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A comprehensive opinion analysis of voice training techniques by certain successful public school and private vocal teachers.

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Boston University
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COLLEGE OF MUSIC

Thesis
A COMPREHENSIVE OPINION ANALYSIS OF VOICE TRAINING TECHNIQUES BY CERTAIN SUCCESSFUL PUBLIC SCHOOL AND PRIVATE VOCAL TEACHERS.

by
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CHAPTER I

Introduction

One of the greatest attributes of man is his ability to express himself through the use of his voice. He transmits sounds into definite vowel and consonant combinations and makes a system of words which, when drawn together correctly, makes for understanding between any two or more people. Anyone who has been trained can recognize the meaning of these words as to their separate definition and their relationship to each other.

Every animal can express himself on certain broad planes of emotion. Man is the only one who can analyze these emotions into their component parts and express this analysis by means of his highly developed voice. The lower animals also use their voices for expression of emotion but not to the same extent as man.

In this expression by man of his emotions through the use of his voice, there are three sides to the picture. First, there is the vocal instrument itself, which is a purely physical entity, made of muscle, cartilage, bone and tissue. Secondly, there is the system of vowels, consonants and the
resulting words which are produced by this voice to express our thoughts, ideas and emotions in a concrete, intellectual manner. Third, the mind, or intellect, which controls the use of the vocal instrument in its delivery of these words. In other words, the mind is the bridge which covers the gap between the purely physical factor, the voice, and the cultivated, man-made device of words. Let us discuss for a moment these three factors and what can be done and is being done to improve each.

Words:

Here is a part of our culture which has been developing over the centuries. The words which are available today are capable, when used correctly, of expressing any emotion, thought or idea. Many of our greatest thinkers have been at work developing dictionaries and defining and tracing the history of words. In our public school systems today, the correct use of words is placed on a pedestal of great importance. From the very beginning of a child's education, he is brought into contact with words, their correct spelling, their correct meaning, and the kind of a word it is, e.g., noun, pronoun, and so forth. Surely there is a maximum of interest in this part of our subject.

Mind:

Man's development to his place of supreme importance in the scheme of things can be traced directly to the development of his mind. The tremendous development in this way can be clearly seen by the results in all fields of endeavor. Almost
unbelievable discoveries and accomplishments have been made in transportation, communication and medicine. Public schools are devoted almost entirely to the development of the child's mind. We have an entire science devoted to the study of the human mind. In these first two factors, we have all the possibilities of developing our thoughts, emotions and ideas into a concrete language which can be understood by other men.

**Voice:**

The third factor is the human voice which is the device by which these thoughts, ideas and emotions are to be communicated to other men. "Of all our faculties, the voice is probably the most wonderful. All through life we use it to express our thoughts and feelings; to convey our desires; to comfort in sorrow; to rejoice in success; to urge a course of action; to persuade in business; to command in an emergency," says the New York Singing Teacher's Association. Some people may say that everyone can talk; what is there to worry about? I believe that Adelaide Gescheidt has the answer to this. She says, "The educators, particularly of public schools, have known for a long time the power of the voice. They have known that a teacher with a well modulated, free voice is able to discipline her students so much more easily than a teacher with a hoarse and constrained tone which immediately sets up a rebellion and aggression in the students. In the home, schoolroom, church, church,

1. New York Singing Teacher's Association, "Why all should have their voices trained," *Musician*, (April, 1931), 36:19.
concert hall and radio, voice is constantly in demand."\(^2\)

If it be true that educators are aware of the situation as it stands, why hasn't something been done about it? The number of school systems in the country which offer a course in speech training is very few. Courses in those that do are usually an attempt at giving experience in speaking before groups, rather than actually working toward the development of a real vocal instrument.

Almost anyone can think of people who are hindered or on the other hand, aided by their voice. In many cases, the difference between a happy and an unhappy person is the voice, e.g., picture the big man with a small, weak, thin voice.

What can be done in the average school system to help relieve some of this problem? The writer believes it is the part of the music department to be of service in this direction through the children's participation in a program which includes a studied approach to voice training.

The same New York Singing Teacher's article quotes John Erskine as saying:

"The art of singing, even as the amateur practices, yields an important by-product in the improvement of the speaking voice. The method of correct speech is identical with that of correct singing: so much so that unless you speak correctly, you undo in your talking hours whatever you learned in your singing lessons. Physically, singing calls on the body for support

in a most health giving way. As a matter of culture, singing opens a whole new field of man's thought. Socially, his ability to sing brings new contacts, new friendships, and new associations and unfolds the spiritual forces within us. Voice is our personal means of creation."3

Up to this point, the writer has been taking the subject from the point of view of a layman, or of the people as a whole. Now, looking at the subject from the music directors' point of view, the writer notes from the New York Singing Teacher's that, "All through the years since history has been recorded we learn that man has expressed his emotions in song. Speech, being simpler, developed faster and among more people, but the desire to sing still surges in all of us."4

Thus the transition from speech to song which is the direct concern of the music director. The writer fears that too often there is not an awareness on the part of music directors as to the magnitude of this very topic.

Justification

Music programs today have pretty much been broken into two parts. In some cases, there has been a relative decrease in the part played by the vocal program as compared to the instrumental. In addition, there is the added danger in that the true value of the vocal program may be hidden by an overbalance of interest on the purely theoretical side to the exclusion of the singing situation and its direct bearing on

vocal development. For example,

"It is appalling to note how many teachers indulge in the practice of censure and then attempt to remedy apparent low achievement standards by drilling high school students on elementary processes with elementary materials. What is the result? It is failure in the most fundamental activity in music education, and that is participation in group singing. The entire success of the music curriculum of the high school depends upon the strong community of musical interest established in the choral classes. It is not possible to extend our musical expression through the media of instruments, if we have not developed musical feeling through individual participation in vocal expression."

Of course, the fact is that the whole field of voice and voice training is under a dark cloud of confusion. However, this should not relieve the music directors of their obligations on these points.

The majority of the work done in the interest of creating a truly worthwhile approach to the subject of voice training has been done by what we may term the private voice teacher. There are some people who do not believe that you can apply the work of the private teacher to the class or group situation. It is true that in the class situation, it is not possible to go into any of the detail which is possible in a private lesson. However, if we are to find any real truths about voice, it probably will have to be in the private situation, since it is only there that we can apply close attention to specific details. Once definite basic truths are decided upon, then the

5. George L. Lindsay, Fundamental Values of Vocal Music in the Modern High School, Music Supervisors National Conference Yearbook, Chicago, 1931; 24:79.
understanding can be carried into the classroom situation.

Some idea of the confusion and disagreement which exists on this subject may be gathered from Dr. Fields of the City College of New York who says:

"A final consideration of the 690 concepts of vocal pedagogy, subsumed in 29 categories leads to the conclusion that instructional guidance is woefully lacking in this area. It is also apparent that authors of vocal texts are loathe to reveal their traditional trade secrets. Some authors are more pedagogically minded than others but are ill-equipped to transmit their inept empirical formulations through the impersonal medium of the printed word. Occasional pretentious claims for this or that methodology are weakened for want of factual support, although the laudable reputations and experience of the authors sometimes lend specious credibility to these claims. The brief and fragmentary treatment of many topics confirms the belief that authors are prone to evade the transmission of direct information to the lay reader. In the absence of specific methodological content, a few tenuous generalities often provide the only bases for formulating pedagogic procedures. Altogether, most of these statements cry out for confirmation and proof."^6

However, there are some people who have had a marked degree of success in this field. This is true in both the fields of public school educators and private voice teachers.

**Nature of the Problem and Design of the Study**

It is the purpose of this study to obtain the opinions of the music educators and the private voice teachers on various points of the subject by means of a carefully prepared questionnaire.

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The study is concerned with those children in the senior high school years. The private teacher’s ideas are presented on that basis.

The names of private teachers who are taking part in the study were drawn from the listing of the Massachusetts members of the National Association of Teachers of Singing.

The names of the music educators were selected from the membership list of the Massachusetts Music Educators Association. There were two steps to this. First, the list was broken down to those who are either general supervisors or mainly vocal teachers. Secondly, this list was submitted to a group of leaders in the field of music education. This group approved, in most cases, the list as presented.

The problem as it is set up in this study is covered by means of the following subtopics:

1. Breathing
2. Posture
3. Tone Quality
4. Blending
5. Diction

The questionnaire is set up in the form of a rating scale.

In any approach to voice training, there are some things which are told to the pupils from a positive point of view and others which are told from a negative point of view. By way of delimiting, and in an attempt to find those things which teachers tell their pupils to do, this study is presented from
the positive side. Therefore, a three point scale is used to show to what degree a particular point is presented to the pupils.

The analysis of the results of the answers consists of three parts. First, the answers within each group are analyzed. This is followed by a discussion and analysis between the groups. The results of the data as a whole are then analyzed in terms of the material covered in the reading for the research section.
CHAPTER II

The Review of Literature and Research

The review of literature and research consists of two parts. The first is an historical background. The second is an analysis of specific subjects in the field.

