest Values

Shanet (26) recommends that rest values, through the sixty-fourth rest, be learned after note values, while Kanzell (14) suggests that rests from the whole rest through the thirty-second rest be introduced collectively with the notes of equal value.

To introduce the rest the teacher may sing a song including a rest at the end of a phrase, the children should discover that there is one silent beat at the end of the

phrase and learn to know that the sign is equal to a walking note, but silent (11, p. 97).

Responding to Accents

Hood and Schultz discuss response to accents in music. "Each selection and song should have a very definite, clear, natural accent which says either 'one, two', or 'one, two, three', or 'one, two, three, four.' The 'one' beat should be played with a stronger accent than the other beats. ...Each selection must be confined to one kind of measure (11, p. 101)."

Teaching Syncopation

Syncopation is a rhythmic device in which the normal feeling of weight on strong beats or the strong part of a beat is altered. Syncopations are achieved:

- (a) by omitting strong beats.
- (b) by omitting strong parts of beats.
- (c) by tying from a weak beat into a strong beat.
- (d) by tying from a weak part of a beat into a strong part of a beat.
- (e) by putting a long note, which has a feeling of weight, on a weak beat. ...

In performing syncopated patterns make a slight accent on the normally unaccented beat or weak part of the beat. Always feel the pulse strongly so that the syncopation can be effective. If the syncopation is within parts of beats ...the pulse should be thought of in subdivisions (7, pp. 168, 169).

Developing Sensitivity to Tempos

One important aid to a satisfactory and developmental experience in rhythm is the proper tempo. Proper tempo,

according to Myers (21), is the rate of speed at which a particular activity can be carried on freely and vigorously.

An effective method of keeping tempos constant is to tap out a few beats before the exercise begins with the suggestion "sing about this fast (11, p. 197)."

Since quarter notes are most frequently used as the beat notes, they set the tempo or rate of speed better than other notes. Therefore it is suggested that the rhythmic sequences always change from ♩ to ♪ and not from ♪ or ♩ to ♩. However, it is possible to change satisfactorily from the longer notes such as to skips and runs, without the quarter note (♩) coming in between (11, p. 74).

Teaching Auditory Perception

In the early stage of musical development when giving dictation a preliminary hearing of the problem followed by discussion of and agreement on the type of meter, type of beat, available meter signatures, and number of measures, will be effective (19, p. 49).

To quote Gary:

As preliminary perceptual experiences the children should have the opportunity to:

1. Listen to the sound of a beat and identify it.
2. Listen to the sound of regular beats and identify them.
3. Listen to the sound of regular beats in sets and the accents that separate them, identifying the groupings of the beats.
4. Listen to patterns of sounds that are the result of longer and shorter time values, describing and identifying them (8, p. 12).

Gary also says:

After listening, singing, playing, and moving to the song the children will:

1. Compare the pulse (beat) with the rhythm of the melody through blank notation as the song is performed.
2. Identify the meter selected to write this song in music notation.
3. Assist the teacher in changing blank notation to music notation.
4. Clarify and name the mathematical relationships of the time values by comparing them to a division of the whole into halves as studied in mathematics.
5. Study the complete notation of the song from an experience chart.
6. Follow the score in their music books (8, p. 29).

"Some music writing should be included in almost every lesson. The goal is to combine listening, reading, writing, and singing activities so that the children are given several approaches to each new rhythm and each new interval (25, p. 42)."

Following the writing of the rhythmic patterns in familiar songs, the class may be given an opportunity to discover and write the phrase rhythms of a few unfamiliar, simple songs as they are presented by the teacher. ...It will be necessary for the teacher to sing the song over and over again while the pupils are discovering the different kinds of notes and writing them (11, p. 131).

The teacher may demonstrate how a song may be written in several different ways, according to the measure signature and the unit of beat. The pupils select another song and write it either on the board or on paper, using as the beat unit a note which is different from the one in their books (11, pp. 171-172).

The rhythmic patterns of phrases from familiar songs can be written by part of the group while the others sing from memory. ...It will usually help

the pupils as they try to hear all the notes clearly if they clap lightly with each word or syllable as they sing. Then they should write the rhythm pattern they have heard and choose the correct measure signature (11, p. 162).

Each student may make up short rhythmic patterns of six to ten notes in length, similar to patterns he has already studied, and dictate his patterns to the class, first announcing the value of the pulse note (7, p. 4).

In listening selectively for characteristic rhythmic patterns within the beat, the student will need to be clearly aware of the sound for which he is listening and to feel the tempo so as to move across the disgrammed measures in time with the established beat. Two preliminary drills are recommended: first, establish the tempo and say the rhythmic pattern in question several times in tempo, second, count the beats out loud while tapping the corresponding places on the diagram. As soon as he has gained sufficient proficiency the student may discard these preliminaries (19, p. 24).

Practicing Rhythmic Studies

When practicing it is wise to take each exercise at a pace that will give most of the class time to hear mentally before singing or playing. Benward (1) says that before children sing any exercise they should first sing the rhythm on a neutral pitch, then clap the meter and finally sing the pitches with the rhythm.

Fish and Lloyd (7) suggest that rhythmic studies be done in two parts or as a rhythmic canon.

Two-part Rhythmic Drills

1. Half the class taps the upper part while the other half claps the lower part. Reverse parts.
2. As a duet for two soloists.

3. Tap the upper part with the right hand and the lower part with the left hand. Reverse parts.
4. In doing (1) and (3) have a class member conduct the performance and make corrections.

Reading Unfamiliar Rhythm Patterns

Songs used for reading rhythms in unfamiliar songs should contain only the rhythmic combinations of note and rest values with which the pupils have had experience thus far (11, p. 133).

When children open their books to an unfamiliar song start with an introductory survey of the rhythm notation:

- How many kinds of notes are there in the song?
- What kinds of notes do you see?
- Are there any rests?
- Can you find two phrases or lines which contain the same combination of notes or rhythmic patterns (11, p. 134)?

Hood and Schultz (11) list ways of reading rhythms in unfamiliar music:

1. Bodily response (step the rhythm).
2. Reading words of phrases in the rhythm of their notation.
3. Reading phrase rhythms with a neutral syllable.
4. Playing phrase rhythms.

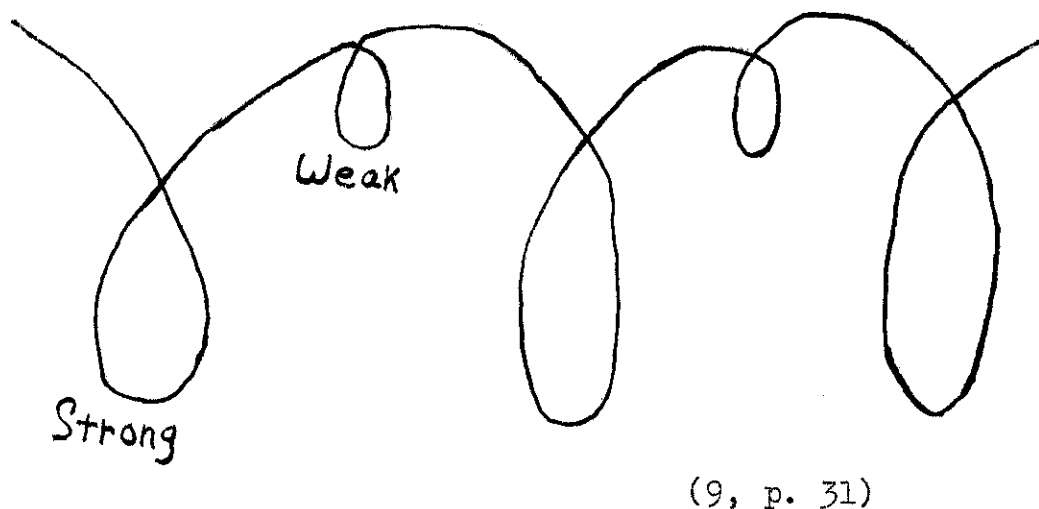
Hooper lists skills and concepts related to the ability to sight sing rhythms in unfamiliar music:

- (a) Ability to determine meter aurally;
- (b) Ability to identify familiar rhythmic patterns;
- (c) An understanding of the difference between meter and rhythm;
- (d) An understanding of the rhythmic organization by measure;
- (e) An understanding of the relative duration of the various note values;
- (f) Ability to interpret the time signature (12, p. 119).

Special Materials and Equipment

Numerous devices are employed by music educators in the teaching of rhythmic sight singing.

Children may draw loops to show strong and weak beats.



(9, p. 31)

Fig. 2--Loops showing strong and weak beats

As the children listen to songs or instrumental selections they may indicate the accented or unaccented beats on the chalk board with long and short marks like these:

Duple measure | | | | |

Triple measure | | | | |

Quadruple measure | | | | |

(11, p. 109)

Fig. 3--Marks indicating accented and unaccented beats

Many teachers consider colored scarves, ribbons, balloons, jumping ropes and balls a necessary part of rhythmic equipment. A piano and a phonograph in good condition, an ample supply of suitable music and recordings, and some rhythm instruments are essential (23, p. 73).

"To give variety it is sometimes desirable to use a rhythm instrument instead of the piano. The teacher can easily sound a series of walking, skipping, or running tones on the drum, while the children respond through movement (11, p. 36)."

Instruments that rattle or jingle when shaken are best for skipping: tambourines, rattles, shakers, castanets, clogs, etc.; for running, the tinkling instruments: triangles, cymbals struck very lightly, orchestra bells, etc.; for walking, heavier percussion: drums, rhythm sticks, wood blocks (11, pp. 41-42). Only children who are capable of producing a clear and accurate rhythmic pattern on an instrument should be permitted to provide the rhythm for the class to follow (11, p. 41).

"Duration, volume, accents, tempo and mood are felt and responded to more directly and more freely when the accompanying instrument is not only easy to manipulate but close kin to clapping hands, snapping fingers, tapping feet, and moving bodies (24, p. 84)."

Most classes enjoy playing music including using drums. Children play the notes on their drums, striking only once for but indicating the dot by an extra silent swing away from the drum, followed by the sound for the eighth note. Only one sound for each note (11, pp. 147-148).

"The gong is especially effective for giving a clearer understanding of the long notes and their two-beat, three-beat, or four-beat length (11, p. 70)."

Children, as they become familiar with the notes, will enjoy having certain members of the class point to groups of notes to which other pupils are to respond. This activity can be worked out sometimes in the form of a rhythmic "spelldown," allowing each child to continue as long as he makes accurate response (11, p. 93).

Measures or short phrases can be put on flash cards, but each phrase should be a complete little rhythmic sequence including in 2/4, 3/4, or 4/4 measure. The class is divided in the same manner as for a spelldown. The leader shows a flash card and indicates how the rhythm is to be read: "clap it," "chant it" (tah, tah, etc.); or "play it on the drum." Anyone making a mistake takes his seat, until a winner is left undefeated (11, p. 149).

The tachistoscope is a slide projector with a flash meter attached for flashing images on the screen for from several seconds to one one-hundredth second.

Christ (6) says that inefficient readers become efficient readers after training with a tachistoscope. In an experimental study he found that ten hours of tachistoscope-metronome drill on rhythm patterns was responsible for extremely significant gains in reading ability.

Hammer (10) reports that tachistoscopic training is an efficient technique for developing visual skills, for promoting instant response to visual stimuli, and for increasing the speed of the flash and the amount of material to be perceived.

Summary

Movement plays an important role in the child's understanding of music. From the first grade through the sixth grade pupils should be taught to feel and understand rhythm. By the end of his elementary school training the child should have developed the ability to respond to rhythmic stimuli, an understanding of meter signature significance, an understanding of dotted note rhythms, an understanding of rest values, the ability to respond to accents, an understanding of syncopation, sensitivity to tempos, aural perception ability. Practice of rhythmic studies will usually lead to the ability to read unfamiliar rhythm patterns.

Large areas of the school's physical plant should be used for teaching rhythmic movement. Children must learn to listen before they try to interpret music through movement. Word-rhythms, chanting rhymes, and echo-clapping are good activities to introduce rhythmic responses. Folk games, folk dances and free creative rhythmic experiences are important activities. After

children have learned to respond physically to basic note values and rhythmic patterns which they hear, they are ready to associate these rhythms with their notation.

Dictation is important to musical development. Some music writing should be included in almost every lesson.

Rhythmic equipment includes such items as: chalkboard, colored scarves, ribbons, ballons, jumping ropes, balls, piano, phonograph and recordings, rhythm instruments, flash cards, and tachistoscope.

CHAPTER BIBLIOGRAPHY

1. Benwood, Bruce, Sightsinging Complete, Dubuque, Iowa, W.C. Brown Company, 1965.
2. Berg, Richard C., D. S. Burns, Robert Pace Hooley and J. Wolverton, Music for Young Americans, Books 1, 2, 3, 4, 5, 6, and Teachers Editions, Dallas, American Book Company, 1963.
3. Bergethon, Bjornar and Eunice Boardman, Musical Growth in the Elementary School, Chicago, Holt, Rinehart, and Winston, Inc., 1963.
4. Boardman, Eunice and Beth Landis, Exploring Music, Books 1, 2, 3, 4, 5, 5, and Teacher's Editions, New York, Holt, Rinehart and Winston, Inc., 1966.
5. Brooks, B. Marian and Harry A. Brown, Music Education in the Elementary School, New York, American Book Company, 1946.
6. Christ, William B., "The Reading of Rhythm Notation Approached Experimentally According to Techniques and Principals of Word Reading," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1953.
7. Fish, Arnold and Norman Lloyd, Fundamentals of Sight Singing and Ear Training, New York, Dodd, Mead, 1964.
8. Gary, Charles L. (Ed.), The Study of Music in the Elementary School - A Conceptual Approach, Washington, D. C., Music Educators National Conference, 1967.
9. Grant, Parks, Music for Elementary Teachers, New York, Appleton-Century-Crofts, 1960.
10. Hammer, Harry, "The Tachistoscope in Music Reading," The American Music Teacher, Volume 17, Number 1 (September-October, 1967), 39, 48.

