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Handbook of techniques for correction of pitch and range problems in elementary vocal music

F. Catherine Clark

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A HANDBOOK OF TECHNIQUES
FOR CORRECTION OF PITCH AND RANGE PROBLEMS
IN ELEMENTARY VOCAL MUSIC

by

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B. S. M. Cornell College, 1942

Presented in partial fulfillment of the requirements for the degree of

Master of Music

MONTANA STATE UNIVERSITY

1959

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Date
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CHAPTER I

INTRODUCTION TO THE HANDBOOK OF TECHNIQUES FOR CORRECTION OF PITCH AND RANGE PROBLEMS IN ELEMENTARY VOCAL MUSIC

Each child in the elementary school classroom possesses the ability to express himself vocally. The responsibility for the development of that ability lies with the music educator. About ninety per cent of the boys and girls who enter first grade fall into the vocal classification known as "out-of-tunes"; about ten per cent sing in tune. By employing various techniques for correction of pitch and range problems, it is possible to reverse the situation by the end of the first year.

Statement of Need. Music educators are aware of the need to correct pitch and range problems (out-of-tuneness) in the child's early years in order to increase his capacity for deriving pleasure from participation in singing activities. Suggested approaches to this problem are to be found in many textbooks, most of which show wide differences in types of techniques. In addition, many individual music instructors and classroom teachers have originated devices for use as aids for out-of-tunes. It was the opinion of the writer that there was a need for a composite source of all the techniques and devices found in textbooks, manuals of music supervisors, course of study manuals, and other sources, including original methods suggested by individuals actively working in classroom situations. This need was made increasingly apparent from a study of
research bulletins which revealed that practically nothing had been done in this area.

The Problem. For many years after Lowell Mason succeeded in establishing the need for music in the public schools, the "singing school" methodology of much drill on notes continued to be the general practice. Textbooks on school music at this time offered few, if any, suggestions for aiding the individual child with pitch and range problems. Toward the end of the nineteenth century a revision of thought came with the impact of the Herbartian pedagogy in which greater attention was centered on the psychology of child development. As the need for recognition of children as individuals came into being, music educators realized that some children should have special assistance in order to correct pitch and range problems. From the background thus established the point of departure for this study was approached.

Purpose of the Study. The purpose of the study was:

1. to study all available textbooks for types of techniques used in the correction of pitch and range problems among children in the elementary grades.

2. to organize and develop a handbook which would include all types of techniques found in textbooks, manuals of music supervisors, and suggestions offered by individuals actively working in classroom situations.

3. to include in the handbook a classification of various

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types of pitch and range problems, and to develop through experimentation a parallel list of corrective devices.

Delimitations. The problem of out-of-tuneness is only one aspect of the elementary music education program. This paper is limited to those correctional techniques found in research studies, music series manuals, textbooks of elementary music education methods, questionnaires to specialists, outlines of procedures obtained from music consultants, and experimentation by the writer in the first grade of the El Nido School, El Nido, California. In order to limit the study further, the experimental work has been organized and limited according to three representative types of problems, namely: (1) children who have good range with some pitch difficulty; (2) children who have good range but cannot control pitch; (3) children who are low singers with very little range or control.

Importance of the Study. The correction of faulty pitch and vocal range among elementary school children is recognized by all grade teachers and music specialists as being one of the most important goals in elementary music education. A composite listing of all techniques made available through this study should provide a ready source of assistance.

Background and Procedure. A classification of various types of pitch and range problems have been included in the handbook. In order to develop a parallel list of corrective techniques and devices, experimental work was carried on in the first grade class of the El Nido Elementary School,
El Nido, California. This school lies in the center of a large cotton growing area. It has a diversified student body consisting of the children of well-to-do ranch owners, those whose parents are stable workers on the ranches, and many Mexican and Negro boys and girls whose parents are transient workers. The cross section of types found in each classroom was advantageous in carrying on the experiments necessary for an evaluation of devices and techniques.

Procedure of the Study. The procedure consisted of five steps.

1. Research was done in textbooks, manuals of music supervisors, and suggestions offered by individuals actively working in classroom situations.

2. Questionnaires were sent to music consultants, music teachers, and first grade teachers in Merced and Fresno Counties, California, for information regarding techniques and devices used for the correction of pitch and range problems.

3. A classification was made of pitch and range problems typical of elementary school children based upon actual situations in the first grade, El Nido Elementary School, El Nido, California.

4. Through experimentation with the collected techniques in the first grade, a parallel list of devices was developed with an evaluation of each.

5. Students were classified at the beginning of the school term according to their pitch and range problems. At the end of the year a re-classification was made in order to see the result of the use of various techniques and devices.
CHAPTER II

ANALYSIS AND DISCUSSION OF THE PITCH AND RANGE PROBLEMS
IN ELEMENTARY VOCAL MUSIC

As a result of the study of available textbooks, music series, and curriculum guides in which references to the general problem of out-of-tuneness were found, and through experimental work in the classroom, certain relationships which have a direct bearing on the pitch and range problems in elementary vocal music are apparent. These include:

1. the relationship of hearing to vocal response.
2. the relationship of control of vocal apparatus to vocal response.
3. the relationship of bodily control to vocal response.
4. the relationship of teacher and student to vocal response.

Relationship of Hearing to Vocal Response. Most music educators recognize the fact that any child who can hear is a potential singer unless his vocal apparatus is impaired.

"Aural perception is inherent in each phase of every activity that contributes to musical growth."\(^1\) Aural power, as it is used in relation to music, does not imply deafness, but, rather, refers to the capacity of the child to hear accurately. There must be a melody in the ear so that

the voice has something to which to tune. The boy or girl whose native intelligence is above average frequently possesses a greater capacity to hear accurately than the one whose intelligence falls below that level. At the inception of formal music study, those children who give evidence of being intellectually superior are able to produce more accurate vocal responses than those who give evidence of being less intellectually superior. These two statements serve to emphasize the important role played by the mind in any discussion of hearing as it is related to vocal response.

When boys and girls are asked to listen to a tone, they are actually being directed to retain in their minds the sounds which are about to enter the physical mechanism known as the ear. The music educator who is striving to correct the problem of out-of-tuneness must be constantly aware of the implications involved in aural perception. Without such an awareness, and without his guidance of the children into such an awareness, there could be no vocal response. The successful application of any device or technique to overcome pitch and range problems hinges on raising the level of the child's hearing acumen, or aural perception. If, by increasing aural perception, the child's general achievement is upgraded, then the music educator, in his efforts to correct out-of-tuneness, has not only made a real contribution to the musical life of the child, but also to the total educational program of the public schools.

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Relationship of Control of Vocal Apparatus to Vocal Response. The statement has been made that superior powers of aural perception produce superior intellectual achievement and that, at the inception of formal music study, superior intellectual achievement reflects itself in a superior vocal response. This, however, does not account for the intelligent child who is an out-of-tune or for the less intelligent child who is capable of reproducing tones accurately. Although the development of careful listening to promote accurate vocal responses is the basic premise upon which to work in order to correct pitch and range problems, certain other relationships exist; these must be recognized. One of these involves the degree of control of the vocal apparatus and the relationship of that control to vocal responses.

The dictionary defines control as "to restrain; govern; regulate".3 The child who has a keen sense of aural perception but who lacks the ability to control (or "regulate") his vocal apparatus in the reproduction of the sounds which he has heard will not be capable of producing "in-tune" vocal responses. Some boys and girls in this classification will be able to respond accurately when requested to differentiate between the extremes of pitch. The less extreme the interval of pitch is, the more difficult a precise recognition becomes. This fact is true not only in regard to a verbal response to the question, "Which is 'high' and which is 'low'?" but also in the child's attempt to sing "high" and "low".

Since the uncertain singer is often the child who loves to sing the most, the music educator and classroom teacher must assume the responsibility for making use of correctional devices and techniques to assist the child in gaining control of his vocal apparatus. They should be guided by the thought that "a voice not under control of the music to be reproduced is an indication that natural musical growth is not taking place."^4

Relationship of Bodily Coordination to Vocal Response. The instinctive desire of the human being to respond bodily to rhythmic stimuli offers a door through which the out-of-tune child may step into the wider horizons of a singer. A background of experience for better singing is built by first listening to music, then responding physically, and in the process becoming oriented to rhythm, pitch, and mood.5

Many authors and music educators have discovered that the boy or girl whose body is well-coordinated is, in many cases, a singer. Conversely, the out-of-tune child is often found to be lacking in bodily coordination. By exposing children to a great variety of rhythmic experiences, and by providing the opportunity for them to respond to these experiences, the music educator will be cultivating within the child the spirit of music. A child who is filled with the spirit of music will make rapid progress in the execution of that music.6

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^4 Flagg, op. cit., p. 53.


The Relationship of Teacher with Student to Vocal Response. The music educator is the motivating force throughout all the relationships which have a bearing upon the correction of vocal pitch and range problems. He is, in turn, motivated by the desire to accommodate the individual differences in the children with whom he works. Teachers recognize that within each boy and girl there are emotional, physical, and mental differences which affect the child's attitude toward learning, ability to perform, and capacity to comprehend. Music, perhaps more than any other subject, tends to substantiate the theory of individual differences.