History:

The earliest development of interest in the study of the voice as it applies to singing came in Italy around the turn of the seventeenth century. John DeBruyn, in an article on the "Historical Schools of Singing", cites The Old Italian School from 1600-1741. During this time, methods of training were based mainly upon listening, imitation and intuition. Considerable attention was extended to breathing, intonation, vowelization and freedom from tension. Openness of tone form, equalization of qualities in the pitched grouping of tones, and good diction were also considered important.

The School of Transition came in 1741 with the publication of De la Formation de la Voix de L'Homme by Antoine Ferrein.

During this period, empirical instruction was gradually displaced by so-called scientific methods.

The Laryngeal School and the Register School came in 1855 when Manuel Garcia developed the laryngoscope. With this instrument, he observed the "stroke of the Glottis". Garcia noted that in certain points in the scale, the vocal cords altered their action. Other thinkers along this line have related registers to resonances, i.e., different registers employ different resonators.

The Local Effort School: The concentration physiologically as well as consciously upon special localities of the mechanism, e.g., lips, tongue, larynx, fauces, soft palate, diaphragm and other abdominal muscles.

Other schools of thought include the Respiration School; the Relaxation School; the Natural School which observes the breathing of babies and the singing of negroes; The Resonance School, the vital importance of nasal and head cavities and of "singing in the masque" are stressed; The Psychological School; the Modern Scientific School; and The Organic or Coordination School.

During the last thirty years, the pedagogical viewpoints expressed by authors on the subject of training the singing voice have literally run into the hundreds. Dr. Fields has collected the essential ideas of many hundreds of these and concluded three main schools of thought.

1. The Empiricists
2. The Scientific group

3. The Natural method

The first group, the Empiricists, derive their teaching methods largely from trial and error observations. Their techniques are based on symptomatic judgments of the student's performance during the vocal lesson period. Underlying causes are guessed at or else ignored, the main objectives being the attainment of desirable results, by whatever means. Local effort and voluntary controls of the vocal apparatus are common instructional procedures and the chief criterion for evaluating any vocal technique is that the voice must sound better for having used that technique.

The Scientific group is composed of those who delve into the causes and physiological vocal phenomena. Voice teaching procedures are sought that agree with scientific or experimental findings. This group believes that the teaching of singing can ultimately be reduced to various testing and measuring procedures; that vocal tone can be analyzed objectively, and definite standards of vocal production established for all singers.

The Natural group takes a middle path, disclaiming any detailed knowledge of vocal physiology, but seeking to eliminate local effort so that natural vocal reflexes take their course. Train the mind, train the ear, but let the vocal

Factors of Vocal Technic:

For the purposes of this study, an analysis of the literature on the subject is presented under each of the five sub-topics previously mentioned.

1. Breathing
2. Posture
3. Tone Quality
4. Blending
5. Diction

Breathing

Breathing is the act of drawing air into the lungs for oxygenating and purifying the blood, and its subsequent exhalation. Breathing is important to the singer because normal voice production depends upon the presence of a steadily expiring stream of breath.

Probably one of the most controversial issues in the study of singing is the manner and method of breathing. Some teachers say breathing should be diaphragmatic only, others want a combination of diaphragm and inter-costal muscles. Some say that the diaphragm is an involuntary muscle and cannot be controlled by will but that its action is entirely controlled by torso action.

"Since the diaphragm plays such an important part in correct singing, the demonstration of its use must be the starting point." 3

Henry Coward mentions four types of breathing: 1. Clavicular; 2. Abdominal; 3. Costal; and 4. Side-Costal. It is his contention that the breathing process is not developed satisfactorily until all of these methods have been used. He also refers to breathing as the key to any difficult vocal situation and he emphasizes the fact that the teacher should refer to it whenever possible. Another school of thought combines diaphragmatic and costal or rib breathing. The idea that breathing will take care of itself if the tone production is free is also a basic contention. One of the most dogmatic statements which the writer has ever read was made by W. Warren Shaw who says, "Torso action should be taught, not breathing. The attention of the singer should be centered upon muscular action when necessary and always upon tone, but not upon breath and certainly not upon the diaphragm which is an involuntary muscle and therefore impossible to control." All authors testify to the ineffectiveness of short gasps and the collarbone type of breathing. One of the better statements on the subject is by Harry R. Wilson. This is in substance that although a good tone may be dependent upon the proper management of breath; nevertheless, to begin the study of voice with an analytical discussion of the diaphragm, the abdominal and thoracic muscles, and the lungs is opposed to

4. Henry Coward, Choral Technique and Interpretation, p. 49.
his concept of the singing act.6

Breathing is but a small part of the act of singing, but it is an important part. The breathing habits of a singer are rooted in the vital processes of living. In the consideration of these habits, it is necessary to draw a distinction between breathing for living and breathing for singing. The former, because it is a fundamental process, takes precedence in function over superimposed voluntary breathing controls that the student acquires as part of his training for a singing career. In other words, a singer must learn to coordinate breathing in singing habits with breathing in living habits if he would achieve the efficiency and endurance that spell artistic success in vocal expression. Although the public school is not primarily the place to develop great singing artists, nevertheless, music educators must keep these principles in mind if they are to achieve a real success.

An interesting division of schools of thought on breathing has been set up by Dr. Fields.7 He has found four divisions. They are the Local effort method which believes that breath control is largely a matter of breath retention and gradual release so that vocal tone may be evenly sustained. They also believe in devising techniques for localizing the control of expiratory movements of the ribs, diaphragm or other parts of the breathing mechanism. The next division is

the Pre-vocal physical training method which contends that breathing is directly affected by posture. Therefore, the benefits of physical culture, which is a form of remedial postural training, must accrue to the breathing organs. The third division is the Functional growth method which claims that a specialized activity of any function of the body will stimulate the growth and development of those organs and faculties that support it. Thus, by a law of exercise, the activity of singing should stimulate the growth of the breathing organs. The final division is Expressional intent method which claims that all breathing controls are psychological. The breathing organs respond instantaneously to thought and feeling, automatically providing the right degree of chest expansion and air intake for any spontaneous vocal expression.

It is possible to find some suggestions for definite action which can be followed in breathing for singing. Some suggest taking only enough breath to sing the phrase and insist on correct phrasing, and also the use of alternate breathing within the group on long phrases. Others feel that the diaphragm may best be thought of as a resisting muscle. The effort in breathing must be proportioned to pitch and intensity. This final suggestion is one which is open to argument, especially from the exponents of the Relaxation school, and from the exponents of the floating breath. For example, Henry Coward advocates controlling the breath and directing the air current to one approved spot of the mouth where the sound seems to
float on the breath. 8 Mr. Coward continues on this subject with other suggestions such as, "Stick your chest out, keep your stomach in, hold your breath at the waist and sing." 9 Whenever possible, inhale through the nose. Do not take breath but rather let breath take you, and use the staggering of breaths, making sure that every member of the group knows exactly when to breathe. 10

Hollis Dann, one of the foremost leaders in the field of music education, says to think of .... "expansion around the waistline for improved breathing habits." 11 The suggestion is often made that there be no movement of the upper chest, that breath be taken through the nose and mouth, and that most breathing exercises be accompanied by tone. Breathing exercises for a short time at the beginning of a rehearsal without tone and breathing through the nose if time permits is often advocated. "Dropping the shoulders helps considerably the action of the lungs, while lifted shoulders make breath control out of the question and are apt to make young singers tighten the throat". 12 This statement by Lotti Rimmer is typical of a majority of the teachers. Some choral directors suggest that any work on breathing should be done during the rehearsal of a specific piece. Others feel that breathing exercises with tone

should cover a period of ten minutes at the beginning of a sixty minute rehearsal period.

Posture

Little is said in regard to body position in most articles on the subject of voice training. It seems that most authors feel that this is something to take for granted. This may be somewhat true on the completely adult level, but it certainly is not true for the typical high school pupil. Margaret Quist in her analysis of class voice techniques says, "The subject of posture is not sufficiently well treated in any of the methods. Much more could have been said about the effect of good and bad posture on the tone quality."\(^{13}\)

The fact that posture is more on the minds of music educators than the private teachers is clearly shown in the reading done for this study. It is for this reason that the writer is including a section on the subject in this chapter and in the questionnaire. The questionnaire will give a suggestion as to the amount of emphasis placed on the subject by the two groups in Massachusetts.

Although the number of people who concern themselves with this aspect is relatively small; those who do, express an extreme interest. Hollis Dann\(^{14}\) suggests that correct posture is basic and permits flexibility of the entire body and provides an ability to relax interfering muscles. His suggestions

\(^{13}\) Margaret Quist, Comparative Analysis of Class Voice Techniques, p. 31.

\(^{14}\) Reven S. DeJarnette, op. cit., p. 111.
to the pupils are to imagine a string pulling from the back of the head which results in a raised and active chest; flattens the abdomen, and that this together with drawing the chin in slightly encourages good breathing. It is also said that the shoulders should be back and down and the weight forward either standing or sitting.