11. Hood, Marguerite Vivian and E. J. Schultz, Learning Music Through Rhythms, Boston, Ginn and Company, 1949.
12. Hooper, S., "Development of a Test Battery to Measure Music Reading Readiness of Children in Grades Three and Four," Journal of Research in Music Education, 14 (Summer, 1966), 115-125.
13. Jacques-Dalcroze, Eurhythmics, Art and Education, New York, A. S. Barnes and Company, Inc., 1931.
14. Kanzell, Maxwell, How to Read Music, New York, Maxwell Kanzel, 1944.
15. Landeck, Beatrice and Crook, Youngberg, Luening, Making Music Your Own, Books 1, 2, 3, 4, 5, 6, Teacher's Editions, Dallas, Silver Burdett Company, 1964.
16. Leonhard, Charles and Krone, Wolfe, Fullerton, Discovering Music Together, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Chicago, Follett Publishing Company, 1966.
17. Lieberman, Maurice, Ear Training and Sight Singing, New York, W. W. Norton, 1959.
18. Marvel, Lorene, Music Resource Guide for Primary Grades, Minneapolis, Schmitt, Hall and McCreary, 1961.
19. McGaughey, Janet McLouch, 2nd. Ed., Practical Ear Training, Boston, Allyn and Bacon, 1966.
20. McMillan, L. Eileen, Guiding Children's Growth Through Music, Boston, Ginn and Company, 1959.
21. Myers, Louise Kifer, Teaching Children Music in the Elementary School, 3rd Ed., Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1961.
22. Nye, Robert Evans and Vernice Trousdale Nye, Music in the Elementary School, 2nd Ed., Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1964.
23. Pierce, Anne Elise, Teaching Music in the Elementary School, New York, Henry Holt and Company, 1959.
24. Pitts, Lilla Belle, Guide and Teaching Suggestions to Our Singing World, Volumes 1 and 2, Boston, Ginn and Company, 1952-1955.

25. Richards, Mary Helen, Threshold to Music, San Francisco, Fearon Publishing Co., 1964.
26. Shanet, Howard, Learn to Read Music, New York, Simon and Schuster, 1956.
27. Sur, William R. and McCall, Pitcher, Tolbert, Nye, Fisher, DuBois, This Is Music, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, Allyn and Bacon, Inc., 1962.
28. Wassum, Sylvesta M., editor, Birchard Music Series, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Evanston, Illinois, Summy-Birchard Company, 1962.

CHAPTER III

THE MELODIC ASPECTS OF SIGHT SINGING

The foundation is laid for sight singing in the elementary school. Concepts learned in the first grade serve as a basis for second grade work; second grade work serves as a basis on which third grade work is built; third grade material serves as a basis for fourth grade work; fourth for fifth; and fifth for sixth. It is important that the child master the concepts at each grade level on which the next year's music study is built. This responsibility rests with the music teacher.

It is necessary for the music teacher to know at what grade level to introduce and to practice the various aspects of melodic sight singing. Many leaders in the field of music education have written on this subject. There seems to be general agreement among them as to which concepts belong at each grade level.

Graded Sequence of Objectives for Melodic Development

"When organizing his classes, the music teacher should be guided largely by the continuum as a whole,

...for growth in music reading is the result of logical, organized musical experiences (24, p. 95)." The following sequence of objectives for melodic development, arranged by grade, are merely indications of work which might be accomplished at that level.

Grade One

First grade children should be taught to hear, identify and verbalize upward and downward movements of tones in a melody or in a pattern of tones (66). First graders should have "...introductory experiences with a variety of visual symbols for the upness and downness of pitch, including notation (66, p. vi)." They should respond to melodic direction with appropriate bodily movement.

"The physical sensing of pitch can be taught in the first and second grades by having the pupils move their hands in the air as the melodic curve rises or falls (45, p. 151)."

During the first year of music study children should see music on a chart or in a book. They should learn to associate line notation and contour lines with melodic direction. During the first year pupils may be expected to reveal awareness of up-down-same in reproducing melodic patterns on melody instruments. They should read and play simple melodies from number notation and match on melody bells the tones which they hear or sing.

In the first year children should be taught to recognize the existence of music symbols and begin to associate musical movement with notation. They should learn to identify phrases as same-different by studying notation.

The authors of Making Music Your Own list the following objectives for first grade;

- Become aware of high and low.
- Become aware of melodic contour.
- Discover the "yoo hoo" interval "by ear" and visually.
- Outline melodic contour.
- Hear tonal relationship of 3-2-1-1 or mi-re-do-do and play the pattern "by ear."
- Hear the tonal relationship of 1-2-3-4-5 or do-re-mi-fa-sol and play the pattern "by ear."
- Think out tonal patterns "by ear."
- Hear tonal relationship of 3-3-2-1 or mi-mi-re-do and play the pattern "by ear."
- Hear the tonal relationship of 8-7-6-5-7-8 or do-ti-la-sol-la-ti-do and play the pattern "by ear."
- Play variations of the teaching chant (5-3-6-5-3) "by ear."
- Hear the tonal relationship of 5-3-6 or sol-mi-sol and play the pattern "by ear."
- Hear the tonal relationship of 1-1-6-5-4-3-2-1 or do-re-mi-re-do and play the pattern "by ear" (36-Teacher's Edition I, pp. 148-151)."

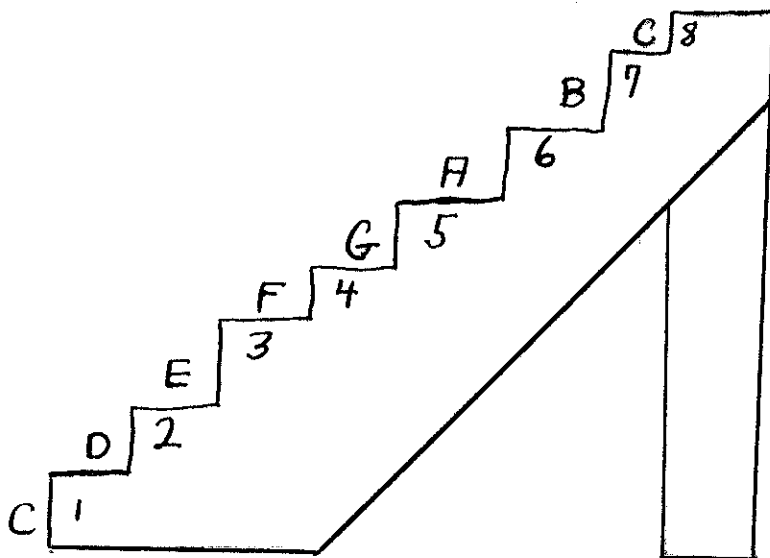
Grade Two

In the second year children should work toward

Developing reading readiness through the use of books while learning a song; seeing the notation of the song while hearing and singing it phrase by phrase, usually one phrase per staff on the page; using hand levels while singing the tone names; picturing the contour of a melody by using hand levels; playing short tunes of bells, thus connecting sound level with space in preparation for accurate reading of notation (37, p. xxiv).

Syllables may be introduced in tonal patterns in the second grade, if the patterns were used often as tone calls throughout the first and second grades. Children should understand the staff before syllables and/or numbers are introduced. After the staff is understood pupils may be presented with the keynote or home tone and the scale.

In presenting number names and letter names of notes use a step-wise approach through a song. The following illustration might help the students to understand the step-wise concept.



(61-2, p.24)

Fig. 4--Example of stair-steps to aid
in teaching step-wise concept

The second grade child may be expected to develop a feeling for the tonic chord. He should learn to identify high and low tonal centers. In the second year pupils should discover the interval of the octave "by ear" and visually. He should be led to hear the tonal relationship of 1-2-3-2-1 or do-re-mi-re-do.

In the second year the students may be expected to acquire some ability to associate symbols of musical notation with musical concepts. Pupils should begin to use notation as an aid to listening, performing, and creating. At this level children may be taught to identify a phrase of a song by its notation and to think out a tune "by ear."

Children in the second grade should learn to recognize the major and minor scales as tonalities. They should also learn to sing from notation simple tonal patterns which move by steps or skips.

Mary Helen Richards lists music reading objectives for second grade:

Intervals are "danced" to facilitate reading and hearing intervals. Octaves are introduced.

By the end of the second year children should know ordinary musical terms such as: downbeat, intervals, rhythmic patterns, beat, bar lines, staff, meter, phrase, etc.

Be able to follow musical directions effectively, so that they can learn new music quickly and accurately.

Be well acquainted with the tone relationship of the pentatonic scale.

Be able to figure out notated tunes and sing them accurately (as long as they do not depart from the pentatonic range). There may still be difficulties in reading at sight, but the foundation has been laid and further practice

is all that is needed for the development of reading excellence.

Be able to sing rounds and canons in several parts with ease (54, p. 97).

Grade Three

Some music educators say that independent sight reading is begun in the third grade. "Recent music texts published for elementary school children seem to indicate that reading usually begins at the third or fourth grade level (28, p. 118)."

Most third grade classes can learn to recognize and sing the tonic chord, scale patterns ascending and descending, repeated notes and the interval of the third. Mary Helen Richards writes that by the end of the third grade children should have been introduced to key signatures and accidentals, one sharp and one flat will have been added to the students' knowledge, sounds of major and minor should have been introduced and the student should be able to read the complete major diatonic scale (54, pp. 114, 120, 128).

The authors of Exploring Music claim that during the third grade the child

Is acquiring ability to associate symbols of music notation with musical concepts.

Plays familiar melodies on bells and piano by ear and by scale numbers.

Is sensitive to the existence of combined tones as he listens to the various lines of an accompaniment.

Shows his consciousness of combined tones by improvising accompaniments for pentatonic melodies.

Demonstrates his knowledge and understanding of scale-line and chord-line melodic patterns by using them in his own melodies.

Recognizes the major, minor, or pentatonic scales when improvising melodies (7-TE3, pp. xvi, xvii).

Grade Four

Fourth grade children should be doing independent reading of new material.

"Since experienced sight-readers of music are known to depend in large part upon their instant recognition of the interval relationship of the notes they see, it is believed that an understanding of intervals should be developed in grades four, five, and six (50, p. 307)."

Classes learn to recognize and sing these tonal patterns with increasing fluency: tonic chord ascending and descending scale patterns, repeated notes, chromatic intervals, intervals of a third, fourth, fifth, sixth and octave; in part songs, intervals of thirds and sixths and independent voice motion (65, p. 11).

Children should be taught to use their knowledge of sequence as an aid to music reading.

Ear training is important to the development of good sight singers. In the fourth year children should take dictation.

Ear training, in the form of first playing and singing the suggested tune and rhythm patterns, then hearing them played (by the teacher or another child) and writing them down, will help fix a vocabulary of musical groupings in the minds of the children. In playing tune patterns for ear training be sure that the

patterns feeling of key in which they are to be played is well established. Sound the home tone (do-1) and sing or play: do, mi, sol, mi, do (1, 3,5,3,1) (61, p. viii).

Grade Five

Fifth grade students should be able to sing most simple songs at sight.

"Selective use of numbers and singing names for the purpose of giving additional support to eye-ear imagery is continued in grade five but to a lesser extent. From now on they are applied to unusual intervals and to less familiar phrase patterns (51, p. 144)."

Chromatic intervals and intervals with emphasis on the skip approach -- do, so, ti, la, so, ti, la -- are studied in the fifth year. Transposition is introduced and keyboard relationships are emphasized. Modes, major and minor scales, including the harmonic, melodic, and natural minors, should be studied in grade five. Pupils should also become aware of the whole-tone scale.

Grade Six

In the sixth grade children should be aware of modulation. Harmony is presented in a manner intended to broaden and extend the pupil's reading ability. Three parts are used. "Chord work, using the progressions as found below, may be given: I, IV, I, V, I, I, V, IV, V₇, I, I, IV, I (48, p. 176)."

The authors of Exploring Music summarize reasonable requirements of music reading for the sixth grade pupil:

Possesses a functional knowledge of notational symbols.

Is gaining independence in using notation as an aid to listening, performing, and creating.

Recognizing music as being primarily homophonic or polyphonic by studying notation.

Recognizes patterns in melody as moving by scale-line, chord-line sequence.

Identifies major and minor chord sounds.

Exhibits knowledge of chord progressions when playing accompaniments.

Performs accompaniments on autoharp and/or piano by reading chord symbols.

Improvises a harmonizing part to familiar songs vocally and/or instrumentally, showing understanding of chord progression and structure.

Experiments with secondary chords or chords built on intervals other than the third when creating original compositions.

Realizes the possibilities of chords based on intervals other than the third.

Analyzes part songs in terms of chord structure and harmonic intervals.

Shows awareness of harmonic relationships by singing two- and three-part homophonic or polyphonic songs, understanding the harmonic relationship of tones.

Interprets key signature and establishes tonality.

Establishes tonality for songs in major or minor by playing chords on autoharp, bells, or piano.

Identifies the tonality of a composition as major or minor.

Is aware of other kinds of tonal organization, such as atonality, polytonality.

Experiments with various kinds of tonal organizations, including twelve-tone row and whole tone, and electronic music.

Plays simple melodies in a variety of keys on some melodic instrument by ear, as well as from notation.

Is able to analyze melody in terms of scale or chord pattern, repetition, contrast, and sequence.

Reveals understanding of scale structure by using numbers to sing new melodies.

Identified common melodic intervals.
Can sing or play simple melodies from notation.

Sings many melodies independently, revealing understanding of tonality and melodic movement (7-TE6, pp. xvi, xvii).

Systems for Teaching Melodic Sight Singing

There are many systems used to teach melodic sight singing. There are syllable systems of movable "do" and fixed "do." There are number systems. There are systems using instruments, intervals, hand signals, letter names of notes, and colors. Some music educators seem to prefer no particular system, but choose to ignore the teaching of sight singing.

Movable Do

Tonic solfege is a method of learning relative pitches in key, "Tonic" means that the syllables are related, not to a fixed pitch, but to the tonic of whatever major key happens to be in use. Buchanan (8) claims that solfege is good for the voice because in solfege the singer has no diphthongs to trap him into unpleasant nasality. He has no final consonants to stop the flow of vocal tone. He has a set of initial consonants made with the tip of the tongue and which tend to develop the natural forward tongue position so essentially to good singing.

Many music educators believe that pupils of tonic solfege sing better in tune than other children. Definite interval relationship is established in this system, sometimes called the "movable-do" system.

Syllables have certain advantages, chiefly that they lend themselves better for singing purposes and that they have more individuality. The movable syllables can be used with great advantage in elementary studies, such as scales, different clefs, intervals, simple modulations.

