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THE EFFECT OF PHONETIC INSTRUCTION ON PERFORMANCE OF LITURGICAL LATIN DICTION FOR MIDDLE SCHOOL MIXED CHOIRS

DISsertATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

Yu-Wen Pan, M.A.

The Ohio State University
1997
ABSTRACT

The ability to pronounce musical texts independently is a useful and important skill for the choral musician and for eighth grade choral singers. Without a fundamental understanding of phonetic systems and common diction rules, choral singers are restricted to learning various pronunciations aurally, and they are totally dependent on their directors when learning new choral repertoire. If choral singers who can understand and read phonetic symbols are provided enough information concerning the pronunciation of musical texts with those symbols, they can study new repertoire in several different languages independently. In addition, they can spend more rehearsal time learning musical literature, make beautiful choral sounds, and convey the aesthetic message of music to their audience through good choral diction.

The purpose of this study was to investigate the effectiveness of three types of diction instruction, phonetic instruction using the International Phonetic Alphabet, phonetic instruction using the English Phonetic Alphabet, and the traditional rote instruction for performance of Liturgical Latin diction in selected Latin choral pieces by middle school mixed choirs.

A quasi-experimental design was employed using a "Nonrandomized Control-Group Pretest-Posttest Design." Sixty-two students were obtained from three intact eighth grade mixed choirs from one middle school. The three choirs were randomly assigned to one of the three experimental treatments.
Both experimental groups, IPA and EPA, received twenty twenty-minute lessons, and the control group received sixteen fifteen-minute lessons. The first four lessons for the experimental groups mainly dealt with the concepts of speech articulators and the respective phonetic symbols associated with vowel and consonant sounds through visual charts. The instruction of the remaining sixteen lessons for both experimental groups was similar to the instruction for the control group, except that an extra five-minute instruction was given to both experimental groups to discuss the diction rules of Latin and to practice the phonetic symbols.

Data from the pretest/posttest were subjected to statistical analysis using the ANOVA and/or ANCOVA. The results indicated (1) a significant difference among the treatment groups in favor of the IPA experimental treatment for improving text reading accuracy, (2) a significant difference among the treatment groups in favor of the EPA experimental treatment for developing ability in application of Latin diction knowledge in reading unstudied Latin texts, and (3) a significant difference between the treatment groups in favor of the IPA experimental treatment for developing ability in application of phonetic knowledge in phonetic translation of unstudied Latin texts.

The Student Evaluation Survey revealed that students receiving phonetic instruction (1) gave more positive reaction to their experimental treatments and rehearsal strategies, (2) felt more confident in their diction performance and were more satisfied with their own improved understanding, and (3) expressed a significantly higher preference for their phonetic instruction than students receiving the traditional rote instruction.
Dedicated to My Parents
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CHAPTER 1

INTRODUCTION

Vocal music, which is different from instrumental music, conveys the aesthetic message of music to its audience not only through music itself but also through language. Since no two persons' vocal mechanisms are exactly the same, no two voices can produce the same sound. In choral singing, therefore, intelligibility of text will be achieved only when correct vowel formation and consonant articulation are uniformly produced throughout the choir.

Diction is fundamental to singing in any language. Good diction requires as much intensive study as the art of singing itself. Beautiful choral singing is a result of uniformity of good diction. In addition, good diction is of importance in achieving uniformity of choral tone production. Pfautsch (1971), like many choral authorities, believes that unified diction is one of the paramount aspects of choral singing, and he states:

good diction is the keystone in producing distinctive vocal and choral work. Without good diction there is little prospect for other choral virtues such as blend of voices, sectional unity, variety in tone quality or color, proper use of resonance, and even good intonation. (p. 3)

Unfortunately, many choral conductors concentrate all their energies into learning notes and rhythms, and often overlook the importance of choral diction. Actually, good diction is necessary for rhythmic and pitch accuracy. Pence (1994) reports that the absence
of diction instruction in choral rehearsal is due to such conditions as limited rehearsal time and the choral directors' lack of knowledge about diction.

If uniform tone production and diction are to be achieved, Gordon (1977) and Pfautsch (1971) advocate that every choral conductor needs to realize his responsibilities pertaining to the discipline of diction in the choral rehearsal. A choral conductor must be able to teach and demonstrate good diction. His knowledge and abilities should enable him to identify correct diction and to model both good and poor production of vowel formation and consonant articulation. Moreover, a choral conductor should be able to guide and assist his choirs to understand correct diction, to produce accurate sounds, and to apply the rules of good diction.

**Need for the Study**

Research studies and professional articles suggest and evaluate a number of new and different approaches to the training of diction for choral and solo singing. These approaches may be divided into two categories: 1) live instruction and 2) non-live modes of instruction. The approaches using live instruction include the traditional lecture approach-rote instruction, visual-graphic-chart strategies (Jeffers, 1992; Ottley 1973), group instruction, and individualized instruction. The strategies incorporating non-live modes of instruction include the audio-tape approach (Daitz, 1984), video-taped instruction (Andersen, 1971), programmed instruction (Schmalstieg, 1970), the self-instructional approach (Capps, 1969; Tamte-Horan, 1990), and computer-assisted instruction (Dechance, 1994). One study examines differences between live lecture instruction and a non-live mode of videotaped instruction (Pence, 1994).

A recent survey study by Epp (1993) investigates the use of non-English texts in Kansas secondary school choral programs. The results indicate that English texts comprised 82% of the total choral selections during choral rehearsal and performance while
Latin texts comprised 11%, German texts 2%, Italian texts 1.5%, and French 1% of the selections. In addition, an earlier survey study by Dahlman (1992) explores the effects on the selection of Missouri high school choral literature of choral program size, teacher experience, and teacher education levels. The results indicate, in a conclusion similar to that in Epp's (1993) study, that English choral pieces comprised 69.7% of the total listed repertoire while Latin language pieces comprised 19.8%, German 3.6%, French 2.3%, and Italian 1.6% of the total reported literature. However, a review of research studies pertaining to diction instruction indicates that while several research studies propose various methods for treating English diction (Belisle, 1965; Christiansen, 1988; Fisher, 1990; Ottley 1973; Schmalstieg, 1970), only one research study by Pence (1994) has been devoted to the pedagogy of French diction in the choral rehearsal and no research studies concerning other non-English languages have been found.

Both Dahlman's (1992) and Epp's (1993) research results verify that Latin is the most important second language for choral singing in secondary schools. A great variety and wealth of Latin choral literature has been an important part of the choral heritage, and a great number of Latin choral pieces are still available in modern scholarly editions. Therefore, a variety of choral groups today in church, secondary schools, and colleges choose and sing some Latin choral works during their rehearsal and performance.

In addition, the Latin language offers singers the great advantage of singing only the five fundamental, pure vowel sounds (International Phonetic Alphabet: [a, e, i, o, u]; English Phonetic Alphabet: /ah, eh, ee, aw, oo/), which are consistent and never change. The Latin consonants are also consistent and similar to the pronunciation of English consonants, only a few of them involving more than one sound. Shewan (1973) states that many incorrect diction habits can be cured by singing in Latin with its pure vowels and articulated consonants.
Regretfully, because of the consistence and simplicity of Latin diction, many choral conductors have the misconception that the rules and phonetics of this language are so simple that a detailed study is unnecessary. Even worse, few schools of music or conservatories offer courses in Latin diction as a part of their curricula for student choral conductors. Therefore, during most choral rehearsals, Latin diction is learned mainly by rote responses and using the text of the selected literature. May and Tolin (1987) have observed, "the learning of general pronunciation rules becomes a vague process across rehearsal of many selections over a long period of time" (p. 63). This kind of practice causes the limitation of students' abilities in problem-solving and independent learning related to diction, and in the application of their knowledge to new musical selections in Latin or other languages.

The phonetic alphabet is a system of symbols in which one sound is assigned to one symbol regardless of word spelling. Both vocal and choral singing will benefit from the study of a comprehensive set of phonetic symbols (Maggs, 1981). Phonetic symbols not only provide invaluable visual reinforcement to unify the processes of aural sensitivity and the articulators' movement, but also offer a means of analyzing and communicating about various sounds and becoming aware of these sounds (Maggs, 1981; Moore, 1972; Gordon, 1977). By studying phonetic systems and then applying phonetic understanding, students can establish correct singing habits and transfer their knowledge of diction and sound to any language.

Howard Swan (1973) stimulates choral directors by proposing excellent questions concerning the rehearsal planning and phonetic systems to be utilized to achieve satisfying choral diction. Swan asks:

Is diction best taught by the employment of phonetic symbols, diacritical markings, illustrative symbols, with the use of key or sample words, by imitation, or by a combination of these methods? Does the chorus learn best by using one system or by varying the approach? (p. 25)
The increased use of International Phonetic Alphabet (IPA) symbols as a pedagogical tool for diction study and diction training is reported by Barber (1991). Unfortunately, only one experimental study of choral diction built the phonetic instruction of the IPA symbols into the research design; this was a study by Pence (1994) to investigate the effect of live versus videotaped instruction on French diction for high school choirs. However, due to the students' unfamiliarity with the IPA symbols, the IPA symbols became a secondary reference resource and were never implemented in this study.

While some choral directors prefer to use the phonetic system of the English Phonetic Alphabet (EPA), the phonetic system of the International Phonetic Alphabet (IPA) is recommended by many authorities as being a more efficient and more effective method for choral diction instruction. Both phonetic systems, IPA and EPA, are common teaching tools in diction books and journal articles about Latin language. However, in Epp's (1993) survey study, a question concerning choral directors' personal preferences among various systems of phonetic transliteration revealed that when teaching non-English diction in choral rehearsal, 88% of respondents preferred a generic phonetic transliteration (called EPA in this study), 7% selected Webster's dictionary symbols, and 6% favored IPA transliteration.

Another question concerning choral directors' knowledge about the IPA revealed that 45% of the directors claimed to have never or barely learned IPA, 14% learned from voice lessons, 14% learned from vocal/choral technique classes, 11% learned from diction class, and 18% learned through their own efforts or from other classes. Interestingly, one question was designed to ask the selected directors' opinions concerning international adoption of the IPA. Forty-six percent of the directors indicated a neutral opinion regarding the possible exclusive use of IPA universally, while 33% were in favor against 21% not in favor of the exclusive use of IPA.
In the formation stage of this research study, an informal interview was administered to selected choral directors at elementary, middle, and high schools in the Columbus, Ohio area. The questions were related to the selection of non-English and English texts and the utilization of methodology in choral diction training. The results indicated that English texts were exclusively used in the elementary schools and a few Latin and French texts were taught in the upper levels of certain middle schools, while more Latin texts and a few French and Italian texts were sung in the high schools.

The only method used for choral diction training in these languages by all the selected directors was imitation through oral demonstration without the use of any phonetic system. Therefore, in order to obtain answers for Swan's (1973) questions concerning choral diction instruction, it seemed to be a reasonable assumption that the upper grades of the middle schools were an appropriate grade level to be taught Latin diction through phonetic instruction.

**Purpose of the Study**

The purpose of this research study is to investigate the effectiveness of three types of diction instruction by middle school mixed choirs: 1) phonetic instruction using the International Phonetic Alphabet; 2) phonetic instruction using the English Phonetic Alphabet; and 3) the traditional rote instruction for performance of Liturgical Latin. In addition, the information concerning choral diction training and reference resources for Latin diction reviewed in this study might assist choral directors in choral diction rehearsal. Also, the results of demonstrating effective phonetic instruction for Latin choral diction in this study are expected to provide a potential resource for the preparation of future choral music educators.

Phonetic translations of the English Phonetic Alphabet have already been printed in some non-English and multicultural choral music by certain publishers. However, these
phonetic symbols are inconsistent varying from one publisher to another. Therefore, it is also hoped that this study will show the practical applicability of Latin phonetic systems, using either the International Phonetic Alphabet or the English Phonetic Alphabet, under non-English texts, along with a word-by-word literal translation.

**Definition of Terms**

The following definitions were used for the purpose of the present study:

**Classical Latin** -- This was the language of the early Roman scholars, poets, and writers. Today, it is taught only in school language class as background for modern European languages and for the study of such classical writers as Julius Caesar and Cicero. Classical Latin is also called academic Latin, Schoolbook Latin, or the Latin of Caesar and Cicero.

**Diction** -- Diction is a general term used to cover all phases of the mechanics of delivering a word; it is also a broad term used to encompass the separate elements of pronunciation, enunciation, and articulation in speech and singing.

**IPA** -- The International Phonetic Alphabet is a phonetic system devised in 1888 by the International Phonetic Association as "an accurate means of identifying and differentiating among the various vowel and consonant sounds" (Garretson, 1988). In this study, the IPA symbols and translations are placed inside square brackets [ ].

**Letters and Symbols** -- The letters of the alphabet of a language are referred to as orthographic letters, which distinguishes them from the phonetic symbols which represent word sounds.

**Liturgal Latin** -- This was the liturgical language of the Roman Catholic Church and the vernacular language of the early Romans. Pope Pius X issued a 1903 decree on the restoration of church life, requiring Roman pronunciation of Latin to be used universally in the Roman Catholic Church for the singing of liturgical works. Thus, the Latin diction of
the two choral selections in this study is based on the pronunciation of Liturgical Latin. Liturgical Latin is also called Church Latin, Ecclesiastical Latin, Italianized Latin, Roman Latin, or Vulgar Latin.

**EPA** -- The English Phonetic Alphabet is a phonetic system similar to the "Tone Syllables" developed by Fred Waring in 1945. It generally utilizes double letters to represent vowel sounds. The EPA symbols vary slightly from one resource material to another and are inconsistent from one language to another. Therefore, for the purpose of this study, the EPA symbols are based on the usage of De Angelis (1937), Hall (1971), Jeffers (1988), and Trusler (1987). In this study, the EPA symbols and translations are placed between two slanted lines //.

**Phonetic Translation** -- This refers to transcribing a word into phonetic symbols, also called phonetic spelling or phonetic transliteration.

**Singing Consonants** -- There are certain consonants, such as m, n, ng, and l, which have a capability of producing sustained pitches similar to that of the vowels, also called liquid or voiced consonants.

**Traditional Rote Instruction** -- This is the common approach for training choral diction utilized in many choral rehearsals. In this approach, diction is taught by imitation of oral demonstration, sometimes with English equivalent words to represent the sounds, but often using only the text of the selected literature; the employment of a phonetic system with visual charts of vowels and consonants is absent.

**Webster's Dictionary Symbols (Webster)** -- This is a system of phonetic spelling primarily utilized in the English language using dots and lines (straight, curved, angular) above and below certain letters to represent various pronunciations of the letter.
Selection of Choral Music

The two Latin choral compositions used in the present study were selected by the investigator and approved by her advisor and the participating directors. To assess the effect of Latin diction instruction, two sacred Latin pieces with common texts and a variety of pronunciation sounds were chosen. In addition, to make sure these selections were within the choirs' capability and could be used in the future performance by the choirs, the suggestion from the participating directors that three-part mixed voicing be a criteria for the selections was accepted. The two selections of Latin choral music were:

**Ave Maria** — a three-part mixed voicing was composed by Jacques Arcadelt (1505-1567), edited by Joyce Eilers, and published by Jenson Publications (#402-01010).

**Ave Verum** — a three-part mixed voicing was composed by W. A. Mozart (1756-1791), edited by Joyce Eilers, and published by Jenson Publications (#402-01020).

The second selection "Ave Verum" was derived from the required Junior High and Middle School Choral Class B contest list of the Ohio Music Education Association.

In his descriptive study, Beery (1994) reports many advantages of three-part mixed voicing designed for middle school or junior high mixed choirs. First, the bottom part, labeled part III, is a compromise range which is appropriate for most middle school boys in the midst of voice change. Second, this voicing meets the social needs of the adolescent boys to sit together, to sing the same part, and to obtain an appropriate voice label by Roman numerals. Third, the soprano part, labeled part I, has a limited range, not too high to avoid voice strain, and the melodic flow of the soprano part is close to the alto part, labeled part II, which allows these two voice parts to be exchanged easily. Fourth, the alto part is in a middle range suitable for a large number of middle school girls and boys.
However, the compromise range for the boy voices in the midst of change is not within the vocal capabilities of the boy voices in other stages of voice change. Beery (1994) suggests "a modified three-part mixed voicing which includes an additional, optional part for baritones . . . as a more appropriate voicing for middle school choral ensembles" (p. 45). Therefore, an optional part for baritone voices had been arranged and provided for the selected Latin pieces by the investigator.

In addition, one page of the pronunciation guide of the Latin texts was attached to each choral selection. In that page, the original Latin texts were given with the IPA or EPA translations directly below each Latin word. Under the phonetic translations, word-by-word literal translations of each single Latin word were also provided. Finally, line-by-line English translations for the original Latin texts were printed in the lower portion of the page; these were quoted from Jeffers' (1988) book Translations and annotations of choral repertoire. Vol. 1: Sacred Latin Texts.