Dr. Fields thinks it is desirable to relate the various parts of the vocal mechanism to the whole posture of the body for singing. He says:

"The larynx is attached to the upper end of the trachea much as a nozzle is attached to the end of a garden hose. During the application of breath pressure against the occluded vocal lips, (cords), the larynx is prevented from wobbling by an arrangement of extrinsic supporting muscles. These muscles, like supporting guy wires, radiate from the larynx upward to points in the head, backward to points in the spine, and downward to points in the chest and shoulders. Obviously, the slightest postural abnormality during phonation will tend to pull the entire larynx away from its basic support against the spine, thus disturbing the phonating mechanism."15

In conclusion, erect, easy posture is absolutely necessary for the singer. He will always show somewhat more ease in his singing if this is emphasized.

Tone Quality

The discussion of tone quality will be centered around vowels, physiological approaches, the improvement of tone quality, the dynamic levels at which tone quality can best be improved, a certain amount of the phraseology which goes into

any discussion of this kind and in general, those things which are directly related to producing a free, steady, smooth, rich and resonant tone. The voice is considered a living phenomenon. We must keep in mind that physical dissections are largely un-revealing to the vocalist, and experimental procedures for observing and measuring the exact characteristics of glottal vibration in a living voice present many practical difficulties that have not been overcome as yet. When we are training a singing voice, it is almost always the rule that old habits must be broken down before new ones can be acquired. Fortunately, there is enough agreement among musicians as to what constitutes good vocal quality to enable us to speak of a typical good quality.

Henry Coward says that good tone quality depends on the vital and resonant vowel. He suggests that all the beginning vocalization should be done on (oo) and that this will pass in time and in succession to (oh), (aw), (ah), (ai), and (ee). The introduction of the other vowel sounds brings in more nasal resonance and is a very critical period.16

There are two schools of thought on the use of (ah) as a vocalizing vowel. One side feels that the use of (ah) forte as a vocalizing habit at the start of vocal work especially in the elementary school, is sufficient to promote inflexible and constricted vocalism. These people suggest that the first exercises should be on the pp hum and that this should go

directly into vocalization on the vowel (oo). The other vowels are to be brought in very carefully. The (ah) vowel is not to be introduced until the voice is singing over a range of two octaves with considerable ease. The opposite viewpoint states that the (ah) vowel is the normal vowel to use because it adds both brightness and roundness to the voice. Mr. Smallman feels that (ee) is the most difficult vowel but that it is the best for resonance and for this fact, a little of the vowel (ee) should be added to the other vowels whenever possible.\textsuperscript{17} The reason for some peoples' inability to attack high tones softly on different vowels is sometimes said to be caused by a lack of discrimination as to pure and exact vowel form and tone color through the sense of hearing. In general, voice teachers feel that tone quality can best be taught by demonstration. Pupils must learn to produce correctly and project all the different vowels; certain vowels are considered to draw out definite characteristics. The (oh) is best for tone quality, (ah) is best for flexibility, (oo) is best for projection and (ee) is the best for resonance. Many people feel that the key to good singing is correct formation and connection of vowels. Some go so far as to say that better management of the breath results from the demands of the song phrases and from correct formation of vowels.

The proponents of the vowel (ah) say that through the use

\textsuperscript{17} J. Smallman and E. H. Wilcox, \textit{The Art of A Capella Singing}, p. 9.
of this vowel, the students will get the sensation of a free, open jaw. They claim that a rigid jaw is interfering more with free tone production than any other factor. A cure for this is to make the pupils open their mouths. In general, stability and firmness of tone is established when the jaw is dropped in a relaxed manner. William Brown feels that the ear is the instrument which commands the head through the lips, nostrils, tongue, etc., in controlling the tone. He believes there is no actual voice control. There is only self control for the person and his instrument.13

Henry Coward says that the position of the mouth should be changed with each dynamic change and the singer should will the muscles of the mouth to remain in one position during the singing of any one vowel sound.19 The opening of the mouth is also advised if you want to get rid of the nasality in a tone. The other side of the question is given by Herbert-Caesari who asks, "What constitutes the real mouth of the singer? Not the aperture formed by the lips but the pharynx where the various shapes are obtained for the vowel sounds .... the lips are actually of secondary importance. A vowel well formed internally in the pharynx is, by reflection, expressed externally by properly adjusted lips."20

The tongue is considered by many authors to be of vital

importance. They say the tongue changes its shape for every vowel sung, and that by watching it in a mirror, one will see that the tip is kept pressed gently against the edge of the lower teeth. Holding it firmly thus helps one's vowel practice. Some go so far as to say that the first thing to teach in a class voice program is the correct way of using the tongue. They feel that the position of the tongue should remain the same throughout the singing of the vowel and that this makes for better resonance.

"If the tongue is not the root of all vocal evils, there is no doubt that to it may be traced many of the causes of faulty tone production. Correct vowels mean correct tone and the vowels are controlled largely by the tongue ... the singers should become acquainted with the proper position of the tongue for each vowel or diphthong as well as the consonants. The tongue must be kept forward in the mouth at all times, if the throat is to be kept open. ... open only the mouth that a pencil may go between the teeth. It is the forward position of the tongue that will keep the throat open, not dropping the jaw which is a superinducing cause of a closed throat."21

Most students know that the term "a throaty tone" means the production of a tone from the throat. Eugene Feuchtinger feels that this is incorrect since the ideal tone, for which they are striving, is produced, though not felt, in the throat. The case is rather that the real throaty tone, is the result of interference from the throat, jaw and chin muscles.22

Choral directors generally feel that the time spent in voice exercises must be short, that the exercises must be very

22. Eugene Feuchtinger, "The Open Throat and Depth of Tone", 51:339.
easy, so that they can be memorized and sung automatically. These exercises should not take more than five minutes of the rehearsal period. During these exercises, the students should be urged to observe their own physical sensations. Others feel that sometimes it is a good idea to have members of the group retire in turn to a distance and make their criticisms. Any technique gained through the vocal exercises should be added immediately to the interpretation of the songs. The exercises should be unaccompanied and the singers should analyze everything they do.

Correct nasal placement makes it possible for boys to bridge between the lower range and the higher more difficult notes. Some people use the hum in an attempt to get nasal resonance. This is usually more difficult to achieve when singing ff than when singing pp. Basses generally give the earliest signs of progress along this line.

"Very many of the great singers of today, of both sexes, have told me that they believe the "nasal tone" taught in studios in this country is a blight on the progress of our young singers.... for the proper tone resounds and vibrates quite as much in the top and back of the head as it does in the face and nasal region." 23

Harry Wilson feels that the term "voice placement" is in bad repute, because it implies that the voice is placed somewhere, even by force although the sensation of a good tone nevertheless is high and frontal. His way of getting at the problem is through soft humming of songs and scale passages

which gives the sensation of a free and unimpeded tone. The mental conception is also important for all beginning students. Humming is not a panacea for all vocal ills.24 Directions which are given by many teachers to achieve best tone quality are: Right Thinking; floating the tone; thinking of the tone; vibrating in the mask; and thinking the ideal tone.

Gregory has found that while practicing humming, certain vibrations will be discovered in both the head and chest cavities. These vibrations indicate that there is a certain amount of freedom in the singing mechanism, and as more muscular interference is removed, the vibrations will become more pronounced.25 Many music educators feel that good tone quality in the pupils is obtained largely through imitation. Newport states an interesting opinion; "Obviously sensation does not afford a legitimate reason for all the voice placing that goes on in its name. In the first place, the sensations of singers vary as much as do their personalities. In addition, these sensations often change with the singer changing moods."26

The question of vocal registration is one of the most insistent controversial topics in the discussion of vocal range. Because the term "register" has not been clearly defined, there is little certainty as to just what is intended when this term is mentioned as a point in vocal theory or technique. That a

so called register break usually occurs in the average untrained singing voice is commonly conceded. The following is a summary of three schools of thought as set forth by Dr. Field.  

1. Natural action theory. There are no registers. Breaks are caused by psychological fears of high tones and chronic tension induced by habitual straining during ascent of vocal pitch, incorrect methods of phonation, faulty breathing, self-consciousness about registers, and attempts at local laryngeal effort which disturb normal spontaneous laryngeal coordinations. Muscular mechanisms of phonation are not readily subject to conscious control in singing. Therefore, conscious interference in spontaneous laryngeal action causes spasmodic phonation and resultant "register" breaks.

2. Speech action theory. The singing range is influenced by the speaking range to the extent that the habitual daily activity of the speaking voice creates predominant vocal tensions that affect the singing range. That segment of the vocal gamut that is continually exercised in speaking acquires strength and firmness beyond the development of relatively unused portions of the singing range in the upper and lower extremes of the voice. Transitional breaks or wobbly tones occur whenever the singing voice passes from a stronger to a weaker segment of the range. These transitional breaks define the so-called registers.

3. Mechanistic action theory. Pitch elevation in the

singing voice is controlled by the antagonistic action of thyro-arytenoid or cord stretching muscles and other extrinsic muscles. When one group of muscles is weaker than its antagonistic opposites, the former collapse under the stretching tensions of the latter, thus causing wobbly points in the vocal range, pitch fluttering or breaks. To offset such breaks, it is necessary to equalize the strength and tension of the weaker muscles so that a condition of perfect equilibrium or balanced tension may be reached between antagonistic muscular actions.