"Nowhere are they (individual differences) more apparent than in the singing voices of children who are entering school for the first time." 7 James Mursell has stated that many a child who perhaps might come under the unfortunate classification of the monotone is really a genuinely musical being. 8 "Inability to sing on pitch is not a type of ability, nor a state of being, but a stage in musical learning." 9

The teacher should be concerned with certain intrinsic conditions as a prelude to any extrinsic efforts in the direction of aiding the out-of-tune. The need to establish an atmosphere within which the child will be generated by the desire to participate and to achieve is of primary importance. The teacher himself must be so imbued with enthusiasm, faith,

7Pitts, op. cit., p. viii.
9Flagg, op. cit., p. 51.
and a desire to help that the children sense his attitude and make it their own. These characteristics must be genuine to be believed. To this end the music educator should acquaint himself with certain facts pertaining to the out-of-tune child.

Group singing, unlike many other activities, involves the need for absolute unity. Oneness of pitch, rhythm, tone quality, and words are essential to the success of this activity. The out-of-tune child who destroys such unity becomes known to his peers as someone who is "spoiling the song." Singers in the lower primary classes have a tendency to accept the out-of-tunes with patience and understanding, but with each successive year the attitude toward out-of-tunes changes more and more toward impatience and ridicule. The out-of-tunes themselves undergo parallel tendencies. For the most part, children in the elementary grades show an innocent lack of self-consciousness toward their problem. With each successive year those who remain out-of-tunes grow more and more self-conscious. The importance of the problem and the teacher's role in the correction of the problem before the child reaches the age of self-criticism should be apparent. If the pitch and range difficulties are not corrected in the lower grades, the out-of-tune children may be shut out of the musical world permanently.10

The music educator and classroom teacher should capitalize upon the genuine love of music usually found within these children and should

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10 Flagg, op. cit., p. 53.
be inspired by the fact that when their voices are found, they are often among the most musical of boys and girls.\textsuperscript{11}

The music educator who acts in a supervisory or consultant capacity must assist the classroom teacher to have confidence in himself and a respect for the music that is in him,\textsuperscript{12} for it is upon his shoulders that the responsibility of the daily music period must fall.

In conclusion, the music educator and the classroom teacher must approach the problem immediately with enthusiasm, faith, and a genuine desire to help. Spasmodic efforts with out-of-tunes will accomplish little. The effort must be daily and consistent. However, daily consistent effort which falls into a monotonous routine can be deadly. Tact, humor, and understanding must permeate the teacher’s being, and variety should be the key-note in procedures and materials.


CHAPTER III

A HANDBOOK OF TECHNIQUES FOR CORRECTION OF PITCH AND RANGE PROBLEMS IN ELEMENTARY VOCAL MUSIC

If the devices and techniques found in a later section of the handbook are to be used effectively, the music educator must have an understanding of the factors relating to the causes and the correction of pitch and range problems in vocal elementary music.

I. FACTORS RELATING TO

THE CAUSE AND CORRECTION OF OUT-OF-TUNENESS

Causes of Out-of-Tuneness. Any one or a combination of several factors may be the cause of out-of-tuneness.

1. The child who has had little exposure to music in the home during his pre-school years frequently finds it difficult to produce a singing tone. He is apt to try to make his speaking voice sing. The inability to produce a singing tone is often accompanied by a lack of coordination between the ears and the voice.

2. The child may have an unfavorable attitude toward singing due to emotional disorders. He may be timid, fearful, or jealous and suffer from feelings of frustration, insecurity, and inferiority. Such a boy or girl, unlike the out-of-tune with a favorable attitude who is eager to sing in spite of his inability, is often painfully aware of his inaccuracies. In many cases parents and teachers are responsible for emotional

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1Pitts, op. cit., p. ix.
disorders related to attitudes toward singing. For example, there are parents who, in the presence of a little child, will unthinkingly compare the singing ability of their older children with the inability of the younger one. Some teachers, when the class is to sing on a program, will ask certain children to move their lips to the words but not to make any sounds. James Mursell has said that since singing involves the entire personality, the implication is that the principal blockages to singing are not technical but personal. There is a close relationship between expressive activities and the emotions of children.

3. The child may have no interest in trying to sing. "Among these children are included those who are underfed, overindulged, and lacking in sufficient sleep. The teacher is expected to try to improve the environment of these children even though it is often difficult. Occasionally a child has so rich a musical background that it leads him to believe the activities at school are childish and unworthy of his attention."3

4. The child may have a physical abnormality or defect which impedes his ability to sing. Such a condition may range from the relatively easily corrected conditions of poor posture and improper breathing habits to the more complex conditions of enlarged tonsils, malnutrition, or nervous disorders. The music educator can do much to assist the child

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in the development of good posture and proper breathing habits. The more complex conditions will probably be discovered by the school nurse who, in turn, may confer with the parents about the child's condition. Further initiative toward the treatment of these physical ailments would be the parent's responsibility.

The following statements serve as a summary for the causes of out-of-tuneness:

1. The child who has had little exposure to music in the home during his pre-school years frequently finds it difficult to produce a singing tone.

2. The child may have an unfavorable attitude toward singing due to emotional disorders.

3. The child may have no interest in trying to sing.

4. The child may have a physical abnormality or defect which impedes his ability to sing.

Factors Relating to the Correction of Out-of-Tuneness. Before the devices and techniques found in Part II of this chapter are used, the music educator must ask himself certain questions.

1. Are the problems of each out-of-tune child the same? If not, how shall I discover the group in which he belongs?

2. What are some of the ways to help the child find his voice?

3. What plan of procedure shall I use in working with the out-of-tunes? How can both individual and group help be incorporated in the program?

4. What psychological factors are involved in dealing with the out-of-tune child?

5. What do I need to know about the use of tone matching, breathing, and intervals in order to correct pitch and range problems?
6. Are other phases of the music program useful as aids in helping the out-of-tune boy or girl?

7. Is it necessary to use a certain seating plan in order to work effectively?

Discovering the Group. Each child has individualistic vocal characteristics. If the music class period is to be of value, the teacher must have a knowledge of the pitch and range ability of every boy and girl in order to diagnose each case. The procedure may be stated in three steps:

1. evoke a vocal response from the child.
2. classify the child as a singer or an out-of-tune.
3. classify the out-of-tunes as to type.

Almost any one of the devices found in the section of the handbook headed Devices and Techniques would be useful for evoking a response from the child. Since the important thing is not so much what is used as how effective it is, the music educator should make free use of many different devices in order to lend variety to the music class period and to find the most effective device for getting a response from the child.

In order to classify the child as a singer or an out-of-tune the author of Teach Your Child Music suggests that the teacher sing a song for the child and then ask him for one song. If he refuses, play a game of hide-and-seek, singing "hoo-hoo" on various pitch levels. The child then finds you by singing something. Another method used by Mrs. Marti is that of playing games. For example, play "dolls" and sing the doll to sleep, or play "parade" and imitate the instruments of the
The third step in the procedure consists of classifying the out-of-tunes as to type. The writer, in her experimental work with the first grade class of the El Nido, California, Elementary School, limited herself to three divisions:

1. children who have good range with some control.
2. children who have good range with little control.
3. children who are low singers with little range.

Although the aforementioned suggestions may act as a point of departure, each teacher should use his own initiative, imagination, and knowledge of the individual child to create devices by which to determine the type of out-of-tuneness into which the child falls.

Ways to Help the Child Find His Voice. All of the devices and techniques employed by the music educator and classroom teacher are a means to the end of helping the child to find his voice. Four points of emphasis should be made; without the accomplishment of these the teacher will find his efforts to aid the out-of-tune unsuccessful.

1. The teacher must assist the child in learning to "image" tones. In order to "image" tones the out-of-tune must be able to see in his "mind's eye" the relationship of one tone to another.

2. The teacher must assist the child to "imitate" a tone or tones which have been sung or played by someone else.

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3. The teacher must assist the child in the discovery that his voice is a flexible instrument which can and will move in any direction and which may be stopped (or held) at a given point.

4. The teacher must make all musical activities a happy and satisfying experience.

**Individual or Group Help.** Some authorities in the field of music education believe that it is preferable to correct out-of-tuneness through individual help. Others are strong proponents of the value of reaching the individual through the group. All seem to agree that singing must be for everyone. The difference in viewpoint occurs in the methodology employed. In a discussion pertinent to this question, Paul Wentworth Mathews makes the statement that although it is undesirable to divide the class into "redbirds", "bluebirds", etc., it is just as undesirable to mislead the children into thinking that they are singing correctly when they are not. This expression of thought is important for all music educators to consider regardless of whether one is an advocate of the individual or group help.

The thinking of those who prefer to give individual help for the correction of out-of-tuneness seems to be that the inability to match tones can, in part, be traced to poor thinking. Individual attention forces the child to do his own thinking and to make his own responses. Daily work

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with each out-of-tune results in the establishment of a routine of "thinking for yourself". When the routine becomes a habit, the child is no longer dependent upon the group to cover his out-of-tuneness. The effort at this point becomes an individual thing. As the individuals within a group are strengthened in their ability to sing in tune, so the group singing is strengthened in quality. If this type of help is to be successful, the teacher must be careful not to make the out-of-tune feel isolated. He must use tact in his presentation and must motivate the child through creating the desire to accomplish. Other boys and girls in the class can be drawn into the procedure by using them for the original rather than the teacher. Children imitate and match tones more successfully when another child sings the tone or tones to be imitated and matched. As soon as the out-of-tune can carry a tune with others he should be allowed to join in the singing with the class. Stress should be placed on the importance of planning some songs each day in which he can take part; as, for example, those containing an imitation of animal sounds. The authors of Tone Matching Tunes for Singing and Playing state that careless group singing is of little value in terms of musical development. This statement is supported by the result of work carried on in the children's classes in Introduction to Music at the Eastman School, University of Rochester, Rochester, New York, where the worth of individual help over regular group singing has been proved.6

Psychological Factors. A section of Chapter II has been devoted to the teacher's role in correcting the pitch and range problems in elementary vocal music. Because of the interplay between individuals in daily living, there is a need for the teacher to understand the child's role as well as her own.