The authors of Discovering Music Together suggest, "If you have had no experience singing tone names (either syllables or numbers), we believe you may find syllables more singable and certainly not easily confused with other meanings as is sometimes true with numbers (39, p. xv)."

"Stated briefly, syllable singing is not a device for finding the tune to a new song so much as it is a means of feeling at home with tonal relations. We use them to help children hear, to help them to be more aware of melodic organization (39, p. xvi)."

Darzas and Jay state:

As established by Kodaly, the syllables are presented in a special order which has been designed to develop the ear gradually. Each sound is presented through a piece of music which uses the tonal material under examination. This is done either through a very familiar song or through one which is first taught by imitation (rote) (12, p. 12).

Some music educators approve of using syllables with qualifications. Mursell writes: "The sol-fa syllables are neither a fetish nor a bug bear. They should be used intelligently as a very helpful device for focusing specific attention, and for the specific training of eye and ear (45, p. 252)."

Some are opposed to the use of syllables. Miller says: "The use of 'movable Do' hinders the cultivation of the sense of absolute pitch (44, p. 18)."

Jacobsen (30) says that there is a need for a method in which the Latin syllables are abolished. He says that the best method could be determined by experimentation.

...not only was the use of the Latin syllables of no benefit, but it was actually harmful for the sixth-grade pupils, who sang the words directly, of a second song, which contained the same melodic intervals, in less time and with fewer pauses, errors, and regressive movements, than the second singing of the first song, which had been sung with syllables first and then with words.

The mature reader required very little more time for the singing of the words directly, as compared to the singing of words after the syllables had been sung, and the difference was so small as to indicate that there was no benefit in the syllable-singing (29, p. 288-289).

Fixed Do

The fixed do system is one in which the syllables correspond to invariable pitches of notes.

Kanzell (33) considers the study of major keys extremely important including the practice of intervals in major keys, because he uses a fixed do system.

Buchanan (8) states that in teaching fixed do keys are the first step; the second step is staff. Chords are introduced very early in teaching fixed do. Much less time should be spent on scales, as the scales teach how to step and the triads how to jump and it is easier to step than jump.

Numbers

In France the number system is widely used. It is known as the "Galín-Paris-Cheve" System, a method of teaching part-singing and part-reading with number 1 for "do" 2 for "re", 3 for "mi", etc., and a zero for silence. The numerals are used only as graphic symbols. The singing names are the sol-fa syllables with "do" the fixed pitch, hence, the "Fixed Do" system.

Miessner says:

Even though the system was advocated by the French philosopher Jean Jacques Rousseau and the composer Hector Berlioz, it is difficult to see how it can help singers to think and sing precise intervals when the phonogram "do-mi-so" may represent a major triad, a minor, and augmented, or a diminished triad: The number system does not seem practical. Perhaps it is impractical because its authors were not practicing music teachers; Pierre Galin was a doctor, Aime Paris, a lawyer and Emile Cheve another doctor (43, p. 42).

Short advocates the use of numbers: "...it is important to use terms familiar and useful to students of our day. It seems logical therefore to use numbers.... (59, p. 11)."

Intervals

The difference in pitch between two tones is called an interval.

Many musicians who have been trained in Europe claim that they read by the "Fixed Do" method. This is a mistaken idea, because most of them read by intervals, by chord feeling, and by an acquired knowledge of the different pitches on the staff. This knowledge and skill are only acquired through much experience (44, p. 18).

According to Cole:

...the interval method is equal to every test which can be applied to it. It surely makes guessing impossible. It demands a complete mastery of that interval-analysis which is generally supposed to be a part of the equipment of every good musician; therefore, it cannot be too severe a requirement to exact from those who propose to become musicians. It gives the pupil something to aid his memory of pitch, and, most important of all, it enables the teacher to follow the mental processes of his pupils, so that he is never at a loss to prescribe a remedy for any difficulty a pupil may encounter.

...sing from note to note, having the pitch of one note and knowing the interval to the next. ...Were this system earnestly adopted, a student might begin his musical education in childhood and pursue it, even to the winning of his doctor's degree, without change in his method of music reading. ...As to the learning of absolute pitch -- we do not advocate it, because probably it is not within the reach of the average pupil (7, pp. 12, 154).

Use of Instruments

The trend toward the instrumental approach to music reading seems to be gaining momentum. Elliott says: "By playing as well as singing tonal and rhythmic groups, the child becomes more vividly aware of music notation and its meaning (14, p. 110)."

According to the authors of Discovering Music Together playing the bells is a fascinating way for the child to make the discovery of pitch differences. "This process of experimenting with the bells causes the child to observe tonal relationships and to sense direction of tonal movement (39, p. ix)."

Nye writes: "A mental xylophone stood on end with the high tones uppermost will give children an eye-sound picture of high and low as the instrument is played by the teacher (49, p. 41)."

Heffernan feels that during the early stages of teaching pitch any reading of pitch notation should not be limited to reproduction by voice alone, but should include experience on an instrument of fixed pitch, such as the organ, the piano, or bells (24, p. 41).

Miessner claims:

As for the development of the sense of tonality, the instrumentalist, trained to hear pitch relates as well as to make motor responses to them, develops this feeling with greater assurance than does the vocalist. ...For the instrumentalist who hears, thinks, and expresses music, all the relevant senses of his organism are occupied and coordinated. The eye visualizes tones in space, as in keyboards; the fingers manipulate the tone sources; the ear hears definite pitches for the inner vocal musculature to feel as when one manipulates pipes or strings one is aided to think or express the tones audibly. ...Moreover, the instrumentalist is not confused by a conflict between the names of tones on his piano keyboard or string finger board, or the fingering combinations on woodwinds, and the letter names of the staff. His instrument is as constant a source of reference for tones as the rule is to the carpenter, the scales to the grocer and the pharmacist, or the watch to the railroad engineer. Consequently, instrumentalists often become fluent music readers, vocalists master the art with more difficulty.

The obvious inference is that all children in whom we wish to develop the art of tonal thinking should have constant access to some instrument or tool of tonal precision -- a series of independent, individual, transposable to tone sources in a space-frame, of which the piano, the organ, and a set of melody bells are among the best examples (43, p. 45).

Carl Orff developed a system of teaching music, using special instruments. Among these instruments are the soprano and alto glockenspiel, played with wooden mallets, and the soprano and alto metallophone, played with felt-headed mallets. These instruments, which produce a clear ringing tone, are tuned to the key of C major.

One of the distinguishing factors of Orff's Music for Children is the fact that the composer uses the pentatonic scale (a five-note scale composed only of whole tones C, D, E, G, A) and that the bars of these special instruments are removable so that the beginner can use a few notes at the start, adding others as he progresses. . . .

By participating in this ensemble playing, even in a most elementary way...the student learns to relate his rhythmic and melodic patterns to those of the other members of the group. Thus, in a pleasurable manner, he begins to understand the relationship of rhythm and melody. Once he is at home with these patterns, musical notation is introduced (17, p. 67).

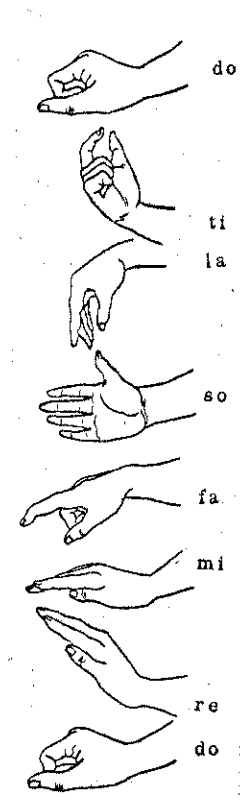
The material in this section seems to indicate that some educators believe that children's early musical training should be entirely instrumental with no attention given to vocal production. Others indicate that instruments are useful aids in teaching pitch.

Hand Signs

Darzas and Jay say that the hand signals which they use are the direct descendants of hand "postures" developed by John Curwen in 1870. The hand signals provide

a physical reminder of the sound.

European teachers use hand signs to indicate degrees of the scale, and have children sing the scale tones "from the hand." They plan ear-training drills with this visual method, emphasizing scale and chord patterns. Hand signs are also used to assist learning difficult parts of songs (50, p. 316).



(50, p. 316)

Fig. 5--Hand signals

Early in the child's musical experience he should learn to recognize the contrast between high and low and to sense the direction in which a melody moves. This may develop quite naturally from the teacher's use of hand levels while the group sings a song in which pitch differences are obvious. ...Hand levels are used by holding the hand flat, palm down, and moving the level of the hand as the pitch level of the melody changes (39, p. viii).

Group use of hand levels is useful to express pitch differences.

Letter Names

The use of letter names for sight singing produces varying reactions among music educators. Meyers writes: "Letter names of notes mean nothing to a singer who does not have instrumental experience and who is starting to learn to read (47, p. 177)." McMillan says that for the class that is singing, it is awkward to sing notes by letter names. It is difficult to include the sharps or flats and it spoils the rhythmic movement. Yet, without the sharps or flats the sound association is incorrect (42, p. 178).

Letter names are of value. McMillan discusses their use.

Letter names are still an important part of the understanding of the written symbols of music. You will want to introduce them gradually as children discover how the key signature "points the way" to the key tone. You will tell them that the key tone has a letter name too. They will need to know this when you let a child go to the piano or the melody bells to sound the key tone for the class. So the letter name will have a functional value. ...As an increasing number of the children in upper grades study piano or other instruments, they think more in terms of letter names, so you may want to let them try singing some songs in this way. For songs with only one flat or sharp, it will work quite well. They can discover for themselves when singing letter names gets too complicated to be practical. Singing letter names for scales and tonic chords and having children play them on the melody bells or piano are good ways to get "tuned up" for a new song. Children who are studying instruments can thus be helped to see the relationship of letter names to the music they are singing (42, pp. 178, 179.)

McHose and Tibbs (63) urge the use of the letter names of the notes. The student is told to think the

accidental when it appears. This is an adaptation of the French "Fixed Doh" system (42, p. 2).

Tonal Patterns

Nye and Nye explain:

To numbers and syllables there has been added another element: the recognition of tonal patterns. With this concept music reading is taught according to the same principles as word reading. When English reading is taught, the children are guided to recognize at once certain familiar combinations of letters that are words. Likewise, the children are taught to recognize in the songs they sing certain common combinations of notes (50, p. 307).

Myers advocates that sight singing be taught through the use of tonal patterns.

A melody, a song, is made up of groups of tones. The same groups occur time after time in songs. Sometimes they are identical; some times there are small variations. ...The sequence is developing a reader of music out of a singer starts by directing his conscious attention to and learning to recognize by ear certain fundamental groups of tones in the songs he sings. Then, he learns how the symbols of these groups appear on the staff. The next step in his progress is recognizing these same symbols in an unfamiliar song, remembering their sound, and producing it (47, p. 178).

Runkle and Eriksen say: "Children can find phrases which are identical. Songs selected for early reading experiences should have two or more phrases which are identical. It is important that the class develop the habit of looking at an entire phrase at a time, rather than reading note-by-note (56, p. 158)."

Swanson suggests that tonal patterns be used in conjunction with syllables.

Intermediate-grade pupils who understand the sol-fa syllables should use them to analyze the melodic content of new songs. The whole song need not be sung with syllables if the proper hearing of typical patterns has been developed. When pupils recognize a group of notes as a scale line, beginning and ending at certain levels, they should be able to tune up in the proper key and hear its sound in the inner ear. However, when they come upon unfamiliar fragments...syllables can help them analyze and sing the troublesome spots (62, pp. 176).

The material in this section seems to indicate that music educators approve the use of tonal patterns in teaching sight singing when they are used in conjunction with another method. The number and syllable systems seem to be aided when children are taught to observe tonal patterns.

Miessner Tone Syllables

Miessner explains:

...In an absolute tonal system, g-b-d will be 'ga-be-da' whatever the mode or key, or however far remote from the principal key of C major -- for example, B major or D flat major. In the writer's opinion, it is this irreconcilable conflict between the use of an oral relative tonal system and the visual system of a fixed pitch staff notation system that lies at the root of the trouble most of us experience in teaching music reading. ...

Were we to adopt an absolute system of pitch names for singing, it would be desirable to use monosyllabic, nonambiguous, euphonious mnemonics derived from the letter names. In the key of C for example, the names would read as follows:

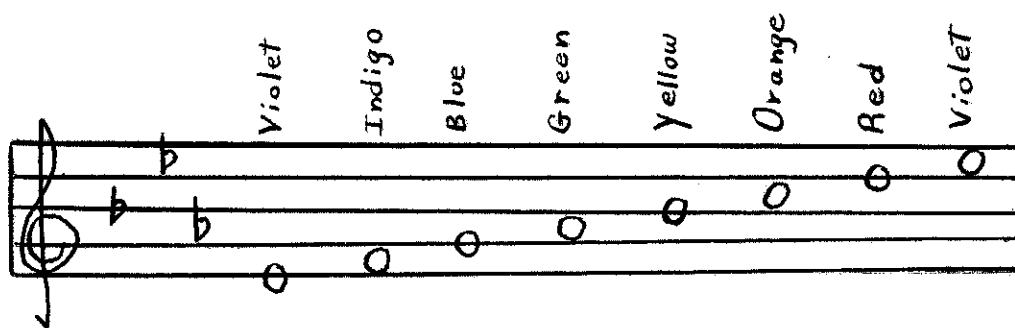
(Car)		(may)			(bay)		
Ca	da	me	fa	ga	la	be	Ca
C	D	E	F	G	A	B	C

The best sound for sharps would be the continental pronunciation of the bright vowel "e" as in "they"; for flats, the darker vowel "o" as in "no"; and for double flats,

the vowel "oo" as in the word "boot." Such tonal phonetics, consisting of roots or stems with an initial consonant and a vowel, would help to identify, exactly, all pitches. Being monosyllabic, they combine easily into euphonious melodic configurations, that is, into motives and figures as, for example, "Ca-da-me," "da-fe-la," "me-ga-be;" being euphonious, they sound agreeable when sung. They have the further advantage of being in agreement with the degrees of staff notation (43, p. 44).

Colors

Weyland notes: "Colors have been used in place of tone syllables in the sequence as found in the standard color circle, with violet indicating the first tone of the scale:



(67, p. 7)

Fig. 6--Colors indicating the tones of the scale

Savage tells of another use of color as an aid in music reading. A wide brightly colored line may be superimposed upon the line or space of the staff which

represents the key note. In this way pupils can find "do" immediately, without having to memorize key signatures or remember complicated rules for locating the tonic (57, p. 91).