The subject of registers brings the following statement from Edward Faulds.

"According to the usual method of procedure of the devotees of "registers" there are three registers, for blending, the middle is sung with ah, the top with (o) or (oo), the bottom with aw. The covered (o) or (oo) is sure to lack resonance. Any such method of correcting the register evil is sure to bring about incorrect enunciation, while the extra breath pressure required will force the voice off pitch ... regarding the Frontal tone, consider the contention that the voice should be brought forward in the mouth, against the teeth; or that it should be placed at the bridge of the nose or in the front of the face ... the fact that one may feel certain vibrations at the nose or front of the face does not necessarily imply that the singer's thought should be centered there, in order, as it is said, to place the tone there. The followers of this credo seem to forget that the moment one attempts to place the voice anywhere but at the vocal cords, in the voice box, at that moment constriction of the throat begins. Another mistake of this method is the idea that resonance in these cavities is the cause of correctly produced tone; whereas resonance is simply a result." 28

The opposite viewpoint is held by many teachers, especially

in a discussion of covered tones. They refer to all good male voices, baritones particularly, having the sound of (o) or (oo) color every tone in the upper voice, irrespective of the fundamental vowel being sung. They feel that the male voices especially, should always think (oo) into the upper tones, whatever the vowel. The habit of carrying the open quality is injurious to the voice, as well as likely to degenerate into simple yelling.

Dykema and Gehrken's strive for a proper mental conception of tone with the exercises in terms of emotional expression. They say that vocalises should not be taken from a song unless they are beautiful within themselves. They feel that the soft tone develops intonation, freedom from strain, upper tones and uniform production. They advocate humming as the way to develop resonance and the floating tone to get a proper legato.

In general, those people who advocate humming, also use the pp or the softer tone as the invariable measure of vocal quantity to be used until faulty production has been corrected. They do concede the futility of using pp for correcting poor tone production, if the vocal exercises begin in the middle register or proceed from low to higher notes.

Harriette E. Eley does not agree; she says, that the correction of the quality should begin with tones in the middle of the range. The work should then continue into the upper

Another attempt to clear up the confusion surrounding the story of registers is made by P. A. TenHaff.

"... the resonance of low tones is not confined to the chest; the extreme high tones do not vibrate entirely in the head; the middle not just in the mouth; sound waves travel in every direction, any attempt to "focus" tones is only working against nature. ... a register is a condition of the vocal cords and not a place of resonance. ... the entire resonator of the violin is used for its higher as well as the lower tones, no matter what part of which string is vibrating, so it is with the human voice. Perfect relaxation is the way to achieve the overcoming of a "break".

Occasionally, the opinion is expressed that pupils should try to sing in instead of out. An interesting comment follows by A. G. Fory on the subject.

"Try to sing in and it will be found that it is from within that that tone is amplified. Do not try to sing out for in so doing one must close the inside more or less to make the tone seem to go out. It will go out of itself because there is no place else for it to go. The same closing will take place if too much emphasis is put upon bringing the tone forward. The tone is forced to come forward by giving less room at the back, and so it becomes white or shallow. ... trying to open the voice also helps to counteract the tendency of the throat to contract. It also helps prevent the tendency of the larynx to rise as the upper register is approached."

Listening to others produce good and bad tone may also help to improve tone quality.

**Blending**

Probably the most important factors as far as the work of

the chorus is concerned come under the heading of blending. Nevertheless, these factors are also extremely important for the solo singer. Pitch is something that causes the singer constantly to be more careful, as there is nothing worse than to flat or sharp. However, no one is perfect, and it must happen occasionally. It is one of the worst faults that a singer can have, and every singer should have the ability, reasonably speaking, to sing on pitch the greater part of the time. It is often said that if there is complete diaphragm control and an open mouth with relaxed lower jaw, intonation will take care of itself. Putnam\textsuperscript{33} feels that good intonation will be achieved if the students maintain a tonus and are alert at all times. In addition, they should be drilled on correct interval singing, and in sustaining the energy output until the phrase is completed.

Good blending is easier in the middle register and should be studied in an attempt to carry over to the high and low registers. The whole chorus should be graded to the powers of the weakest section. Luvaas\textsuperscript{34} feels that there must be an awareness on the part of every member of the section, and of the section as a part of the whole. Whenever it is necessary, low altos should strengthen the tenors.

Flatting is generally considered to be caused by poor breathing, posture and focus of tone along with a too slow

\textsuperscript{34} Morton Luvaas, \textit{Choral Techniques}, p. 7.
tempo. It can be improved by projecting the tone forward. Sharping is caused by overstraining, over anxiety, excessive effort and too much vibrato.

In many cases, singers fail to achieve accurate pitch because of faulty habits in tone production. Wycoff\textsuperscript{35} says that singers will often carry an entire song a shade off pitch and be wholly unconscious of that fact. The faulty tone production which causes poor pitch can be remedied by careful practice of the vowels slowly, and legato on one note, then another, going up the scale. Wilcox\textsuperscript{36} points out an interesting example of the effect of faulty habits in tone production. "One of the most persistent off pitch singers encountered in my career, was an excellently trained musician who possessed the gift of absolute pitch. Listening to another singer she would recognize the slightest deviation from pitch".

Many teachers consider relaxation the focal point of voice training. However, others feel that the pupils attempt to achieve relaxation will lead to flabbiness of the vocal organs resulting in singing off pitch.

Diction

The cultivation of the singer’s diction gains importance in the vocal training program because of its fundamental importance in the production of tone and because diction is basic to the interpretation of a text. Song Speech values also have

\textsuperscript{35} Eva Emmett Wycoff, "Bringing Out the Singing Voice," 48\textsuperscript{:507}, p. 507.
\textsuperscript{36} John C. Wilcox, "Why do they Sing off Pitch?", p. 49.
a special interest. In song, the vocal factor is always primary whereas in speech, the voice may become secondary. Resonance and projection are far more important and conspicuous than in speaking. Musical and aesthetic requirements of singing are much more exacting than in speaking, sometimes requiring a subordination of intelligibility to tone production. Singing employs more sustained and dramatic forms of expression than speech. Many techniques of diction are closely associated with techniques of vocal tone production. To the singer, the vowels are important for tone, and rhythm and consonants are anti-vocal and interrupt tone and rhythm.

In general, techniques for developing diction represent two schools of thought which are mentioned by Doctor Fields.37

(1) Tone is subordinated to text. Sing as you speak method are favored by this group. At first, vocal and musical values of the song are entirely ignored, while the meaning of the text is studied. The final step comes when music and voice are connected to the words only after the student understands the text.

(2) Text is subordinated to tone. In this procedure, the words are removed and the melody is then treated as a series of vocal exercises. The emphasis is laid on vowel forms and individual consonants that provide the vocal tone.

Occasionally, the singer is cautioned against acquiring an artificial style or diction for singing. The words diction,

articulation, pronunciation, and enunciation are very often misused. The following is the correct definition. Diction is the rendition of words in singing with emphasis on articulation, pronunciation, and enunciation. It is the art or manner of expression and the use of language with regard to clearness, accuracy, and variety. Articulation is defined as a movement indicating the relative position of the tongue and palate in order to produce a given sound, especially a consonant. Pronunciation is the act or manner of pronouncing for uttering words while enunciation means to state with formal exactness.

Christy\textsuperscript{33} feels that attention should be focused on clear-cut articulation which is most valuable in obtaining a pianissimo and accurate intonation. Proper attention to diction alone will make a very good chorus from mediocre talent. Pronunciation in singing should be the same as in speaking. Consonants must be articulated with great exaggeration and linked over to the next vowel. Difficulty with both the percussion and sibilant consonants will be lessened if attacks and releases are precise. The final vowel in a diphthong should be rapidly pronounced just as a consonant.

Another technique for pupils is to try to think of what they are saying and deliver it as in a private conversation. Smallman\textsuperscript{39} says that there must be a greater pressure for consonants than for vowels. Each consonant and vowel should

\textsuperscript{33} Van A. Christy, \textit{Glee Club and Chorus}, p. 41.
\textsuperscript{39} J. Smallman and E. H. Wilcox, \textit{op. cit.}, p. 16.
be carefully studied as to the correct way of production. In speaking and in singing, the identical mechanism is used. Speech has singing aspects, and song has speech characteristics. The speech-song way of bringing out the voice is probably the most natural. DeBruyn\textsuperscript{40} points out 5 obstacles to the speech-song method.

1. Failure of beginner to grasp the concept of singing as sustained speech.
2. Incorrect employment of speaking voice.
3. Developing of emotion without encountering pathologies, as throatiness.
4. Difficulty of women in expressing emotion in the studio.
5. The problem of high note saying.

The speech-song method calls for the same intensity as that of ordinary conversation. In enunciation and pronunciation while singing, the less important words or parts of words must be subordinated as in speech. This method demands the use of perfect English.