Each out-of-tune boy or girl has a problem in vocal expression unique from that of any other boy or girl. Each child has some capacity for vocal expression. Having accepted these facts, the teacher must discover the extent of the child's capacity and use that knowledge as a point of departure from which to expand the child's singing ability. However, the diagnosis is incomplete without a consideration of certain needs and drives within the child's emotional structure. Peter W. Dykema and Hannah M. Cundiff have expressed their thoughts on the subject by stating that there are four influences on the child's ability to sing: the ability to sing is dependent upon physical and mental factors combined with attitudes and experiences.7

The following needs of the children should be considered seriously by the music educator.

Every child feels the need to "belong". This need underlies the thinking of those authorities in the field of music who believe that it is wrong to set the out-of-tunes apart by using a special seating arrangement or by designating voice classifications by certain key words, such as

"redbirds". When individual help is being given to the non-singer, every effort must be made to incorporate assistance from the whole class in the drills. Isolation now results in withdrawal and non-participation later.

Every child feels the need to "contribute". One authority says that out-of-tunes should be encouraged in their efforts to overcome problems by making occasions for use of their particular talents, whether allied to music or not. Many songs offer an opportunity for these children to contribute to the group singing, as, for example, those in which certain sounds are imitated... the buzz of bees, the moaning of the wind, and many others. The wise teacher will be alert to such possibilities as she selects materials to be used. Not to be overlooked are the sources of contribution to be found in action songs, musical dramatizations, and the use of rhythm instruments.

Every child feels the need to be a "success". To satisfy this need the music educator must encourage the out-of-tune by giving him something to do each day at which he can succeed. The child must be made aware of that which he is capable so that he feels pride in the accomplishment. Since everyone enjoys doing that which he can do well, such an awareness within the boy or girl will encourage him to repeat his successes. The ability to repeat is indicative of progress.

Every child needs to be "stimulated" and "motivated". Children who are poor thinkers are frequently poor singers. Poor thinking does

---

not necessarily denote a low intelligence quotient. Frequently students produce below their ability level because of lethargy stemming from a stultified and uninspiring classroom environment. The music educator must create dynamic situations during the music period if an atmosphere conducive to qualitative thinking and singing is to be established.

**Tone Matching, Intervals, and Correct Breathing.** Common sense dictates that the out-of-tune child must learn how to match tones and hear intervals correctly in order to become a singer. Certain facts concerning tone matching and intervals have been proven through experimentation over a period of years.

When a child can match a single tone he has taken the first step toward becoming a singer. Each child can produce at least one pitch. It is this pitch from which the teacher should take his cue. One author suggests that the teacher get "in tune" with the "out-of-tones".  

The next step forward occurs when the child discovers that his voice is capable of movement. (Many useful devices toward this end may be found in the section of the handbook entitled Devices and Techniques to Aid in the Correction of Vocal Pitch and Range Problems, pp. 25-32.) Once he has succeeded in the accomplishment of this fete it becomes necessary to promote careful listening and alert thinking so that he may begin to match tones of many different pitches.

When the last phase of single tone matching has been achieved, the

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9 Sheehy, op. cit., p. 9.
child is prepared for learning how to sing two different tones in a series, or "intervals". Many authorities agree that large intervals are more easily heard than small ones. However, the Great Falls, Montana Outline states that the falling minor third is by far the best interval to use.\textsuperscript{10}

With some children success is achieved by objectifying tonal relationships, such as having them stoop close to the floor for low DO and stretch tall for high DO. A neutral vowel sound is often preferable to words in interval drill with out-of-tunes since the child frequently slips to a speaking voice when words are used with tones.

Occasionally the goal of correcting pitch and range problems becomes within itself of such tremendous import that certain other elements of correct singing which could assist in reaching that goal are overlooked. That is, in the act of wanting to hear the child make the sound it is possible to neglect teaching the child how musical sounds are made. The music educator, as a trained musician who is aware of how proper breathing habits can improve the quality of singing, should not neglect to demonstrate the correct posture, how to breathe properly, and the difference between tones produced correctly and incorrectly.

Other Phases of The Music Program. Anything which promotes within the child a feeling for music in the broader sense of the word will be an aid in helping the out-of-tune. The music curriculum should be balanced be-

\textsuperscript{10}Thelma Heaton, Elementary Music Guide (Great Falls, Montana: Elementary Schools, 1957).
tween singing, listening, rhythmic experiences, and creative experiences. Certain records may suggest creative bodily response to the child. Rhythmic response is instinctive and so should be capitalized upon. One author has contributed a fine list of the values provided through rhythmic experiences:

1. development of bodily control.
2. imagination.
3. willingness to experiment.
4. emotional responsiveness
5. concepts of: fast and slow
   heavy and light
   long and short

Music appreciation not only helps to develop careful listening habits but also exposes the child to the vast possibilities of the whole field when a high level of artistic performance has been developed.

**Summary.** Any one or a combination of factors may be the cause of out-of-tuneness:

1. The child may use his "speaking" voice when trying to sing.
2. The child may have an unfavorable attitude toward singing due to emotional disorders.
3. The child may have no interest in trying to sing.
4. The child may have a physical abnormality or defect which impedes his ability to sing.

In any discussion of the cures for out-of-tuneness the following state-

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11Nye and Nye, op. cit., p. 22.
ments are important:

1. The individual vocal characteristics of the child must be diagnosed and classified.

2. In helping the child to find his voice the teacher must assist the child in learning to "image" tones, "imitate" tones, discovering the flexibility of the vocal apparatus, and must make every experience in music a happy, satisfying one.

3. Whether to give the out-of-tune individual daily drill or to reach his problem through the group is a matter to be decided by the music educator himself. In either case the child must have a feeling that he is a part of the group.

4. The teacher must have an understanding of certain psychological factors based on the needs and urges of children. These needs include: the need to belong, to contribute, of being a success, to be stimulated and motivated.

5. After a child has succeeded in matching isolated single tones, he is ready to sing successive tones, or intervals. The usefulness of correct posture and breathing properly should not be overlooked as aids to correct vocal pitch and range problems.

6. All phases of the music program assist in helping the out-of-tune to overcome his problem. A complete music program should include singing, listening, rhythmic experiences, and creative experiences.

II. A COMPILATION OF DEVICES AND TECHNIQUES FOR CORRECTION OF PITCH AND RANGE PROBLEMS IN ELEMENTARY VOCAL MUSIC

The classifications under which various devices and techniques for the correction of vocal pitch and range problems are listed have been used to facilitate the reader in locating aids for a specific need he may have as his work with out-of-tunes is planned.
Classifications include:

A. Imitation
   1. Animal sounds
   2. Mechanical sounds
   3. Sounds of Nature

B. Matching tones
   1. Single tones
   2. Intervals

C. Techniques to develop careful listening habits

D. Objectifying Tonal Relationships

E. Games, Dialogues, Dramatic Play

F. Supplementary sources

A. Imitation (to develop an awareness of the flexibility of the voice).

1. Animal sounds:
   a. Tiny kitten (prr)
   b. Baby mouse (eek)
   c. Baby chick (peep)
   d. Lamb (baa)
   e. Duck (quack)
   f. Rooster (cock-a-doodle-doo)
   g. Dog (bow-wow; woof-woof)
   h. Cow (moo)
   i. Pig (oink)
   j. Birds (tweet)

   1) whip-poor-will
   2) pee-wee
   3) cuckoo

2. Mechanical sounds:
   a. Siren ("oo" from low to high to low)
   b. Instruments:
      1) horn (toot-too)
      2) bass drum (boom boom)
      3) violin (nee-nee)
      4) bells (ding-dong)
      5) whistles
   c. Airplane
   d. Train
   e. Boat
   f. Clocks (large and small)
3. Sounds of nature:
   a. Wind (oo)
   b. Raindrops (pitter patter)
   c. Mosquito (humming)
   d. Bee (bzz)
   e. An echo (yoo-hoo)

B. TONE MATCHING

1. Single tone:
   a. Prolong last syllable of spoken word
   b. Sing short sentences on tone of child's speaking voice
   c. Sing phrases on one high tone
      1) "Fly away"
      2) "Come home"
   d. Child goes to piano, plays a tone, thinks it, sings it
   e. Sing directions for the "next song" on single tone which is starting pitch of song

2. Intervals:
   a. Musical roll call
      1) Call child's name. He replies on same pitches.
      2) Have that child call the next.
   b. Selling
      1) Newsboy (Papers)
      Octaves; falling minor 3rd
      2) Street vendors (Oranges)
         (Apples)
         (Hot dogs)
         (Ice cream)
   c. Telephone call
      1) "Ding-a-ling"
      2) "Hello"
   d. Reproduce tones played on instrument:
      (Melody bells)
      (Piano)
   e. Reproduce portion of song sung by the other children
   f. Marks on blackboard
      1) Teacher marks as she sings
      2) Child traces marks as he sings ('Puts' his voice on the chalk dots voice moves the way the chalk goes)
         ____ or ____ ____
C. DEVELOPING CAREFUL LISTENING HABITS

1. Teacher establishes tone or motive from a song. Child asked to show recognition each time he hears that tone or motive.