Null Hypotheses

The following null hypotheses with an alpha level of .05 were proposed to investigate the influence of the diction instruction:

1. There will be no significant difference in the diction performance skills for Latin selections between subjects in (a) the IPA (International Phonetic Alphabet) and EPA (English Phonetic Alphabet) instruction groups, (b) the IPA and Control (traditional rote instruction) groups, and (c) the EPA and Control groups.

2. There will be no significant difference in the accuracy of Latin diction in text reading between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups.
3. There will be no significant difference in the application of Latin diction knowledge in the posttest text reading scores between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups.

4. There will be no significant difference in the accuracy of phonetic translation of Latin texts between subjects in the IPA and EPA groups.

5. There will be no significant difference in the application of phonetic knowledge in the posttest phonetic translation scores between subjects in the IPA and EPA groups.

Three research questions were also included in the present study:

1. Is there a relationship between students' ability in diction accuracy in the tests of text reading and phonetic translation?

2. Is there an interaction between students' diction performance in the tests of text reading and gender, and/or in the tests of phonetic translation and gender?

3. Is there an interaction between accomplishment in Latin diction instruction and learning experience in other languages?

**Assumptions Pertinent to the Study**

The following assumptions were adopted for the implementation of the present study:

1. It was assumed that the participating subjects would not be in contact with the Latin language outside the rehearsal treatments during the implementation of the present study.

2. It was assumed that the knowledge of phonetics can be learned and improved at the middle school level and that all participating subjects can benefit from phonetic instruction in diction skills.

3. It was assumed that different days and times of day for diction instructions would not impact the results of the study.
4. It was assumed that the potential influence of the investigator's teaching style, personality, or cultural background would not jeopardize the outcome of the study.

**Limitations of the Study**

Because of the nature of the study, the following limitations in the scope of this study were essential:

1. Only two sacred Latin selections were chosen for the research treatments.

2. Only the pronunciation of Liturgical Latin was utilized for the diction training in this study.

3. Three treatment groups were formed from three intact eighth grade mixed choirs at one middle school.

4. The treatment of the present study was limited to 20 lessons for two experimental groups over a 9-week period and 16 lessons for the control group over a 7-week period with groups rehearsing every other day during the treatment weeks.

5. The investigator worked with two experimental groups for 20 minutes and the control group for 15 minutes during each of the 20 or 16 lessons, while the remaining time of each lesson period was conducted by the regular director.
CHAPTER 2

REVIEW OF RELATED LITERATURE

The purpose of this chapter is twofold: (1) to present research and professional opinions concerning choral diction instruction and (2) to provide and organize background information on the Latin language and pronunciation rules for Liturgical Latin. The following description of the literature review is divided into five sections: (1) research studies pertinent to choral diction, (2) diction training in the choral rehearsal, (3) resource materials on Latin pronunciation, (4) systems of phonetic translation, and (5) pronunciation of Liturgical Latin.

Research Studies Pertinent to Choral Diction

Belisle (1965) investigated the essential factors influencing intelligibility in singing. He found that superior diction is exhibited when subjects sing with greater intensity, more accurate vowel discrimination, greater clarity of voice production, and more carefully formed transitions between words. Phrases which employed texts in common usage and normal order and included phonetic spellings of the texts, received the highest ratings. Male subjects were rated higher than female subjects, while subjects with more advanced vocal skill received higher ratings than those with less vocal skill.
Anderson (1971) discovered that the systematic use of instant video-tape feedback significantly improves subjects' capability to produce the desired vowel sound [o] /oh/. Ottley (1972) reported that a series of graphic charts, designed to portray the general spatial configurations of the mouth for the five primary vowel sounds of the English language, did not improve the selected subjects' identification of vowel sounds. However, the charts were actually helpful in subjects' efforts to verbally describe mutations of the vowel sounds.

Fisher (1989) designed and developed an "Articulatory Diction Method" of teaching English diction for choral music performance. The Articulatory Diction Method is based primarily on the development of kinesthetic awareness and control of the speech articulators through the procedures of syllabic, word, word-pair, and word-phrase exercises. This methodology was found to be effective in improving both tone quality and textual intelligibility for selected high school choral singers.

Pence (1994) conducted an experimental study to investigate the effectiveness of live versus videotaped instruction of French diction for the high school choral rehearsal. The procedures for teaching French vowel sounds, including pucker and nasal vowels, were incorporated into warm-up exercises and words of two music phrases composed by the author. The results indicated that there was no significant difference between live and videotaped instruction in diction training for French vowel sounds; however, improved performance was reported for both groups. A final student evaluation revealed a preference for future use of videotaped instruction for diction training in the choral rehearsal.

**Diction Training in the Choral Rehearsal**

Diction is fundamental to artistic choral singing and to all good vocal instruction (Sunderman, 1970). The term diction is used to include its three basic components:
pronunciation, enunciation, and articulation. Decker (1977) describes the definition of diction more specifically:

Pronunciation is concerned with the correct sound and syllabic stress of a word. Enunciation involves the clarity with which the word is pronounced. Articulation designates the physical movements required to shape vowels and consonants, and also the precision with which the consonants are produced. (p. 5)

In addition, Bartle (1988) provides a simple and clear three-part explanation of diction for young singers; good diction is to "pronounce words correctly (the way in which the words are said); enunciate the words clearly (in order that a listener may understand the meaning); and articulate the words (the way in which words are jointed together)" (p. 17).

Armstrong and Hustad (1986) emphasize the importance of diction training in choral singing because singing diction is closely related to the intelligibility of the sung words, expressive communication of the meaning of the texts, and a uniform ensemble sound, which is dependent upon singers producing the same vowel or consonant sounds at exactly the same moments. Therefore, vowel formation and consonant articulation should receive equal stress in the choral rehearsal in order to achieve good diction in singing.

**Methods of Diction Training**

The review of literature concerning methods of diction training utilized in choral rehearsal is divided into the following sections: diction and tone; mental imagery; speaking and singing; whispering, reciting, and chanting; phonetics and imitation; and visual aids.

**Diction and Tone**

Artistic choral singing is strongly influenced by a close relationship between good diction and beautiful tone quality. There are three common methods for instruction in the principles of diction and tone (Wilson, 1959). The first method, called the "tone approach," considers diction secondary to tone quality. Ehmann (1968) and Rosewall (1961) advocate this approach and stress the importance of establishing a good choral tone and correct pitch before working on diction.
The second method is the "diction approach" favored by some directors, which teaches choral tone entirely through diction. Wilson (1959) explains that choral directors who choose this approach sometimes have little or no knowledge of the principles of voice building and tone development.

The third method is called the "combined diction and tone approach." Good choral conductors will certainly know that diction and tone quality are inseparable and interdependent with each other (Pfautsch, 1971), while other choral conductors spend much of their rehearsal time working either on diction or on tone quality rather than concurrently working on both diction and tone quality. Therefore, Wilson (1959) recommends that diction practice to develop tone quality can relate directly to the song being rehearsed, or that the words to the song can be sung to a different melody which already has the desired tone quality.

**Mental Imagery**

Many authorities agree that an imaginative mental device, an "awareness approach," can be employed in the choral rehearsal to make diction instruction successful (Decker, 1977; Ehmann, 1968; McRae, 1991; Pfautsch, 1971; Shewan, 1973; Sunderman, 1952/1970). Mental imagery provides singers "mental pictures" of the desired vocal modal (Kohut, 1992).

Sunderman (1970) suggests that both the choral director and the singer must have a clear mental image of the type of vowel or consonant which they expect to produce. To make his students mentally aware of the principles of voice production, the director needs to explain the "feelings" associated with each sound in varied ways, such as the association of the vowel /oh/ [o] with the feeling of surprise (Ehmann, 1968; Ehmann & Haasemann, 1981), and to describe how to produce good vowel sounds through the description of actual position of the tongue and lips during articulation (Sunderman, 1970).
Moyer (1993) interviewed 20 solo singers to determine what kinds of methods are used to conceptualize pitch and vowel. She reports that 95% of the singers interviewed employ mental imagery to produce pitch and vowel. Both Halliday (1970) and Mack (1964) recommend that singers form a definite mental concept of words before singing them. Some authorities also indicate that singers who receive diction instruction through mental imagery must "listen" and adjust their sounds accordingly (Decker, 1977; Ehmann, 1968; Sunderman, 1952/1970).

**Speaking and Singing**

While Christy (1967) advises students to sing as naturally and spontaneously as they speak because singing is merely speech intoned, Lamb (1988) and Halliday (1970) prefer to change the statement to "sing as you speak, if you were to speak correctly." However, some authorities state that singing is different from speaking in the variety of pitch levels and in the duration of syllabic sounds (Adler, 1967; Colomì, 1970; Ehret, 1959; Pfautsch, 1971; Phillips, 1992; Roach, 1989; Swears, 1985; Titze, 1995; Uns, 1971).

The more detailed differences between diction for singing and for speech are described by Swears (1985), as follows:

1. Words are usually sustained in singing because they are directly tied to the note values of music.  
2. For singing, the mouth and throat must be in more open positions to allow greater air flow and resonance.  
3. For ensemble singing, there must be more careful attention to the uniform enunciation and articulation of sounds to insure blend and precision.  
4. Occasionally, some sounds need to be modified to sustain a good singing tone.  
5. In general, diction for singing must be more exaggerated than diction for speech if words are to be understood. (p. 76)

Although diction in singing differs from diction in speaking, the value of good speech as an aid to improve singing diction is recognized by many choral authorities (Benedictines of Solesmes, 1961; Roach, 1989; Roe, 1983; Swan, 1973; Wilson, 1953). They suggest that before singing a text, the singers should speak the text phrase by phrase
in the rhythm and style of the music. If good diction is followed consistently, good choral tone will be cultivated and improved.

**Whispering, Reciting, and Chanting**

Whispering, reciting, and chanting are three common methods utilized in choral diction training. Whispering is used to obtain a fine sense of the forward placement of the voice, to activate the speech mechanisms, and to intensify the speech process (Ehmann 1968; Monahan, 1978; Swears, 1985). Shewan (1973) recommends that whispering the text in rhythm helps to energize consonant production and focus attention on consonant articulation. However, he warns choral directors not to overuse whispering in teaching singing diction because whispering can cause dry throats and fatigue the muscles of the vocal mechanism if it is used excessively.

Singers may gain an increased awareness of diction through reciting the text at a medium pitch (Ehmann, 1968). Garretson (1988) stresses the importance of reciting the text in correct musical rhythm before applying this concept to actual singing. Shewan (1973) recommends reciting the text at different tempos, at various dynamic degrees, and at proper pitch levels. In addition, Decker (1977) recommends that at first the text should be recited freely and naturally, and then gradually the recitation should be adjusted to correspond to the rhythm and inflection of the music.

Chanting is also a device for good diction training. Some choral authorities recommend chanting the texts of the music in rhythm on a single pitch to develop good tone quality, teach correct word inflections, and transfer speech patterns into song patterns (Christy, 1967; Rao, 1993; Shewan, 1973; Wilson, 1959).

**Phonetics and Imitation**

Imitation is the most common method of diction instruction utilized by choral directors (Apfelstadt, 1989; Boyd, 1970; Pfautsch, 1988; Lamb, 1988; Shewan, 1973). Kohut (1992) describes the imitative method utilized in musical performance as the effort to
"duplicate the performance of another musician through trial-and-error practice" (p. 6).

However, this method does not develop mental awareness of the sensation of diction sounds. Therefore, many authorities believe that the phonetic approach has great potential value for training singing diction in choral rehearsal (Appelman, 1967; Bellows, 1960; Bragger, 1975; Hines, 1975; Maggs, 1981; McRae, 1991; Moore, 1972; Rao, 1993; Roach, 1989; Rosewall, 1961; Stanton, 1971; Warning, 1951; Whittlesey, 1957).

Bellows (1960) encourages every choral director to acquire a thorough knowledge of phonetics. In order to insure an accurate mental concept of singing diction, singers also need to develop phonetic understanding concerning the phonetic sounds of vowels and consonants. Thus, Bellows (1960) recommends that fifteen minutes of each choral rehearsal be contributed to the study of phonetics.

Both Roach (1989) and Rosewall (1961) advocate the writing and marking of phonetic pronunciation and syllabification of words, along with the original printed texts. Maggs (1981) recommends a procedure which first enables the student to associate phonetic symbols with the appropriate sounds, then to produce the sounds consistently, to read phonetic transcriptions, and finally to write phonetic transcriptions.

**Visual Aids**

Those authors who give special attention to the pronunciation of each vowel and consonant often provide charts, diagrams, or photographs to show the placement of the lips and tongue for each sound, and to link the visual and aural practices together (Maggs, 1981; Pfautsch, 1971; Wall, 1989). Meano (1967) describes the effectiveness of using diagrams to illustrate correct positions of the mouth cavity for the formation of vowels and consonants.

Swan, in an interview with Decker (1976), explains the importance of using a diction chart. He states, "Once the students are familiar with the chart, future problems can be related to it. Merely describing the sounds of vowels or the sensation of consonants is
not nearly as effective as recalling the representative sounds in the words contained on the chart" (p. 330).

The use of mirrors for diction instruction is advocated by Eberhart (1962), Roe (1983), and Ferrell (1987). They state that a singer should practice in front of a mirror in order to see the accuracy of shape and movement of the articulators.

Vowel hand signals have been developed by Webb (1993) to assist in phonetic training in the choral rehearsal. This system of hand signals is associated with IPA phonetic symbols and serves to make the singers aware of the phonetic sound associated with the vowel being produced.

**Warm-Up Exercises**

Most choral authorities stress the importance of beginning a rehearsal with warm-up exercises (Decker & Kirk, 1988; Ehmann, 1968; Gordon, 1977; Roe, 1983; Shrock, 1990; Sunderman, 1952). Some choral directors use warm-up exercises merely as a part of the choral rehearsal to clear away "vocal cobwebs" (Boyd, 1977; Gordon, 1977). However, when these mechanical routines are employed, the warm-up exercises become a boring experience, acquiring little thought, and having no relation to the rest of the rehearsal (Coker, 1985; Garretson, 1988; Stanton, 1971). On the contrary, other directors recognize that warm-up exercises should be an integral part of the rehearsal (Coker, 1985; Garretson, 1988; Hammar, 1965; Miller, 1988; Pence, 1993). They advocate that the exercises should be thoughtfully derived from the immediate problems which have been encountered or anticipated in the selections at hand in the following rehearsal. Carefully designed exercises will facilitate students in transferring or connecting the vocalizing techniques to the actual music to be rehearsed.

The content of warm-up exercises should usually include physical movement, mental activity, vocalization, and aural training (Decker & Kirk, 1988; Gordon, 1977).
Choral authorities also maintain that through well-planned vocalization, a great number of choral and musical elements can be accomplished and reinforced, such as: breathing, register, resonance, blend and balance, tone quality, rhythm, intonation, diction, styles of singing, dynamics, harmony, melody, and tempo (Boyd, 1977; Decker & Kirk, 1988; Ehmann & Haasemann, 1981; Garretson, 1988; Sunderman, 1952).

Boyd (1977) and Miller (1988) suggest that the warm-up exercises at each rehearsal should include repetition and variety. There are some fundamental exercises which should be repeated or continued over a period of time to concentrate on particular aspects in music or choral techniques. On the other hand, new and various exercises should be introduced not only for freshness but also for the specific problems encountered in rehearsing a new repertoire.

The results from Coker's study (1985) indicate that warm-up exercises derived from the music under study are more effective than traditional warm-up exercises unrelated to music under rehearsal. These experimental warm-up exercises facilitate choral learning greatly in two aspects of performance: dynamics and interpretation. They also improve diction, precision, and tone control.

When using warm-up exercises for diction instruction, Swears (1985) recommends that concepts and techniques of diction should be derived directly from the music being rehearsed. In addition, Pence (1994) explains the value of teaching phonetic symbols through warm-up exercises. She states:

Through the warm-up period, as vowel sounds are shaped and memorized, symbols may be substituted for each vowel thereby re-labeling the sound. As unfamiliar words are introduced, using the known symbols will allow the student an opportunity to solve the problem of pronunciation without relying on imitation only. (p. 28)
Vowels

Many choral directors spend much of their rehearsal time working on uniform choral sounds throughout the sections of the choir, not realizing that they actually should be working on correct and unified vowel formation (Pfautsch, 1971). Cox (1990) suggests that both choral director and singer should first develop a correct mental concept of vowel formation in order to achieve correct pronunciation. In choral singing, the accurate recognition and uniform production of vowel sounds are very important because vowels: (1) provide the chief vehicle for singing and sustaining a tone (Moriarty, 1975; Rao, 1993; Roach, 1989), (2) create the beauty of tone quality or color (Pfautsch, 1971; Rao, 1993; Roach, 1989), and (3) provide the prime vehicle of intonation (Pfautsch, 1971; Rao, 1993; Roach, 1989).

The formation of each vowel is governed by the different adjustments of the articulators, which include the lips, jaw, tongue, and soft palate. Therefore, when forming vowel sounds, it is important to have relaxed lips, tongue, and jaw, and proper space inside the mouth (Lamb, 1988; Roach, 1989). In addition, every vowel needs to be pronounced with a vertical mouth placement (Phillips, 1992) and to be sung without a change in sound quality during the time sustained (Ehret, 1959; Heffernan, 1982).