There is an interesting conflict of viewpoints by Skiles\textsuperscript{41} and Christy\textsuperscript{42}. Skiles says that singing is really speaking set to music. In order to produce both vowels and consonants, according to their true cultural value, and without loss of

\textsuperscript{40} John W. DeBruyn, "The Oldest Authentic Voice Method", 56:357.
\textsuperscript{41} Wilbur A. Skiles, "The Diphthong Vowels", 57:532.
\textsuperscript{42} Van A. Christy, \textit{op. cit.}, p. 45.
beauty and spontaneity in the singing tone, the singer must obtain complete command of his vocal organs through subconscious mental direction. Christy trains his pupils to be technique conscious and to forget the naturalness of expression.

The relaxed jaw is sometimes considered the key to good diction. Exaggeration of phonation and articulation is also important in the speech-song method. The diphthong is generally considered to have the first vowel sustained. Wilson\textsuperscript{43} does not think of diphthongs as compound vowels. He treats the shorter vowel, whether it comes at the beginning or end, as a consonant which is articulated as quickly as possible. Whatever is done, the best singing method will probably be the one which feels easiest and most natural. Regardless of method, the throat should always feel open, free and comfortable.

The reading material for this section of the thesis came from three sources: First, the Boston University College of Music library; second, the Boston University School of Education library; and third, the music room of the central Boston Public Library.

The ideas and opinions which have been gleaned from the literature and research are the bases on which the questionnaire is built.

\textsuperscript{43} Harry R. Wilson, \textit{op. cit.}, p. 171.
CHAPTER III

Building and Administering the Instrument

Restatement of the factors involved in vocal technic:

The factors involved in vocal technic as it applies to the work in a Senior High School chorus or in a private studio lesson situation may be covered under the five headings as they have been set up. The first step in obtaining the opinions of the group of music educators and the group of private voice teachers was to decide what kind of an instrument would be built. The instrument must be understandable, easily answered, and extremely comprehensive. These factors, it was decided, could best be achieved by building a rating scale. The purposes of this study could be met by either a five-point scale or a three-point scale. The five-point scale would make it possible to cover both the negative and the positive attitudes of the teachers on the various subjects. The three-point scale would be able to cover either the positive or the negative, but not both. At this point, the writer decided to delimit the study to the extent that only those positive things which teachers tell their pupils would be sought. This immediately
caused the writer to use the three-point scale. Dr. William Fischer of Needham was instrumental in aiding the writer in setting up the outline of the rating-scale.

**Building the Items:**

It was decided to try as much as possible, to have the items in each section graded, starting with the simpler or more basic considerations and continuing to the more complex or more involved.

The items were also constructed with the thought in mind of finding out primarily the general trend of thought of the two groups. (Music educators and private teachers.) This made it necessary to ask some questions which would be of an introductory nature. The three-point scale made it possible for those answering the questionnaire to indicate to what degree they brought out the various topics to their pupils. The first question in each group was completely introductory in that it attempted to find generally whether the teacher mentions this particular field of thought to his pupils at all or not.

**Breathing**

First, the question of mentioning various parts of the anatomy which are agreed to have a definite part in the working of the breathing apparatus was covered in questions one and two. Questions three and four were directed toward finding how much the ideas of tone and pressure of air are brought into the teaching. Five and six are concerned with the taking of a breath and the use of exercises in developing the use of
the breathing organs to the extent where they will best serve
the increased needs of singing.

Posture

This is a particularly important section from the point of view of the music educator. The first two questions are concerned with those positive physical positions which we must assume when singing. The third question deals with the mental picture which the teacher may try to impress on the mind of the pupil for purposes of adding to the possibility of his assuming the correct posture which is so necessary to any attempt at improving singing. The fourth question concerns itself with the head position only and its correct position in making better tone production.

Tone Quality

This is a subject which one could literally go on for ever in attempting to cover. However, the writer has tried to make it as general and as basic as possible, and at the same time, to bring up a few of the questions which are perhaps beyond the basic stage in the minds of some people. These questions have caused considerable argument in the past. The first two questions again concern themselves with the physical entities which are responsible for the particular tone quality which the teacher is trying to obtain. The fourth and fifth questions are based on ideas for exercising the voice. The sixth and seventh questions are made up of those phrases which might be considered to go beyond the very basic. However, the
writer feels that we must explore these ideas also, for at some point, the question must be answered as to what is the correct way. The ninth question is again concerned with the mental attitude which the teacher may or may not impress upon the pupils as being beneficial.

**Blending**

This is another topic which is largely choral in its application. However, most of the questions must be answered by both the music educator and the private teacher in one way or another. The problem of the trained voice in any amateur or school group is always a very real problem. The third, fourth, fifth and sixth questions regarding attack, release, flattening and sharpening, are definite problems which must be solved in one way or another.

**Diction**

In diction, we have not only the subjects of vowels and consonants, but also the idea of the relationship between singing and speaking. Some people consider this relationship so strong that they build an entire method of study along this line. How important this is to the people of Massachusetts in the field will be determined by the questionnaire. The diphthongs are of particular importance in the English language since we have so many of them. The last question in this group is also concerned with the mental picture which the students have in regard to consonants and vowels.

The questionnaire originally covered nearly eight pages.
It was discussed by Dean Freeman and the class in the Seminar in Music Education, and many valuable suggestions for delimiting and refining the questionnaire were made. Doctor Farnam of the Methods of Research also analyzed the questionnaire as did Professor Snyder of the music education department. Many of the ideas of these various readers were incorporated into the final preparation of the instrument which covers four pages including an introductory page of questions and instructions for answering.

Those to Whom the Questionnaire was Sent:

Music Educators:

The writer wished to have the questionnaire answered by people who have had a marked degree of success in the field; teachers who are known to be competent. The first step in obtaining a list of such teachers was to obtain a copy of the 1949-50 membership list of the Massachusetts Music Educators Association from Herbert Silverman, Secretary Treasurer of the Association. Dean Freeman then screened this list and a subsequent list was prepared and sent to five leading music educators for their approval. The judges who took part in this phase of the work were Miss Maude Howes of Quincy, Mrs. Lita Whitney of the New England Conservatory of Music, Doctor James R. Houghton, Professor Francis Findlay, and Miss Helen S. Leavitt, all of the Boston University College of Music faculty. The final list, which consisted of 54 names, was made up of those who received approval by at least four-fifths of the
judges. An explanatory and introductory letter accompanied the questionnaire in each case.

Private Teachers:

The private teachers also presented the problem of a list of voice teachers who could be considered to be competent and successful in their work. The National Association of Teacher's of Singing offered the solution to this problem with the list of the members of the Massachusetts Association. This list was obtained from Miss Mabel Friswell through the assistance of Miss Gertrude Tingley, President of the Boston Chapter. All the members of the Association have been teaching for at least five years and every applicant must be sponsored by at least two present members. The members of the Association are on the staff of nearly every major school, college or conservatory of music in the country. A random sampling of 65 names was taken from this list. An explanatory and introductory letter accompanied the questionnaire which asked the teachers to answer the questions from their point of view as private teachers.
CHAPTER IV

Analysis of the data

The questionnaire was sent to 54 music educators' and 65 private teachers. The questionnaire was returned by 40% of the music educators and 58% of the private teachers. The average chorus size is quite large. It includes 31 sopranos; 21 altos; 13 tenors; and 16 basses. The average time spent in rehearsal per week is one and three quarter hours. The average number of rehearsals being two. Eighty-nine per cent of the music educators conduct their choruses and 24% of the music educators accompany as well as conduct. There are special voice training classes in only 29% of the schools covered. Only 38% spend a definite part of the time of rehearsal in actual voice training procedure.

Statistical Analysis:

In order to establish a concrete comparison of the answers of the music educators and of the private teachers, the private teachers will be arbitrarily designated (+) and the music educators (-). The percent differences will be calculated for each of the three possible answers in each of the
two groups and then a percent difference column will be established by adding. A difference of over twenty per cent will be considered significant and worthy of comment. The differences of special interest will be those showing a marked difference between the percentages in the (0) and (2) columns, since the differences in any two adjacent columns would tend to balance off each other.

Breathing

The music educators were very much in favor of mentioning the general subject of breathing. However, they are not in favor of going very far beyond that point. They do mention the diaphragm too a great extent but are not particularly interested in the other parts. The fact that they mention the breath support more than the other factors in seeking smoothness of tone shows that they do indeed place a great deal of emphasis on the importance of proper breathing. The subject of breath support or pressure for high and low tones brought almost an equal spread of answers over the three-point scale. They were also fairly evenly divided in answering the questions on how a breath should be taken. Considerably more emphasis is placed on breathing exercises with tone than exercises without tone. They do mention the staggered breath factor at some time in all but five percent of the cases.