2. Children close eyes. Teacher draws chalk across board. Teacher: "Was it one long or several short lines?"

3. Tap a pencil. Teacher: "Did I tap on the wooden desk or the metal faucet?"

4. Close eyes. "Listen to sounds around you. What do you hear?"

5. Play two tones on piano. "Which is high?" "Which is low?" Repeat with different tones, different order.

6. Play several tones fast, followed by several slow. "Which was fast?" "Which was slow?" Repeat with different tones; change order of fast and slow.

7. Children close eyes. One child chosen to hide. He sings tone or tones on neutral vowel sound. Children guess where in the room he is hiding.

8. Sustain beginning tone of song to be sung until entire class matches it. Instruct class as follows: "Listen to the tone I am singing now as I talk to you. When I touch you, start to sing this tone using the sound 'oh'. Once I have touched you keep singing. Take a breath whenever you need one, but do not stop singing... 'oh'."

9. Teacher sings several intervals each time starting with the same pitch. Child at board draws marks showing direction and relative size of interval.

Blackboard

<table>
<thead>
<tr>
<th>Falling Octave Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor 3rd</td>
</tr>
<tr>
<td>C to A♭</td>
</tr>
</tbody>
</table>

11. Assign a child to play a short phrase on the song bells at certain time in song. He must listen for the proper time to play.

SEE ALSO: Supplementary Sources Page 32.

D. OBJECTIFYING TONAL RELATIONSHIPS

1. Squat for low tones; reach high, standing on tiptoe, for high tones.

2. Child plays tones on keyboard instrument, singing same tones on neutral vowel sound.

3. Voice is a ball... throw to floor, bounce it to ceiling.

4. Draw target on board. The bull's eye represents certain tone. Child "aims" carefully. Tries to hit the bull's eye. Teacher puts X on spot child hits. Child keeps trying to improve his record. He sees his improvement by watching where teacher places the X.

5. Teacher draws curved line on board, explaining: "This is a very steep hill. Your voice is going to climb it. Who can get to the top?" Child is selected. "Now put your hand at the bottom of the hill. Make your voice go with your hand. If your voice stops climbing, your hand must stop. So, if you want to reach the top with your hand, be sure to keep your voice moving."

6. Draw lines on blackboard representing pitch relationship as phrase is sung. Sing it again. This time draw curved connecting lines from tone to tone. Children enjoy seeing this pattern of sound. See example.

7. Draw steps or ladder. Children climb the ladder with voice. Teacher asks, "What happens if you miss a step when you are really climbing a ladder?"... "That's right. You fall and get hurt. If you miss a step with your voice, it hurts our ears."
8. Motion up and down with hand as teacher sings up and down.

9. Child marks on board as teacher or singer sings.

10. Place a small chair next to the teacher's chair. Child is selected and instructed to sing three different tones of his own choice. Discuss the fact that as he climbs from floor, to small chair, to big chair he will be getting higher, and so the tones must get higher. Reverse is true coming down. Later he may move from one chair to the other and to the floor in any combination he wishes. Example: If he chooses to start with the little chair, step to the high chair, and jump to the floor, his voice must go up from the starting tone and then drop low as he jumps to the floor.

E. GAMES - - - DIALOGUES - - - DRAMATIC PLAY

1. Different children represent characters in familiar stories. Child makes up tune, or teacher may suggest tune. Teacher acts as narrator of story (or one of the singers who may be capable). Children participate with their own part in appropriate place as the story unfolds.

Example: The story of The Three Bears. Three children selected to represent the three bears. As story unfolds each child sings his part to fit in the story.

   Narrator: "Father bear says":
   Child sings: "Someone's been eating my porridge"
   Etc.

2. Children close eyes. Someone selected to be "It". "It" touches a child who has eyes closed. "It" sings: "Who am I?" Child touched sings answer: "You are Johnnie." If he guesses correctly, he becomes "It".

3. Play train.
   a. Teacher sings: "All aboard!"
      Child sings: "Good-bye", using same tones as teacher.
   b. Buying tickets.
      Singer: "Where to?"
      Out-of-tune: "Memphis". Uses same tones as singer.
      If correct, may board train. Dramatize by using chairs lined up to represent seats in a train.

4. Sing-down. Like spell down. Tones used instead of words spelled.

5. London Bridge. Bridge raises only when correct tone (pre-determined) is sung.
6. Turn upside down. Child places his hands on table or desk, bends over as far as he can and imitates teacher singing "yoo-hoo" on descending minor 3rd.

7. Bouncing ball. Sing "yoo-hoo" on descending minor 3rd while bouncing ball from teacher to child.

8. Selling. Singer: "Newspaper!"
   Out-of-tune: "How much?"
   Singer: "Ten cents!"
   Out-of-tune: "I'll buy one."

9. Cat and kittens. One child is mother cat. Another is baby cat. Class guesses which kind each is representing.

10. Teacher tells of wandering down street with truck full of good things. Children think of something he might have to sell.

   Teacher: "What did I have?" (High do-do-do La)
   Child: "Lettuce, apples" (Do La, Do La)

11. Child goes to piano. Teacher shows range of keys from which he can strike any two. Chooses someone to imitate vocally, or the child at the piano can sing the tones he strikes himself.

12. Teacher places various objects in hands of children. Teacher sings: "Who has the chalk?" Child: "I have the chalk."

13. Hide and seek. Children close eyes. One hides. Teacher sings name of child. He responds: "Here I am." Other children try to guess who he is and where he is from the sound of his voice.

14. Children in circle. One hides eyes. Another sings, "Who am I?" Blindfolded child guesses, singing the name in same tune as the one who asked the question.

15. Questions and answers:

   | Playtime: | Tones: | 1 | 2 | 3 | 4 | 5 |
   | Rhythm: | | | | | |
   | Words: | Will you come and play? |

   | Tones: | 5 | 4 | 3 | 2 | 1 |
   | Rhythm: | | | | | |
   | Words: | Yes I'll come and play. |
Train:  
Tones:  
Rhythm:  
Words: Here comes the train. Too too too too.

Bell:  
Tones:  
Rhythm:  
Words: Ding dong, ding dong, ding dong.

Suppertime:  
Tones:  
Rhythm:  
Words: Danny! Yes, mother! Come to supper!

16. Sing conversations over play telephone.

As an indication of the usefulness and desirability of the preceding devices and techniques, Table I, below, provides a parallel list based on experimental work in the first grade, El Nido Elementary School, El Nido, California.

PARALLEL LIST OF CORRECTIVE DEVICES AND TECHNIQUES
BASED ON THE COMPILED DEVICES AND TECHNIQUES FOUND ON
pp. 25 THROUGH 31 OF THE HANDBOOK

| TABLE I |
|---|---|---|---|
| MOST EFFECTIVE IN STIMULATING RESPONSE | PROVIDED MOST PLEASURE | MOST EFFECTIVE IN HELPING TO CORRECT INDIVIDUAL PROBLEM |
| | | I* | II** | III*** |
| A. 1 | A. 2 | B. 1 c, d | A. 3 e | A. 1 |
| 2 a, c, f | 2 a | 2 a, c, d | 2 a |
| 3 d, e | 3 a, d | d | 3 a |
| B. 2 a, f | B. 1 d | C. 9 | 2 b | B. 2 f |
| 2 a, b, c, d, f | 2 a, b, c, d, f | 10 | f |
| C. 2 | C. 1 | D. 2 | C. 7 | 11 |
| 3 | 5 | 6 | 8 |
| 7 | 7 | 6 | 7 |
| 8 | 9 | 10 | 11 | 10 |
| TABLE I (continued) | MOST EFFECTIVE IN PROVIDED MOST EFFECTIVE IN HELPING
<table>
<thead>
<tr>
<th>STIMULATING RESPONSE</th>
<th>PLEASURE</th>
<th>TO CORRECT INDIVIDUAL PROBLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I*</td>
</tr>
<tr>
<td>D. 4</td>
<td>D. 3</td>
<td>E. 1</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>E. 2</td>
<td>E. 1</td>
<td>11</td>
</tr>
<tr>
<td>3 a, b</td>
<td>3 a, b</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Interpretation based on: letters and numbers corresponding to those in
the list of devices and techniques, pp. 25-31.

* I indicates good range with some control
** II indicates good range with little control
*** III indicates low singers with little range

F. SUPPLEMENTARY SOURCES

The listing of supplementary sources which follows is not intended to be all-inclusive. The purpose is to show the music educator and teacher how songs found in readily available materials may be used to aid in making the out-of-tune child feel a part of the group without his destroying the quality of the music.


p. 7 - - - TICK TOCK

Rhythm accompaniment:

p. 9 - - - A BRIGHT AND CHEERFUL MORNING

Minor 3rd interval
1. (continued)

p. 13 -- - ANNA MARIA, WAKE UP

Introduction on bells or with voices

\[ \text{Wake up, Wake up} \]

p. 17 -- - BUSY WORKERS

Class divided: Uses sawers painters pounders

p. 22 -- - FRISKY WISK

Introduction for bells. Also imitation of the sound of squirrel scampering.