Vowels may be classified according to the size of the jaw opening, the relationship between the position of the tongue arch and the roof of the mouth, the position of the resonant sensation in the mouth cavity, the shape of the lips, and the length of the sounds. The terms "open," "mid," and "closed" are derived from the relative opening of the jaw used in the forming of vowels (Garretson, 1988; Hines, 1975; Phillips, 1992; Robinson & Winold, 1976; Trusler, 1987; Wall, et al., 1990). The terms "high," "mid," and "low" vowels refer to the degree the tongue arches toward the roof of the mouth (Cox, 1993; Hines, 1975).
"Front," "central," and "back" vowels are distinguished on the basis of the relative position of the tongue arch (Hines, 1975; Robinson & Winold, 1976; Trusler, 1987; Wall, et al., 1990). For front vowels, the tongue is arched at the front of the mouth; for back vowels, it is arched at the back of the mouth. The terms "bright" and "dark" describe regional mouth sensations in the forming of specific vowels. For bright vowels there is a more resonant sensation toward the front teeth; for dark vowels there is more sensation toward the back of the mouth, and they require more space in the mouth (Phillips, 1992; Roach, 1989; Trusler, 1987; Sunderman, 1970).

The terms "rounding" (or "round") and "unrounding" (or "lateral") refer to the various degrees of lip rounding during vowel articulation (Cox, 1993; Miller, 1986; Wall, et al., 1990). Generally speaking, back vowels, [u, u, o, ɔ] /oo, uh, oh, aw/, are associated with lip-rounding, and front vowels, [i, i, e, e] /ee, ih, ay, eh/, with its absence. Finally, the terms "short" and "long" vowels are used to describe the relative length of vowel sounds (Hines, 1975). The short vowels, [i, ɛ, ɔ, u] /ih, eh, aw, uh/, are usually sounded quickly, while the long vowels, [i, e, ə, o, u] /ee, ay, ah, oh, oo/, are usually sustained much longer in spoken language. Figure 1 was adjusted from Triplett's (1972) "Expanded Vowel Triangle" to represent the relationships of the above vowel classifications.
Figure 1. Vowel Triangle of Nine Basic Vowels

Some choral authorities advocate that singing exercises should begin on the open vowel [a] /ah/ because it requires a minimum movement of tongue and lips, and it relaxes the muscles of the throat (Garretson, 1988; Monahan, 1978; Rao, 1987). However, some other authorities state that the [a] /ah/ vowel has various possible tone colors which are difficult for singers to produce as a uniform sound (Monahan, 1978; Sunderman, 1970). In addition, Jordan (1993) lists five reasons for avoiding the use of the [a] /ah/ vowel for amateur singers:
1) it encourages the use of lower or "chest" register singing in amateurs; 2) it flats easily because of the possible lack of head tone in vowel by amateurs; 3) the vowel requires a free and open vocal tract; 4) it requires consistently low breath support which is difficult for amateurs; and 5) it is more difficult to adjust intonation with this vowel. (p. 216)

The vowel sounds [u] /oo/ and [i] /ee/ are recommended for vocalizing exercises because they facilitate the building of a uniform choral sound with head resonance and forward tone focus (Alderson, 1979; Ehmann, 1968; Garretson, 1988; Jordan, 1993; Shrock, 1990; Sunderman, 1970). However, Ehret (1959) suggests that choral directors should use all possible vowels in vocalization including diphthong combinations. Sunderman (1952) believes that there are no definite rules for the use of certain vowels, and he advocates that students should begin work with the vowel they handle best:

The important consideration is to listen to the singer produce all the vowel forms and then work from the best to the poorest. By using the better vowel of which the individual is capable, the pupil has a modal after which he can pattern his hearing and concomitantly his understanding of what to do. (pp. 18-19)

Several choral authorities recommend an exercise for vowel differentiation to accomplish clear vowel definition in singing (Alderson, 1979; Ehmann & Haasemann, 1981; Kaplan, 1985; Maggs, 1981; Miller, 1988; Miller, 1995; Swears, 1985). In this exercise, a sequence of vowels is chosen according to the classifications and is sung moving carefully from one vowel to another on one pitch, in a comfortable middle range. Singers should observe and become aware of the phenomena of the position and adjustment of the articulators in order to produce a consistent tone quality. For example, an [a-ɔ-u] /ah-aw-oo/ sequence starts with the open-low-central vowel and moves gradually in the direction to the close-high-back vowel. The tongue remains in the relaxed position of the [a] /ah/ vowel, while the space between the lips becomes smaller and slightly rounded for the [ɔ] /aw/ vowel until a very small circle is formed, like a "fishmouth" (Ehmann & Haasemann, 1981), for the [u] /oo/ vowel. After singing this exercise in several
neighboring pitches, students practice the reverse vowel sequence and sing these vowels on a changing pitch.

Uniform vowel formation is important in choral singing because it serves to improve choral tone, intonation, blend, balance and vocal flexibility as well as good diction (Hammar, 1965). However, one of the major problems in choral singing is the failure to produce correctly sung, uniform vowels throughout the entire choral ensemble. As Ehret (1959) observes:

Vowels that are not uniformly produced by all members of the group will not only disturb the quality of the group tone and blend, but will also affect the clarity of the diction. A mixture of bright, dark and open vowels, coming from different individuals, will result in a medley of tone color that will tend to make words less understandable. (p. 37)

Several strategies are recommended as a means of achieving uniformity of correct vowel sounds in choral singing (Kaplan, 1985; Swears, 1985; Wyatt, 1967). They are as follows: maintaining a conscious awareness of vowel formation; listening carefully to the various vowel sounds and to other singers' voices; imitating the vowel quality; and singing with a soft or light voice.

Vowel modification is a term used to describe "the deliberate altering" of a given vowel sound by adjusting the position of the articulators such as the lips, tongue, and jaw (Wall, et al, 1990, p. 4). Employing vowel modification can develop and improve the following: consistency of range (Ehmann & Haasemann, 1981; Sunderman, 1970); expressive singing and dynamic variation (Ehmann & Haasemann, 1981); entrances and the clarity of inner voices (Stanton, 1971); tone color (Alderson, 1979; Swears, 1985; Wall, et al., 1990); vocal freedom (Rao, 1987; Wall, et al., 1990); intonation (Rao, 1993; Roach, 1989; Swears, 1985); and diction (Rao, 1987).

The majority of choral and vocal authorities recognize that certain vowel modifications are necessary for all voices singing in extreme registers to ensure a beautiful
choral sound. However, modified vowels should not so totally distort the meaning of the text that it cannot be understood (Ehret, 1959; Roach, 1989).

In the upper ranges, the more closed vowels should be modified toward a more open vowel such as [a] /ah/ or [ɔ] /aw/ because high pitches need more space in the mouth and more relaxed articulators for a good tone quality (Kaplan, 1985; Rao, 1987). Both Bartle (1993) and Lamb (1988) suggest that students be encouraged to think of the original closed vowel while singing a more open vowel sound. Conversely, in the middle and lower range, vowel sounds should be changed toward a more closed or brighter vowel in order to bring out the desired clarity and forward sensation of the voice (Rao, 1987; Stanton, 1971).

However, some authorities believe that when dealing with vowel modification at various ranges, male voices and female voices should be treated differently. Generally speaking, female voices are required to modify the vowel sounds toward more open vowels in the upper range and toward more closed vowels in the lower range, while, conversely, male voices are required to alter the vowels to more closed vowels in the upper range and to more open vowels in the lower range (Alderson, 1979; Bolster, 1983; Ehmann & Haasemann, 1981; Lamb, 1988; Uris, 1971).

For improving intonation, the vowel should be modified toward a brighter vowel to raise the pitch slightly or toward a darker vowel to lower the pitch slightly (Rao, 1987; Roach, 1989). Often the vowels [i] /ee/ and [i] /ih/ present some problems for amateur singers. For example, the first vowel is too bright and piercing, and the second one lacks proper placement. Therefore, Lamb (1988) and Roach (1989) recommend that the singers place some of the [u] /oo/ sound into these two vowels by thinking the [u] /oo/ sound and shaping the [u] /oo/ lips but singing the [i] /ee/ vowel.
Consonants

While the character of tone is determined by vowel formation, intelligible diction is dependent upon the clear and precise articulation of consonants. In choral singing, well-articulated consonants not only provide uniform and intelligible diction but also assist in rhythmic accuracy, dynamic control, tone support, and pitch accuracy (Pfautsch, 1971; Rao, 1993). Consonants shape vowel sounds into words by temporarily interrupting the free flow of singing tone. To prevent the on-going flow of singing tone from being distorted or obstructed, correct knowledge concerning the positions of articulators required to make each consonant and an understanding of accurate articulation appropriate to the music being sung are necessary (Stanton, 1971; Sunderman, 1970; Triplett, 1972).

There are three common classification systems for consonants according to the voicing of the consonant, the place of articulation, and the manner of formation (Cox, 1988/1993; Odom, 1981; Wall, et al., 1990; Sunderman, 1970). Consonants can be grouped into "voiced" and "voiceless" consonants, also called "singing" and "nonsinging" consonants (Ehmann, 1968). Voiced consonants are produced with vocal fold vibration; therefore, they are pitched. They should have the same pitch as the vowel sound following or preceding them (Ehret, 1959; Moriarty, 1975; Shewan, 1973). Voiceless consonants are articulated without vocal fold vibration; therefore, they have no definite pitch. There are several pairs of voiced and voiceless consonants, which are produced using the same process, for example, the voiced [b] and voiceless [p]. Miller (1988) and Phillips (1992) suggest that choral directors and singers study this system of classification first because of the similarity of paired consonants.

Articulation refers to the interruption of the air flow. In this system of classification, consonants can be divided generally into the following eight subgroups: bilabial (both lips), labiodental (lower lip and upper teeth), dental (tip of tongue between the upper and lower teeth), alveolar (tip of tongue and upper gum ridge), alveolopalatal (tip
of the tongue and front of the palate), palatal (blade of tongue and hard palate), velar (back of tongue and soft palate), and glottal (opening between vocal folds) (Cox, 1993; Odom, 1981; Miller, 1988; Phillips, 1992). For example, [d] is called an alveolar consonant because the flow of breath is stopped at the tip of the tongue and the gum ridge.

Based on the manner of formation, the third classification of consonants describes how a set of articulators is used to produce a complete or partial interruption of the breath flow. Generally speaking, consonants can be classified as follows: stop-plosives, fricatives (including sibilants), affricates (consisting of two sounds, a stop and a fricative), nasals, glides, and lateral (Cox, 1993; Odom 1981; Sunderman 1970). For example, [p] is a stop-plosive consonant because the air flow is completely obstructed momentarily by the upper and lower lips and then released.

Some choral authorities recommend that, in choral singing, consonants need to be exaggerated in order to make texts intelligible and to project them into the audience (Decker, 1977; Ehmann, 1968; Monahan, 1978; Phillips, 1992; Roach, 1989; Swan, 1973). However, other authorities contend that excessively exaggerated consonants will distort the text and also tire the muscles involved in singing (Ehret, 1959; Lamb, 1988; Stanton, 1971; Swears, 1985; Triplett, 1972).

When various or imprecise articulation of consonants is demonstrated, Stanton (1971) recommends that an effective method for improvement is to instruct a choir in knowledge of the action of the articulators and the habit of phonetically analyzing texts in order to achieve uniform and precise consonant articulation. He also encourages choral directors to give a well-designed consonant chart to each choir member as a means of solving consonant problems.

Both Roach (1989) and Swears (1985) advise choral directors to use the conducting gesture of quickly closing and opening their fingers and thumb in order to show and achieve precise and uniform attack and release of initial and final consonants. For
additional clarity of final consonants, Gordon (1977) and Kaplan (1985) suggest adding
the neutral vowel [a] /uh/ to the final voiced consonants; Ehret (1959) suggests adding the
very short vowel [ɪ] /ih/.

While a number of vocal and choral authorities focus their attention on the
discussion of vowel formation, uniformity, and modification, Fisher (1990) states that
there are essentially only three prominent schools of choral diction concerning consonant
articulation. He defines them as "Slur-Smear Diction," "Rhythmic Diction," and "Discrete
Phonetic Diction." First, the school of "Slur-Smear Diction" places emphasis on "scientific
legato," singing by connecting the final syllable of each word to the beginning of the
following word whenever appropriate (Ehmann, 1968; Garretson, 1988; Gordon, 1977;
Roe, 1983; Uris, 1971; Waring, 1951; Wilson, 1959). Second, the school of "Rhythmic
Diction" is primarily interested in the clarity of rhythmic precision gained by separating
"every sound in every syllable within a metered rhythmic structure" (Fisher, 1986, p. 13).
According to Phillips (1992), Robert Shaw, Don Neuen, and Sally Herman advocate the
approach of "Rhythmic Diction." Herman (1988) suggests in her rules of diction: "Do not
elide final consonants of one word into the beginning of the next word. . . . If double
consonants fall together between words, pronounce both of them" (p. 105). Third, the
method of "Discrete Phonetic Diction" refers to choral directors' freedom to make their own
decisions to improve the clarity of the text through interpretation of phonetic structure and
phonetic symbols.

Although the result of another Fisher (1986) study indicates that the "Rhythmic
Diction" approach is better than the "Sung-Speech" approach (formerly "Slur-Smear
Diction"), Phillips (1992) explains that no one diction approach can be suitable to all styles
of music and that both types of diction should be introduced and practiced in choral
rehearsal. In addition, Kaplan (1985) recommends that choral directors make their
decisions concerning the placement of final consonants according to entrance of phrasing, anticipation of the next phrase, and rhythmic implication.

**Styles of Diction**

Some choral authorities advocate that the meaning and mood of the text in different styles of music be achieved through proper treatment of various styles of diction. There are three basic styles of choral diction employing similar approaches in the pronunciation of words: *legato, staccato, and marcato* (Ehmann, 1968; Ehret, 1959; Garretson, 1988; Lamb, 1988; Roach, 1989; Wilson, 1953/1959).

**Legato diction** attempts to smoothly link consonants and vowels. The explosive qualities of the consonants and the rhythmic pulsation of the music should be deemphasized. Various methods of achieving the effect of smooth, legato singing have been suggested. First, each note should be connected to the next with no space between them (Lamb, 1988; Roach, 1989). Second, there should be no overly exaggerated articulatory movement, especially in the jaw action when singing legato diction (Ehret, 1959). Third, the singing consonants (l, m, n, ng, and r) should be elongated or doubled to form a bridge between consonants and to blend the vowels and consonants together (Ehret, 1959; Lamb, 1988; Roach, 1989; Wilson, 1953/1959). Fourth, Ehret (1959) and Wilson (1953/1959) suggest that the final consonant of one syllable should be carried over to the initial syllable of the next word. However, Garretson (1988) advises that it is necessary to separate the sounds of the connections with a slight break when the diction becomes unintelligible.

**Marcato diction**, on the other hand, employs explosive consonants, accented vowels, and rhythmic accentuation. To achieve this effect, each note is bounced slightly and receives an accent; diphthongs are pronounced immediately and closed quickly with the following consonant (Ehret, 1959; Wilson, 1953/1959). Garretson (1988) recommends a method to teach marcato diction by "grunting" each note in accurate rhythm, which
involves a vigorous inward motion of the abdominal muscles. A hand placed on the abdomen can feel the movement of the muscles.

There are a few occasions when staccato diction will be utilized to achieve an effect in choral singing (Lamb, 1988; Roach, 1989). Staccato diction is the result of singing with a quick, detached articulation of the consonants and a slight rest or "space" between each note (Ehret, 1959; Garretson, 1988; Roach, 1989; Wilson, 1953/1959). In staccato style, Garretson (1988) recommends that lip movement should be flexible but exaggerated, and that words should be pronounced closer to the front of the mouth. He also suggests that to develop good staccato diction, the warm-up exercise should include a five-tone scale pattern, utilizing various consonants such as b, p, t, f, d.

Resource Materials on Latin Pronunciation

A great number of Latin pronunciation resources such as reference books, articles, and sound recordings are available for choral directors and singers. The majority of Latin diction resources deal with the pronunciation of Liturgical Latin, while a few diction resources explore Classical Latin and other various pronunciations of Latin. The phonetic symbols used in these resource materials vary from a single phonetic system to multiple phonetic systems. The following description of Latin resource materials is divided into three sections based on the different pronunciations of Latin, and a concise annotation of each resource is provided.

Liturgical Latin


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The correct pronunciation of Latin according to Roman Usage by De Angelis (1937) is intended to enable teachers, choirmasters, and singers to speak and sing the Liturgical Latin texts in ecclesiastical functions. The book includes letters from Pope Pius X and XI and other official documents addressing the movement to return to the Roman pronunciation of Latin for the Gregorian Chant and other sacred music. In addition, it provides rules for the correct pronunciation of Latin vowels and consonants, and phonetic readings in EPA translation of the Ordinary of the Mass, the Requiem Mass, responses at Mass, Benediction Hymns, and Hymns in honor of the Blessed Virgin Mary.