The private teachers placed a great deal of emphasis on the various aspects of breathing. They also mention the diaphragm a great deal and in addition, the other parts of the
anatomy concerned with breathing. They tend to place more emphasis than the music educators on all three aspects of improving the smoothness of tone, but are also more interested in the breath support than the other two. They also showed somewhat more interest in mentioning the amount of breath pressure for the high and low tones. There is a fairly equal division on how to take a breath with the scale somewhat in favor of both mouth and nose. Compared to the music educators, they are much more in favor of breathing exercises without tone. Interestingly enough, the private teachers also gave their views on the subject of staggering the breathing of a chorus as shown by the fact that 63% answered this particular question. They are also largely in favor of having the chorus stagger the breath in excessively long passages.

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BREATHING
Comparisons:

A tremendous difference of opinion appears in the subject of mentioning the rib muscles. Forty-four percent more of the music educators do not mention the point at all than do the private teachers. At the other end of the scale, there are fifty percent more private teachers than music educators who place a great deal of stress on this subject. The same general picture remains in mentioning any of the parts of the breathing anatomy with the exception of the diaphragm. This is the first indication of a real difference of opinion between the two groups.

There is also a great difference on the subject of the physical feeling of the tone. The private teachers are thirty-one percent more in favor of mentioning this point all the time. They also show wide difference of opinion on the points of breath support and pressure. The private teachers also mention the way to take a breath more than do the music educators.

One interesting comment on the subject of breath pressure was that if the tone was kept in the air, the tone itself governs the pressure necessary to produce it. Another person said that he uses the word pressure guardedly. If the tone is properly focused and on the breath, the projection of that tone causes pressure of the muscles in the pelvic region.

Posture

The music educators do show a great interest in the
specific suggestions for arriving at a better posture. The real exception to this was a large majority, fifty-seven percent, who strongly favor keeping the arms behind the back. It was also interesting that some thirty-nine percent indicated that they mention having the weight on the heels occasionally. The two suggestions for mentally improving posture which the writer had believed to be quite common, proved to be quite unpopular. They were fairly evenly spread over changing the way a pupil holds his head and also were definitely much more interested in having the child lower his chin in attempting to stop forcing of the voice.

The private teachers also stressed the general picture of the subject. By way of correcting posture, they were most interested in placing one foot ahead, distributing the weight over the foot and folding the hands in front. Over the other questions the answers of this group remained well scattered excepting in the case of raising the chin on which sixty-two percent answered for no mention of this point.

Comparisons:

The very large difference which appeared between the two groups on the point of keeping the hands behind the back is apparently easily explained. Music educators favor this by fifty-seven percent for mentioning all the time because the private teacher is naturally thinking of solo public appearance while the music educator is thinking of group public appearance. This point is brought out even more by the fact that twenty-
seven percent more private teachers always mention holding the hands in front. The writer stated in Chapter II that the music educators would probably show more interest in posture than the private teachers after reading a great deal of literature on the subject. However, the fact that twenty-seven percent more music educators express no interest in the idea of pulling a string from the upper back of the head would seem to contradict the earlier decision.

One of the private teachers comments that the chin should never change from the normal position when the body is in perfect alignment. Another feels that any muscular directions as far as the head are concerned will tend to stiffen. Another feels that movement of the head when vocalizing tends to create more relaxation. These comments were all by private teachers.

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<td>b 63 62 33 5</td>
<td>67 73 22 -</td>
<td>-16 +11 +5</td>
</tr>
<tr>
<td>c 76 21 55 24</td>
<td>91 16 42 42 +5</td>
<td>+13 -18</td>
</tr>
</tbody>
</table>

Tone Quality

The music educators express a great interest in the field
of tone quality. Eighty-one percent of the music educators answered the question on the difficulty of vowels. The vowel (ee) was considered most difficult by seventy-one percent, six percent considered (ah) most difficult. The others were (a) eleven percent, and (o) and (u) six percent each. The most difficult was the only vowel on which there was any kind of agreement. The parts of the anatomy were not considered very important, but of these, the lips and jaw were mentioned the most. They were also quite evenly divided on the idea of vocalises. The subject of dynamic level for improvement of tone quality shows a trend in favor of working at the (pp) level. The next question regarding covering and registers shows that these points do not receive any attention to speak of. Thirty-eight percent answered the question of how many registers. Fifty percent of these consider three registers, twenty-five percent consider two registers, twelve and one-half percent consider one and one-half registers, and twelve and one-half percent consider one register. The opinions are evenly distributed over the various topics mentioned in question seven, i.e., tone placement and head tone both receive considerably more attention than any of the others. The falsetto is mentioned sometimes by forty percent. They definitely favor thinking on the same plane when going up the scale.

The private teachers show a ninety-one percent interest in mentioning tone quality all the time. The greatest amount of interest in the physical parts was indicated on the tongue,
lips and jaw. They are definitely not in favor of working on tone quality from the (f) dynamic level. Seventy-six percent answered the question on difficulty of vowels. The vowel (ee) was considered the most difficult by sixty-six percent. The vowel (a) was the most difficult for seven percent, (ah) the most difficult for twenty-one percent, and (oo) for six percent. They definitely are not interested in the subject of covering and registers with very few exceptions. Fifty-two percent answered the question of the number of registers. Three registers are mentioned by seventy-five percent, two by ten percent, one by fifteen percent, and (two for male and three for female) by ten percent. They are also scattered quite evenly over the subjects in question seven. However, the idea of resonances is mentioned all the time by sixty-six percent. Thirty-four percent mention the falsetto occasionally. They are definitely in favor of thinking on the same plane when going up the scale although they are evenly divided on the other points.

**Comparisons:**

The two groups definitely consider the vowel (ee) as the most difficult although the private teachers consider (ah) the most difficult in fifteen percent more cases than the music educators. The private teachers are also thirty-nine percent more in favor of mentioning the tongue in its relationship to good tone quality. Another point is the greater use of vocalises by thirty-nine percent more private teachers. Thirty-three percent of the music educators do not mention the idea of
covering the voice at all. A significant difference came on
the subject of resonances which are mentioned all the time by
twenty-seven percent more private teachers. The same situation
is also true in the subjects of nasal resonance and placing the
voice. An extremely significant difference appeared on the
question of thinking down where twenty-five percent more music
educators do not mention this at all. On the other hand, twenty-
five percent more private teachers do mention singing on the
same plane. These points are very important because it is im-
portant for the pupils to have a definite mental picture which
is absolutely clear.

<table>
<thead>
<tr>
<th>Private (+)</th>
<th>TONE QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Music Educator (-)</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>92</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>3.a</td>
<td>63</td>
</tr>
<tr>
<td>4.a</td>
<td>69</td>
</tr>
<tr>
<td>5.a</td>
<td>66</td>
</tr>
<tr>
<td>6.a</td>
<td>66</td>
</tr>
</tbody>
</table>

These points are very important because it is im-
portant for the pupils to have a definite mental picture which
is absolutely clear.
Blending

The music educators show a real interest in both the topics of blending and intonation. They also feel that a trained voice should be toned down in the group situation. They are very definitely in favor of mentioning all the phases presented in preparing for the attack. The release is advocated by the release of breath pressure more than any other point; however, they are scattered in opinion on this subject.

They do not mention timidity in a large majority of the cases for the correcting of flatting. Too much head resonance is definitely not considered a factor in correcting sharping by seventy-nine percent of the group. The other two points are considered very important either all or part of the time.

The private teachers are more in favor of mentioning intonation than blending. They also offered their opinions on the question of a trained voice in a chorus and are divided evenly between keeping the voice down and allowing the voice to lead. They are also very much interested in mentioning the four points in preparing for the attack. Sixty percent are in favor of mentioning the release of breath pressure all the time for release of the tone. They do not mention the other two points at all in a majority of cases. They are very evenly divided in their opinions on the approach to correcting flatting. They also do not mention the factor of too much head resonance at all in correcting sharping.
Comparisons:

The only significant difference in this section comes on the point of keeping the well trained voice down in a chorus. The music educators being twenty percent more in favor of keeping it down at all times. Several of the other points show significant differences under individual scale points but the relationship between adjacent points tends to balance the whole situation.

One private teacher comments that if a voice is really well trained, it will naturally blend in with the chorus and there will be no need for restraint. The release is explained by another as simply stopping the tone but sustaining breath as if another tone were to be sung. The dark vowels are advocated by another in correcting sharpening.

<table>
<thead>
<tr>
<th>Private (+)</th>
<th>Music Educator</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1a</td>
<td>76</td>
<td>7</td>
</tr>
<tr>
<td>b</td>
<td>87</td>
<td>0</td>
</tr>
<tr>
<td>2a</td>
<td>52</td>
<td>20</td>
</tr>
<tr>
<td>b</td>
<td>52</td>
<td>20</td>
</tr>
<tr>
<td>3a</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>b</td>
<td>92</td>
<td>6</td>
</tr>
<tr>
<td>c</td>
<td>76</td>
<td>4</td>
</tr>
<tr>
<td>d</td>
<td>76</td>
<td>7</td>
</tr>
<tr>
<td>4a</td>
<td>50</td>
<td>74</td>
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<tr>
<td>b</td>
<td>37</td>
<td>86</td>
</tr>
<tr>
<td>c</td>
<td>79</td>
<td>17</td>
</tr>
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<td>5a</td>
<td>68</td>
<td>35</td>
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<tr>
<td>b</td>
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<td>d</td>
<td>66</td>
<td>44</td>
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<tr>
<td>e</td>
<td>79</td>
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<tr>
<td>6a</td>
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<tr>
<td>b</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>c</td>
<td>63</td>
<td>61</td>
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</tbody>
</table>
Diction

The music educators show a very real interest in all four points connected with diction. They also favor the comparison of speaking and singing. They mention a part or all of the time the subject of diphthongs in ninety percent of the cases. They also tell their pupils to get the words across a part or all the time in one-hundred percent of the cases. The idea of indicating vowels relatively pp to the consonants f is not considered at all by eighty-five percent.