Do

p. 34 -- - MY LITTLE CATS

Introduction on bells or voices. me - ow me - ow

p. 40 -- - THE FARMER IN THE DELL

Introduction on bells or voice. Heigh Ho—

p. 56 -- - THREE LITTLE KITTENS

Introduction:

me - ow


p. 30 -- - THE ELEVATOR RIDE

"Going down" -- - 5th, 4th, etc.

p. 37 -- - WADDLING DUCKS

Low: Waddle-waddle
High: Quack-quack

p. 9 --- THE TELEPHONE

Out-of-tunes introduce song by singing "Ting-a-ling-a-ling" on single tone.

p. 19 --- THE SCISSORS GRINDER

Single tone: "Ring-ting-ting"

p. 22 --- THE FIRE DEPARTMENT

Single tone: "Cling, cling, cling"

p. 26 --- MY AIRPLANE

"ZOOM" --- single tone

p. 27 --- TRANSPORTATION

Choo-choo; too-too; whoo-whoo; zoom-zoom.

p. 52 --- HONEYBEE

"Zoom-zoom" on single tone

p. 72 --- ROOSTER'S CALL

"Cock-a-doodle-doo"

p. 75 --- COWS AND SHEEP

"moo" and "baa"

p. 85 --- Boy says: Yoo-hoo; Goats call

p. 90 --- HONEYBEE COME BUZZING

On the syllable DO --- ZZZZZZZZZZZZ
On the syllable SO --- ZZZZZZZZZZZZ


From Book I:

p. 26 --- MY LITTLE PONY Hop; hey.
1. (From Book I -- continued)

   p. 24 -- -- BIRTHDAY SONG

   Scale-wise progressions

From Book II:

   p. 18 -- -- WITCHES ARE CALLING

      Yoo hoo

   p. 22 -- -- THE ECHO

      "Hello"


   Contains a fine reference guide to tone matching on pp. 109-110.


   In this book the tone drill material is marked by brackets.


   The author makes this notation: "By singing in his play he (the child) learns to recognize melodies and perceive differences in rhythm, and, most important, that singing is as natural as talking and that it may often express his thoughts and feeling."


   Contains material "utilizing the children's own pattern of
movement in order to develop a readiness for following patterns set by music." Also material for listening experiences.


Series of rhythms. Stories introducing the music suggest bodily movements.


American folk songs. Rhythmic activities. Some rhythm band. Opportunity for children to add extra verses, change words, etc.


The authors say: "These melodies have no other excuse for being save to set forth a beautiful utterance for the expression of beautiful thoughts." Also seasonal songs, special days, any season, prayers, and hymns.


Interesting words. Some songs suggest action. Clever pictures. Good for getting the spirit of music.


Excellent selection of songs, games, directions. Illustrated.


Short (one phrase) tunes used in stories as conversation, using singing voice conversationally. Used without piano at first, the out-of-tune child who can move voice could be given freedom in singing his own tune. Example:

Bobby said, "I can climb way up to the top"

He climbed down singing, "Down, down", etc.

Contains an excellent selection of materials of all kinds with outstanding suggestions for teaching music in the introduction.


Fine collection planned especially for tone matching use.


The sub-title states exactly what this book is: "A Complete Book for Teachers". Every possible aspect of the music program in primary grades is covered with excellent material. Highly recommended.
CHAPTER IV

AN ANALYSIS OF EXPERIMENTAL WORK AND THE RESULTS FROM A DISTRIBUTION OF QUESTIONNAIRES

A practical application of the devices and techniques for the correction of pitch and range problems in elementary vocal music seemed necessary in order to make the handbook as useful as possible. To this end experimental work was carried on in the first grade class of the El Nido, California Elementary School. An attempt was also made to increase the practicability of the handbook by distributing questionnaires to music specialists and teachers actively working in the field.

I. ANALYSIS OF EXPERIMENTAL WORK

Background. Experimental work in the use of techniques for the correction of vocal pitch and range problems in elementary school children was carried on by this writer in the first grade class of the El Nido, California, Elementary School. This school lies in the center of a large cotton growing area. It has a diversified student body consisting of the children of well-to-do ranch owners, those whose parents are stable workers on the ranches, and many Mexican and Negro boys and girls whose parents are transient workers. The cross section of types found in each classroom seemed advantageous in carrying on the experiments necessary for an evaluation of devices and techniques.

The El Nido Elementary School experiences some transiency in student population due to the type of area in which it is located. Only
the children who were enrolled throughout the school term have been used in the experimental work for this professional paper. An analytical study of ways in which the home background, socio-racial factors, ethnic groups, and intelligence levels affect the child's singing ability at the first grade level would go beyond the limits of this paper. However, since such information may act as a stimulus to the reader's perusal of the problem of out-of-tuneness, Table II has been included on pages 43, 44, and 45.

Procedure. The plan of procedure in the first grade class at the El Nido, California Elementary School was as follows:

1. Hear each child individually
2. Diagnose his problem
3. Classify the voices
4. Individual and group help using various devices and techniques

Since the writer had had no previous contact with the first grade boys and girls, the technique used to motivate an individual response was based on the idea of becoming acquainted with each other. Before going into the class for the first time a class list was obtained from the classroom teacher. She introduced the writer who then said to the class:

"Now that you know my name, boys and girls, I would like to learn yours. I have the list of your names but that does not help me to put the right face with the name, does it? So I'm going to call your names one at a time — — only you may be surprised at the way I call you. You may be surprised, too, at the way I would like you to answer me. I am going to SING your names, and you will SING your answers. This is
the way we'll do it."

The writer then demonstrated how the game was to be carried on.

Teacher sings: "Calling Jean-nie"
Child responds: "I'm here"

As the roll call proceeded each child was tentatively classified as a singer or an out-of-tune. Succeeding class sessions provided the opportunity for the writer to re-classify the children into the following predetermined categories:

S. can imitate accurately after first hearing
I. indicates good range with some control
II. indicates good range with little control
III. indicates low singers with little range

In the meantime the list of devices and techniques found in the handbook was compiled. Certain of these were selected and used during each ensuing class session. A record was kept of those which were:

1. most effective with certain individuals in stimulating a vocal response
2. responded to with the most pleasure on the part of the child
3. most effective in helping to correct pitch and range problems within the individual child

In addition to working with individual children, songs to be learned by the whole group were selected which contained:

1. short phrases or motives suitable for out-of-tune drill
2. sounds or calls appropriate for performance by the out-of-
tunes to make them feel a part of the group performance

3. words suggestive of bodily movements either rhythmical or descriptive of tonal direction

4. question and answer material

(The repertoire of song material covered during the year was not limited to those which served a useful purpose as an aid in correcting the pitch and range problems. To meet the need for challenging the singers and to set forth an ideal toward which the out-of-tunes might strive, many songs were selected on the basis of interesting word content, artistic quality, and seasonal interest.)

The music program in the El Nido Elementary Schools provides for one class visitation per week by the music teacher. For this reason the writer had to rely on the classroom teacher to carry on four-fifths of the experimental work. Since she felt inadequate from a vocal standpoint, a division of labor was arranged. This writer used her time as described in previous paragraphs while the first grade teacher:

1. made use of phonograph records selected to:
   a. develop careful listening
   b. stimulate an interest in and appreciation of good music
   c. motivate bodily response
   d. lend support to class singing activities
   e. provide a rhythm band accompaniment

2. expedited the learning of words to the songs by incorporating them in the language arts program

The children were re-classified each month so that the amount of progress could be observed. The check-up system showed the following results from the use of the various devices and techniques for correct-
ing out-of-tuneness.

Two children were singers and thirteen were out-of-tunes at the
beginning of the school year in September. Of the thirteen out-of-tunes
a breakdown into categories showed:

S. SINGERS. (can imitate accurately after first hearing) ---
   2 students
I. GOOD RANGE, SOME CONTROL -------- 4 students
II. GOOD RANGE, LITTLE CONTROL -------- 4 students
III. LOW SINGERS, LITTLE RANGE AND CONTROL -------- 5 students

(From this point on references to the three types of out-of-tunes will be
designated by Roman numerals corresponding to those used above.)

In October one more had become a singer while twelve were still
out-of-tunes. During this same month, two children from II were changed
to I. From October to November these two became singers. Three of the
five originals in III had moved to II. The overall picture in November
showed: 5 SINGERS
   3 I
   5 II
   2 III

The period from November to December resulted in the greatest im-
provement during any one month up to this time. Three more children
moved from I into the singers, two moved from II to I. Three children
remained in II while III showed no change.

December to January was a short school month because of Christmas
vacation. The picture in January was like that of December.