Liber Brevior and The Liber Usualis, edited by the Benedictines of Solesmes (1954/1961), are resource books for the Gregorian chants and include rules for study and interpretation of those chants. The prefaces provide detailed explanations about how to read and pronounce Liturgical Latin, with English equivalent words to represent the sounds and EPA translation for selected Latin words.

Latin pronunciation according to Roman Usage, edited by William D. Hall (1971), is a revised and enlarged edition of the De Angelis text (1937). The first chapter of the book is replaced with a discussion of the commonly mispronounced Latin vowels a & o and consonants r & s. The editor includes more phonetic readings in EPA translation, the popular Victoria Christmas Motet and O Magnum Mysterium. Moreover, the revision provides complete line-by-line English translations for the Ordinary of the Mass and the Requiem Mass.

Voice training for the high school chorus by Robert Shewan (1973) is written for high school choral conductors. A brief chart of Latin pronunciation is provided, and four phrases of Latin texts are used to demonstrate the rules of Latin pronunciation, with IPA symbols to present each vowel sound and EPA transliteration for phonetic readings of the

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texts. One controversial description of vowel sounds made by the author is that the Latin vowel sounds [e] and [o] are often substituted for the sounds [e] and [o].

Singer's manual of Latin diction and phonetics by Robert S. Hines (1975) provides a phonetic chart in alphabetical order for the pronunciation of Liturgical Latin with IPA symbols to represent the sounds, and also provides a brief discussion of the history of Liturgical Latin. The first section of the book includes a detailed description of the rules for pronunciation, dividing words into syllables, and accents in Latin diction. In the rules for Latin pronunciation, the author makes the controversial suggestion that the Latin letter s needs to be pronounced [z] when occurring between vowels. The second section offers phonetic readings in IPA translation and line-by-line English translations of the Ordinary of the Mass, the Requiem Mass, and many other sacred texts.

Diction: Italian. Latin. French. German . . . the sounds and 81 exercises for singing them by John Moriarty (1975) is a diction textbook with exercises for singers, teachers, and choral directors. The pronunciation of Latin is based on the work of De Angelis (1937). The content is organized in outline form with no English equivalent words for the Latin texts. In addition, the text includes phonetic readings of Gloria and Salve Regina with IPA symbols to clarify certain vowel and consonant sounds which are often mispronounced.

A manual of foreign language dictions for singers by Richard F. Sheil (1975) is a well organized manual of Roman Church (Liturgical) Latin, Italian, German, and French dictions for singers. In the chapter on Latin pronunciation, the manual provides an expanded and more detailed version of the rules of Latin diction found in the preface of the Liber Usualis (1963) with IPA translation for the example texts.

The choral experience: Literature, materials, and methods by Ray Robinson and Allen Winold (1976) is designed for choral conductors and choral students, and it includes diction guides for five languages: Church (Liturgical) Latin, Italian, Spanish, German, and
French. The section on Latin diction provides a brief description of Latin vowels and consonants with EPA symbols to represent the sounds, and contains phonetic readings of *O Magnum Mysterium* in IPA translation. In addition, five adjustments for Austro-German pronunciation of Latin differing from Liturgical Latin are mentioned. Finally, a phonetic chart for these five languages, with the addition of English, is attached with sound represented by IPA and Webster's dictionary symbols.

*Key words in church music* by Carl Schalk (1978) describes the historical development and function of Ecclesiastical (Liturgical) Latin and discusses the most common incorrect pronunciations associated with the Latin letters e, o, i, and s and diphthongs. In addition, IPA symbols are provided to represent the vowel and consonant sounds.

*Choral conducting* by Abraham Kaplan (1985) is written for choral conducting teachers and students at the university level. It provides a brief outline of pronunciation in both Liturgical Latin and Classical Latin for quick reference and comparison. However, some information about vowels and consonants in the Latin diction presented in this text is controversial. No phonetic system is utilized to represent the Latin sounds; only English equivalent words that contain the appropriate sounds are offered.

*Pronunciation guide for choral literature: French, German, Hebrew, Italian, Latin, Spanish* by William V. May and Craig Tolin (1987) is a guide to the pronunciation of several languages for choral directors and voice teachers. In the preface, a phonetic chart is provided with IPA and Webster's dictionary symbols to compare the sounds of these languages. In the section on Latin diction, a pronunciation chart is organized alphabetically with IPA symbols and English equivalent words to represent the sounds. In addition, a short explanation of how to pronounce Latin sounds which do not exist in the English language is provided. Finally, an outline of five adjustments for Austro-German
pronunciation of Latin, which differs from the standard pronunciation of Liturgical Latin, is attached.

The choral director's Latin by Ivan Trusler (1987) is written for choral directors and is a well-organized handbook for Latin diction. The book includes a thorough study of the pronunciation rules of Liturgical Latin with symbols of IPA, EPA, and Webster's dictionary to explain the Latin sounds. There is a discussion of the background of the Ordinary of the Mass and a comparison of the Requiem Masses by Mozart, Berlioz, Verdi, and Faure. It also provides phonetic readings in EPA translation and line-by-line English translations of these Masses and some primary liturgical texts.

Choral conducting: Focus on communication by Harold A. Decker and Colleen J. Kirk (1988) is designed for college choral conducting students. It includes a brief discussion of the development of Latin language. A pronunciation guide for Liturgical Latin is outlined, with EPA transliteration for the example texts and English equivalent words that contain the appropriate sounds for the Latin texts. The pronunciation rules for Austro-German Latin are also provided.

Translations and annotations of choral repertoire. Volume 1: Sacred Latin texts by Ron Jeffers (1988) is written for choral directors, students, teachers, choristers, readers, and listeners. The book provides information about the various seasons and feasts of the Liturgical Year and the Hours of Divine Office. The pronunciation guide for Liturgical Latin is based on the publications of De Angelis (1937), the Benedictines of Solesmes (1954), Hall (1971), and Hines (1975), with EPA translation for the Latin texts. A detailed pronunciation guide for Austro-German Latin is also included with IPA translation. Moreover, word-by-word and line-by-line English translations are offered for phonetic readings of the Roman Mass (the Ordinary and the Proper), the Requiem Mass, and other primary sacred Latin texts.
**Choral techniques** by Gordon H. Lamb (1988) is a book designed for choral conducting and choral method lessons with diction guides in English and Liturgical Latin. A detailed description of pronunciation of the Latin vowels is provided, along with the IPA symbols to represent the sounds and English equivalent words that contain the appropriate vowel sounds for the Latin texts. The pronunciation of Latin consonants is outlined. In addition, this book includes phonetic readings of three sacred texts, *Hodie Christus Natus Est, Agnus Dei,* and *Ave Verum Corpus* with EPA translation.

**Complete secondary choral music guide** by Donald W. Roach (1989) is written for choral teachers and directors in junior and senior high schools. It includes a very concise guideline for pronunciation of Liturgical Latin. It also provides phonetic readings of the Ordinary of the Mass and the Requiem Mass as well as some other sacred texts in EPA translation.

**Diction for singers: A concise reference for English, Italian, Latin, German, French, and Spanish pronunciation** by Wall, Caldwell, Gavilanes, and Allen (1990) is a reference book for choral directors and voice teachers. The pronunciation of Liturgical Latin is based on the guidelines of De Angelis (1937) with IPA symbols and translation. The text provides a pronunciation chart, in alphabetical order, and a detailed description of individual vowel and consonant sounds. Phonetic readings in IPA translation and line-by-line English translations of the Ordinary of the Mass are also provided.

**Classical Latin**


**Webster's new international dictionary of the English language** edited by William A. Neilson (1959) is a dictionary for several languages. The preface of the dictionary (pp. 54-55) provides a clear, concise description of rules for pronunciation of Classical Latin.
with English equivalent words and Webster's phonetic symbols to represent the sounds.
In addition to Classical Latin, rules for the English pronunciation of Latin are also included.

*Vox Latina: A guide to the pronunciation of Classical Latin* by W. Sidney Allen (1965) is a reference book on the pronunciation of Classical Latin for choral conductors. This book provides a thorough pronunciation guide for Classical Latin, including consonants, vowels, vowel length, vowel conjunction, and accents, with Webster's dictionary symbols to represent the sounds. It also provides the pronunciation of Latin in England and a summary chart of the pronunciation of Classical Latin with suitable equivalent words in "British" English, German, French, and Italian.

*The pronunciation of Greek and Latin* by Edward H. Sturtevant (1977) is designed for teachers and students majoring in language. In the chapter on Latin sounds, brief information about the differences among sounds in the pronunciation of English Latin, French Latin, and Italian Latin is provided. In addition, the text includes detailed guidelines for the pronunciation of Classical Latin through verbal description only; no phonetic system is used to symbolize the sounds.

"How to avoid singing in a vulgar manner: How the Romans did it" by Charles Chapman (1980) is an article written for choral conductors who are already familiar with the pronunciation of Vulgar (Liturgical) Latin. The article provides a discussion of the Roman method of pronunciation for Classical Latin texts, and also provides a brief description of two other methods of Latin pronunciation, the English and the Continental. The important differences between Liturgical Latin and Classical Latin are listed. In addition, the article includes criteria for choosing the suitable method of Latin pronunciation for the performance of Latin choral selections.

*The pronunciation and reading of Classical Latin* by Stephen G. Daitz (1984) is a set of two sound cassettes for instruction in the reading of Classical Latin. The content of the cassettes includes pronunciation practice in Classical Latin vowels, consonants,
acccents, and syllabic rhythm. A booklet containing demonstration texts and practice exercises is provided as visual reinforcement to accompany the recordings. It includes IPA symbols to represent the sounds of the Latin letters.

**Other Variant Latin Pronunciations**


Choral Latin: Some notes for the guidance of choirs in the pronunciation of Latin, edited by the National Federation of Music Societies (1957), is a handbook written for choral directors and singers. It provides two different versions of Latin pronunciation, "Compromise" Latin and Italianate (Liturgical) Latin. The Compromise pronunciation of Latin is a combination of Italian vowels and English consonants with few varied sounds in the consonants. The handbook also provides phonetic readings in EPA translation and line-by-line English translations of the *Ordinary of the Mass*, the *Requiem Mass*, and the *Stabat Mater* in both pronunciations of Latin.

*Webster's new international dictionary of the English language* edited by William A. Neilson (1959) provides a clear, concise discussion of rules for the English pronunciation of Latin with Webster's phonetic symbols to represent the sounds. It also includes a short description of the background of the English method and gives reasons supporting the pronunciation of Latin in the English style.

"Performance Practice Forum: National Pronunciations of Latin ca. 1490-1600" by Ross Duffin (1985) is an article written for linguists and singers who sing early Latin music. The article provides an outlined description of national pronunciations of Latin in the period 1490-1600. The national Latin pronunciations include English, French, German, Italian, and Spanish. Only equivalent words from suitable languages are used to explain those regional Latin sounds. Reference sources for Latin pronunciation are also provided.

Singing in Latin or pronunciation explor'd by Harold Copeman (1992) is written for choral directors and singers. The book explores various historical Latin pronunciations up to the seventeenth century. It also provides a general discussion of regional Latin pronunciations including English, French, German, Italian, Spanish, and Portuguese Latin. There is an emphasis on the discussion of Latin pronunciation in England. A pocket size companion to this book, The pocket "Singing in Latin" (1990), is also available for the performer. It provides easy-to-use suggestions for pronunciation and is organized according to a national division of Latin pronunciation. Both books include phonetic readings of Latin texts in IPA translation.

All Latin resource materials reviewed above are listed in Table 1, "Summary of Resource Materials on Latin Diction." The table is organized in chronological order according to the publication year in order to provide quick reference and comparison of Latin resource materials in types of Latin diction and phonetic systems, and to indicate inclusion of phonetic readings.

In Epp's (1993) study, thirteen reference books on Latin diction, marked with an asterisk (*) in Table 1, were examined to determine preferred Latin language resources. The results indicate that the two books of Latin diction most used by Kansas secondary choral directors are Hall (1971), utilized by 14%, and Moriarty (1975), by 13%, while both Jeffers (1988) and Wall, et al. (1990) are preferred by 10% of the directors. Hines
(1975), the Benedictines of Solesmes (1961), De Angelis (1965), and May and Tolin (1987) are each chosen by less than 10% of the directors. One interesting result from the same question is that 49% of the choral directors obtained their Latin diction resources independently from a faculty member.

<table>
<thead>
<tr>
<th>Author/ Year</th>
<th>Title</th>
<th>Latin Diction</th>
<th>Phonetic System</th>
<th>Phonetic Readings</th>
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<tr>
<td>De Angelis (1937) *</td>
<td>The Correct Pronunciation of Latin According to Roman Usage</td>
<td>Liturgical</td>
<td>EPA</td>
<td>Yes</td>
</tr>
<tr>
<td>Benedictines of Solesmes (1954)</td>
<td>Liber Brevior with Rhythmic Signs of Solesmes</td>
<td>Liturgical</td>
<td>EPA</td>
<td></td>
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<td>Neilson (1959)</td>
<td>Webster's New International Dictionary of the English Language</td>
<td>Classical</td>
<td>Webster</td>
<td></td>
</tr>
<tr>
<td>Benedictines of Solesmes (1961) *</td>
<td>The Liber Usualis with Introduction and Rubrics in English</td>
<td>Liturgical</td>
<td>EPA</td>
<td>Yes</td>
</tr>
<tr>
<td>Hall (1971) *</td>
<td>Latin Pronunciation According to Roman Usage</td>
<td>Liturgical</td>
<td>EPA</td>
<td>Yes</td>
</tr>
<tr>
<td>Shewan (1973)</td>
<td>Voice Training for the High School Chorus</td>
<td>Liturgical</td>
<td>IPA EPA</td>
<td>Yes</td>
</tr>
<tr>
<td>Moriarty (1975) *</td>
<td>Diction: Italian, Latin, French, German; The Sounds and 81 Exercises for Singing Them</td>
<td>Liturgical</td>
<td>IPA</td>
<td>Yes</td>
</tr>
<tr>
<td>Sheil (1975) *</td>
<td>A Manual of Foreign Language Dictions for Singers</td>
<td>Liturgical</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td>Robinson &amp; Winold (1976) *</td>
<td>The Choral Experience: Literature, Materials, and Methods</td>
<td>Liturgical Austro-German</td>
<td>IPA EPA</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(to be continued)

Table 1. Summary of Resource Materials on Latin Diction
Table 1. (cont.)

<table>
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<tr>
<th>Author/ Year</th>
<th>Title</th>
<th>Latin Diction</th>
<th>Phonetic System</th>
<th>Phonetic Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sturtevant (1977)</td>
<td>The Pronunciation of Greek and Latin</td>
<td>Classical English French Italian</td>
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<tr>
<td>Schalk (1978)</td>
<td>Key Words in Church Music</td>
<td>Liturgical</td>
<td>IPA</td>
<td></td>
</tr>
<tr>
<td>Chapman (1980)</td>
<td>How to Avoid Singing in a Vulgar Manner: How the Romans Did It</td>
<td>Classical Continental English</td>
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<tr>
<td>Kaplan (1985)</td>
<td>Choral Conducting</td>
<td>Liturgical Classical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duffin (1985)</td>
<td>Performance Practice Forum: National Pronunciation of Latin, ca. 1490-1600</td>
<td>English French German Italian Spanish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trusler (1987) *</td>
<td>The Choral Director's Latin</td>
<td>Liturgical IPA &amp; EPA Webster</td>
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<tr>
<td>Lamb (1988)</td>
<td>Choral Techniques</td>
<td>Liturgical IPA EPA</td>
<td>Yes</td>
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</table>

(to be continued)
### Systems of Phonetic Translation

Phonetics is the science of producing and pronouncing sounds. A phonetic alphabet is a system of symbols in which each symbol designates one speech sound regardless of how that particular sound may be spelled. The phonetic alphabet provides invaluable visual symbols which "express and unify the aural and phonatory elements of communication" (Appelman, 1967, p. 171). Maggs (1981) states that a comprehensive set of phonetic symbols can provide three valuable applications. They are:

1. **Conceptualization**: the identification, isolation, and drilling of a limited number of specific sounds and the nearly limitless number of combinations.
2. **Communication**: the use of phonetic transcriptions or spellings by the director to clarify pronunciation for the members of the ensemble.
3. **Reinforcement**: the use of symbols by the members of the ensemble to label details of pronunciation in their scores. (p. 5)

Through phonetic study, we can understand a classification and interpretation of speech sounds in any language for singing.

Thus, it is essential that a choral director should make himself familiar with one of the phonetic systems and use it as "a language" which his whole choral group can understand in order to achieve an effective rehearsal technique in choral tone quality and
pronunciation. "Through applying phonetic understanding, bad vocal habits may be overcome and correct habits may be established" (Whittlesey, 1957, p. 88). The two most common phonetic systems utilized in choral rehearsal were discussed in this section, the International Phonetic Alphabet and the English Phonetic Alphabet.