The private teachers show a nearly unanimous interest in the four points connected with diction. They also mention the comparison of speaking and singing, and the singing of vowels and articulating of consonants in a large majority of the situations. They mention the correct enunciation of diphthongs and the linking over of final consonants to the following word. When the student is slighting the consonants, they reinforce attention to the attack and tell them to get the words across. Ninety-one percent do not mention the vowels as relatively (pp) while the consonants are (f).

Comparisons:

The only point on which the two groups differ was on the subject of singing on the vowels and articulating with the consonants. Thirty-five percent more of the private teachers mention this all the time while twenty-one percent more of the music educators do not mention it at all.

One teacher tells his pupils to pay more attention to the
consonants. Another says that when the group is slighting the consonants, more use of lips and tip of the tongue is needed.

<table>
<thead>
<tr>
<th>Private (+)</th>
<th>Music Educator (-)</th>
<th>% Difference</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>% 0</td>
<td>1</td>
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<tr>
<td>1a</td>
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<td>b</td>
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<td>b</td>
<td>71</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>87</td>
<td>91</td>
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</tbody>
</table>

From information given in this chapter, the conclusions in the following chapter may be drawn.
CHAPTER V

Conclusions

The fact that only 33% of the music educators who responded have any part of their chorus rehearsal for voice training procedures, indicates that this part of the music program is being relatively neglected. This is unfortunate since only 29% have special voice training classes. This situation appears even darker when one considers the fact that the questionnaire was sent to a selected group of successful music educators. The amount of time for rehearsal, and the large size of the average chorus, is undoubtedly the main reason for this difficult situation. The large majority of music educators would gladly give more time to this phase if they felt that the time could be spared. Nevertheless, the writer feels that in view of the importance of voice training, it should receive more attention than is now the case.

The analysis shows a slightly greater interest by private teachers in the more technical aspects. However, this difference between the two groups is not as great as might be expected.
The following suggestions for voice training practices in the choral field are advocated by the music educators covered in this study. The use of the diaphragm and its part in breath support; the staggering of breathing whenever necessary; and the keeping of the arms behind the back when standing with regard to posture. Although they do mention tone quality as something to work on, there was no indication of a definite trend of interest in the contributing factors. In preparing for the attack, they do mention both the vowel and the consonant. They consider flatting to be caused by fatigue, and sharpening by tension. They explain the formation of diphthongs and constantly remind their groups to get the words across.

Voice training in public schools should serve three purposes. First, the average student should be aided in using his voice well enough for community singing, with the resulting improvement in the speaking voice. Secondly, the pupils who are especially interested in music should have a good vocal foundation, no matter what instrument they may play. Third, the pupils who are interested in singing professionally should have an opportunity to get a basic understanding which points toward their future development. The writer feels that this third point is perhaps the most important. For many students, this is the only place to receive guidance in what should be taught and what should not be taught in any voice training program, whether in a group or with a private teacher.

Up to this point, the private teachers have dictated what
ideas on the subject will be taught by the music educator. The research section showed that there is a definite confusion and misunderstanding of terms on all aspects of the subject. The writer feels that the result of these two factors has produced some of the conflict and misunderstanding of terms in the ranks of the music educators covered in this study, as shown by the spread of answers on a majority of the questions. The suggestions previously mentioned make a very fine basis for the development of a good vocal training program. If the music educators continue to think in these directions, the result will surely be an even greater understanding than now exists.

The final point of any worthwhile voice training program should be the production of a free and open voice. Although the public school music director cannot expect to develop anything of a truly professional nature, nevertheless his program must be directed toward this ultimate goal in order to obtain good results. In other words, a definite criteria of vocal perfection must be established.
 CHAPTER VI

Comments and Suggestions for Further Research

The early difficulties in writing a thesis are very often concerned with delimiting the subject. This was true in the case of this particular work. The general field of voice training has become so complex that it is difficult to control one's thinking to the point where it is realistic, basic and practical. However, the result of a work of this kind is very often the development of an intense interest in one particular phase. Obviously, the reason for this interest in one particular phase is that the person believes that this phase is perhaps the focal point of the whole problem. This was also true in this work.

The result of extensive reading, close observation of many singers of all ages, both professional and non-professional, private study with several voice teachers, and the preparation of the questionnaire makes the writer feel that the question of how or in what position the child should hold his head is very important. This is based on the difficulties experienced by many pupils who attempt to sing a high note.
Every teacher must have observed the extreme tensions in jaw and throat which so many pupils clearly show. In the majority of such cases, the jaw becomes more rigid and juts farther out with each rise of pitch. In addition, there is almost always a concurrent increase in the "throaty" or "strangled" tone. The results of the questionnaire show that a large majority of both the private voice teachers and the music educators attempt to control this situation by instructing the pupils to lower their chins.

Any tension in the jaw has a definite relationship to the act of phonating as shown by the obvious results in tone quality. What is this relationship? Most teachers apparently believe that the jaw, somehow of itself, becomes stiff and the result is a pinched tone. They attempt to correct this by telling their pupils to relax the jaw. The writer believes that this is reversing the true cause and effect, and offers the following analysis.

The natural position of the larynx, voice box, or Adam’s apple, is in a deep seated position. However, in almost all cases with untrained singers, there is a definite rise in position as the higher notes are reached. The rise in position is immediately felt as a strain all the way up through the jaw. The result is that the jaw also rises and juts out in great tension. What is the reason for this rise in position?

1. Air pressure is created in the lungs through the functioning of the diaphragm and other muscles concerned.
2. This air pressure is concentrated at the vocal cords during the phonating process.

3. In a majority of cases, those muscles which serve to support the larynx in controlling the air pressure are not strong enough. The result is that the entire mechanism submits to the air pressure and is pushed up.

This process may be compared to the situation which occurs when an untrained person attempts to play a wind instrument. Very often the entire musculature of lips and cheeks which go to make the embouchure is so weak, that there is a visible submission to the air pressure.

The writer cannot believe that the lowering of the chin will help. This would simply be adding one constricting force on top of another.

The entire voice mechanism should be thought of as a tube. If this tube is bent either forward or backward, it will naturally be constricted.

The writer has not come in contact with any kind of vocal exercises which will develop the correct hold against the air pressure. However, there are a few things which can be suggested which follow along with this line of thinking.

1. The head should be held in a natural position, i.e., the chin should be neither raised nor lowered.

2. The pupils should be aware of the air pressure. They should attempt to hold or restrain this air pressure during the production of a tone. This does not mean that they should
push against it. Pushing will always make the voice more constricted.

3. They should be encouraged to smile, especially in the high register. This smile will not be effective if it is completely artificial. Whatever the mood of the song, it should be felt and transmitted into the smile. The smile usually denotes happiness; however, the basic physical act of smiling may be used in any mood.

These three suggestions will not prove helpful unless the vowels are always pure.

The most important work which can be done in this field would be the development of some worthwhile vocal exercises. The so-called vocalises which are now in use are mainly useful in warming up the voice. It would be a boon to the entire field if someone could develop some exercises which would be mainly useful in developing the holding action of the vocal mechanism. A complete analysis of all the various kinds of vowel sounds would undoubtedly turn up something which could be applied directly to this problem. The trumpet player has only to practice the prepared exercises and his embouchure develops. The same is definitely not true for the singer.
Appendix

1. Questionnaire
2. Form letter to private teachers
3. Form letter to music educators
Name ____________________________________________

School Address ________________________________________________________

Official Title __________________________________________________________

Size of most typical Senior High School chorus: Sopranos___, Altos___,

Tenors___, Basses__.

Rehearsal time per week ___ hrs. Number of rehearsal periods per week ____.

Do you conduct? ____. Conduct and accompany? _____.

List your chorus materials other than Octavo __________________________________

______________________________________________________________

______________________________________________________________

Do you have any voice training classes? _____. Do you have a definite part of
your rehearsal time set aside for voice training? _____.

This questionnaire is largely in the form of a rating scale.

The scale is 0 1 2. The correct response is to be circled.

0 -- not at all; nothing.

1 -- fairly important; generally mentioned; sometimes.

2 -- extremely important; stressed often; always.

There may be some items which you emphasize to your pupils in a negative
way. DO NOT answer the questions from this point of view.

Please check if you would like to receive a summary of conclusions
formulated by this questionnaire. ________.
Breathing

1. Do you mention: 
   a) breathing 0 1 2;
   b) deep breathing 0 1 2;
   c) chest breathing 0 1 2;
   d) collarbone breathing 0 1 2.