By the February re-classification one child from I had become a
singer and one child from II had moved to I. There were two children
left in II and III respectively.
TABLE II
INFORMATION ON FIRST GRADE STUDENTS, EL NIDO, CALIFORNIA
BASED ON CUMULATIVE RECORDS AND INDICATING
SINGING ABILITY AT FIRST CLASSIFICATION
IN SEPTEMBER 1958 AND THE LAST ON APRIL 15, 1959

<table>
<thead>
<tr>
<th>NAME &amp; DATE OF BIRTH</th>
<th>FATHER'S OCCUPATION</th>
<th>SINGING ABILITY</th>
<th>BROTHERS HEARING &amp; TEST RESULTS</th>
<th>BACKGROUND INFORMATION AND NATIONALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roger Bettencourt 5/21/52</td>
<td>Dairyman</td>
<td>Sept. III</td>
<td>2 sis. No result (5 &amp; 4) Uncooperative.</td>
<td>Evaluation difficult - no verbal response; withdraws from group; well coordinated; mother did not talk to babies when little.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>April</td>
<td>1 bro. Normal (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>April S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jean Bollinger 2/12/52</td>
<td>Farmer</td>
<td>Sept. I</td>
<td>1 sis. Normal (9)</td>
<td>Excellent student; listens carefully; follows directions; long attention span; perfectionist.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>April S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawayne Consler 9/12/52</td>
<td>Farmer</td>
<td>Sept. III</td>
<td>1 bro. Normal (8)</td>
<td>Coordination achieved with effort; Minor speech difficulty; talks little.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>April S</td>
<td>1 sis. Normal (3)</td>
<td></td>
</tr>
<tr>
<td>Bernadette Cotta 7/29/52</td>
<td>Dairy Farmer</td>
<td>Sept. II</td>
<td>2 bro. (20-13) No</td>
<td>Sensitive; nervous; capable; good listener; follows directions; lacks confidence; large for age; poorly coordinated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>April S</td>
<td>1 sis. Record (17)</td>
<td></td>
</tr>
</tbody>
</table>

KEY TO SINGING ABILITY
S...Singer (can imitate accurately on first hearing)
I...Good range - some control
II...Good range - little control
III...Low singers - little control
<table>
<thead>
<tr>
<th>NAME &amp; DATE OF BIRTH</th>
<th>FATHER'S OCCUPATION</th>
<th>SINGING ABILITY</th>
<th>BROTHERS &amp; SISTERS</th>
<th>HEARING TEST RESULTS</th>
<th>BACKGROUND INFORMATION AND NATIONALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betty Ann Dias 5/16/52</td>
<td>Milker</td>
<td>Sept. III April S</td>
<td>1 bro. (12) 1 sis. (14)</td>
<td>Normal</td>
<td>Much initiative; does well what she wants to do well; lacks follow through; poorly accepted socially due to over-aggressiveness; loves dramatizing, singing.</td>
</tr>
<tr>
<td>Richard Houff 6/15/52</td>
<td>Farmer</td>
<td>Sept. II April S</td>
<td>2 sis. (10-9) 1 bro. (5)</td>
<td>Normal</td>
<td>Happy-go-lucky; likes music; good reasoning; methodical; long attention span.</td>
</tr>
<tr>
<td>Clora Mae Hewitt 11/7/52</td>
<td>Laborer - part time minister</td>
<td>Sept. III April III</td>
<td>4 sis. (16-13-10-9)</td>
<td>Right ear loss Left ear o.k.</td>
<td>Negro; energetic, affectionate; sensitive; slow mentally; little retention; little reasoning ability; fine rhythm; loves music.</td>
</tr>
<tr>
<td>Kathy Hooper 7/9/52</td>
<td>Farmer</td>
<td>Sept. II April S</td>
<td>1 bro. (9)</td>
<td>Had cold when tested showed loss.</td>
<td>Mature; alert; intelligent; enjoys independent activities; loves art, music, dancing; follows directions well; coordination very good.</td>
</tr>
<tr>
<td>Matthew Marks 4/2/52</td>
<td>Ranch Worker</td>
<td>Sept. I April S</td>
<td>1 bro. (5)</td>
<td>Normal</td>
<td>Well-adjusted; takes life seriously; wants to do his best and what is right; average intelligence; concentrates well; slow at learning to coordinate.</td>
</tr>
<tr>
<td>Linda Pedrelli 7/14/52</td>
<td>Dairyman</td>
<td>Sept. II April S</td>
<td>2 sis. (5-2) 1 bro. (4)</td>
<td>Normal</td>
<td>Difficult to measure ability-wise; nervous; much home responsibility in care of brother and sisters; (mother immature); highly active; retention poor; does not listen well.</td>
</tr>
<tr>
<td>Mark Souza 10/19/52</td>
<td>Truck Driver</td>
<td>Sept. S April S</td>
<td>1 bro. (3)</td>
<td>No test</td>
<td>Babyish; short attention span; good memory; large muscle coordination slow.</td>
</tr>
<tr>
<td>NAME &amp; DATE OF BIRTH</td>
<td>FATHER'S OCCUPATION</td>
<td>SINGING ABILITY</td>
<td>BROTHERS &amp; SISTERS</td>
<td>HEARING TEST RESULTS</td>
<td>BACKGROUND INFORMATION AND NATIONALITY</td>
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<tr>
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<td>------------------------------------------</td>
</tr>
<tr>
<td>LuAnne Tassey 9/7/52</td>
<td>Bookkeeper</td>
<td>Sept. S Apr. S</td>
<td>2 bros. (8-2)</td>
<td>No test</td>
<td>Well adjusted; very bright; follows directions; absorbs details; fine sense of sequence; not timid.</td>
</tr>
<tr>
<td>Ricky Williams 11/16/52</td>
<td>Ranch Worker</td>
<td>Sept. III Apr. S</td>
<td>5 bros. (20-16-14-13-7) 1 sis. (27-19-12-10)</td>
<td>Normal</td>
<td>Negro. T.B. in family; babyish; short attention span; short retention; ignores directions; loves music; poorly developed listening habits.</td>
</tr>
</tbody>
</table>
The February to March period again reflected great progress. The two children from I became singers plus one child from II. Now there was one child left in I, none in II, and for the fifth consecutive time the same two children remained in III.

The April classification ended the experimental work for this paper. The one child from I had become a singer. There were no children remaining in II or I. The same two children for the sixth consecutive time were in III. An explanation of the background of these two students may clarify the reason for their lack of progress.


2. A boy. White. Belligerent on the playground but a non-talker in class. Spoiled at home. At the end of the school year this child was still incapable of writing more than the first two letters of his name.

Although these children remained in III, some hopeful signs were evidenced that their problems in singing had been lessened through the corrective devices and techniques. The girl was able to match five tones beginning with middle C and working upward, and she could recognize tonal relationships when sung or played by others. The boy was beginning to show an interest in songs by participating in rhythmic activities.

Figure I, page 47, shows the increase in percentage of singers according to monthly reclassification from September 1958 to April 1959. Table III, page 48, gives a summary of monthly changes in vocal classifications as described in the foregoing paragraphs.
FIGURE I

INCREASE IN PERCENTAGE OF SINGERS ACCORDING TO MONTHLY RECLASSIFICATION FROM SEPTEMBER 1958 TO APRIL 1959

IN THE FIRST GRADE CLASS, EL NIDO, CALIF. ELEM. SCHOOL
TABLE III

SUMMARY OF MONTHLY CHANGES IN VOCAL CLASSIFICATIONS AMONG FIFTEEN STUDENTS IN FIRST GRADE, EL NIDO, CALIFORNIA

<table>
<thead>
<tr>
<th>MONTH</th>
<th>SINGERS*</th>
<th>I**</th>
<th>II***</th>
<th>III****</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPTEMBER</td>
<td>2</td>
<td>4</td>
<td>4</td>
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<td>OCTOBER</td>
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<td>DECEMBER</td>
<td>8</td>
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<tr>
<td>JANUARY</td>
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<tr>
<td>FEBRUARY</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MARCH</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>APRIL</td>
<td>13</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

* refers to those children who can imitate accurately after first hearing
** refers to those children who have good range, some control
*** refers to those children who have good range, little control
**** refers to those children who are low singers, little range

II. ANALYSIS OF RETURNS FROM QUESTIONNAIRES

Background. A copy of the sample cover letter and questionnaire found in the appendix (pps. 70 and 71) of this paper were sent to the ninety five special music and first grade teachers in Merced County, California and to the sixty three elementary vocal instructors of Fresno County, California. From this total of 158 questionnaires sent out, only thirteen were returned.
Discussion of Information from the Returned Questionnaires. Of the thirteen questionnaires returned, only six contained one or more specific devices to aid in the correction of out-of-tuneness. These devices have been included in Chapter III, Part II. The remaining seven replies were constructive from the standpoint of presenting the individual teacher's philosophy in working with the out-of-tune child. Ideas expressed by these teachers ranged from one who does not believe in the use of separate devices to several who expressed belief in the need for individual attention. A few quotes may prove interesting for consideration.

"...I have never had music lessons...I get all the help possible from the school music consultant."¹

"...most out-of-tuneness...due to difficulty in hearing the tune correctly...lots of individual attention...continuous encouragement, praise for progress help a great deal."²

"Sing to the child while the group is singing a song. He will hear the correct tune and not be afraid to try to correct himself because everyone is singing."³

"I have found that the main difficulties children have in reproducing accurate pitch are that they are not given time to hear, and

¹Bernice Ellett, first grade teacher, Galen Clark School, Merced, California

²Vera Hughes, Vocal Music Instructor, Lone Star School, Alvina, Fresno County, California

³Robert Hofer, Music Teacher, Alta Union School, Fresno County, California
in many cases no chance to hear either a beginning pitch of the song or the tune of the song. The teacher starts singing (very often out of key) and the children start in when they can.  

"Sometimes a child -- boy in particular -- in this group can't sing in a normal child's voice because of a physical reason. Maybe he can follow a melody if allowed to sing in his own low register. If you encounter such a boy, don't fuss at him. Just help him sing correctly in his own voice. Perhaps after his voice changes, he will have a normal man's range." This quote was followed by a note to the writer, part of which said: "The offering written above isn't much help -- However, remembering it may keep some teacher from persecuting some poor child who knows where his voice should be but just can't get it there."  

"I do not have time to spend on the use of many devices but depend upon singing and lots of it...The use of recorder flute with the tape recorder settles the problem of singing under the pitch...I don't waste time talking! While the tape recorder carries on, I walk about listening and singing beside the ears of monotones with my fingers placed on bones behind ear."  