**International Phonetic Alphabet Translation**

"[ɪf ju ˈkænt rɪd dɪz ju ˈnid tə lən ˌdi ə pi ɛl]" (Vennard, 1964, p. 1).

The International Phonetic Alphabet (IPA) was created in 1888 by the International Phonetic Association and has been revised several times. The purpose of this phonetic system is to provide "an accurate means of identifying and differentiating among the various vowel and consonant sounds" (Garretson, 1988). The IPA is a precise phonetic system, in which one symbol represents only one sound. Although the spelling letters may vary greatly from language to language or even within the same language, an IPA symbol always represents one specific sound that remains constant across languages. "This symbol consistency in multiple languages is very helpful to singers who are required to sing in languages other than their own" (Wall, 1989, p. 5).

One of the great advantages of the IPA is that it is based on the Roman alphabet, which makes the IPA symbols easy to learn. Many of the symbols of sounds are identical with the letters which represent the sounds (Appelman, 1967). The IPA symbols are normally placed within square brackets [ ] in order to easily distinguish them and also to avoid any possibility of confusion between these symbols and actual alphabet letters. The primary stress in a word is indicated by an accent mark ' above and before the stressed syllables. A colon : after a vowel symbol indicates lengthening of the vowel (Cox, 1990/1993; Sheil, 1975; May & Tolin 1987; Wall, 1989).

The majority of vocal and choral authorities encourage choral conductors to learn the International Phonetic Alphabet. They state that the IPA is the most logical and widely

A knowledge of the International Phonetic Alphabet symbols would provide both choral directors and students an opportunity to analyze various sounds and then establish correct pronunciation (Bragger, 1975; Decker & Kirk, 1988; Moore, 1972). At the same time, the students become aware of the great variety of mechanical adjustments and the positions of the articulators for producing the various sounds (Appelman, 1967; Moore, 1972). Moreover, the IPA facilitates "a consistent approach to diction that will have a lasting and positive effect on the sound of the choir" (Lamb, 1988, p. 122).

The great value of the study of the International Phonetic Alphabet is described by Wall (1989). First, most English and foreign language books and dictionaries utilize IPA symbols and transliteration to indicate the pronunciation of words. Second, recent vocal pedagogy texts and vocal research studies commonly utilize IPA symbols to discuss their opinions and to present their findings. Third, the IPA offers a positive influence on the development of singing tone by securing the relationships between symbol and sound. Finally, use of the IPA achieves more precise communication between director and student about speech sounds and pronunciations through its specific visual symbols.

Cox (1990) and Maggs (1981) contend that the International Phonetic Alphabet is certainly a more precise and effective phonetic system for the purpose of singing than the phonetic system of the English Phonetic Alphabet. Moreover, the IPA phonetic system can answer questions concerning pronunciation not only in foreign languages but also in English in a more definite way than the system of diacritical marks utilized in some
dictionaries, as in the phonetic system of Webster's dictionary (Appelman 1967; Wall, 1989).

**English Phonetic Alphabet Translation**

Although most vocal and choral authorities recommend the use of the IPA phonetic system for choral diction training, some choral directors favor the so-called English Phonetic Alphabet symbols, which are similar to the "Tone Syllables" developed by Fred Waring in 1945 for teaching average choirs (Decker & Kirk, 1988; Lamb, 1988; Stanton, 1971). Waring recognized that there was a need for a phonetic system for choral diction training for the singing of American English songs (Mountford, 1992). Thus, he created an original system of enunciation called Tone Syllables and printed Tone-Syllable spellings of the words under the English texts in the early Fred Waring Mixed Chorus Series published by Shawnee Press from 1945.

The Waring method emphasizes clarity and distinctness in choral diction by breaking down the sounds of all words into their component parts. Waring (1951) states:

"To achieve absolute clarity, we have developed a method of enunciation, the essence of which is a rough and practical system of phonetics. We break down each word into its simplest units of sound. Each of these units is called a "tone syllable." Our enunciation technique is the process of sounding these individual tone-syllables." (p. 2)

This system has been continuously improved and revised for decades to make the symbols clearer and easier to use for choral directors and groups. Today, the phonetic symbols of the English Phonetic Alphabet generally utilize double letters to represent vowel sounds, for example, *ah, ay, eh, ee, ih, oh, aw*, and *oo*, and an equivalent English letter or letters to represent consonant sounds, for example, *b, ch, d, gn, gs, k, ny, sh, ts*, and *y*. However, there is a tendency for the EPA translations to vary slightly from one source to another and to be inconsistent from one language to another.
According to Table 1, "Summary of Resource Materials on Latin Diction," there are eight Latin diction resource materials which utilize the IPA system exclusively, while there are seven Latin diction resource materials which use only the EPA system. Both IPA and EPA phonetic systems are utilized in Jeffers (1988), Lamb (1988), Robinson and Winold (1976), and Shewan (1973). Trusler (1987) utilizes the IPA, EPA, and Webster's phonetic systems together for the Latin pronunciation guide. Only two resource materials use exclusively the system of Webster's Dictionary Symbols, which were published in 1959 and 1965. It is evident that there is an increasing tendency to use the IPA system as a phonetic tool since 1975.

**Pronunciation of Liturgical Latin**

Preceding the description of the pronunciation rules of Liturgical Latin to be presented in the following section, a concise historical development of the Latin language and a method for determining the form of Latin pronunciation suitable for particular Latin texts will be discussed.

**General Information about Latin Language**

Two thousand years ago Latin language had two social functions. First, Classical Latin was the language of the early Roman scholars, poets, and writers. It is now considered a dead language because there is no further evolution of its vocabulary or literature, and today it is taught only in school language classes as background for European language study and for the study of such classical writers as Julius Caesar and Cicero. Second, it was the early Roman vernacular language and, subsequently, as Liturgical Latin, the language used by the Roman Catholic Church for its liturgy. For many centuries, Liturgical Latin was a living language with a growing vocabulary and literature (Decker & Kirk, 1988; May & Tolin, 1987).
In the thousand years during which the Roman Empire decayed and disintegrated, the pronunciation of Latin gradually varied from country to country. Such regional pronunciation of Latin altered the phonemic structure of the original Latin language. A unified pronunciation of liturgical speaking and singing became impossible. Therefore, a movement to return to the Roman pronunciation of Latin (Liturgical Latin) began in the 19th century and continued into the 20th century (Copman, 1992; Schalk, 1978).

After centuries of regional variation in the pronunciation of liturgical Latin, Pope Pius X issued his 1903 decree, *Motu proprio*, on restoration of church life and the Roman pronunciation of Latin (Liturgical Latin), which was to be used universally in the Roman Catholic Church for the singing of liturgical works (Benedictines of Solesmes, 1957; Copeman, 1990/1992; De Angelis, 1937; Decker & Kirk, 1988; Schalk, 1978). In 1912, Pope Pius X replied to a letter from the Archbishop of Bourges, Louis Ernest Dubois, expressing appreciation of the French Catholics' great satisfaction with the reform movement since 1903. He reiterated the importance of using the Roman pronunciation of Latin for sacred music:

> The question of the pronunciation of Latin is closely bound up with that of the restoration of the Gregorian Chant, the constant subject of Our thoughts and recommendations from the very beginning of Our Pontificate. The accent and pronunciation of Latin had great influence on the melodic and rhythmic formation of the Gregorian phrase and consequently it is important that these melodies should be rendered in the same manner in which they were artistically conceived at their first beginning. (De Angelis, 1937, p. 4)

Recently, interest in the authentic pronunciation of early Latin music has revived. However, it is difficult to explore and establish the earlier pronunciations. Therefore, Chapman (1980) provides a useful suggestion based on chronological data to help choral directors make their decisions about which pronunciation of Latin should be used in the Latin texts they have selected for performance.

First at all, Chapman (1980) suggests that the pronunciation rules of Liturgical Latin should be applied for all sacred texts including Christian hymns, canticles, scripture,
and other liturgical texts. On the other hand, the secular texts of Roman literature and poetry from earlier than 400 A.D. should be sung according to the pronunciation rules of Classical Latin. Secular texts originating after 400 A.D. may use any variant rules of Latin pronunciation appropriate to the writer's or composer's own language because there was no universal standard rule for Latin diction in that period. For example, a secular Latin choral piece written by a German or Austrian composer during the Romantic period may be pronounced with Austro-German variants of Latin (Jeffers, 1988; May & Tolin, 1987; Robinson & Winold, 1976).

According to Pope Pius X's decree in 1903 and Chapman's suggestions, Liturgical Latin is the appropriate language for sacred choral literature and, of course, for the two choral selections used in this study. It is a choral director's responsibility to make an appropriate decision about Latin pronunciation and to inform the student singers that there is a difference between the Classical Latin pronunciation used in academic Latin class and Liturgical Latin pronunciation, which is the correct model for singing most choral literature in Latin (Lamb, 1988; May & Tolin, 1987; Roach, 1989).

**Pronunciation Rules of Liturgical Latin**

The pronunciation rules of Liturgical Latin to be described within the following sections had been collected, organized, and rearranged from the reference books by De Angelis (1937), Hall (1971), Hines (1975), Jeffers (1988), Moriarty (1975), Sheil (1975), and Wall, Caldwell, Gravilanes, and Allen (1990). Each Latin letter is described by the IPA and EPA symbols inside parentheses ( ), with the IPA symbol first and the EPA symbol second. In addition, the IPA translations of Latin word examples are placed inside square brackets [ ], while the EPA spellings are placed between two slanted lines //. The accent mark ´ placed above and before a syllable, indicates that the syllable receives primary stress, and the Latin words were divided by short dash lines - into syllables.
Syllables and Accents

Although the majority of Latin reference books deal with only the Latin pronunciation rules for the sounds of vowels and consonants, two books do provide general discussion on syllabification and accents of Liturgical Latin words (Hines, 1975; Wall et al., 1990). The reason for this tendency to ignore syllabification and accents might be due to the complicated syllabic and accent structures in the Latin language and the many exceptions from the regular rules in these two areas. Nevertheless, choral directors can consult Liber Usualis, refer to a Latin dictionary, or just rely on Latin text readings from resource materials with some kind of phonetic transliteration to find the appropriate syllable division and word stress.

The following guidelines describing the rules for dividing Liturgical Latin words into syllables and the rules for placing accents were summarized from the Latin dictionary sources by Hines (1975) and Wall et al. (1990). The purpose of the guidelines was simply to give a brief overview concerning those rules for choral directors.

General rules for syllabification of Liturgical Latin texts:

1) Normally, pronounce a single consonant located between vowels with the second syllable. However, the consonant x will be pronounced with the previous syllable.

2) When two consonants are located between vowels, normally divide them between the two syllables. However, the consonant combinations br, ch, cl, cr, ct, gn, mn, ph, pl, pr, ps, pt, sc, sp, st, th, and tr will be pronounced together with the following syllable.

3) When three consonants are located between vowels, divide them between the first and second consonant. However, consonant combinations such as str will be pronounced together with the following syllable.

General rules for syllabic accents of Liturgical Latin texts:

1) In two-syllable words, always give the accent to the first syllable.
2) In three- (or more) syllable words, sometimes the accent is given to the second to the last syllable, or sometimes the accent is given to the third to last syllable.

**Single Vowel Sounds**

Although there are six vowel spellings, *a*, *e*, *i*, *o*, *u*, and *y*, there are only five pure vowel sounds in Liturgical Latin. Every vowel should maintain its pure sound for its full length and should not be even slightly varied by any vowel or consonant sound preceding or following it. Likewise, accentuation of syllables does not affect pronunciation of vowels (Hines, 1975; Wall, et al., 1990).

**a** The letter *a* (ɑː; ah) is always pronounced as ɑ in the English word Father.

- Ave [ˈaːvə] /ˈah-veh/
- Maria [maˈriːə] /mah-ree-ah/

**e** The letter *e* (ɛː; eh) is always pronounced as ɛ in the English word Set.

- Verum [ˈveːrəm] /ˈveh-room/
- veger [ˈveːrə] /ˈveh-reh/

**i** The letter *i* (ɪː; ee) is always pronounced as ɪ in the English word Me.

- Dei [ˈdeːi] /ˈdeh-ee/
- benedicta [beˈneikta] /beh-neh-deek-tah/

**o** The letter *o* (oː; aw) is always pronounced as ɔ in the English word For.

- Esto [ˈeːsto] /ˈeh-staw/
- nobis [ˈnɔbɪs] /ˈnaw-bees/

**u** The letter *u* (uː; oo) is pronounced as ʊ in the English word Moon. However, there are some exceptions when *u* preceded by consonants *q* or *ng* and followed by another vowel. The section on glides will deal with these exceptions.

- Corpus [ˈkɔrpʊs] /ˈkawr-poos/
- latus [ˈlɔtʊs] /ˈlah-toos/

**y** The letter *y* (iː; ee) is always pronounced as ɛ in the word Me like the letter *i*.

- Kyrie [ˈkiːriːə] /ˈkee-ree-eh/
- mysterium [mɪʃˈtɛriəm] /mees-ˈteh-reh-oom/

The digraphs *ae* and *oe* are also a single vowel sound in Liturgical Latin.
The digraph ae is pronounced exactly like the Latin letter e (e; eh).

æternae [æ-ˈtɛr-nɛ] /eh-ˈtehr-neh/
praegustatum [pɾɛ-gʊ-ˈsta-tum] /preh-goo-ˈstah-toom/

The digraph oe is pronounced exactly like the Latin letter e (e; eh).

coelum [ˈtʃɛ-lum] /ˈcheh-loom/
mangerebat [mæ-ˈre-bat] /meh-ˈreh-bahlt/

However, if there is a diaeresis over one of the vowels as in æ, oë, or Æ, then each vowel gets its own original and pure sound (Wall, et al., 1990).

äe Israël [ˈɪs-rə-el] /ˈees-rah-ehl/
aë Michaël [ˈmi-ka-el] /ˈmee-kah-ehl/
oë poëma [po-ˈe-mə] /paw-ˈeh-mah/

Diphthongs

The diphthong is a combination of two vowel sounds forming one syllable. In Liturgical Latin, there are three diphthongs, au, ay, and eu. In the Latin diphthongs, the sound of the first vowel is sustained with the second vowel sound occurring at the last moment before the next syllable is sung. Each vowel must have its own distinct, true sound without blurring or gliding the connection between them.

au laudate [laʊ-də-te] /lah-oо-ˈdah-teh/
ay Raymundi [rɔi-ˈmʊn-di] /rrah-ee-ˈmoon-dee/
eu euge [ˈeʊ-dʒe] /ˈeh-oo-jeh/

Glides

The glide is also a combination of two vowel sounds, which is different from the diphthong. In singing, the relative duration of the two vowel sounds is reversed, with the second vowel receiving longer duration and greater stress than the first vowel (Trusler, 1987). In Liturgical Latin, the glide sound is found when the vowel u (w; w ) is preceded by q or ng and followed by another vowel (Hall, 1971; Jeffers, 1988; Sheil, 1975).

ua aqua [ˈɑ-kwa] /ˈah-kwah/
ue loguetur [lo-'kwe-tur] /law-'kweh-toor/
ui qui [kwi] /kwee/
sanguine ['san-gwi-ne] /'sahn-gwee-neh/
uo quoniam ['kwo-ni-am] /'kwaw-nee-ahm/

**Consecutive Vowels**

Consecutive vowels, which are different from diphthongs and glides, are treated as two separate syllables. Each vowel is pronounced distinctly with its own value, and the two vowel sounds should not be contracted or slurred together (Hall, 1971; Hines, 1975; Wall, et al., 1990).

- **aa** Aaron [ˈa-ə-rən] /ˈah-ah-rawn/
- **ai** laicus [ˈlə-i-kəs] /ˈlah-ee-koos/
- **ea** mea [ˈme-ə] /ˈmeh-ah/
- **ei** Dei [ˈde-i] /ˈdeh-ee/
- **eo** Deo [ˈde-o] /ˈdeh-aw/
- **ia** gratia [ˈɡra-tsi-a] /ˈgrah-tsee-ah/
- **iā** Maria [ma-ˈri-a] /mah-ree-ah/
- **ie** kyrie [ˈki-ri-e] /ˈkee-ree-eh/
- **ii** filii [ˈfi-li-i] /ˈfee-lee-ee/
- **ou** prout [ˈprɔ-ut] /ˈpraw-oot/
- **ua** perpetua [pər-ˈpe-tu-a] /pehr-ˈpeh-too-ah/
- **uae** tuae [ˈtʊ-e] /ˈtoo-eh/
- **ui** tuo [ˈtʊ-i] /ˈtoo-ee/
- **uo** tuo [ˈtʊ-o] /ˈtoo-aw/
Consonant Sounds

The pronunciation rules of consonants in Liturgical Latin are presented in alphabetical order. All consonants of the English alphabet occur with the exception of the letter w, which does not exist in the Latin language.

b The letter b ( b; b ) is pronounced as b in the English word Baby.
   benedictus [ben-ediktus] /beh-nediktus/

c The letter c has two sounds, which are determined by the letters following it.
   First, before the vowels e, ae, oe, i, or y, the letter c is always pronounced as the
   ch ( tʃ; ch ) in the English word Church. In this case, it is called soft c (Hall,
      cruce [kru-tʃe] /kroo-cheh/
      dulcis [dul-tʃis] /dool-chees/
      caelum [tʃe-lum] /cheh-loom/
      coelis [tʃe-lis] /cheh-lees/
   Second, before any other letter, or as the final letter of a word, the letter c is always
   pronounced as k ( k; k ) in the English word Kite. In this case, it is called hard c
      caritas [ka-ri-tas] /kah-ree-tahs/
      Corpus [kor-pus] /kawr-poos/
      caelis [tʃe-lis] /cheh-lees/
      cruce [kru-tʃe] /kroo-cheh/
      nunc [nunk] /noonk/

c The letters cc ( tʃ; t-ch ) are pronounced as tʃh in the English words Eat, cheese
   when they are followed by the vowels e, ae, oe, i, or y (Benedictines of Solemes,
      ecce [et-tʃe] /eht-cheh/
      accipe [ot-tʃi-pe] /aht-chee-peh/

ch The combination ch ( k; k ) is always pronounced as k in the English word
   Kite.
   chorus [kɔ-rus] /kaw-roos/
The letter d (d; d) is pronounced as d in the English word Day with more dental and less aspirate (Moriarty, 1975; Sheil, 1975; Wall, et al.; 1990).