Techniques for Teaching the Melodic

Aspects of Sight Singing

Buchanan (8) says that what passes for sight singing may be more accurately described as sight guessing, with piano or voice providing a model to be imitated.

Reading demands that the eye muscles be mature enough to see small but vital differences. Reading demands an ear mature enough to hear small but significant differences. Reading demands a nervous system mature enough to carry clear signals to the brain; that the brain be mature enough to sort out, make sense, and remember what it receives. Reading also demands that the vocal mechanism be mature enough to reproduce minute differences in pitch as a result of the foregoing (32, p. 66).

Music Reading Readiness

Music "reading readiness" should consist of a musical background somewhat comparable to the speech background, plus a prepared anticipation of the fun and adventure of music reading (27, p. 140). Specific tests exist to measure a student's readiness to begin word reading; however, no such instrument exists in the field of music reading. It is presently necessary for the teacher to estimate the degree of readiness of a child who is about to begin a music reading program (28, p. 115).

Behavioral patterns identified by Hooper as being evidence of music reading readiness include:

- (a) Ability to perceive, interpret and evoke correct response to rhythmic values indicated by the shape of the notes;
- (b) Ability to perceive, interpret, and evoke correct response to relative note values;
- (c) Ability to perceive and interpret the time signature;
- (d) Ability to perceive and interpret relative pitch;
- (e) Ability to perceive musical elements within the context of the phrase unit; and
- (f) Ability to interpret terminology common to musical notation (28, p. 118).

Music "reading readiness" grows from children's interests. Contributing factors are: building a song repertoire, developing the ability to recognize familiar songs when heard, building many tonal patterns into the tonal singing and recognition vocabulary, building feeling for phrase both tonally and rhythmically (4, p. 49).

Music Reading Compared to Language Reading

Myers lists practices fundamental to successful teaching of language reading adapted to the teaching of music reading:

1. Treat a group of notes as a sentence.
2. An adequate supply of reading material on each level of difficulty is needed.
3. The correction of inaccurately sung tonal groups should be made in the same way as mispronounced words are corrected (47, pp. 194-195).

Context clues are those which determine the meaning of a word by those words or phrases immediately preceding

or following. Similarly in music, the material before and after a new or unfamiliar note or phrase gives pattern or meaning to the music (27, pp. 142-143).

Configuration clues are abundant in music. Music has no definite "meanings" as does speech; it exists in time, thus having to be remembered. Therefore, it depends very largely on patterns of configuration. Pattern clues are not merely repetitive, they are often suggestive and developmental (27, pp. 143-144).

Reading Material

Content, not size of the area, determines the extent of recognition; therefore, the reading material for the immature reader should be very simple, arranged with notes rather widely separated. Gradually the difficulty of the reading material should be increased (29, p. 287).

Much of the material now used for developing sight singing ability is too difficult for immature readers. There is very little that meets the requirements of simple rhythm, use of accidental signs, small intervals, special drill for reading bass clef and music written on ledger lines, as well as other factors (30, pp. 120-121).

The first melodies which the children read should contain no leaps. Scale runs are easier to read than arpeggios; therefore, scale runs should be included in the reading material for the immature readers. The

arpeggios may be introduced gradually.

Fewer errors were made in reading scale runs than in arpeggios, hence scale runs could be included in material for the immature reader, and gradually introduce the arpeggio, written in half notes at first in order to simplify the rhythm.

The method suggested for development of the immature reader would demand the writing of new material, since much of the material for use in developing sight-reading is too difficult for the beginners and immature readers. The results of the study indicate that the present systems of teaching reading of music are in need of revision (29, pp. 287-289).

Rees-Davies teaches: If the stepwise method is adopted at the beginning then leaps should be introduced as soon as possible. ...If this is done early, then the chordal idea is also established and the mental effect of the individual notes of the scale is more clearly felt (52, p. 8).

Reading material should consist of diatonic melodies at first. Accidental signs should be introduced in melodies which have small intervals easy to play or sing. Lieberman (40), Shanet (58), Kanzell (33), and Jacobsen (30) recommend that accidentals be introduced alone and given much practice, as accidental signs are very difficult to read even for the average reader. Only those which are easy to sing should be included when introducing the accidental signs.

Earhart says that sight singing ability will be developed "...only by having the exercises always played in a musical way, rather than in an expository or coldly analytical way (13, p. vii)."

The authors of Discovering Music Together agree with Earhart, "Use only musical material. If children are glad they have learned a song, they more readily try to learn the next one. The more musical the song, the easier it is to grasp the musical organization and meaning (39, p. xi).

Teaching Tonality

The first step in the formal teaching of melodic sight singing usually is to help the student to develop a feeling for tonality. Tonality means that a central tone is felt to have tones related to it, as in a family. In order to determine the relationship of the starting tone you must first find the tonic. Check the key. Find the scale-degree number of the starting tone, relate it to the tonic and perform the melody. Always retain the feeling of tonic.

"Since the first scale step or tonic tone is the central tone of a key, we learn to sing other tones in the key by their relationship to, and their feeling of distance from, that tone (40, p. 18)."

Lieberman writes:

Students frequently assume that a given key signature automatically means a major key. This error can be overcome by making a habit of scanning the melody. Look at the last melody tone. It is almost invariably the tonic. Is it the major or relative minor tonic? Look at the beginning tones. Melodies in major rarely begin on scale step six, and such a beginning indicates the minor. Look

for raised scale tones. Are they the raised sixth and seventh of the melodic minor? Look for chord skips (40, p. 97).

Gary suggests:

As an introduction to atonal music, children can be given the opportunity to create a tone row using individual resonator bells. They can then play the "row" on melody bells and experiment with rhythmic possibilities. In playing and listening to the melody that results, they should become conscious that it is unrelated to any given center. They should write out the melody on charts or chalkboards. Works of composers who have written in this idiom should be listened to and studied (19, p. 65).

Although early results may be quicker if the key of C is adhered to at first, succeeding stages are rendered more difficult; ultimately, the most fluent reading is secured by variety of keys from the beginning. . . . There is no need for beginners to know the full meaning of key signatures (10, p. i).

Teaching Scales

Any series of pitches arranged in order of successively higher or lower tones is called a scale. The pentatonic scale is used in early singing and reading experiences. The minor scale, keys and intervals, should be introduced and practiced after the major keys have been mastered. The three forms of the minor scale should be discussed (40).

Melodic studies may be done in the minor scale. The melodies may be sung (a) on numbers representing scale degrees, (b) on conventional syllables, or (c) on a neutral syllable.

Forthingham (18) suggests a progressive order in scale study: (a) singing, (b) playing from hearing, (c) writing from memory, and (d) reciting away from the keyboard or staff.

Teaching Intervals

Children should develop the ability to hear in their minds the sounds of the various intervals and to use the proper intervallic names as a foundation for music reading, according to Gary (19). Barnes (3), in a study of interval drill, found a high correlation between the ability to sight sing intervals and the ability to sight sing melody. Swanson says that the study of intervals should grow out of the song repertoire and should be identified in terms of the scale or chord in that particular key (62, p, 176).

The eyes should become accustomed to measure distances on the staff so that recognizing the size of an interval becomes automatic. In the perfect fourth one note is on a space, the other on a line, while in the perfect fifth both notes are on spaces or lines.

Lieberman says: "Both types of melody (older and contemporary) are best approached with a sure sense of interval -- the ability to recognize and sing an interval of any size up or down with assurance (40, p. 22)."

Ritter (55), Lieberman (40), and Weyland (67) agree that each interval should be introduced and then practiced separately.

Swanson states:

There is no definite order in which the intervals should be presented, but when a particular interval in a song arrests attention, it may be identified and sung in isolation a few times so that the children hear its sound and see it in notation (62, p. 176).

Harris and Sims (22) recommend that intervals should be introduced in this order: first thirds, then fifths, octaves, then other intervals. They advise that fourths, sixths and sevenths be introduced in relation to thirds, fifths, and octaves. Kanzell (33) feels that intervals should be introduced in this order: seconds, thirds, fourths, fifths, sixths, sevenths, and octaves. Each interval is explained separately and then receives drill and practice using melodies which involve the interval being studied.

Lieberman explains the octave:

On the piano, play any C and the next C above it together. They blend so perfectly that they sound like one tone. The reason for this is that the string which produced the upper C vibrates twice as fast as the string which produces the lower C. This 1:2 relationship between tones is called a perfect octave (40, pp. 14, 15).

Mary Helen Richards says that half steps are difficult for young children and therefore early training should eliminate the half tones. "It is necessary to

proceed very slowly into the use of half steps (54, p. 120)."

The interval from the fifth scale degree up to the eighth scale degree is a perfect fourth. From the fifth scale degree down to the tonic is a perfect fifth (15, p. 54). If children have difficulty in singing the interval of the perfect fifth, they should mentally insert the scale tones that fall between the two tones (15, p. 54). Perfect fourths and fifths should be sung placing them in key relationships (15, pp. 57-58).

A major third consists of two whole steps. A minor third consists of a step and a half. If there is any difficulty in singing thirds in tune, mentally insert the scale tone that falls between two given tones. Then proceed to attempt the direct leap of the third. The problem becomes one of thinking scale steps (15, p. 23). Major and minor thirds should be sung placing them in key relationships (15, p. 29). Melodies from Gregorian chants, using major and minor seconds and major and minor thirds should be sung (15, p. 29).

Flagg (16), discussing ways to introduce intervals, tells that seconds are experienced as whole and half steps and are not considered intervals in the sense of "skip," while thirds are used early and are easily recognized, measured from space to space, or line to line. The two thirds in the tonic triad should be already familiar.

Fourths are introduced through the interval 5-1, or sol-d- ("Columbia the Gem of the Ocean"). The tonic triad interval from root to fifth is often used in introducing the fifth. This bold, open interval is easily felt in the body, and measured with the eye, in two spaces, skipping one; or on two lines, skipping one. Sixths are thirds inverted, and are useful for early harmonic action of simple melodies. Sevenths come seldom in melodic patterns, but this is the important interval and is later met with in the construction of the dominant seventh chord. The seventh is most frequently found in the melodic line from low sol (5) to fa (4) above.

Jacobsen (30) and Jeffries (31) agree that the larger intervals are more difficult than the smaller intervals and, therefore, need more drill. The augmented fourth, minor seventh, and minor sixth are frequently missed intervals.

"The intervals of sixths, sevenths, and ninths frequently create sight-singing difficulties. In tonal music it is best to think of these intervals in relation to their scale functions (15, p. 133)."

Barnes (3), in an experimental study of interval drill, found that rising intervals are generally easier to sing than falling intervals. Although the easiest of the intervals was the minor second down, the next four easiest of the intervals were all rising intervals, all

seconds or thirds. Barnes found that the major third down was the most difficult, with fourths and fifths falling in the next four positions according to order of difficulty.

Order of difficulty of intervals investigated by Barnes as determined by analysis of interval tests:

Major third	--	Down
Perfect fifth	--	Up
Perfect fifth	--	Down
Perfect fourth	--	Down
Major second	--	Down
Minor third	--	Down
Major third	--	Up
Minor third	--	Up
Major second	--	Up
Minor second	--	Up
Minor second	--	Down

(3, p. 71)

Barnes (3) discovered that the interval drill was as effective in aiding the sight-singing of "conventional," that is major, minor, non-modulating melody, as in the sight singing of "unconventional," that is modal, modulating melody.

"The teacher should take time to practice the various intervals found in the children's music texts; she also

needs to encourage score study, focusing attention upon phrases and groups of notes rather than individual notes. (53, p. 9)."

Benward (5) suggests that requested intervals be sung above a given note. The student plays a whole note on the piano and then sings the requested interval. For interval practice Benward recommends that students sing melodies which lack key feeling.

Developing Sensitivity to Phrases

Hodgson (27), Krone and Miller (34), Alchin (1), Mursell (45), Crowell (11), and Hooper (28) all advocate that children learn to think and to sing phrasewise, rather than from note to note.

Mursell (46) suggests outlining phrases by curves. This strongly emphasizes the unity and totality of the phrase, and also the sequential relationship of the phrase units to one another.

Grant advises that as preparation for reading a song, the class note all like and nearly-alike phrases. This will often facilitate matters and win the class's confidence in the possibility of the task about to be undertaken (20, p. 202).

Developing Auditory Perception

The development of auditory perception is most important. Music should be approached through the ear,

not the eye (26, p. 22). "The time to guide and develop the ear is at an early age not at the college-level, as is too often the case (12, p. 7)."

Walton writes:

Listening is the basis of all music today. Very little is gained if the ear is not trained. The student should be able to recall the sounds represented by the symbols both silently and by singing. This skill combines the effort of the eye, ear, and mind. Silent reading of the score should be stressed and encouraged as a most important aspect of the reading process (64, p. 2).

Hearing tonal direction (up and down) is the first important step toward music reading (18, p. 1). Earhart instructs: "Begin systematic ear-training by learning to distinguish C (middle C) from all other C's (13, p. 4)." "Next learn to distinguish the number of octaves between any C heard...(13, p. 5)."

One important aspect of teaching sight singing is dictation. This process for taking dictation is suggested by Frothingham (18):

1. Listen.
2. Silently and clearly think it.
3. Sing, write, or play it.

Hindemith states: "...the most reasonable way of using dictation is to combine it with other musical activities and apply it merely to check up on the general development (25, p. 181)."

Lawton agrees on the importance of dictation:

The best proof of clear and accurate thought is to be found in the written test, the importance of which cannot be over-estimated. From the beginning dictation exercises, however simple, should be regarded as essential (38, p. ix).

Harmonic implication certainly is of real importance in the reading of advanced musicians, and if properly prepared, should be of great assistance in beginning reading ...the sense of harmonic relation whether it is understood (rare) or not offers a very real guide to new and unknown melodic exploration. Apparently, harmonic feel is more widespread than we have been led to suppose (27, p. 144).

Teaching Part Singing

"Hearing the harmony is an aid in hearing the melody. In fact, most so-called music reading in later years will be done with an accompaniment...(14, p. 113)."

Nye and Nye (50) discuss part singing. When children learn to "hold" one part while another part is being sung or played at the same time skill in musicianship develops rapidly.