2. Do you mention: 
   a) diaphragm 0 1 2;
   b) abdominal muscles 0 1 2;
   c) rib muscles 0 1 2;
   d) lungs 0 1 2.

3. When seeking smoothness of tone do you mention: 
   a) breath support 0 1 2;
   b) the tone itself 0 1 2;
   c) the physical feeling of the tone 0 1 2.

4. Do you mention: 
   a) the same breath support or pressure should be used for high tones as for low tones 0 1 2;
   b) there should be more pressure as they go up 0 1 2.

5. Do you mention that a breath should be taken: 
   a) through the mouth 0 1 2;
   b) mouth and nose 0 1 2;
   c) nose 0 1 2.

6. Do you mention: 
   a) breathing exercises with tone 0 1 2;
   b) without tone 0 1 2.

7. Do you have your chorus stagger their breathing in passages which require excessively long breaths 0 1 2.

Posture

1. Do you mention posture 0 1 2.

2. When they are standing do you mention: 
   a) feet together 0 1 2;
   b) feet apart 0 1 2;
   c) one foot ahead 0 1 2;
   d) weight distributed over the foot 0 1 2;
   e) weight on the heels 0 1 2;
   f) arms at the sides 0 1 2;
   g) behind back 0 1 2;
   h) hands folded in front 0 1 2.

3. Do you mention for better posture: 
   a) growing taller 0 1 2;
   b) pulling a string from the upper back of the head 0 1 2.

4. If a student is forcing his voice obviously, do you ever have him change 
   a) the way he holds his head 0 1 2;
   b) raise his chin 0 1 2;
   c) lower his chin 0 1 2.
Tone Quality

1. Do you mention tone quality 0 1 2.

2. List the vowels in the order of difficulty to be sung starting with the most difficult.

3. In regard to their correct position during the production of the various vowel sounds do you mention:
   a) larynx 0 1 2;
   b) tongue 0 1 2;
   c) palate 0 1 2;
   d) lips 0 1 2;
   e) jaw 0 1 2.

4. Do you give vocal exercises by means of which the pupils may closely watch the changes which occur while singing a group of vowels on the same breathing 0 1 2.

5. If the tone quality is poor do you work:
   a) pp to f 0 1 2;
   b) f to pp 0 1 2; only pp 0 1 2; only f 0 1 2.

6. Do you mention:
   a) covering 0 1 2; b) covering bottom half of the voice 0 1 2; c) covering top half of the voice 0 1 2; d) covering all the voice 0 1 2; e) registers 0 1 2.

   Give the number of registers.______

7. Do you mention:
   a) resonances 0 1 2; b) tone placement 0 1 2;
   c) head tone 0 1 2; d) chest tone 0 1 2;
   e) nasal resonance 0 1 2; f) placing the voice in the masque 0 1 2; g) focus the voice 0 1 2.

8. Do you have the students use falsetto 0 1 2.

9. When your singers go up in their scale do you ask them to think up:
   a) down 0 1 2; b) on the same plane 0 1 2.

Blending

1. Do you mention:
   a) blending 0 1 2; b) intonation 0 1 2.

2. If you have a well trained voice in your chorus do you:
   a) keep the voice down 0 1 2; b) allow the voice to lead 0 1 2.

3. In preparing for the attack do you mention:
   a) pitch 0 1 2; b) breath 0 1 2; c) vowel 0 1 2; d) consonant 0 1 2.
Blending continued

4. In the release do you mention stopping the tone by:
   a) intake of breath 0 1 2; b) closing the mouth 0 1 2;
   c) releasing breath pressure 0 1 2.

5. In correcting flatting do you mention:
   a) fatigue 0 1 2; b) inertia 0 1 2; c) timidity 0 1 2; d) over-anxiety 0 1 2;
   e) mental set-up 0 1 2.

6. In correcting sharping do you mention:
   a) over-anxiety 0 1 2; b) excessive effort 0 1 2; c) too much head resonance 0 1 2.

Diction

1. Do you mention:
   a) diction 0 1 2; b) articulation 0 1 2
   c) pronunciation 0 1 2; d) enunciation 0 1 2.

2. Do you draw comparison between pronunciation while speaking and pronunciation while singing 0 1 2.

3. Do you mention: singing on the vowels and articulating with the ee consonants 0 1 2.

4. Do you mention linking over of final consonants to the following word 0 1 2.

5. Do you mention enunciation of diphthongs 0 1 2.

6. When the group is alighting the consonants do you:
   a) reinforce attention to the attack 0 1 2;
   b) tell them to get the words across 0 1 2.

7. Do you tell your pupils to imagine relatively that all vowels are pp while the consonants are f 0 1 2.
Dear

I am a candidate for the Master of Music Education degree at Boston University College of Music.

For my thesis I have chosen to investigate the various aspects of vocal training as they apply to the competent and successful conducting of a senior high school chorus. To complete my survey, I should like to include the opinions of leading private voice teachers.

Your name has been chosen from the list of the Massachusetts members of the National Association of Teachers of Singing. Your cooperation in answering the questions which apply to you as a private voice teacher will be very helpful to me.

I enclose a stamped, self-addressed envelope for your convenience and shall appreciate receiving the completed questionnaire as soon as possible.

Sincerely yours,

Robert C. Prince
Dear

I am a candidate for the Master of Music Education degree at Boston University College of Music.

For my thesis I have chosen to investigate the various aspects of vocal training as they apply to the competent and successful conducting of a senior high school chorus.

Your name has been chosen from the membership list of the Massachusetts Music Educators Association by a group of eight leading music educators.

I shall very much appreciate it if you would kindly fill in the enclosed questionnaire and return it to me as soon as possible. A stamped, self-addressed envelope is also enclosed for your convenience.

Sincerely yours,

Robert C. Prince
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Summary

Those school systems which offer courses in speech training, usually attempt to give experience in speaking before groups, rather than actually working toward the development of a real vocal instrument. The writer believes it is the part of the music department to be of service in this direction through the childrens' participation in a program which includes a studied approach to voice training.

The voice training work of the music department in a public school should serve three purposes. First, the average student should be aided in using his voice well enough for community singing, with the resulting improvement of the speaking voice. Secondly, the pupils who are especially interested in music should have a good vocal foundation, no matter what instrument they may play. Third, the pupils who are interested in singing professionally should have an opportunity to get a basic understanding which points toward their future development. The writer feels that this third point is perhaps the most important.

This study obtained the opinions of carefully selected
music educators and private voice teachers on various aspects of voice training by means of a carefully prepared questionnaire. The questionnaire was set up in the form of a rating scale. The problem in this study covers the following subtopics:

1. Breathing
2. Posture
3. Tone Quality
4. Blending
5. Diction.

A review of the historical background and an analysis of each specific subtopic is given in detail.

The questionnaire was sent to 54 music educators and 65 private voice teachers. The questionnaire was returned by 40 per cent of the music educators and 58 per cent of the private teachers. The average chorus size is quite large. It includes 31 sopranos; 21 altos; 13 tenors; and 16 basses. The average time spent in rehearsal per week is one and three quarter hours. The average number of rehearsals being two. Eighty-nine per cent of the music educators conduct their choruses and 24 per cent of the music educators accompany as well as conduct. There are special voice training classes in only 29 per cent of the schools covered. Only 38 per cent spend a definite part of the time of rehearsal in actual voice training procedure.

The following suggestions for voice training practices in the choral field are advocated by the music educators covered in this study. The use of the diaphtagnm and its part in breath support; the staggering of breathing whenever necessary; and
the keeping of the arms behind the back when standing with regard to posture. Although they do mention tone quality as something to work on, there was no indication of a definite trend of interest in the contributing factors. In preparing for the attack, they do mention both the vowel and the consonant. They consider flaitting to be caused by fatigue, and sharpening by tension. They explain the formation of diphthongs and constantly remind their groups to get the words across.

The private teachers are largely in agreement with the music educators. There are some outstanding points of disagreement. Almost 50 per cent more of the private teachers mention the rib muscles in connection with breathing than do the music educators. The physical feeling of the tone is mentioned all the time by thirty one per cent more private teachers as compared to the music educators.

The main point under posture was the position of the hands when standing. The music educators greatly favor keeping the hands behind the back. The private teachers favor keeping the hands in front. The music educator is probably thinking of the group public appearance while the private teacher is thinking of solo public appearance.

Compared to the music educators, the private teachers mention the tongue in its relationship to good tone quality; the use of vocalises; covering the voice; placing the voice; and thinking on the same plane, whatever range the music covers. The private teachers would not keep the well trained voice down in a chorus, in as many cases as the music educators.
The only point of disagreement under diction was on the subject of singing on the vowels and articulating with the consonants. Thirty-five per cent more of the private teachers mention this all the time while twenty-one percent more of the music educators do not mention it at all.

The suggestions of the music educators for voice training practices will make a very fine basis for the development of a good vocal program. If the same type of clear thinking continues the result will surely be an even greater understanding than now exists.