The letter f (f; f) is pronounced as f in the English word For.

The letter g has two sounds determined by the letters following it.

First, before the vowel e, ae, oe, i, or y, the letter g is always pronounced as dg (dʒ; j) in the English word Fudge. In this case, it is called soft g (Hall, 1971; Moriarty, 1975; Trusler, 1987; Wall, et al.; 1990).

The letter h is always mute in Liturgical Latin except in two words borrowed from the Greek language. In these two words, mihi and nihil, the letter h is pronounced as k (k; k) in the English word kite.

The combination gn is always pronounced as ni (n; ny) in the English word Onion.
The letter j (j; y) is always pronounced the same as y in the English word Yes. It is important to move quickly through its sound in order to form one sound with the following vowel (Hall, 1971; Jeffers, 1988; Lamb, 1988). Moriarty (1975) describes the letter j as a glide, while Wall, et al. (1990) call it a semi-consonant or semi-vowel.

Jesus [ˈje-sus] /ˈyeh-soos/
Jubilare [ˈju-bi-lə-te] /ˈyoo-bee-lah-teh/

The letter k (k; k) is pronounced as k in the English word Kite.

Kyrie [ˈki-ri-e] /ˈkee-ree-eh/
Kalendae [ka-ˈlen-de] /kah-ˈlehn-deh/

The Latin letter l (l; l) is pronounced with a more forward and dental sound than l in the English word Love (Hall, 1971; Moriarty, 1975; Sheil, 1975; Wall, et al., 1990).

plena [ˈple-na] /ˈpleh-nah/
latus [ˈla-tus] /ˈlah-toos/

The letter m (m; m) is pronounced as m in the English word Me.

immolatim [im-mo-ˈla-tim] /eem-maw-ˈlah-toom/
Mater [ˈma-te] /ˈmah-tehr/

The letter n (n; n) is pronounced as n in the English word No.

natum [ˈna-tum] /ˈnah-toom/
nunc [nunk] /noonk/

The Latin letter p (p; p) is pronounced with less aspiration than p in the English word Please. (Hall, 1971; Moriarty, 1975; Sheil, 1975; Wall, et al., 1990)

plena [ˈple-na] /ˈpleh-nah/
pro [pro] /praw/

The combination ph is pronounced as f (f; f) in the English word For.

phrenetici [fren-ˈte-tsi] /freh-ˈneh-tee-chee/
Seraphim [ˈse-ra-fim] /ˈseh-rah-feem/

In Liturgical Latin, the letter q is always followed by the letter u. The combination qu is always pronounced as qu (kw; kw) in the English word Quick.

requiem [ˈre-kwi-əm] /ˈrreh-kwee-ehm/
quoniam [ˈkwɔ-ni-əm] /ˈkwaw-nee-ahm/
There are a number of suggested pronunciations for the Latin letter r. Fortunately, there is uniform agreement among choral authorities that the letter r should never be pronounced as a burred r sound as in the American English. The r should be flipped (r; r) when it is between two vowels or at the end of a word. The sound of the flipped r is made with a single, quick tap of the tip of the tongue against the ridge of the upper teeth. The r should be rolled (r; rr) when it occurs at the beginning of a word, and this r is made by the rapid fluttering of the tip of the tongue against the upper front gum (Hall, 1971; Hines, 1975; Jeffers, 1988).

- *ora* [ˈɔ-ɹə] /ˈaw-ɹəh/
- *per* [pɛr] /ˈpehr/  
- *regina* [re-ˈʒi-na] /ˈrhɛh-ˈjee-nah/

The letters s and ss are always pronounced as the unvoiced s sound (s; s) in the English word Sea. Hall (1971) and Jeffers (1988) suggest that when the letter s occurs between two vowels, it is slightly softened.

- *miserere* [mi-ˈʃe-ɹe-re] /ˈmee-seh-ɹeh-ɹeh/
- *dies* [ˈdi-es] /ˈdee-ehs/
- *passum* [ˈpɔs-sum] /ˈpahs-soom/

The combination sc has two sounds determined by the letters following it.

- *ascendit* [a-ˈʃen-dit] /ah-ɹehn-deet/
- *suscipe* [su-ˈʃi-pε] /soo-ɹee-phet/

Second, before any other vowels or consonants, the letters sc are always pronounced as sk (sk; sk) in the English word Skip.

- *requiescat* [re-ˈkwɪ-ɹ-e-skʌt] /rreh-kwee-ɹeh-ɹkaht/
- *schola* [ˈskɔ-la] /ˈskaw-ɬah/

The Latin letter t (t; t) is more dental and less aspirated than t in the English word Two. (Hall, 1971; Jeffers, 1988; Sheil, 1975; Wall, et al., 1990)

- *tecum* [ˈte-ɹɛm] /ˈteh-ɹoom/

The combination ti has two sounds:

First, when ti is followed by any vowel and not preceded by the letters s, t, or x,
the letter t is pronounced as ts (ts; ts) in the English word Hits.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>gratia</td>
<td>[ˈɡrɑːtʃə] /ˈgrah-tsi-a/</td>
</tr>
<tr>
<td>peti</td>
<td>[ˈpe-ʃə] /ˈpeh-tsi-ee/</td>
</tr>
</tbody>
</table>

Second, in all other cases, the combination ti is pronounced like the English word Tea (ti; tee).

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>mortis</td>
<td>[ˈmɔr-tis] /ˈmawr-tees/</td>
</tr>
<tr>
<td>hostias</td>
<td>[ˈɔ-sti-əs] /ˈaw-stee-ahs/</td>
</tr>
<tr>
<td>mixtio</td>
<td>[ˈmikst-i-ə] /ˈmeeks-tee-aw/</td>
</tr>
<tr>
<td>attius</td>
<td>[ˈat-ti-us] /ˈaht-tee-ooz/</td>
</tr>
</tbody>
</table>

The combination th is always pronounced as th (t; t) in the English word Thomas because the letter h is mute.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>sabaath</td>
<td>[ˈsæ-ba-ət] /ˈsah-bah-awt/</td>
</tr>
<tr>
<td>thronum</td>
<td>[ˈθrɔ-num] /ˈtraw-noom/</td>
</tr>
</tbody>
</table>

The letter v (v; v) is pronounced as v in the English word Value.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ventris</td>
<td>[ˈvɛntrɪs] /ˈvehn-trees/</td>
</tr>
<tr>
<td>Virgine</td>
<td>[ˈvɜr-dʒi-ə] /ˈveer-jee-neh/</td>
</tr>
</tbody>
</table>

The letter x has four different sounds:

First, when x is preceded by the vowel e (forming ex) and followed by any vowel, the letter x is pronounced as ggs (gs; gs) in the English word Eggs.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>examine</td>
<td>[ɪɡˈsa-mi-nə] /ehg-ˈsa-mee-neh/</td>
</tr>
<tr>
<td>exsulate</td>
<td>[ɪɡˈsul-tə-tə] /ehg-ˈsool-tah-teh/</td>
</tr>
</tbody>
</table>

When x is preceded by the vowel e (forming ex) and followed by the consonant h or s and then by a vowel, it is also pronounced as ggs (gs; gs) in the English word Eggs.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>exhibeo</td>
<td>[ɪɡˈsɪbəʊ] /ehg-ˈsee-baw/</td>
</tr>
<tr>
<td>exsules</td>
<td>[ɪɡˈsuːləs] /ehg-ˈsoo-lehs/</td>
</tr>
</tbody>
</table>

Second, when the combination xc is preceded by the vowel e (forming exc) and followed by the vowel a, o, or u, the letters xc are pronounced as xca (ksk; ksk) in the English word Exclude.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>excuso</td>
<td>[ɛkˈskuːso] /ehk-ˈskoo-saw/</td>
</tr>
<tr>
<td>excanto</td>
<td>[ɛkˈskɔnto] /ehk-ˈskahn-taw/</td>
</tr>
</tbody>
</table>
Third, when the combination xc is preceded by the vowel e (forming exc) and followed by the vowel e, ae, oe, i, or y, the letters xc are pronounced as k-sh (kJ; ksh) in the English words Pink shell.

excelsis [ek-ʃəl-sis] /ehk-ˈʃehl-sees/
excipere [ek-sip-ə-rə] /ehk-ˈshee-peh-reh/

Fourth, in all other cases, when x appears in the middle or at the end of a word, it is pronounced as x (ks, ks) in the English word Box.

fluxit [ˈfluk-sit] /ˈfrook-sit/
pax [paks] /pahks/

Although the Latin letter z is rare, it is always pronounced as dz (dz; dz) in the English word Beads.

Lazarus [ˈlɔd-za-rəs] /ˈlɔhd-zah-roos/
zelus [ˈdzen-əs] /ˈdzhəz-əs/

Appendix A, "Phonetic Equivalent Chart for Pronunciation of Liturgical Latin," is organized in alphabetical order to provide a quick reference and comparison of the phonetic symbols and spellings of IPA and EPA for the Latin texts.
CHAPTER 3

MATERIALS AND PROCEDURES

The purpose of this study was to investigate the effectiveness of the International Phonetic Alphabet and English Phonetic Alphabet in phonetic instruction as well as the effectiveness of traditional rote instruction of Liturgical Latin diction for middle school mixed choirs. The chapter deals with the pilot study, the design of the study, the selection procedures of subjects, the development of the instruments of evaluation, the description of the treatment procedures of the study, and the procedure of data collection.

Pilot Study

The purpose of the pilot study was to evaluate the content of the treatments, to develop rehearsal strategies, and to test the instruments of evaluation. Since the traditional rote instruction on choral diction has been used in choral rehearsals for years, the pilot study was designed only to investigate and compare the effectiveness of the International Phonetic Alphabet and English Phonetic Alphabet in phonetic instruction on accurate Latin diction for middle school mixed choirs.

Subjects for this pilot experiment were students in two, intact eighth grade choirs from one middle school in the suburban area of Columbus, Ohio. Each choir had approximately 20 members, all of whom had been randomly assigned to their respective
choirs. The two experimental treatments, IPA and EPA phonetic instruction, were randomly assigned to these two intact groups and taught by the investigator. In order to accommodate the school's schedule for a seasonal concert and its concert program, the phonetic instruction treatment was limited to ten 20-minute lessons for each choir over a period of seven weeks. Only one selected song, "Ave Verum" by Mozart, was studied.

Before the experimental instruction began, a Student Diction Experience Survey was given to all subjects. The results of this survey indicated that the subjects had sung choral selections primarily in English, along with a few songs in French, and that only rote instruction had been used in teaching choral diction. In addition, the students indicated that they had not sung any Latin choral music prior to the study. Subjects were then pretested using the Pretest Phonetic Translation Form and the Pretest Text Reading Form to determine their Latin diction skills.

During the experimental treatment period, both IPA and EPA groups received phonetic instruction while rehearsing the choral selection under study. The only difference between the groups was in the method of phonetic instruction; the IPA group was taught using the phonetic system of the International Phonetic Alphabet, while the EPA group was taught utilizing the phonetic system of the English Phonetic Alphabet.

Following the experimental treatment, each intact treatment group sang the Latin choral selection so that the diction performance skills of the group could be ascertained. In addition, the Posttest Phonetic Translation Form was given to all the participating subjects following the post-singing test. Due to the limited time allowed for the administration of the posttest, a random sample of 14 subjects (2 males, 12 females) from the IPA group and 13 subjects (4 males, 9 females) from the EPA group was given a spoken posttest individually, using the Posttest Text Reading Form. Only those subjects who participated in the spoken posttest completed the Student Evaluation Survey.
Data analysis of the pilot study indicated that the IPA phonetic instruction was more beneficial than the EPA phonetic instruction as determined by the students' speaking abilities in reading accuracy for the choral text studied ($F = 4.22, p = .0505$) and in application of diction knowledge in other selections ($F = 7.18, p = .0129$). However, results of the posttest scores in the singing test ($F = 0.06, p = .8153$) and the written test ($F = 0.41, p = .5269$) did not find any statistically significant differences between IPA and EPA groups. Because of the results in the spoken posttest during the pilot study, the section measuring the application of phonetic knowledge was included in the written posttest used in the research project.

Information from the Student Evaluation Survey showed that the majority of students indicated a highly positive reaction to the experimental treatments and rehearsal strategies used in the study. This content included: reviewing common vowels; studying Latin vowels with the visual aid of vowel charts; incorporating Latin diction into warm-up exercises; and utilizing the phonetic system for diction instruction. Students in both treatment groups generally felt that the improvement of their understanding of Latin diction, pronunciation of the Latin texts, and performance of the Latin selection after the phonetic instruction was average to very good. The results of the survey also revealed that the students in the IPA treatment group had a stronger preference for phonetic instruction and greater satisfaction with their phonetic instruction in Latin diction than did the students in the EPA treatment group.

**Design of the Study**

The design for this study was a "Nonrandomized Control-Group Pretest-Posttest Design" (Isaac & Michael, 1981) used to assess the effect of diction instruction on performance of Liturgical Latin. The research treatments were randomly assigned to the groups. Three groups of students were involved: (1) the IPA group receiving diction
instruction through the phonetic system of the International Phonetic Alphabet exclusively with the employment of visual charts of vowels and consonants and English equivalent words; (2) the EPA group receiving diction instruction through the phonetic system of the English Phonetic Alphabet exclusively with the employment of visual charts of vowels and consonants and English equivalent words; and (3) the Control group receiving traditional diction instruction through imitation alone and with the use of English equivalent words.

Selection of Subjects

Subjects participating in this study were eighth grade students (N=62) in three intact mixed choirs from another middle school in the suburban area of Columbus, Ohio. The total school enrollment was 820 with the majority of the students coming from lower-middle class homes. This information concerning students' socio-economic status was obtained from the school principal. Each choir was comprised of approximately 20 students, who were not auditioned but randomly assigned to their respective choirs by their regular teacher prior to this study. These three participating choirs were combined together to form the eighth grade choral ensemble of the school for concerts.

There were four reasons for the selection of these treatment choirs. First, these choirs were under the instruction of the same choral director. Second, these choirs used the same facilities and equipment, and they rehearsed every other day in the afternoon during the 7th or 8th period. Third, these choirs had sung their choral pieces in English during the previous semesters, with one exception: they had just learned their first and only Latin choral piece in the semester prior to this study. [The piece, "Gloria Deo," was composed by Mary Lynn Lightfoot for three-part mixed voicing and published by the Heritage Choral Series (#15/1167H)] Fourth, the director taught diction using a rote/imitation method and never utilized any kind of phonetic system for teaching choral diction with these choirs.
**Instruments of Evaluation**

**Student Diction Experience Survey**

A Student Diction Experience Survey was developed and administered to each choir member in all three choirs at the beginning of this study to determine the initial equivalency of the students' diction experience. Items of the survey questionnaire include choral ensemble participation, private voice lessons, languages of songs sung, Latin and other language classes, diction learning experience, and learning methods involving phonetic symbols. [The Student Diction Experience Survey is presented in Appendix B]

**Student Evaluation Survey**

A Student Evaluation Survey was developed and administered to each participating choir member immediately after all the experimental treatments and tests. The students were asked to assess the value of the experimental treatments and strategies utilized in phonetic and/or rote instruction of Latin diction using a rating scale of 3 levels—no value, some value, much value. In addition, the students were asked to assess the improvement in their own understanding and pronunciation of Latin after the phonetic or rote instruction using a rating scale of 5 levels—very poor, poor, average, good, very good. [The Student Evaluation Survey is presented in Appendix B]

**Choral Diction Inventory**

A Choral Diction Inventory was used to assess choirs' diction performance skills such as uniform vowels, clear consonants, and text intelligibility for the selected Latin pieces. The basic format of this Inventory was developed by Cooksey (1977) as a Likert scale of 1 to 5, with 1 indicating strong disagreement and 5 indicating strong agreement. Item numbers 3 and 8 of the Inventory were quoted directly from Cooksey's (1977) study, and item number 4 was from Corbin's (1983) revision of the study. The remaining items
of the Inventory had been developed by the investigator. Content validity was obtained for this Inventory through expert judgment. [The Choral Diction Inventory is presented in Appendix B]

**Pretest/Posttest Phonetic Translation Forms**

Pretest/Posttest Phonetic Translation Forms were developed for only IPA and EPA groups. To make it possible to assess students' previous phonetic knowledge, the content of the written pretest was derived from the two Latin choral selections to be taught. The test consisted of transcribing Latin texts into IPA/EPA phonetic spellings and transcribing IPA/EPA phonetic spellings into Latin texts.