Dialogue songs, rounds, canons, and combination songs are a good introduction to part singing (50, p. 204). Adding harmonic endings is a simple and effective way to develop a feeling for part-singing. This may be initiated in the third grade (50, p. 208).

The singing of chord roots is one of the easiest parts to add to a song. The harmonic strength of the root is the foundation tone of each chord (50, p. 210).

Singing countermelodies and descants is another of the many approaches to part singing. A countermelody is an added melodic part, usually lower than the original melody, which often imitates it and often moves in contrary motion to it (50, p. 220). Ideally, a descant is a melody in its own right although written to accompany another melody. In practice, however, the descant is subordinate to the melody. It is usually higher in pitch than the melody and a small group of children may sing it while the majority of the children sing the melody (50, p. 220).

Usually, vocal chording consists of the same tones that are often used for piano chording in the treble clef. The children may be divided into four groups, with one assigned the melody and the other three assigned the three chord tones. Logically, this activity would begin with one-chord melodies and progress to three-chord melodies. It may start in a simple way in third or fourth grade and be emphasized in fifth and sixth grades as an approach to three-part singing (50, p. 223).

Elliott comments on the musical background essential for part singing.

What musical background is essential for success in part singing? ...

a) the ability to sing many simple songs with confidence.

b) the ability to respond to various rhythm patterns.

c) an elementary understanding of the notation representing tone and time.

d) wide experience in hearing harmonies played on the piano, song bells, and/or other chording instruments during the singing and reading activities (14, p. 116).

Types of part songs which elementary children can learn include:

1. One part remaining stationary as another voice moves.
2. Parallel thirds, with no skips larger than the third.
3. A simple melody which moves mostly scale-wise, against another voice.
4. Songs in which thirds and sixths predominate but other intervals occur.
5. Three-part songs (14, p. 118, 119).

Vandre (63) advises that if it can be avoided, parts should never be worked out separately. Sight reading in parts means that all parts are to be read at one time from the first reading on. This ability can be developed only through practice.

Teaching Modulation

Modulation should be explained and practiced after the other aspects of sight singing are studied.

Any key change in the course of a piece of music is called a modulation. Modulations may occur anywhere in a melody; however, the change is often introduced near the cadence of a phrase or with the beginning of a new phrase. This fact underscores the importance of examining cadences in sight singing, particularly in unaccompanied melody (40, p. 141).

Nordholm and Thompson (48) suggest that modulation be taught through the analysis of rote and reading songs. When teaching modulation, have the students find the new keynote as quickly as possible even by guessing.

The Reading Song

Only one reading song should be taken up in a music period. No new things should be presented in the first reading songs. The class should learn reading songs one phrase at a time, no more, no less. Words should not be added to a reading song until the class knows the tune well (20, p. 62).

Grant discusses reading songs. Before the first reading song is given the class should know:

1. The scale, ascending and descending, and short tone-groups found therein.
2. The tonic chord, in all combinations.
3. Quarter-, half-, dotted-half-, and whole-notes.
4. The combinations do-re-do and sol-la-sol (20, p. 59).

Jacobsen (30) and Nordholm and Thompson (48) agree that a classroom procedure of silently reading the notes and words before singing them would be a great aid in obtaining accuracy and speed in performance. Pitts (51) points out that running through a number of songs without stopping to correct errors will do much to prevent the recurrence of these errors in subsequent readings.

Mary Helen Richards recommends that children follow this procedure when reading new songs:

1. Clap the beat and decide which note is the beat note.
2. Read the rhythmic pattern using rhythm syllables.
3. Read the words on the rhythmic pattern.
4. Sing the song using tone syllables, and hand or arm signals.

5. Sing the song with the words.
6. Make an ostinato for the song that is being learned.
7. Write the song in their notebooks, listening to it in their heads and writing first the rhythmic pattern and then the tone symbol line, or melody line (54, p. 93).

Mursell lists three requirements for a reading program.

First of all, the material should be copious. It is necessary that the material should be such as to favor a rapid, progressive eye movement, and a confident grasp of large units of meaning. ...the third general requirement for a good reading program is that the material used should be interesting and appealing (45, pp. 238-240).

After the children have learned to give a fairly accurate reading of a song comprised of simple rhythmic patterns and melodic intervals, teachers must work toward advancing their classes to a level where a high percentage of the children can truly be called independent music readers. The ability to read music permits one to study the literature of music without the presence of a teacher. Children who can read may continue to learn long after their elementary school experiences have ended.

Special Materials and Devices

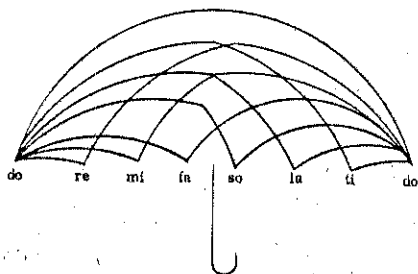
Numerous devices are employed in the teaching of melodic sight singing. A number of music educators discuss some of these devices.

Chalkboards, Flannel Boards, Charts

...the students should use the blackboard, constantly watched and observed by their fellow students, and they should take turns at substituting for the teacher in singing or playing the material which the other students are to write from their dictation (25, p. 183).

Nye and Nye suggest:

An interval drill based on the scale can be pictured by drawing an umbrella on the chalkboard as the children sing the intervals. The teacher begins each curved line on do: do re do mi do fa do sol do la do ti do, then down the scale: do ti do la do sol do fa do mi do re do do. The handle is drawn after the singing is done.



(50, p. 315)

Fig. 7--Umbrella for use in
interval drill

Weyland lists seven steps for beginning music reading using chalkboard or a large sheet of paper:

Step One. Draw the melody contour of the song on the chalkboard or on a large sheet of paper. Sing the tune while you are drawing.

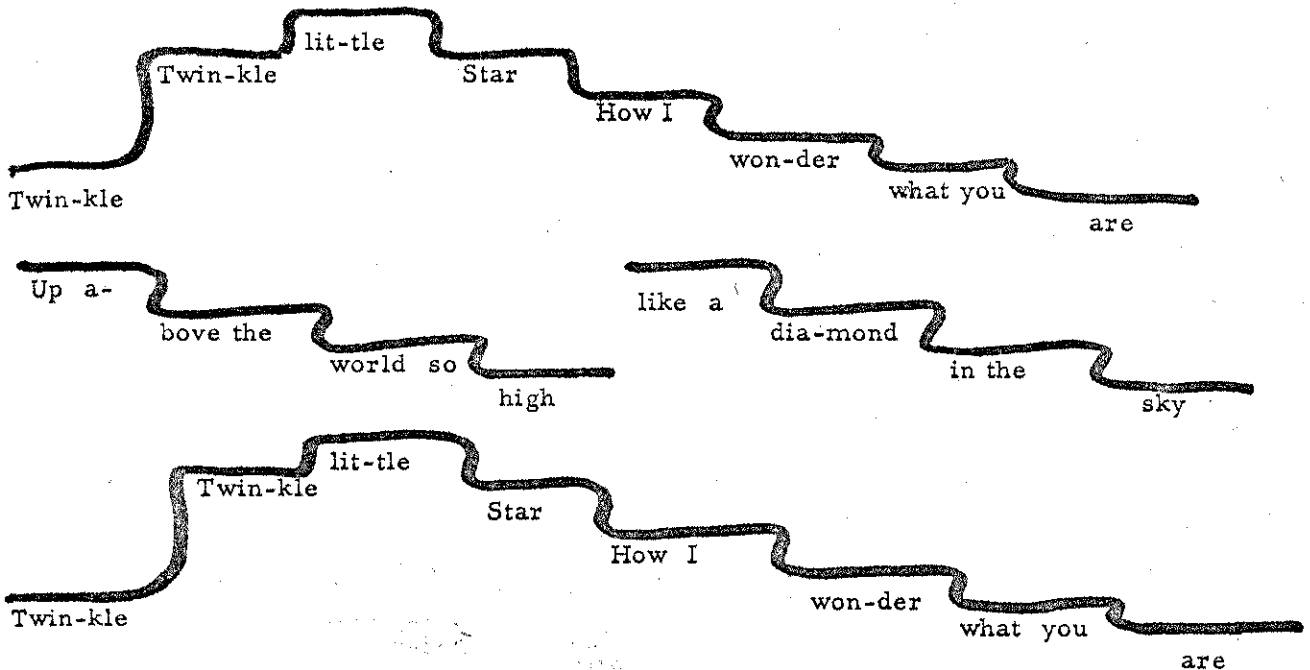


Fig. 8--Melody contour

Step Two. Melody contour. Add dashes to indicate the length of duration of these tones:

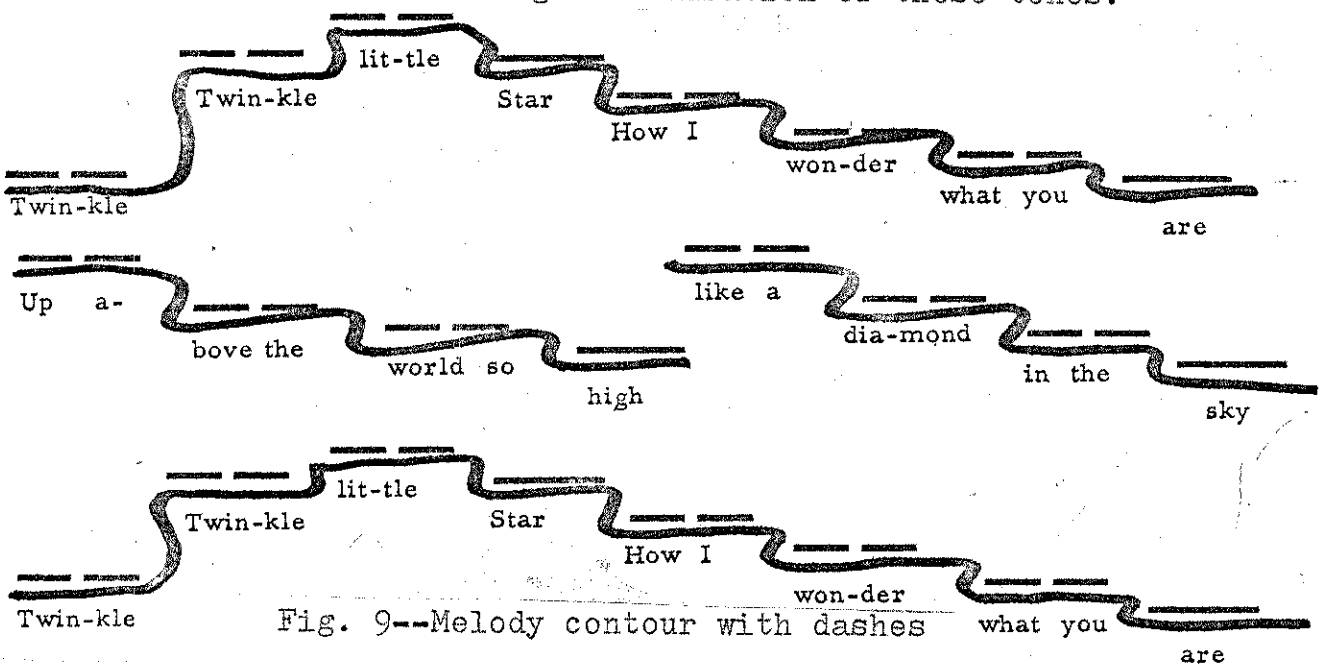


Fig. 9--Melody contour with dashes to indicate duration of tones

to indicate duration of tones

Step Three. Go over melody contour again and add a tall vertical line for the heavy accent and a short vertical line for the light accent:

Twinkle, twinkle, little star, how I wonder what you are;
 Up above the world so high, like a diamond in the sky,
 Twinkle, twinkle, little star, how I wonder what you are.

Fig. 10--Vertical line for heavy
and light accents

Step Four. Repeat melody contour, with exact horizontal lines:

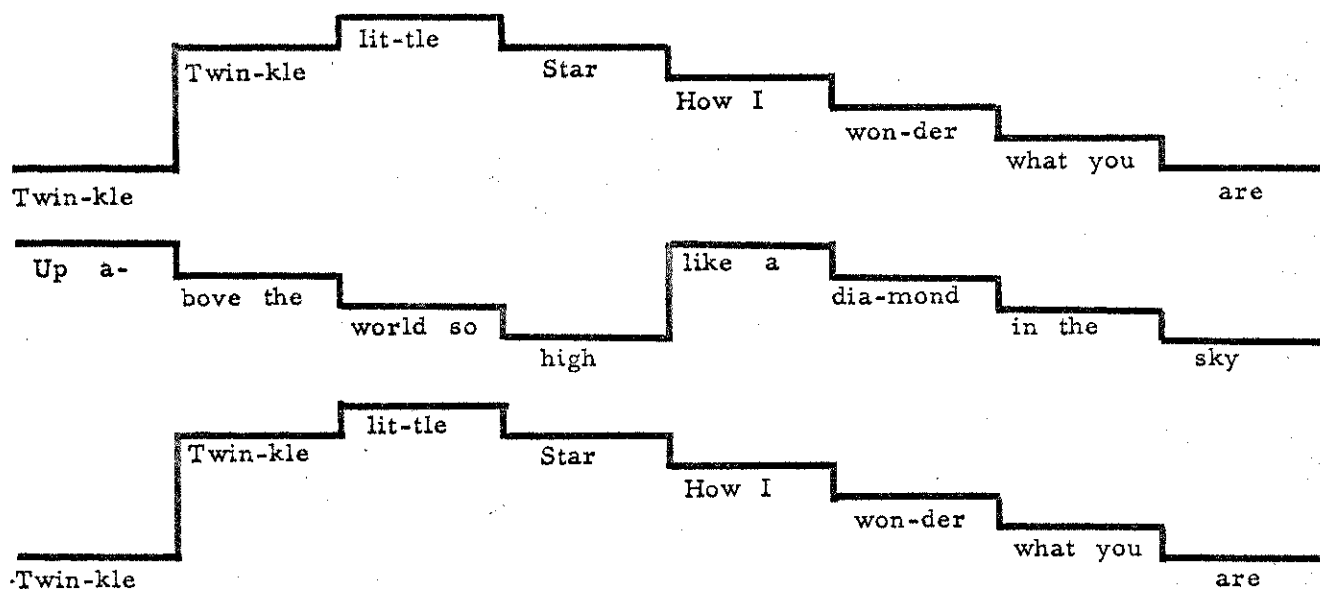


Fig. 11--Melody contour with exact
vertical horizontal line

Step Five. Replace short dashes with large black dots representing the regularly recurring tones, and the long dashes with circles to represent tones that are held longer:

- a) Follow the contour of the melody in placing the dots and circles.
- b) Place an accent mark (>) under each heavily accented note.
- c) Group the notes by placing a vertical line just before each heavy accent.