____________________

1Lois Bigelow, County Music Consultant, Merced County, Merced, California.
2Wm. D. Shamberger, Vocal Music, Gustine Union Elementary School, Gustine, Merced County, California.
3Augusta Barnell, Elementary Music Instructor, Atwater Public Schools, Atwater, California.
CHAPTER V

SUMMARY AND CONCLUSIONS

Research and study of the vocal pitch and range problems in elementary music has revealed much important information pertaining to:

1. the causes of out-of-tuneness
2. aids to correct the problem
3. factors which affect the progress of the child in the correction of out-of-tuneness

I. SUMMARY

The responsibility for the development of a child's ability to express himself vocally lies with the music educator. At the onset of formal music study about ninety per cent of the boys and girls are out-of-tunes while ten per cent are singers. By employing various techniques and devices to correct pitch and range problems, that figure should be reversed at the end of the year.

Certain relationships pertaining to vocal response have been established which have a bearing on the pitch and range problems in elementary vocal music. These include the relationships of hearing, control of the vocal apparatus, bodily control, and teacher to student.

Any child who can hear is a potential singer unless his vocal apparatus is impaired. Aural power, or the capacity of the child to hear accurately, is vital to musical growth, so that the successful application of any device or technique to overcome pitch and range problems

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hinges on raising the level of the child's hearing acumen.

The child who has a keen sense of aural perception but lacks the ability to direct his vocal apparatus in an accurate interpretation of the sounds which he has heard will not be capable of producing "in-tune" vocal responses. The music educator and classroom teacher should be guided by the thought that "a voice not under control of the music to be reproduced" is an indication that natural musical growth is not taking place.¹

The boy or girl whose body is well-coordinated is frequently found to be a singer. The opposite is also true. That is, the out-of-tune child is often found to be lacking in bodily coordination. By exposing children to a great variety of rhythmic experiences, and by providing the opportunity for them to respond to these experiences, the music educator will be cultivating within the child the spirit of music. A child who is filled with the spirit of music will make rapid progress in the execution of that music.²

The music educator is the motivating force throughout all the relationships which have a bearing upon the correction of vocal pitch and range problems. He is, in turn, motivated by the desire to accommodate the individual differences in the children with whom he works. Music, perhaps more than any other subject, tends to substantiate the

¹Marion Flagg, op. cit., p. 53.

theory of individual differences. The teacher who uses ingenuity in meeting these differences and remembers that "the inability to sing on pitch is not a type of ability, or a state of being, but a stage in musical learning" will be successful in establishing a relationship between himself and the student which is conducive to learning. In addition to the recognition of individual differences the music educator has another responsibility toward the student. This is the need to establish an atmosphere within which the child will be generated by the desire to participate and to achieve. If the music educator acts in a supervisory or consultant capacity, she must assist the classroom teacher in gaining confidence in himself so that the right atmosphere will be ever-present, not just a reality on the days when the music specialist is in the room.

Having become aware of the relationships which have a direct bearing on the pitch and range problems in elementary vocal music, the music educator must next acquaint himself with the causes of out-of-tuneness. Any one or a combination of several factors may be involved. These include: little exposure to music in the home during the child's pre-school years, an unfavorable attitude toward singing due to emotional disorders, no interest in trying to sing, and a physical abnormality or defect.

The teacher must prepare himself psychologically before he can use the devices and techniques to aid in the correction of out-of-tuneness with any degree of success. That is, he must be fully aware of some fac-

Marion Flagg, op. cit., p. 51.
tors relating to the correction of the problem. If the music class period is to be of value, the teacher must have a knowledge of the pitch and range ability of every boy and girl so that each individual case may be diagnosed. To gain this information three steps must be taken: evoke a vocal response from the child, classify the child as a singer or an out-of-tune, and classify the out-of-tunes as to type. When the final step has been completed, each child must be assisted in finding his voice. The devices and techniques in the handbook will be successful only if the teacher understands why he is using them. Through their use the child will be assisted in: 1) learning to "image" tones, 2) learning to "imitate" tones, and 3) learning that the voice is a flexible instrument. At this point the question arises: shall the child be given individual help and/or be assisted as a part of the group activities? Each teacher must decide for himself in accord with his personal philosophy based on his knowledge of the needs and drives within the child's emotional structure. These needs include: (1) the need to "belong", (2) the need to "contribute", (3) the need to be a "success", and (4) the need to be "stimulated" and "motivated".

Tone matching and hearing intervals correctly are essential abilities in order to become a singer. When a child can match a single tone he has taken the first step toward becoming a singer. The next one occurs when he discovers that his voice is capable of movement, and the last step when he has the ability to sing two different tones in a series, or "intervals".
Throughout all of his work with the out-of-tunes, the music educator should not neglect to demonstrate the correct posture, how to breathe properly, and the difference between tones produced correctly and incorrectly.

Other phases of the music program can be of great assistance in the correction of pitch and range problems in the elementary schools. Anything which promotes within the child a feeling for music in the broader sense of the word will be an aid in helping the out-of-tune. The music curriculum should be balanced between singing, listening, rhythmic experiences, and creative experiences.

Experimental work in the use of techniques for the correction of vocal pitch and range problems in the elementary schools was carried on by this writer in the El Nido, California Elementary School. The plan of procedure consisted of the following steps: (1) hear each child individually, (2) diagnose his problem, (3) classify the voices, and (4) give individual and group help using various devices and techniques.

Three categories were used in the classification of out-of-tune voices. In order to make the keeping of records easy, each category was represented by a Roman Numeral.

I. indicates good range with some control
II. indicates good range with little control
III. indicates low singers with little range

Certain devices and techniques were selected from the list in the handbook. These were used during each ensuing class session. Care was taken to avoid too much repetition in the devices and techniques selected. A record was kept of these which were:
1. most effective with certain individuals in stimulating a vocal response

2. responded to with the most pleasure on the part of the child

3. most effective in helping to correct pitch and range problems within the individual child

Singing in the music class was not confined to materials which would aid the out-of-tunes but included many songs selected on the basis of interesting word content, artistic quality, and seasonal interest.

The classroom teacher, who is responsible for music four-fifths of the time, helped to correct out-of-tuneness by: (1) making use of phonograph records selected to develop careful listening, stimulate an interest in and appreciation of good music, motivate bodily response, lend support to class singing activities, and provide a rhythm band accompaniment; (2) expedited the learning of words to songs by incorporating them in the language arts program.

Children were re-classified each month. The changes which occurred over the period from September through April were as follows:

<table>
<thead>
<tr>
<th>MONTH</th>
<th>SINGERS</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEPTEMBER</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>OCTOBER</td>
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<tr>
<td>APRIL</td>
<td>13</td>
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</table>
The questionnaire found on page 71 of this paper was sent to 158 special music and first grade teachers in Merced and Fresno Counties, California. Thirteen were returned of which only six contained one or more specific devices to aid in the correction of out-of-tuneness. The other seven presented the individual teacher's philosophy in working with the out-of-tune child. The devices suggested by the six teachers who replied have been incorporated in the handbook. The seven who stated their philosophies had various opinions to offer, as, for example, the one who said, in discussing a boy who could not sing in a normal child's voice, "Don't fuss at him. Just help him sing correctly in his own voice. Perhaps after his voice changes, he will have a normal man's range."\(^1\)

II. CONCLUSIONS

The procedure for this study, having consisted of four phases, demands that the conclusions from each phase be discussed individually.

Conclusions from Research and Study of Available Textbooks, Manuals, and Music Series. The correction of pitch and range problems in elementary vocal music has, in the past, occupied a place of minor importance in the various publications dealing with elementary school music. However, the trend in those more recently published is to attach a significantly

\(^1\)W.D. Shamberger, Vocal Music, Gustine Union Elementary School, Merced County, California
greater amount of space to this problem. Evident, too, is the fact that
the authors recognize the need for making specific suggestions for aid­
ing the out-of-tune child rather than generalizing as the authors of
earlier books were prone to do. As proof of the foregoing statements,
this writer offers the following examples from three texts covering the
twenty three year period between 1934 and 1957.

(Those words which are excess for this purpose and which do not
alter the context will be omitted in order to conserve space.)

1934: George Earl Hubbard, Music Teaching in the Elementary Grades

In this book of 228 pages, information pertaining to out-of-tunes
consists of the following:

"Seat the children with the best singers in the back and the mono­
tones in front. Divide class into three choirs according to their
ability and urge the children to strive toward a better choir. Monotone
should learn one tone at a time. Teacher should discover
despite that the child sings and work from there. Have children in
the class help others by sitting close to them and singing the
tone directly in their ears. After the children have progressed
somewhat, have them imitate whistles, sirens, etc."

Note the absence of information pertaining to causes of out-of-
tuneness, other factors which are involved in the correction of out-of-
tuneness, and, except for the suggestion of imitating whistles, sirens,
etc., the absence of techniques for assisting the child to overcome his
pitch and range problem.

1949: Carl O. Thompson and Harriet Nordholm, Keys to Teaching Elementary
School Music (Minneapolis: Paul A. Schmitt Music Co., 1949),
231 pp. excluding the appendix.

Four and one half pages are devoted specifically to the problem
of out-of-tuneness in a book almost identical in number of pages to that
written by Mr. Hubbard. Note the section headings used by Mr. Thompson and Miss Nordholm:

1. **Improving the Out-of-Tune Singers**

2. **Why Many Children Cannot Sing**

   This section contains eight reasons for out-of-tuneness in addition to five paragraphs of general suggestions for the teacher.