To assess the results of the phonetic instruction and the students' abilities in the application of phonetic knowledge, the content of the written posttest was slightly different from that of the written pretest. It included not only the entire content of the pretest (the written posttest 1), but also the addition of two common Latin sentences which did not occur in the two Latin choral selections studied (the written posttest 2). These written tests were pilot tested prior to the study; they were administered to each subject in the two experimental groups. [The Pretest/Posttest Phonetic Translation Forms are presented in Appendix B]

**Pretest/Posttest Text Reading Forms**

Pretest/Posttest Text Reading Forms were developed for all three groups. To make it possible to assess students' previous Latin diction knowledge, the content of the spoken pretest was derived from the two Latin choral selections to be taught. The test consisted of reading Latin texts printed in the standard orthographic letters.

To assess the results of the diction instruction and the students' abilities in the application of Latin diction knowledge, the content of the spoken posttest was slightly different from that of the spoken pretest. It included not only the whole content of the
pretest (the spoken posttest 1), but also the addition of three common Latin phrases which did not appear in the two Latin choral selections studied (the spoken posttest 2). These spoken tests were pilot tested prior to the study; they were administered to each subject in the three treatment groups. [The Pretest/Posttest Text Reading Forms are presented in Appendix B]

**Procedure of Treatments**

**Pre-Treatment Evaluation Procedure**

Prior to experimental instruction, the three intact mixed choirs were randomly assigned to one of the three experimental treatments. There were 20 students (4 males, 16 females) in the IPA group, 20 students (5 males, 15 females) in the EPA group, and 22 students (8 males, 14 females) in the Control group. All students in these groups were asked to complete a Student Diction Experience Survey to determine substantial previous diction experience.

The results of this survey indicated that the average experience of participating and singing in choral ensembles was very similar among the three groups. Students had sung mostly English choral pieces, while a very few of them had been introduced to French and Spanish pieces during previous choral singing experience. One student in the Control group had taken private voice lessons for two years but had sung all pieces in English. "Gloria Deo" was the only Latin choral piece in the choirs' experience; all the students had been taught this selection in the previous semester by one student teacher. The Latin texts in this song were learned through imitation only, without the use of any phonetic symbols and without dealing with any Latin diction rules. The results of the survey also indicated that some students in the three treatment groups (30% in the IPA group, 25% in the EPA group, and 35% in the Control group) had recently studied other languages such as French,
Spanish, and German. None of them had studied these languages through the use of any phonetic symbols. [The results of the Student Diction Experience Survey are summarized in Appendix C]

Following the Student Diction Experience Survey, students in IPA and EPA groups were given a written pretest using the Pretest Phonetic Translation Form to reconfirm the initial equivalency of the students' phonetic knowledge. The students were informed of the purpose and procedure of the written pretest, and they were encouraged to make educated guesses in transcribing Latin texts into phonetic symbols and translating phonetic symbols into Latin texts. The total time spent for the written pretest evaluation was only approximately 5 minutes in each group because students were unfamiliar with the phonetic systems and Latin diction.

After the written pretest, all students in the three groups were given a spoken pretest individually in random order, using the Text Reading Form, to reconfirm the initial equivalency of Latin diction ability. The recording of individual students' responses took place in a sound-proof ensemble room next to the choral rehearsal room, with only the investigator and the student present. An AIWA Model HS-J505 Stereo Radio Cassette Recorder, one AIWA Stereo Microphone, and TDK SD110 High Bias Type II Tapes were used to make all recordings. Students sat approximately 6 to 7 inches from the microphone with the recording level set between 2 and 3.

For the individual spoken pretest, written verbal instructions about the recording procedure were read and discussed thoroughly with each student, and one test item was demonstrated by the investigator. Students were instructed to make educated guesses and to use their imaginations to create the sound of the Latin texts. In addition, they were encouraged to read these texts at a moderate pace in a clear speaking voice. The evaluation by means of this spoken pretest took about 7 minutes per student. At the conclusion of the pretests, each group sang "Gloria Deo," which served as a singing pretest, from memory.
without any review or preparation, for the purpose of measuring the groups' initial diction performance skills in Latin. The same recording equipment was utilized with the microphone set in the front center of the rehearsal room and the recording level set between 2 and 3.

**Treatment Procedure**

The experimental treatments were administered by group. Both experimental groups, IPA and EPA, received twenty 20-minute lessons over a period of nine weeks, and the control group received sixteen 15-minute lessons over a seven week period. All groups were rehearsed every other day in the afternoon with the IPA and EPA groups in the alternate 7th periods and the control group in the 8th period after the EPA group. All three treatments were administered by the investigator, while the regular director led the remaining portion of each rehearsal.

Treatment procedures were exactly the same for the two experimental groups except that the phonetic systems applied in diction instruction differed between the two groups. The IPA group was taught using the phonetic system of the International Phonetic Alphabet exclusively, while the EPA group was taught utilizing the phonetic system of the English Phonetic Alphabet exclusively. Each student in these two groups was given a working folder which contained handouts, exercise sheets, and the two selected Latin choral pieces. [Student Folders for experimental groups are presented in Appendices D and E]

Because of the students' unfamiliarity with the phonetic symbols, the daily lesson plan of the first four rehearsals for the experimental groups was designed mainly to introduce the concepts of speech articulators and the IPA or EPA phonetic symbols associated with the Latin vowel and consonant sounds through the employment of visual charts and English equivalent words. The formation of the nine basic vowels and the voicing of the consonants were also discussed. There was no diction instruction yet
dealing with any materials concerning the two selected Latin songs. The sequence for introducing phonetic symbols was adapted from suggestions by Maggs (1981). The steps were: (1) pronouncing and associating symbols and sounds of various pairs of vowels; (2) pronouncing and associating symbols and sounds of alternate combinations of more than two vowels; (3) pronouncing and associating initial and/or final consonants with vowels; and (4) reading phonetic translations. Each of the first four rehearsals included seven minutes of warm-up exercises, nine minutes of discussion, and four minutes of spoken and written practice.

The procedures of daily diction instruction were adapted with some adjustment from Ferrell's (1987) designs for IPA studies for her middle school choirs. The daily lesson plans of the remaining sixteen lessons for both IPA and EPA groups were divided into the following six steps: (1) warm-up exercises including body relaxation, breath management, and vocalization; (2) discussion including review of previous lesson and presentation of new phonetic symbols and sounds; (3) spoken practice of selected texts; (4) written practice of phonetic spellings; and (5) rehearsal of the choral selections under study. Each rehearsal included five minutes of warm-up exercises, five minutes of discussion of Latin diction and written practice of phonetic symbols, and ten minutes of spoken practice of the Latin texts of the two selected songs and rehearsal of the two Latin selections.

Treatment for the control group was different from that for experimental groups. The control group received traditional diction instruction through oral demonstration and imitation with the use of English equivalent words and without the employment of any phonetic symbols or visual charts of vowels and consonants. The daily lesson plans for the control group were divided into the following two steps: (1) warm-up exercises including body relaxation, breath management, and vocalization; and (2) rehearsal of the choral selections under study. Each of the sixteen rehearsals consisted of five minutes of warm-up exercises and ten minutes of spoken practice of the Latin texts from the two
selected songs and rehearsal of the two Latin choral pieces. Each student in the control group was given an envelope which contained the two selected Latin choral pieces, and one handout of the Latin texts along with word-by-word literal translations. The investigator was careful to spend the same amount of time on corresponding materials, especially in the rehearsing of choral selections, so that all three groups had comparable repetition of a song.

For the purpose of monitoring treatment contents, all lessons of the three groups were video-taped using a Sharp Model VL-L390U Camcorder and JVC T-120 SX High Energy Video Tapes. These tapes provided a means of diagnosing any mistakes of the investigator concerning the procedures and strategies of diction instruction, and of checking for any additional problems not identified during the rehearsal session. These mistakes and problems were then dealt with in subsequent rehearsals. [Complete daily lesson plans for experimental and control groups are presented in Appendix F]

**Post-Treatment Evaluation Procedure**

Singing posttests began at the end of the final rehearsal. Each group sang two Latin selections so that the groups' performance ability in Latin diction might be assessed. The results of the singing posttests were audio taped to facilitate rating. Then, students in both experimental groups were given a written posttest using the Posttest Phonetic Translation Forms. The total time allowed for the written posttest evaluation was 15 minutes.

Following the singing and/or written posttests, all students were given spoken posttests individually and in random order using the Posttest Text Reading Form. The same facilities and recording equipment were used, and the same testing procedures and strategies were applied as in the spoken pretest. Administering of the spoken posttest required approximately 10 minutes per student. At the conclusion of the posttests, all students were asked to complete the Student Evaluation Survey. The results of this final Survey are presented in Chapter IV.
Collection of Data

The audio recordings of the singing pretest and posttest performed by the three intact choirs were rated by a panel of three choral experts utilizing the Choral Diction Inventory. The three experts were selected to participate in this evaluation procedure because of their extensive choral conducting background and because of their experience of teaching Latin choral literature at public high school and/or middle school levels. The experts evaluated the tapes individually using a Sony Model MDR-V6 Dynamic Stereo Headphone and an AIWA Model HS-J505 Stereo Radio Cassette Recorder, concentrating on rating choral diction and text intelligibility only. Before the rating, the investigator read and discussed the eight questions in the Inventory with each expert. After the expert listened to each selection once, he/she was given a break in which to complete the rating Inventory. This evaluation procedure took approximately 45 minutes per expert.

The results of the written pretest and posttest were scored by the investigator. Two points were given when the student correctly transcribed a vowel letter to the appropriate phonetic symbol or a phonetic symbol to the appropriate vowel letter. One point was given when the student accurately translated a consonant letter to the appropriate phonetic symbol or a phonetic symbol to the appropriate consonant letter. The sum of both vowel and consonant scores of each participating student was submitted to statistical analysis.

The results of the Student Evaluation Survey are reported using percentages in Chapter IV. In addition, the responses from the Student Diction Experience Survey are presented using percentages in table format in Appendix E.

Another panel of three judges analyzed and scored the results of both spoken pretest and posttest. All of them were choral conducting graduate students at the Ohio State University and had studied choral diction, including Liturgical Latin diction, extensively. They were also experienced choral directors and singers. Since it was impossible for the
three judges to evaluate sixty-two students' spoken tests at the same time, the judges evaluated the audio tapes individually, utilizing the same headphone and cassette recorder used in the singing tests.

The evaluation procedure was explained verbally to each judge by the investigator before the evaluation of the tapes began. A discussion concerning the pronunciation of Latin pure vowels and clear consonants was provided in order to establish agreement among judges. In addition, an aural training session for this evaluation was offered, using two students' responses from the pilot study, to facilitate judging. For each student evaluation, judges circled incorrect vowels and crossed out incorrect consonants, and gave minus one point for each incorrect vowel and consonant separately. Then, the investigator converted the judges' ratings into scores. Two points were given for each accurately pronounced vowel sound, while one point was given for each accurately pronounced consonant sound. The sum of correct vowel and consonant scores was subjected to statistical analysis. The entire evaluation procedure for the spoken tests took each judge three hours per day (approximately 25 students' responses) for five consecutive days.
CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

Following the completion of all evaluation and testing procedures, the scores obtained were subjected to statistical analysis. Data concerning the dependent variables of group diction performance skills, student text reading ability, student phonetic translation ability, and student application of Latin diction and phonetic knowledge were analyzed in the computer facilities at the Academic Computing Service Center of the Ohio State University using the SAS statistical package.

Means and standard deviations were provided for each measurement. An analysis of variance (ANOVA) and an analysis of covariance (ANCOVA) were used to determine if significant differences existed between/among the treatment groups. The results of these analyses were reported in the form of Degrees of Freedom, Sum of Squares, Mean Square, F value, and Probability. If a significant difference was found, subsequent analysis of the source of the differences was to be administered using Least Square Means and Probability.

Data pertaining to the research questions on (1) the relationship between students' ability in diction accuracy in the tests of text reading and phonetic translation, (2) the interaction between students' diction performance in the tests of text reading and gender, and/or in the tests of phonetic translation and gender, and (3) the interaction between
accomplishment in Latin diction instruction and learning experience in other languages were also analyzed. While the results of the relationships were reported through Correlation Coefficients, the results of the interactions were reported through F value and Probability. Means and standard deviations were also provided for each measurement. If a significant difference was found, subsequent analysis of the source of the interaction was to be administered using Least Square Means and Probability.

Information concerning students' responses in the Student Evaluation Survey was reported descriptively in percentages. This chapter is designed to present the hypotheses, the research questions, the results of the statistical analysis, and a brief discussion.

**Null Hypothesis 1**

There will be no significant difference in the diction performance skills for Latin selections between subjects in (a) the IPA (International Phonetic Alphabet) and EPA (English Phonetic Alphabet) instruction groups, (b) the IPA and Control (traditional rote instruction) groups, and (c) the EPA and Control groups. (alpha = .05)

The scores of the singing tests were derived from the ratings of the panel of three experts and were subjected to statistical analysis in order to test this hypothesis. Group means and standard deviations are shown in Table 2 for both singing pretest and posttest.

<table>
<thead>
<tr>
<th>Group</th>
<th>Item</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA Group</td>
<td>8</td>
<td>3.20</td>
<td>2.91</td>
</tr>
<tr>
<td>EPA Group</td>
<td>8</td>
<td>3.08</td>
<td>3.14</td>
</tr>
<tr>
<td>Control</td>
<td>8</td>
<td>3.12</td>
<td>3.12</td>
</tr>
</tbody>
</table>

**Table 2. Group Means and Standard Deviations for Singing Tests**

74
An ANOVA on the singing pretest scores indicated that groups were equivalent at the outset of the study. Therefore, a second ANOVA was performed on the singing posttest scores to determine the differences of the groups' diction performance skills influenced by the methods of diction instruction. The results of the data analysis are presented in Table 3.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>2</td>
<td>.51620370</td>
<td>.25810185</td>
<td>2.44</td>
<td>.1237</td>
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<tr>
<td>Item</td>
<td>7</td>
<td>3.74884259</td>
<td>.53554894</td>
<td>5.05</td>
<td>.0049*</td>
</tr>
<tr>
<td>Error</td>
<td>14</td>
<td>1.48379630</td>
<td>.10598545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>23</td>
<td>5.74884259</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Results of the ANOVA for the Singing Posttest

As seen in Table 3, the statistical analysis indicated no significant difference among the three groups on the singing posttest, $F = 2.44$, $p = .1237$. Based on these data, the statistical decision was failure to reject Null Hypothesis 1.

However, the statistical analysis did indicate a significant difference among the judges' responses on the items of the Inventory, $F = 5.05$, $p = .0049$. Therefore, the Cronbach Coefficient Alpha was used to calculate interjudge reliability in scoring. The interjudge reliability was .253 for the singing posttest, indicating a low degree of agreement in judging. The Pearson Product-Moment Coefficient of Correlation was then employed to measure the reliability between judges. Only Judges I and III agreed with each other significantly in the posttest evaluation ($r = .501$, $p = .0125$).
Null Hypothesis 2

There will be no significant difference in the accuracy of Latin diction in text reading between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups. (alpha = .05)

In order to test this hypothesis, the scores of the spoken tests were derived from the ratings of the panel of three judges and were subjected to statistical analysis. Group means and standard deviations are shown in Table 4 for both spoken pretest and posttest 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest 1 Mean</th>
<th>Posttest 1 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA Group</td>
<td>20</td>
<td>135.11</td>
<td>23.14</td>
<td>196.48</td>
<td>10.59</td>
</tr>
<tr>
<td>EPA Group</td>
<td>20</td>
<td>156.55</td>
<td>22.76</td>
<td>194.80</td>
<td>14.96</td>
</tr>
<tr>
<td>Control Group</td>
<td>22</td>
<td>133.54</td>
<td>16.25</td>
<td>183.06</td>
<td>14.96</td>
</tr>
</tbody>
</table>

Table 4. Group Means and Standard Deviations for Spoken Pretest and Posttest 1

An ANOVA on the spoken pretest scores indicated that groups were not equivalent at the outset of the study. Therefore, to accommodate the pretest differences of students' reading ability in Latin texts, an ANCOVA was performed on the scores of the spoken posttest 1, which was identical to the spoken pretest, to determine the differences of the students' reading ability in Latin texts influenced by the methods of diction instruction. The results of the data analysis are presented in Table 5.