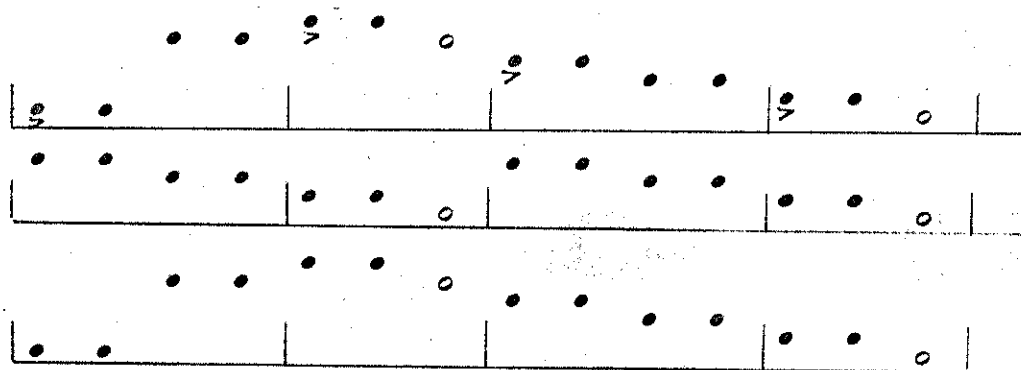


Fig. 12--Dots and circles which follow
melody contour

Step Six. Draw a staff on the chalkboard and place the notes on it. Use measure bars. Place accent marks where needed.

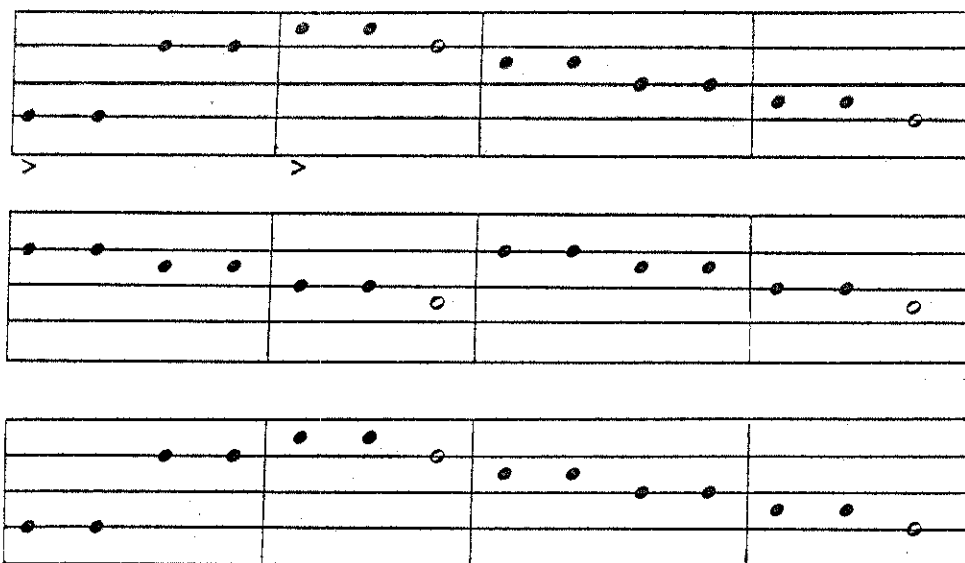


Fig. 13--Tune placed on three sets
of five parallel lines

Step Seven. Finish the music, but on music paper.
Twinkle, Twinkle Little Star

Nursery

Twinkle, Twinkle, lit-tle star, How I won-der what you are;

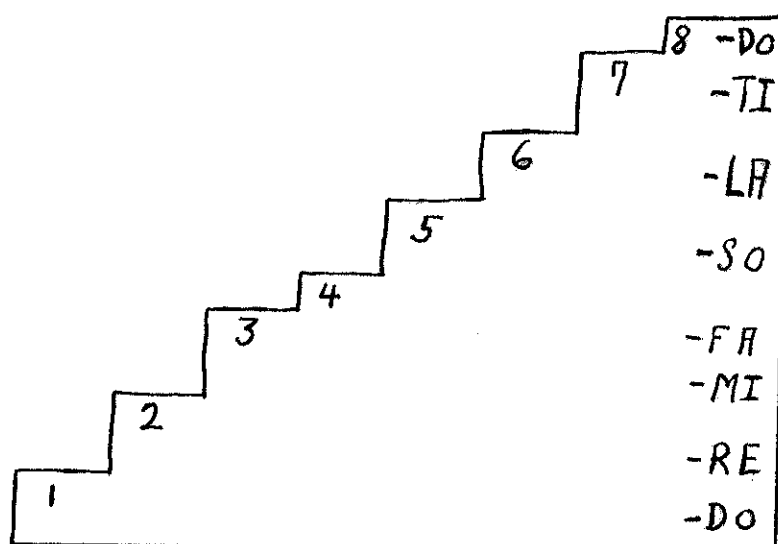
Up a - bove the world so high, like a dia - mond in the sky;

Twinkle, Twinkle, lit-tle star, How I won-der what you are.

(67, pp. 15-17)

Fig. 14--Completed tune
on music paper

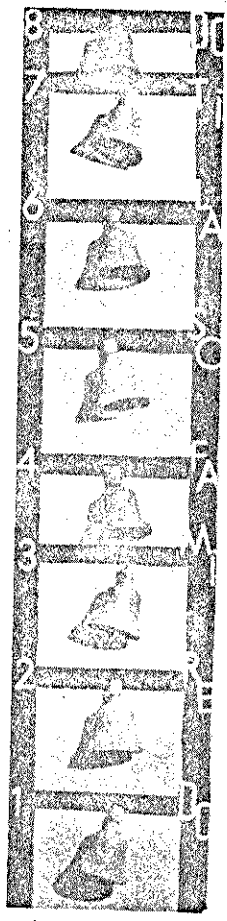
Visual demonstrations of the spacing of tones on a scale are good. Make a musical staircase on chalkboard, flannel board, or place on a large chart.



(67, p. 20)

Fig. 15--Musical staircase

Make a musical ladder using chalkboard, flannel board, or chart.



(67, p. 21)

Fig. 16--Musical Ladder

Gary writes: "Children should have experience with blank notation on flannel boards, chalkboard or charts, and by describing melodies with hand movements (19, p. 55)."

Flash Cards

Mursell comments on the use of flash cards: "Flash cards containing musical figures and phrases have a limited use in building up mastery of the score...in order to emphasize speed of recognition and response (46, p. 226)."

Tachistoscope

The tachistoscope is a flashmeter attachment used on an overhead projector or a slide projector. (See page 47.) Several authors report on the use of the tachistoscope in sight singing.

Hammer (21) conducted an experiment on the use of the tachistoscope in teaching melodic sight singing. He reports that tachistoscope techniques were more effective than the conventional techniques in developing sight singing skills. Whichever group was exposed to tachistoscopic training during the two parts of the experiment, that group gained more in melodic sight singing skills.

Tachistoscopic techniques were more effective than conventional techniques in teaching melodic sight singing to the less intelligent students, as well as to the more musically talented of the class. Tachistoscopic techniques seem to be more effective with groups which have had some background in reading music.

The tachistoscope can be utilized effectively to teach melodic sight singing within the normally designed school program. Special laboratory situations are not required. The general classroom teacher who is musically talented and has some training in music should be capable of using tachistoscopic techniques, although the music specialist would be best equipped to teach melodic sight singing by these techniques.

Hammer says that tachistoscopic presentation compels the student to grasp the tonal pattern as a whole or unit. Patterns become more than vaguely familiar and responses become natural and automatic (21).

Bargar (2) reports that music reading programs utilizing the tachistoscopic technique will make significant contributions to the training of students in music reading skills.

Instruments

Pitch and melodic tendency can be introduced through the use of tuned water glasses (60, pp. 27-34). Playing melodies on bells or xylophone will help to bring into focus a feeling for high and low, up and down (61-1, p. 8). Tuned resonator bells are an effective aid in teaching chords (56, p. 196).

Rhythm band work is an invaluable aid in developing good habits in ear-training. The playing of various instruments at different musical intervals makes it necessary for the children to listen carefully in order that they know when and how they are to play (23, p. 29).

Keyboard illustrations may be used to highlight important teaching points, to facilitate clear visualization of scales, intervals, and tonal patterns, and to enable the child to play and hear these features on the piano or chromatic bells (6-6, p. 2). "...it might be wise to let the children who are having pitch difficulties do the playing while others sing (35, p. 41)."

Some music educators are opposed to the use of the piano as children can become so accustomed to it that they cannot sing without it. Vandre strongly opposes the use of the piano. "The piano should never be used to help the students in the learning of the music (63, p. 56)."

Three music educators state their beliefs on the use of instruments as an aid in sight singing:

Kanzell: "Do not play the exercises. Use the piano or other instrument only to sound the keynote and verify intonation (33, p. 11)."

Short: "A good sight-reading method should avoid the use of an accompaniment which would prevent creation of a habit of dependency from an outside source for pitches (59, p. 11)."

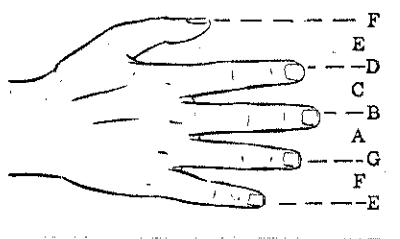
Jacobsen: "The practice of reading the music away from the instrument or prior to singing is no doubt a very good procedure, since some familiarity with the rhythm, intervals, accidental signs, and other complexities of the material is thus acquired (29, p. 289)."

Physical Devices

Nye and Nye suggest:

"Singing from the hand" is useful for drill on difficult passages from song material and for intervals. The teacher uses the right hand to point to the scale tones the class sings. ...

The hand is also useful when the fingers are used to represent the staff. Ear-training drills can be done, and some intervals can be practiced when the children sing the notes to which the teacher's right index finger points.



(50, p. 314)

Fig. 17--Fingers used to represent
the staff

Nye (49) recommends conducting by pitch-level and singing songs which can be acted out in response to pitch.

An ear-training exercise relating physical responses to degrees of the scale can be done while standing.

- Scale Tone 1 = arms down at sides.
 2 = hands on hips.
 3 = fingers on outside of shoulders.
 4 = fingers on top of shoulders.
 5 = fingers above ears on sides of head.
 6 = hands somewhat above head.
 7 = arms stretched high above head.
 8 = stand on toes with arms stretched high above head (50, p. 315)

The devices discussed in this chapter are all helpful if used with discrimination. If overused, they might become a crutch, rather than an aid to understanding, and in so doing cripple the young sight singer.

Summary

Formal music training is usually begun in the first grade. Melodic sight singing is first approached through the upward and downward movements of tones. From the first grade through the sixth grade pupils should have many musical experiences, which lead toward independent sight singing skill.

Many systems are used to teach melodic sight singing. These systems include Movable Do, Fixed Do, Numbers, Intervals, Use of Instruments, Hand Signs, Letter Names, Tonal Patterns, Miessner Tone Syllables, and Colors.

A music reading readiness background should consist of a musical background somewhat comparable to the speech background. Practices fundamental to successful teaching of language reading may be adapted to the teaching of music reading.

Music for the immature reader should be easy. The more difficult material should be introduced gradually. Children should study tonality, scales, intervals, phrases, auditory perception, part singing, and modulation in order to develop sight singing ability.

Only one reading song should be presented in a music period. No new musical concepts should be included in the first reading songs. Words should not be added to a reading song until the class knows the tune well.

Numerous special materials and equipment may be employed in the teaching of melodic sight singing. Many illustrations may be presented using chalkboards, flannel boards, and charts. Flash cards and the tachistoscope are useful aids. The piano and rhythm band instruments may assist in the teaching of sight singing. Physical movements are sometimes helpful in teaching melodic sight singing. The hand is useful when used to represent the staff. All devices employed in the teaching of sight singing should be used with discrimination.

CHAPTER BIBLIOGRAPHY

1. Alchin, C. A., Ear Training for Teacher and Pupil, Boston, Oliver Ditson Co., 1904.
2. Bargar, R. R., "A Study of Music Reading: Ground-work for Research in the Development of Training Programs," unpublished doctoral dissertation, The Ohio State University, Columbus, Ohio, 1964.
3. Barnes, James W., "An Experimental Study of Interval Drill as It Affects Sight Singing Skills," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1960.
4. Beelar, L. A., "Music Reading Readiness," Educational Music Magazine, XXVIII (September, 1945), 29.
5. Benward, Bruce, Sightsinging Complete, Dubuque, Iowa, W. C. Brown, Co., 1965.
6. Berg, Richard C., and D. S. Burnes, Robert Pace Hooley, J. Wolverton, Music for Young Americans, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, American Book Company, 1963.
7. Boardman, Eunice and Beth Landis, Exploring Music, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, New York, Holt, Rinehard and Winston, Inc., 1966.
8. Buchanan, Walter, "Comparison of Fixed and Movable Solfege in Teaching Sight Singing from Staff," unpublished doctoral dissertation, University of Michigan, Ann Arbor, Michigan, 1946.
9. Cole, Samuel W., "A Universal Sight-Singing Method," Papers and Proceedings of the Music Teachers National Association, Hartford, 1910.
10. Crowe, Edgar, editor, The Folk Song, (10 volumes), London, Oxford University Press, 1933.