3. **Suggestions for the Out-of-Tune Singer**

   Contains twenty devices, followed by listed songs and the useful purpose they serve from THE AMERICAN SINGER, BOOK I, American Book Company.

4. **Song Materials**

   A list of basic and supplementary texts particularly adapted for class use.


By 1957, in a book slightly longer than the other two examples cited, Mr. and Mrs. Nye have devoted twelve pages to *The Child Who Does Not Sing*. Detailed information and help are given, including some psychological factors which are involved in dealing with the out-of-tune.

This writer believes that, even though the need for the correction of vocal pitch and range problems is receiving greater recognition, the study of available textbooks, manuals, and music series reveals that a handbook of the type included within this paper would be useful for music educators and college music education majors.

Conclusions from Compiling the Devices and Techniques for the Correction of Out-of-Tuneness. The handbook contained within this paper lists num-
erous devices and techniques for the correction of pitch and range problems in vocal elementary music. Yet many devices and techniques which were not available to the writer for this study are without doubt being used by music educators working actively in the field of public school music. The conclusion must then be drawn that the possibilities within this area are unlimited.

Conclusions from Experimental Work. The progress and success achieved from the experimental work with the first grade class of the El Nido Elementary School, El Nido, California, has been tabulated pp. 47 and 48. Other conclusions which were an outgrowth of efforts to correct out-of-tuneness are worthy of mention.

The writer observed that the children put forth the most effort when:

1. there was promise of some kind of recognition for success, such as having his name put on the blackboard or being allowed to choose the next child to sing.

2. the teacher persisted in working with one individual until some success was achieved each day. The implication here is not meant to convey the thought that each child was given help for a long period of time to the neglect of the rest of the class but rather that if one device proved unsuccessful, another would be used until some measure of accomplishment was achieved about which the child could feel pride in himself.

3. they could feel you veritably "willing" them to succeed. There is undoubtedly a danger in exciting children in a classroom too much, but too often "excitement" and "enthusiasm" are treated synonymously. This writer is of the opinion, as a result of the experimental work, that controlled enthusiasm is vital to success in most endeavors and particularly in those surrounding activities to aid in the correction of out-of-tuneness.
their sense of humor was appealed to. Who can put his finger on what a child will consider funny? It may be the result of surprise at something unexpected the teacher has done as, for example, the morning when this writer walked into the back of the room quietly and unnoticed, and having observed that the class was in a resting position while waiting for music time, suddenly made a sound like a siren. The children jumped, looked around, laughed . . . and all wanted to be sirens. And so a game was made. Heads down. Teacher chooses a child by tapping him on the shoulder. He steals to the back of the room, makes a noise like a siren, and the person who guesses correctly the name of the one making the sound is next in turn. The point is, be sensitive to the child's humor and capitalize upon it. When children are having fun, they are forgetting themselves, and when they forget themselves, they are ready to do that which "themselves" could not do.

Through the experimental work conclusions were drawn as to which devices and techniques:

1. were most effective in stimulating response.
2. provided the most pleasure.
3. were most effective in helping to correct the individual problems.

A list parallel to the devices and techniques listed on pp. 24 through has been prepared on the basis of the aforementioned three qualifications. This parallel list will be found on p. 31 and again on p. 62.

Conclusions Drawn from Response to the Questionnaires. The writer is of the opinion that, although the percentage (8.2%) of questionnaires returned was so low as to be almost negligible, certain implications may be drawn as a result of studying those which were returned.

1. In no case were more than six devices and techniques suggested to aid in the correction of out-of-tuneness. How can six or less devices be spread over the one hundred and seventy odd school days in a
school year without being indicative of the fact that: (a) the children must be bored with the repetition, or (b) the teacher by-passes her duty to correct out-of-tuneness by neglecting to make this procedure a daily, living, interesting, and stimulating part of the music program?

**PARALLEL LIST OF CORRECTIVE DEVICES AND TECHNIQUES BASED ON THE COMPILED DEVICES AND TECHNIQUES FOUND ON pp. 25 THROUGH 32 OF THE HANDBOOK**

<table>
<thead>
<tr>
<th>MOST EFFECTIVE IN STIMULATING RESPONSE</th>
<th>PROVIDED MOST PLEASURE</th>
<th>MOST EFFECTIVE IN HELPING TO CORRECT INDIVIDUAL PROBLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 1</td>
<td>A. 1</td>
<td>B. 1 c, d</td>
</tr>
<tr>
<td>2 a, c, f</td>
<td>2 a</td>
<td>A. 3 e</td>
</tr>
<tr>
<td>B. 2 a, f</td>
<td>B. 1 d</td>
<td>A. 1</td>
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<tr>
<td>C. 2</td>
<td>C. 1</td>
<td>D. 2</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>C. 7</td>
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<tr>
<td>7</td>
<td>6</td>
<td>E. 1</td>
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<td>8</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>E. 3 b, a</td>
</tr>
<tr>
<td>10</td>
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</tr>
<tr>
<td>D. 4</td>
<td>D. 3</td>
<td>E. 2</td>
</tr>
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<tr>
<td>E. 2</td>
<td>E. 1</td>
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</tr>
<tr>
<td>3 a, b</td>
<td>3 a, b</td>
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<td>12</td>
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<tr>
<td>13</td>
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</tbody>
</table>
2. Assuming that the thirteen people who responded to the questionnaire did so out of an interest in the correction of vocal pitch and range problems, what is being done for the out-of-tunes in the classes of those 1/5 teachers who did not reply?

3. On whom should the responsibility be placed for this lack of emphasis on a problem as vital to the musical growth and enjoyment of the child?

The writer has been stimulated by these questions into taking an objective look at the over-all opportunities offered and goals striven for in the public school music program. To be sure, great strides forward have been made since Lowell Mason succeeded in establishing music in the public schools of America. Scarcely a hamlet exists in which the opportunity is not available for boys and girls to participate in musical activities. Is it possible that the public acceptance of and demand for music in the schools has actually been a factor working against the successful accomplishment of the major goals in music education? The writer believes that many music educators have become so drugged with the philosophy of "public relations" that they have put the cart before the horse in the methods they use to promote good public relations. Their major effort has been directed toward producing highly acceptable groups in public performance and away from a recognition of the fact that music in the public schools is for every child, and further, that in selecting and preparing groups for public performance their instruction of these groups would be more efficient with better results if the major emphasis were changed to the correction of vocal pitch and range problems.
in the elementary school.

To this end the writer suggests that the music schools of the colleges and universities examine the course of study in elementary music methods to determine whether or not enough stress is placed on the importance of correcting the pitch and range problems in elementary vocal music.
BIBLIOGRAPHY
BIBLIOGRAPHY

1. Dictionary
   

2. Textbooks
   
   
   
   
   
   
   
   
   
   
   
   
   
   


3. Music Series


4. Manuals


5. Primary Songbooks


Dear Mr. Amend:

As a graduate student at Montana State University, School of Music, I have selected as my thesis subject, "A Handbook of Techniques for Correction of Pitch and Range Problems in Elementary School Vocal Music". This is to be a composite of all known devices and techniques for the correction of out-of-tuneness among elementary grade children. It is my plan to include not only those techniques and devices found in textbooks and manuals, but also those used by music and classroom teachers who are working actively in the public schools. Because of your experience and present position, your assistance will be invaluable in making the handbook as practical and useful as possible.

On the questionnaire attached to this letter will you please list original devices that, from your experience, have proved to be effective.

Your contribution will be credited in the Handbook Bibliography, and if you desire, I shall be happy to send you the results of my study.

Thank you for your cooperation.

Sincerely yours,

F. Catherine Clark,
Music Instructor,
El Nido Schools
QUESTIONNAIRE

Sent to:

NAME

POSITION

SCHOOL

Key to the numbered columns on right:

I...Indicates children who have good range with some control
II...Indicates children who have good range with little control
III...Indicates children who are low singers with little range and control

(Check in appropriate column the type of problem corrected by technique or device you have listed on the left).

<table>
<thead>
<tr>
<th>DEVICE OR TECHNIQUE (Describe briefly)</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
</table>

Note: If you have outline of teaching aids for out-of-tunes, at the first grade level, I would appreciate the enclosure of one copy.
ACKNOWLEDGEMENTS FOR RETURNED QUESTIONNAIRES

Barnell, Augusta, Music Supervisor. Atwater Public Schools, Atwater, California.

Bigelow, Lois M, Merced County Music Consultant. Merced, California.

Drew, Mrs. Leila A. First Grade Teacher. Laguna, Fresno County, California.

Ellett, Bernice. First Grade Teacher. Galen Clark School, Merced, California.

Hansen, Katherine. First Grade Teacher. Fremont School, Merced, California.

Hofer, Robert. Music Teacher. Alta Union School, California.

Hughes, Vera. Vocal and Instrumental Music. Lone Star, Alvina, Fresno County, California.

Jackson, Ed. Music Instructor. Riverdale-Bender-Laguna Elementary Schools, Fresno County, California.

Shamberger, W. D. Instrumental and Vocal Music. Gustine Union Elementary Schools, Gustine, California.


Wilson, Priscilla. Music Instructor. Mendota, California.

Winter, Ruby. Principal and Music. Franklin School, Fresno County, California.

Yaghjian, Margaret. First Grade Teacher. Vinland School, Fresno County, California.