11. Crowell, Wilhna S., Beginning Sight Reading, Year-book of the Music Educators National Conference, Thirtieth Year, 1937, Chicago, Music Educators National Conference, 1937, p. 252.
12. Darazs, Arpad and Stephen Jay, Sight and Sound, Oceanside, New York, Boosey and Hawkes, Inc., 1965.
13. Earhart, Will, Music to the Listening Ear, New York, M. Witmark and Sons, 1932.
14. Elliott, Raymond, Teaching Music, Columbus, Ohio, C. E. Merrill Books, 1960.
15. Fish, Arnold and Norman Lloyd, Fundamentals of Sight Singing and Ear Training, New York, Dodd, Mead, 1964.
16. Flagg, Marion Elizabeth, Musical Learning, A Guide to Child Growth, Boston, C. C. Birchard and Co., 1949.
17. Frost, R. G., "Orff and Kodaly - New Teaching Methods," Music Journal, XX (February, 1962), 34.
18. Frothingham, Mary Frances, Dictation Studies in Melody and Harmony for Children, Chicago, C. F. Summy Co., 1903.
19. Gary, Charles L., editor, The Study of Music in the Elementary School - A Conceptual Approach, Washington, D. C., Music Educators National Conference, 1967.
20. Grant, Parks, Music for Elementary Teachers, 2nd Ed., New York, Appleton-Century-Crofts, 1960.
21. Hammer, Harry, "The Tachistoscope in Music Reading," The American Music Teacher, 17, No. 1 (September-October, 1967), 39-48.
22. Harris, Elizabeth F. and Mary Louise Sims, Learning to Listen, New York, G. Schirmer, 1929.
23. Harris, Janet D., "Music and Language Reading," Music Educators Journal, XXXIV (November, 1947), 29-30.
24. Heffernan, Charles W., Teaching Children to Read Music, New York, Appleton-Century-Crofts, 1968.

25. Hindemith, Paul, Elementary Training for Musicians, 2nd Ed., New York, Associated Music Publishers, Inc., 1949.
26. Hiteman, M., "Let's Postpone Music Reading," Educational Music Magazine, XXIV (September, 1944), 22.
27. Hodgson, Walter H., "The Problem of Music Reading," Volume of Proceedings of the Music Teachers National Association, Pittsburgh, 1945.
28. Hooper, S., "Development of a Test Battery to Measure Music Reading Readiness of Children in Grades Three and Four," Journal of Research in Music Education, 14 (Summer, 1966), 115-125.
29. Jacobsen, O. Irving, "An Analysis of Eye-Movements in Reading Music and the Bearing of that Study Upon Methods and Procedures in School Music Training," Music Supervisors National Conference, Twenty-first Yearbook, 1928, pp. 284-289.
30. _____, An Analytical Study of Eye-Movements in Reading Vocal and Instrumental Music, Greenfield, Ohio, Music Science Press.
31. Jeffries, Thomas B., "The Effects of Order of Presentation and Knowledge of Results on the Aural Recognition of Melodic Intervals," Journal of Research in Music Education, XV, No. 3 (Fall, 1967), 179-190.
32. Joseph, W., "Music Reading: When and How," Music Educators Journal, 51 (1965), 66.
33. Kanzell, Maxwell, How to Read Music, New York, Maxwell Kanzell, 1944.
34. Krone, Beatrice Perham and Kurt R. Miller, Help Yourself to Music, San Francisco, Chandler Publishing Co., 1959.
35. Krone, Beatrice Perham and Max Krone, Music Participation in the Elementary School, Chicago, Neil A. Kjos Music Co., 1952.
36. Landeck, Beatrice and Crook, Youngberg, Luening, Making Music Your Own, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, Silver Burdett Co., 1964.

37. LaSalle, D., Rhythms and Dances for Elementary Schools, (Revised Ed.), New York, A. S. Barnes, 1951.
38. Lawton, Annie, Foundations of Practical Ear Training; London, Oxford University Press, H. Milford, 1933.
39. Leonhard, Charles (and Krone, Wolfe, Fullerton), Discovering Music Together, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Chicago, Follett Publishing Co., 1966.
40. Lieberman, Maurice, Ear Training and Sight Singing, New York, W. W. Norton, 1959.
41. McHose, Allen Irvine and Ruth Tibbs, Sight-singing Manual, New York, Appleton-Century-Crofts, 1957.
42. McMillan, L. Eileen, Guiding Children's Growth Through Music, Boston, Ginn and Company, 1959.
43. Miessner, W. Otto, "The Art of Tonal Thinking," Music Educators Journal, 48 (January, 1962), 42-45.
44. Miller, Charles H., "Teaching Sight-Reading Without Syllables," Music Supervisors Journal, 17 (October, 1930), 18-19.
45. Mursell, James L., Music in American Schools, New York, Silver Burdett Co., 1953.
46. Mursell, James L., and Mabelle Glenn, The Psychology of School Music Teaching, New York, Silver Burdett Company, 1931.
47. Myers, Louise Kifer, Teaching Children Music in the Elementary School, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1961.
48. Nordholm, Harriett and Carl O. Thompson, Keys to Teaching Elementary School Music, Minneapolis, Paul A. Schmitt Music Co., 1949.
49. Nye, Robert E. "If You Don't Use Syllables, What Do You Use?" Music Educators Journal, 39 (April, 1953), 41-42.
50. Nye, Robert E. and Vernice Trousdale Nye, Music in the Elementary School, 2nd Ed., Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1964.

51. Pitts, Lilla Belle, Guide and Teaching Suggestions to Our Singing World (2 volumes), Boston, Ginn and Co., 1952-1955.
52. Rees-Davies, Ieuan, A Sight-Singing Course for the Non-Specialist Teacher, London, Novello and Co., Ltd., 1955.
53. Richards, Margaret C., "Musical Growth Through Reading," Utah Music Educator, (Spring, 1966), 9.
54. Richards, Mary Helen, Threshold to Music, San Francisco, Fearon Publishers, 1964.
55. Ritter, Frederick Louis, Musical Dictation; A Practical Guide for Musical Students, New York, Novello, Ewer and Co., 1887-1889.
56. Runkle, Aleta and Mary LeBow Eriksen, Music for Today's Boys and Girls, Boston, Allyn and Bacon, Inc., 1966.
57. Savage, Edith Jones, "The Development of Instruction in Music Reading in Public Schools of the United States," unpublished doctoral dissertation, University of Colorado, Boulder, Colorado, 1960.
58. Shanet, Howard, Learn to Read Music, New York, Simon and Schuster, 1956.
59. Short, Madison, "The State of Vocal Sight Reading in Georgia," Georgia Music News, (November, 1966), 10.
60. Slind, Lloyd H. and D. Evan Davis, Bringing Music to Children, New York, Harper and Row, 1964.
61. Sur, William R. and McCall, Pitcher, Tolbert, Nye, Fisher, DuBois, This Is Music, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, Allyn and Bacon, Inc., 1962.
62. Swanson, Bessie R., Music in the Education of Children, Belmont, California, Wadsworth Publishing Co., Inc., 1962.
63. Vandre, Carl W., Four-Part Sight-Reading Fun, Milwaukee, Wisconsin, Handy-Folio Music Company, 1940.
64. Walton, Charles W. and Harry Robert Wilson, Music Reading Through Singing, Belmont, California, Wadsworth Publishing Co., Inc., 1966.

65. Wassum, Sylvesta M., editor, Birchard Music Series, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Evanston, Illinois, Summy-Birchard Company, 1962.
66. Watters, Lorrain E. and Wersen, Hartshorn, McMillan, Gallup, Beckman, The Magic of Music, Books 1, 2, 3, 4, and Teacher's Editions, Dallas, Ginn and Co., 1965.
67. Weyland, Rudolph H., Learning to Read Music, Dubuque, Iowa, W. C. Brown Co., 1961.

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate essential factors related to the teaching of sight singing to elementary children.

Analysis of the general problem led to subordinate questions, which were 1) what rhythms should elementary children be able to recognize and perform at sight? 2) how are the rhythmic aspects of sight singing taught? 3) what melodic aspects of sight singing should elementary children be expected to understand and perform at sight? and 4) how are the melodic aspects of sight singing taught to elementary children?

The study was limited to an investigation of only the factors related to the singing of correct pitches and rhythms at sight. The quality of the singing voice was not investigated.

No hypotheses were examined in this study. The basic assumption of the study was that the essential factors of teaching sight singing are published and are available for study and therefore personal and direct contact with sight singing authorities living today was thought unnecessary.

Chapter One of this thesis presents the purpose of the study, the sub-problems involved, definition of terms, delimitations, the basic assumption of the report, the historical background of the study from ancient times up to the twentieth century, hereditary, cultural and psychological factors influencing sight singing, methodology, and the plan of the report.

Rhythmic sight singing is the subject of Chapter Two. A graded sequence of objectives for rhythmic development, grades one through six, is given. Responses to rhythmic stimuli are discussed. Teaching meter signature significance, teaching dotted note rhythms, teaching rest values, responding to accents, teaching syncopation, developing sensitivity to tempos, teaching auditory perception, practicing rhythmic studies, reading unfamiliar rhythmic patterns, and special materials and equipment are treated in this chapter.

The melodic aspects of sight singing are presented in Chapter Three. A graded sequence of objectives for melodic development, grades one through six, opens this chapter. Various systems for teaching melodic sight singing are discussed. These systems include movable do, fixed do, numbers, intervals, use of instruments, hand signs, letter names, tonal patterns, Miessner tone syllables, and colors. Numerous aspects concerned with teaching the melodic aspects of sight singing are presented: music reading readiness, music reading compared to language reading, reading material,

teaching tonality, teaching scales, teaching intervals, developing sensitivity to phrases, developing auditory perception, teaching part singing, teaching modulation, and the reading song. The final section of this chapter discusses special materials and devices used in teaching the melodic aspects of sight singing. These include chalkboards, flannel boards, charts, flash cards, tachistoscope, instruments, and physical devices.

Recommendations

The following recommendations are made to music teachers:

1. It is recommended that the emphasis on music reading be increased.
2. It is recommended that music selected for sight singing be of genuine artistic value.
3. It is recommended that music teachers incorporate language reading principles in the teaching of sight singing.

The following recommendations are made to school administrators:

1. It is recommended that school administrators provide adequate time in the scheduled program for the teaching of sight singing.
2. It is recommended that school administrators set aside adequate facilities in the physical plant for the teaching of sight singing through rhythmic activities.

3. It is recommended that school administrators provide the teacher with appropriate equipment adequate for the teaching of sight singing.

The following recommendations are made to the publishers:

1. It is recommended that a collection of the sight singing methods and materials in current use be published in pamphlet form and made available to teachers and school administrators.

2. It is recommended that publishers include a section of graded sight singing exercises in song texts.

3. It is recommended that a list of songs in song texts which are appropriate for sight reading be compiled and included in each teachers edition of the song texts published.

The following recommendations are made to researchers:

1. It is recommended that a grade by grade study be made to show the relative value of each of the sight singing systems presented in this study.

2. It is recommended that a test be developed to determine music reading readiness.

3. It is recommended that a series of sight singing achievement tests be developed for use in the elementary school.

BIBLIOGRAPHY

Books

- A New and Easie Method to Learn to Sing by Book, London, W. Rogers, 1686.
- Alchin, C. A., Ear Training for Teacher and Pupil, Boston, Oliver Ditson Co., 1904.
- Benward, Bruce, Sightsinging Complete, Dubuque, Iowa, W. C. Brown Co., 1965.
- Berg, Richard C. and D. S. Burness, Robert Pace Hooley, J. Wolverton, Music for Young Americans, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, American Book Company, 1963.
- Bergethon, Bjornar and Eunice Boardman, Musical Growth in the Elementary School, Chicago, Holt, Rinehart, and Winston, Inc., 1963.
- Birge, Edward Bailey, History of Public School Music in the United States, Washington, D. C., Music Educators National Conference, 1928.
- Boardman, Eunice and Beth Landis, Exploring Music, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, New York, Holt Rinehart and Winston, Inc., 1966.
- Brooks, B. Marian and Harry A. Brown, Music Education in the Elementary School, New York, American Book Co., 1946.
- Chase, Gilbert, America's Music, 2nd Ed., New York, McGraw-Hill Book Company, 1966.
- Crowe, Edgar, editor, The Folk Song, Volumes 1-10, London, Oxford University Press, 1933.
- Darazs, Arpad and Stephen Jay, Sight and Sound, Oceanside, New York, Boosey and Hawkes, Inc., 1965.
- Driver, Ann, Music and Movement, London, Oxford University Press, 1936.

- Earhart, Will, Music to the Listening Ear, New York, M. Witmark and Sons, 1932.
- Elliott, Raymond, Teaching Music, Columbus, Ohio, C. E. Merrill Books, 1960.
- Fish, Arnold and Norman Lloyd, Fundamentals of Sight Singing and Ear Training, New York, Dodd, Mead, 1964.
- Flagg, Marion Elizabeth, Musical Learning, A Guide to Child Growth, Boston, C.C. Birchard and Co., 1947.
- Frothingham, Mary Frances, Dictation Studies in Melody and Harmony for Children, Chicago, C. F. Summy Co., 1903.
- Gary, Charles, editor, The Study of Music in the Elementary School - A Conceptual Approach, Washington, D. C., Music Educators National Conference, 1967.
- Grant, Parks, Music for Elementary Teachers, 2nd Ed., New York, Appleton-Century-Crofts, 1960.
- Harris, Elizabeth F. and Mary Louise Sims, Learning to Listen, New York, G. Schirmer, 1929.
- Hartsell, O. M., Teaching Music in the Elementary School: Opinion and Comment, Washington, D. C., Association for Supervision and Curriculum Development, NEA, 1963.
- Heck, Mathilda and Florence Ray, Little Singers' Reader, Minneapolis, T. S. Denison, 1961.
- Heffernan, Charles W., Teaching Children to Read Music, New York, Appleton-Century-Crofts, 1968.
- Hindemith, Paul, Elementary Training for Musicians, 2nd Ed., New York, Associated Music Publishers, Inc., 1946.
- Hood, Marguerite Vivian and E. J. Schultz, Learning Music Through Rhythm, Boston, Ginn and Company, 1947.
- Jacobsen, O. Irving, An Analytical Study of Eye-Movements in Reading Vocal and Instrumental Music, Greenfield, Ohio, Music Science Press.
- Jaques-Dalcroze, Eurhythmics, Art and Education, New York, A. S. Barnes and Company, Inc., 1931.

- Jacues-Dalcroze, Emile, Rhythm, Music and Education, New York, G. P. Putnam's Sons, 1921.
- Kanzell, Maxwell, How to Read Music, New York, Maxwell Kanzell, 1944.
- Kaplan, Max and Frances Steiner, Musicianship for the Classroom Teacher, Chicago, Rand McNally and Co., 1966.
- Krone, Beatrice Perham and Kurt R. Miller, Help Yourselfes to Music, San Francisco, Chandler Publishing Co., 1959.
- Krone, Beatrice Perham and Max Krone, Music Participation in the Elementary School, Chicago, Neil A. Kjos Music Co., 1952.
- Landeck, Beatrice and Crook, Youngberg, Luening, Making Music Your Own, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, Silver Burdett Company, 1964.
- Landeck, Beatrice and Mursell, Tipton, Nordholm, Freeburg, Watson, Music for Living, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, Silver Burdett Company, 1962.
- LaSalle, D., Rhythms and Dances for Elementary Schools, (Revised Ed.), New York, A. S. Barnes, 1951.
- Lawrence, S. J., A Guide to Remedial Sightreading for the Piano Student, Hewlett, New York, Workshop Music Teaching Publications, 1964.
- Lawton, Annie, Foundations of Practical Ear Training, London, Oxford University Press, H. Milford, 1933.
- Leonhard, Charles and Krone, Wolfe, Fullerton, Discovering Music Together, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Chicago, Follett Publishing Company, 1966.
- Lieberman, Maurice, Ear Training and Sight Singing, New York, W. W. Norton, 1959.
- Lovelock, William, Common Sense in Music Teaching, London, G. Bell and Sons, Ltd., 1965.
- Marrocco, W. Thomas and Harold Gleason, Music in America, New York, W. W. Norton and Company, Inc., 1964.

- Marvel, Lorene, Music Resource Guide for Primary Grades, Minneapolis, Schmitt, Hall and McCreary, 1961.
- Mathews, Paul Wentworth, You Can Teach Music, New York, E. P. Dutton, 1953.
- McGaughey, Janet McCloud, Practical Ear Training, 2nd Ed., Boston, Allyn and Bacon, 1966.
- McHose, Allen Irvine and Ruth Tibbs, Sight-singing Manual, New York, Appleton-Century-Crofts, 1957.
- McHose, Allen Irvine, Teachers Dictation Manual, New York, F. S. Crofts, 1948.
- McMillan, L. Eileen, Guiding Children's Growth Through Music, Boston, Ginn and Company, 1957.
- Mursell, James L., Music in American Schools, (Revised Ed.), New York, Silver Burdett Co., 1953.
- _____, Music and the Classroom Teacher, New York, Silver Burdett Co., 1951.
- _____, Music Education Principles and Programs, Dallas, Silver Burdett Co., 1956.
- Mursell, James L. and Mabelle Glenn, The Psychology of School Music Teaching, New York, Silver Burdett Co., 1931.
- Myers, Louise Kifer, Teaching Children Music in the Elementary School, 3rd Ed., Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1961.
- Newman, Elizabeth, Adventures with Chords and Tunes, New York, Clayton F. Summy Co., 1932.
- _____, How to Teach Music to Beginners, New York, Carl Fisher, Inc., 1957.
- Nordholm, Harriett and Carl O. Thompson, Keys to Teaching Elementary School Music, Minneapolis, Paul A. Schmitt Music Co., 1947.
- Nye, Robert Evans and Vernice Trousdale Nye, Music in the Elementary School, 2nd Ed., Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1964.
- Pierce, Anne Elsie, Teaching Music in the Elementary School, New York, Henry Holt and Co., 1959.

- Pitts, Lilla Belle, Guide and Teaching Suggestions to Our Singing World, Volumes I and II, Boston, Ginn and Co., 1952-1955.
- Rees-Davies, Lewan, A Sight-Singing Course for the Non-Specialist Teacher, London, Novello and Co., Ltd., 1955.
- Richards, Mary Helen, Threshold to Music, San Francisco, Fearon Publishers, 1964.
- Rinderer, Leo and others, Sing a Song to Sight Read, Park Ridge, Illinois, Neil A. Kjos Music Co., 1961.
- Ritter, Frederic Louis, Musical Dictation: A Practical Guide for Musical Students, New York, Novello, Ewer and Co., 1887-1889.
- Root, Frederick Woodman, Technic and Art of Singing, Philadelphia, Theodore Presser, 1904-1908.
- Runkle, Aleta and Mary LeBow Eriksen, Music for Today's Boys and Girls, Boston, Allyn and Bacon, Inc., 1966.
- Schubert, Inez and Lucille Wood, The Craft of Music Teaching in the Elementary School, Morristown, New Jersey, Silver Burdett Co., 1964.
- Shanet, Howard, Learn to Read Music, New York, Simon and Schuster, 1956.
- Slind, Lloyd H. and D. Evan Davis, Bringing Music to Children, New York, Harper & Row, 1964.
- Silvey, Clel T., A Study of Personal Reactions to the Solmization Method of Teaching Music Reading, Nashville, Tennessee, George Peabody College for Teachers, 1937.
- Snyder, Alice M., Creating Music with Children, New York, Mills Music Co., 1957.
- Stinson, Ethelyn L., How to Teach Children Music, New York, Harper and Brothers, 1941.
- Storr, M., Music for Children, Boston, E. G. Schirmer Music Co., 1939?
- Sur, William R. and McCall, Pitcher, Tolbert, Nye, Fisher, DuBois, This Is Music, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Dallas, Allyn and Bacon, Inc., 1962.

- Swanson, Bessie R., Music in the Education of Children, 1st Ed., Belmont, California, Wadsworth Publishing Co., Inc., 1962.
- Taylor, Eric, A Method of Aural Training, Volumes I, II, III, London, Oxford University Press, 1955.
- Timmerman, Maurine, Let's Make Music, Evanston, Illinois, Summy-Birchard Publishing Co., 1958.
- _____, Let's Teach Music in the Elementary School, Evanston, Illinois, Summy-Birchard Publishing Co., 1958.
- Vandre, Carl W., Four-Part Sight Reading Fun, Milwaukee, Wisconsin, Handy-Folio Music Co., 1940.
- _____, Two-Part Sight Reading Fun, Milwaukee, Wisconsin, Handy-Folio Music Co., 1940.
- Walton, Charles W. and Harry Robert Wilson, Music Reading Through Singing, Belmont, California, Wadsworth Publishing Co., 1966.
- Wassum, Sylvesta M., editor, Birchard Music Series, Books 1, 2, 3, 4, 5, 6, and Teacher's Editions, Evanston, Illinois, Summy-Birchard Co., 1962.
- Watters, Lorrain E. and Wersen, Hartshorn, McMillian, Gallup, Beckman, The Magic of Music, Books 1, 2, 3, 4, and Teacher's Editions, Dallas, Ginn and Co., 1965.
- Wedge, George Anson, Ear-training and Sight-singing Applied to Elementary Musical Theory, A Practical and Coordinated Course for Schools and Private Study, New York, G. Schirmer, 1921.
- Weyland, Rudolph H., Learning to Read Music, Dubuque, Iowa, W. C. Brown Co., 1961.
- White, Bernice, Melodic Dictation, Teacher's Supplement, New York, American Book Co., 1935.
- Wilson, Harry R. and Ehret, Synder, Hermann, Growing with Music, Books 1, 2, 3, 4, 5, 6, and Teacher's Edition, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1963.

Articles

- Bean, Kenneth L., "An Experimental Approach to the Reading of Music," Psychological Monographs, L (1938), 80.
- Beelar, L. A., "Music Reading Readiness," Educational Music Magazine, XXVIII (September, 1948), 29.
- Birge, Edward B., "A Basic Program for Music Study, Grades IV, V, and VI," Music Educators Journal, XXIV (May, 1938), 16-17.
- Bruxner, Mervyn, "Tonic Sol-fa Reconsidered," Music in Education, XIX (March, 1955), 9-10.
- Bull, S., "Listen," American Music Teacher, 15 (February, 1966), 19.
- Dykema, Peter W., "Some Fundamental Questions About Music Reading," Music Educators Journal, XXXV (September-October, 1948), 24-26.
- Ellison, Hugh M., "Sight Reading," Georgia Music News, (November, 1966), 10.
- Faunt, E., "Music Reading Can Be Made Easier," Music in Education, 29 (1965).
- Frost, R. G., "Orff and Kodaly - New Teaching Methods," Music Journal, 20 (February, 1962), 34.
- Fuller-Maitland, J. A., "Tonic Sol-Fa: Pro and Con," Musical Quarterly, VII (January, 1921), 68-72.
- Hammer, Harry, "The Tachistoscope in Music Reading," The American Music Teacher, Volume 17, Number 1, (September-October, 1967), 39, 48.
- Harris, Clement Antrobus, "The War Between the Fixed and Movable Doh," Musical Quarterly, IV (April, 1918), 184-195.
- Harris, Janet D., "Music and Language Reading," Music Educators Journal, XXXIV (November, 1947), 29-30.
- Hewson, A. T., "Music Reading in the Classroom," Journal of Research in Music Education, 14 (Winter, 1966), 289-302.
- Hiteman, M., "Let's Postpone Music Reading," Educational Music Magazine, XXIV (September, 1944), 22.

- Hooper, S., "Development of a Test Battery to Measure Music Reading Readiness of Children in Grades Three and Four," Journal of Research in Music Education, 14 (Summer, 1966), 115-125.
- Hutton, Doris, "A Comparative Study of Two Methods of Teaching Sight Singing in The Fourth Grade," Journal of Research in Music Education, 1 (1953), 119-126.
- Jackson, George Pullen, "Buckwheat Notes," Musical Quarterly, XIX (October, 1933), 393-400.
- Jeffries, Thomas B., "The Effects of Order of Presentation and Knowledge of Results on the Aural Recognition of Melodic Intervals," Journal of Research in Music Education, Volume XV, 3 (Fall, 1967), 179-190.
- Joseph, W., "Music Reading: When and How," Music Educators Journal, 51 (1965), 66.
- Miessner, W. Otto, "The Art of Tonal Thinking," Music Educators Journal, 48 (January, 1962), 42-45.
- Miller, Charles H., "Teaching Sight-Reading Without Syllables," Music Supervisors Journal, 17 (October, 1930), 18-19.
- Nye, Robert E., "If You Don't Use Syllables, What Do You Use?" Music Educators Journal, 37 (April, 1953), 41-42.
- _____, "Syllables, Numbers and Sight Reading," Music Educators Journal, XXXV (November, 1948), 52-53.
- Petzold, Robert G., "The Perception of Music Symbols in Music Reading by Normal Children and by Children Gifted Musically," Journal of Experimental Education, 28, No. 4 (June, 1960), 271-319.
- Richards, Margaret C., "Musical Growth Through Reading," Utah Music Educator, (Spring, 1966), 9.
- Short, Madison, "The State of Vocal Sight Reading in Georgia," Georgia Music News, (November, 1966), 10.
- Spencer, H. S., "Ear Training in Music Education," Music Educators Journal, (February-March, 1947), 44.
- Van Bodegraven, Paul, "Music Reading," Music Educators Journal, 35 (February, 1949), 71-72.

- Weaver, H. E., editor, "Studies in Ocular Behavior in Music Reading," Psychological Monographs, LV (1943), 1-50.
- Wheeler, Lester R. and Viola D. Wheeler, "The Relationship Between Music Reading and Language Reading Abilities," Journal of Educational Research, 45 (February, 1952), 439-450.
- Wheelwright, Lorin, "Music Reading in the Elementary School," Education, 59 (May, 1939), 533-544.
- Wyatt, Ruth F., "Improvability of Pitch Discrimination," Psychological Monographs, 58 No. 2 (1945).

Publications of Learned Organizations

- Cole, Samuel W., "A Universal Sight-Singing Method," Papers and Proceedings of the Music Teachers National Association, Hartford, 1910.
- Crowell, Wilhna S., "Beginning Sight Reading," Yearbook of the Music Educators National Conference, Thirtieth Year, 1937, Chicago, Music Educators National Conference, 1937, p. 252.
- Hodgson, Walter, H., "The Problem of Music Reading," Volume of Proceedings of the Music Teachers National Association, Pittsburgh, 1945.
- Jacobsen, O. Irving, "An Analysis of Eye-Movements in Reading Music and the Bearing of that Study Upon Methods and the Procedures in School Music Training," Music Supervisors National Conference, Twenty-first Yearbook, 1928, pp. 284-289.
- Ortmann, Otto, "Span of Vision in Note Reading," Music Educators National Conference, Thirtieth Yearbook, 1937, pp. 88-93.

Encyclopedia Articles

- Apel, Willi, "Solmisation," Harvard Dictionary of Music, Cambridge, Harvard University Press, 1945.

Unpublished Materials

- Barger, R. R., "A Study of Music Reading: Groundwork for Research in the Development of Training Programs," unpublished doctoral dissertation, The Ohio State University, Columbus, Ohio, 1964.
- Barnes, James W., "An Experimental Study of Interval Drill as It Affects Sight Singing Skill," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1960.
- Bartges, Paul R., "The Melody Method of Teaching Sight Reading Versus the Mechanical," unpublished master's thesis, Pennsylvania State College, University Park, Pennsylvania, 1932.
- Buchanan, Walter, "Comparison of Fixed and Movable Solfege in Teaching Sight Singing from Staff," unpublished doctoral dissertation, University of Michigan, Ann Arbor, Michigan, 1946.
- Christ, William B., "The Reading of Rhythm Notation Approached Experimentally According to Techniques and Principles of Word Reading," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1953.
- Hammer, Harry, "An Experimental Study of the Use of the Tachistoscope in the Teaching of Melodic Sight-Singing," unpublished doctoral dissertation, University of Colorado, Boulder, Colorado, 1961.
- Helbing, D. W., "An Experimental Study of the Relative Effectiveness of 'Whole' and 'Part' Methods of Teaching Sight-Singing," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1965.
- Melnitz, Frederick, "A Study of Language Reading Habits as Related to Music Reading Skills: An Ophthalmographic Study," unpublished master's thesis, Syracuse University, Syracuse, New York, 1942.
- Ray, Harry Burton, "An Experimental Approach to the Reading of Pitch Notation," unpublished doctoral dissertation, Indiana University, Bloomington, Indiana, 1963-1964.
- Savage, Edith Jones, "The Development of Instruction in Music Reading in Public Schools of the United States," unpublished doctoral dissertation, University of Colorado, Boulder, Colorado, 1960.

Wiley, Charles A., "An Experimental Study of Tachistoscopic Techniques in Teaching Rhythmic Sight-Reading in Music," unpublished doctoral dissertation, University of Colorado, Boulder, Colorado, 1962.