As seen in Table 5, the statistical analysis indicated a significant difference among the three groups on the spoken posttest 1, $F = 5.32$, $p = .0076$. Based on these data, the statistical decision was to reject Null Hypothesis 2.
### Table 5. Results of the ANCOVA for the Spoken Posttest 1

The Cronbach Coefficient Alpha was used to calculate interjudge reliability in scoring. The interjudge reliability was .915 for the spoken pretest and .828 for the spoken posttest 1, indicating a high degree of agreement in judging.

Subsequently, differences in Least Square Means were used to determine the source of those differences. The results of the data analysis are presented in Table 6.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>2</td>
<td>986.36572157</td>
<td>493.18286078</td>
<td>5.32</td>
<td>.0076*</td>
</tr>
<tr>
<td>Pretest</td>
<td>1</td>
<td>5761.79884704</td>
<td>5761.79884704</td>
<td>62.19</td>
<td>.0001</td>
</tr>
<tr>
<td>Pretest * Group</td>
<td>2</td>
<td>655.26770828</td>
<td>327.63385414</td>
<td>3.54</td>
<td>.0358</td>
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<td>Error</td>
<td>56</td>
<td>5188.45713639</td>
<td>92.65102029</td>
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<tr>
<td>Corrected Total</td>
<td>61</td>
<td>13369.27060932</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 6. Differences in Least Square Means for the Spoken Posttest 1

The data indicated that the IPA group, the experimental group which received phonetic instruction through the system of the International Phonetic Alphabet, scored

<table>
<thead>
<tr>
<th>Groups</th>
<th>LSMeans X-Y</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA versus EPA</td>
<td>10.650861</td>
<td>.0030*</td>
</tr>
<tr>
<td>IPA versus Control</td>
<td>9.593534</td>
<td>.0041*</td>
</tr>
<tr>
<td>EPA versus Control</td>
<td>-1.057327</td>
<td>.7616</td>
</tr>
</tbody>
</table>

77
significantly higher on the spoken posttest 1 than the EPA group, the other experimental group, which received phonetic instruction through the system of the English Phonetic Alphabet, at the .0030 level. In addition, the data showed that the IPA group scored significantly higher on the spoken posttest 1 than the Control group, which received traditional rote instruction, at the .0041 level. No significant difference between the EPA and Control groups was found on the spoken posttest 1.

**Null Hypothesis 3**

There will be no significant difference in the application of Latin diction knowledge in the posttest text reading scores between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups. (alpha = .05)

As in the spoken pretest and posttest 1, the scores of the spoken posttest 2 were derived from the ratings of the panel of judges and were subjected to statistical analysis. Group means and standard deviations are shown in Table 7 for the spoken posttest 2.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Posttest 2 Mean</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>IPA Group</td>
<td>20</td>
<td>90.00</td>
<td>12.80</td>
</tr>
<tr>
<td>EPA Group</td>
<td>20</td>
<td>97.20</td>
<td>11.94</td>
</tr>
<tr>
<td>Control Group</td>
<td>22</td>
<td>83.83</td>
<td>12.80</td>
</tr>
</tbody>
</table>

**Table 7. Group Means and Standard Deviations for Spoken Posttest 2**

An ANOVA was performed on the scores of the spoken posttest 2 to determine differences in the students' ability in application of Latin diction knowledge in text reading.
influenced by the methods of diction instruction. The results of the data analysis are presented in Table 8.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>2</td>
<td>1872.29103943</td>
<td>936.14551971</td>
<td>5.96</td>
<td>.0044*</td>
</tr>
<tr>
<td>Error</td>
<td>59</td>
<td>9266.03333333</td>
<td>157.05141243</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>61</td>
<td>11138.32437276</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8. Results of the ANOVA for the Spoken Posttest 2

As seen in Table 8, the statistical analysis indicated a significant difference among the three groups on the spoken posttest 2, F = 5.96, p = .0044. Based on these data, the statistical decision was to reject Null Hypothesis 3.

The Cronbach Coefficient Alpha was used to calculate interjudge reliability in scoring. The interjudge reliability was .898 for the spoken posttest 2, indicating a high degree of agreement in judging.

Subsequently, differences in Least Square Means were used to determine the source of those differences. The results of the data analysis are presented in Table 9.

<table>
<thead>
<tr>
<th>Groups</th>
<th>LSMMeans X-Y</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA versus EPA</td>
<td>-7.200000</td>
<td>.0743</td>
</tr>
<tr>
<td>IPA versus Control</td>
<td>6.166666</td>
<td>.1166</td>
</tr>
<tr>
<td>EPA versus Control</td>
<td>13.366666</td>
<td>.0010*</td>
</tr>
</tbody>
</table>

Table 9. Differences in Least Square Means for the Spoken Posttest 2
The data indicated that the EPA group scored significantly higher on the spoken posttest 2 than the Control group at the .0010 level. The data also showed that the EPA group scored higher on the spoken posttest 2 than the IPA group at the .0743 level. Although it was not significant at the .05 level, the data indicated a favorable result for the EPA group. No significant difference was found between the IPA and the Control groups on the spoken posttest 2; however, the data indicated a favorable result for the IPA group.

Null Hypothesis 4

There will be no significant difference in the accuracy of phonetic translation of Latin texts between subjects in the IPA and EPA groups. (alpha = .05)

In order to test this hypothesis, the scores of the written tests were derived from the ratings of the investigator and were subjected to statistical analysis. Group means and standard deviations are shown in Table 10 for both written pretest and posttest 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Pretest SD</th>
<th>Posttest 1 Mean</th>
<th>Posttest 1 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA Group</td>
<td>20</td>
<td>0.70</td>
<td>2.15</td>
<td>133.00</td>
<td>10.15</td>
</tr>
<tr>
<td>EPA Group</td>
<td>20</td>
<td>2.85</td>
<td>12.74</td>
<td>127.80</td>
<td>16.61</td>
</tr>
</tbody>
</table>

Table 10. Group Means and Standard Deviations for Written Pretest and Posttest 1

An ANOVA on the written pretest scores indicated that the two experimental groups were equivalent at the outset of the study. Therefore, a second ANOVA was performed on the written posttest 1, which was identical to the written pretest, to determine differences in
the students' ability in phonetic translation influenced by the methods of phonetic instruction. The results of the data analysis are presented in Table 11.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>270.40000000</td>
<td>270.40000000</td>
<td>1.43</td>
<td>.2399</td>
</tr>
<tr>
<td>Error</td>
<td>38</td>
<td>7207.20000000</td>
<td>189.66315789</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>39</td>
<td>7477.60000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11. Results of the ANOVA for the Written Posttest 1

As seen in Table 11, the statistical analysis indicated no significant difference between the IPA and EPA groups on the written posttest 1, $F = 1.43$, $p = .2399$. Based on these data, the statistical decision was failure to reject Null Hypothesis 4.

Null Hypothesis 5

There will be no significant difference in the application of phonetic knowledge in the posttest phonetic translation scores between subjects in the IPA and EPA groups. (alpha = .05)

As in the written pretest and posttest 1, the scores of the written posttest 2 were derived from the ratings of the investigator and were subjected to statistical analysis. Group means and standard deviations are shown in Table 12 for the written posttest 2.

An ANOVA was performed on the scores of the written posttest 2 to determine differences in the students' ability in application of phonetic knowledge in phonetic translation influenced by the methods of phonetic instruction. The results of the data analysis are presented in Table 13.
As seen in Table 13, the statistical analysis indicated a significant difference between the IPA and EPA groups on the written posttest 2, $F = 7.76$, $p = .0083$. Based on these data, the statistical decision was to reject Null Hypothesis 5. The data from the group mean scores of the written posttest 2 indicated that the IPA group scored significantly higher than the EPA group on this written test.
Research Question 1

Is there a relationship between students' ability in diction accuracy in the tests of text reading and phonetic translation?

The relationship between students' ability in diction accuracy in the tests of text reading and phonetic translation was examined by performing the Pearson Product-Moment Coefficient of Correlation on the scores of both experimental groups' pretests and posttests. The results of the data analysis are presented in Table 14.

<table>
<thead>
<tr>
<th>Tests</th>
<th>Pretest</th>
<th>Posttest 1</th>
<th>Posttest 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text Reading versus Phonetic Translation</td>
<td>( r = .2451 )</td>
<td>( r = .3067 )</td>
<td>( r = .0731 )</td>
</tr>
<tr>
<td></td>
<td>( p &lt; .1273 )</td>
<td>( p &lt; .0542^* )</td>
<td>( p &lt; .6537 )</td>
</tr>
</tbody>
</table>

Table 14. Results of Pearson Product-Moment Coefficient of Correlation for Diction Accuracy in the Tests of Text Reading and Phonetic Translation

As seen in Table 14, the results indicated that a significant positive correlation existed between performance of text reading and phonetic translation on the posttest 1 scores, \( r = .3067, p < .0542 \). This positive relationship would be interpreted as indication that students scoring higher on the spoken posttest 1 also scored higher on the written posttest 1, while students scoring lower on the spoken posttest 1 also scored lower on the written posttest 1. No correlation was found between performance of text reading and phonetic translation in the scores of the pretest and posttest 2.
Research Question 2

Is there an interaction between students' diction performance in the tests of text reading and gender, and/or in the tests of phonetic translation and gender?

The interaction between performance on the tests of text reading and gender was examined by performing an ANOVA on the three groups' spoken posttest scores. Group means and standard deviations for the scores of girls and boys on both spoken posttests are shown in Table 15, and the results of the data analysis are presented in Table 16.

<table>
<thead>
<tr>
<th>Group</th>
<th>Gender</th>
<th>N</th>
<th>Posttest 1 Mean</th>
<th>Posttest 1 SD</th>
<th>Posttest 2 Mean</th>
<th>Posttest 2 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA</td>
<td>Boys</td>
<td>4</td>
<td>190.66</td>
<td>4.44</td>
<td>77.83</td>
<td>9.92</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>16</td>
<td>197.93</td>
<td>11.26</td>
<td>93.04</td>
<td>11.76</td>
</tr>
<tr>
<td>EPA</td>
<td>Boys</td>
<td>5</td>
<td>207.53</td>
<td>8.89</td>
<td>104.73</td>
<td>6.99</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>15</td>
<td>190.55</td>
<td>14.29</td>
<td>94.68</td>
<td>12.35</td>
</tr>
<tr>
<td>Control</td>
<td>Boys</td>
<td>8</td>
<td>178.12</td>
<td>17.67</td>
<td>82.45</td>
<td>12.75</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>14</td>
<td>185.88</td>
<td>13.04</td>
<td>84.61</td>
<td>13.24</td>
</tr>
</tbody>
</table>

Table 15. Group Means and Standard Deviations for Girls' and Boys' Scores on Spoken Posttests 1 and 2

<table>
<thead>
<tr>
<th>Source</th>
<th>Posttest 1</th>
<th>Posttest 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p</td>
</tr>
<tr>
<td>Gender</td>
<td>1.66</td>
<td>.2031</td>
</tr>
<tr>
<td>Group * Gender</td>
<td>1.85</td>
<td>.1667</td>
</tr>
</tbody>
</table>

Table 16. F Values and Probabilities for Interaction Between Text Reading and Gender
As seen in Table 16, the results of the statistical analysis indicated a significant interaction between the groups' performance on the spoken posttest 2 of text reading and gender, $F = 3.80$, $p = .0284$.

Subsequently, differences in Least Square Means were used to compare the source of this interaction. The results of the data analysis are presented in Table 17 and Figure 2.

<table>
<thead>
<tr>
<th>Group / Gender</th>
<th>LSMMeans</th>
<th>X-Y</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls versus Boys</td>
<td>15.208334</td>
<td>.0278*</td>
<td></td>
</tr>
<tr>
<td>EPA Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls versus Boys</td>
<td>-10.044444</td>
<td>.1119</td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls versus Boys</td>
<td>2.160715</td>
<td>.6872</td>
<td></td>
</tr>
</tbody>
</table>

Table 17. Differences in Least Square Means for Groups in Interaction Between the Spoken Posttest 2 and Gender

As seen in Table 17, the data indicated that girls in the IPA group scored significantly higher on the spoken posttest 2 than boys in the IPA group at the .0278 level. In the EPA group, there was no significant difference between girls' and boys' scores at the .05 level, although boys scored slightly higher than girls. There was no significant difference between girls' and boys' spoken scores in the Control group.
The interaction between performance on the tests of phonetic translation and gender was examined by performing an ANOVA on the two experimental groups' written posttest scores. Group means and standard deviations for the scores of girls and boys on both written posttests are shown in Table 18, and the results of the data analysis are presented in Table 19.

![Graph](image)

**Figure 2. Interaction Between the Groups' Performance on the Spoken Posttest 2 and Gender**

<table>
<thead>
<tr>
<th>Group</th>
<th>Gender</th>
<th>N</th>
<th>Posttest 1 Mean</th>
<th>Posttest 1 SD</th>
<th>Posttest 2 Mean</th>
<th>Posttest 2 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA</td>
<td>Boys</td>
<td>4</td>
<td>134.25</td>
<td>2.87</td>
<td>64.25</td>
<td>1.89</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>16</td>
<td>132.68</td>
<td>11.33</td>
<td>64.25</td>
<td>4.47</td>
</tr>
<tr>
<td>EPA</td>
<td>Boys</td>
<td>5</td>
<td>127.80</td>
<td>13.98</td>
<td>.44.40</td>
<td>24.99</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>15</td>
<td>127.80</td>
<td>17.85</td>
<td>52.00</td>
<td>22.00</td>
</tr>
</tbody>
</table>

**Table 18. Group Means and Standard Deviations for Girls' and Boys' Scores on Written Posttests 1 and 2**
As seen in Table 19, the statistical analysis indicated no significant interaction between groups' written posttests of phonetic translation and gender at the .05 level. Based on these data, gender did not affect the written test performance of phonetic translation in this study.

**Research Question 3**

Is there an interaction between accomplishment in Latin diction instruction and learning experience in other languages?

The interaction between accomplishment in Latin diction instruction of text reading and learning experience in other languages was examined by performing an ANOVA on the three groups' spoken posttest scores. Group means and standard deviations for the scores of students' with and without language experience in other languages on both spoken posttests are shown in Table 20, and the results of the data analysis are presented in Table 21.
As seen in Table 21, the statistical analysis indicated no significant interaction between groups' spoken posttests of text reading and learning experience in other languages at the .05 level. Based on these data, learning experience in other languages did not affect the spoken test performance of text reading in this study.
The interaction between Latin diction instruction of phonetic translation and learning experience in other languages was examined by performing an ANOVA on the two experimental groups' written posttest scores. Means and standard deviations of the scores of students' with and without language experience in other languages on both written posttests are shown in Table 22. Group means and standard deviations for the scores of students' with and without language experience in other languages on both written posttests are shown in Table 23. The results of the data analysis are presented in Table 24.

### Table 22. Means and Standard Deviations for the Scores of Students' With and Without Language Experience in Other Languages on Written Posttests

<table>
<thead>
<tr>
<th>Language Experience</th>
<th>N</th>
<th>Posttest 1 Mean</th>
<th>Posttest 1 SD</th>
<th>Posttest 2 Mean</th>
<th>Posttest 2 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without</td>
<td>30</td>
<td>128.23</td>
<td>15.33</td>
<td>54.23</td>
<td>19.20</td>
</tr>
<tr>
<td>With</td>
<td>10</td>
<td>136.90</td>
<td>3.24</td>
<td>66.00</td>
<td>2.82</td>
</tr>
</tbody>
</table>

### Table 23. Group Means and Standard Deviations for the Scores of Students' Language Experience on Written Posttests 1 and 2

<table>
<thead>
<tr>
<th>Group</th>
<th>Language Experience</th>
<th>N</th>
<th>Posttest 1 Mean</th>
<th>Posttest 1 SD</th>
<th>Posttest 2 Mean</th>
<th>Posttest 2 SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA</td>
<td>Without</td>
<td>15</td>
<td>132.06</td>
<td>11.56</td>
<td>64.06</td>
<td>4.62</td>
</tr>
<tr>
<td></td>
<td>With</td>
<td>5</td>
<td>135.80</td>
<td>2.94</td>
<td>64.80</td>
<td>1.64</td>
</tr>
<tr>
<td>EPA</td>
<td>Without</td>
<td>15</td>
<td>124.40</td>
<td>17.93</td>
<td>44.40</td>
<td>23.14</td>
</tr>
<tr>
<td></td>
<td>With</td>
<td>5</td>
<td>138.00</td>
<td>3.46</td>
<td>67.20</td>
<td>3.42</td>
</tr>
</tbody>
</table>
Table 24. F Values and Probabilities for Interaction Between Diction Instruction in Phonetic Translation and Language Learning Experiences

As seen in Table 24, the results of the statistical analysis indicated a significant difference between students' with and without learning experience in other languages on the written posttest 2, $F = 4.76$, $p = .0358$. In the two experimental groups, students with other language learning experience scored significantly higher than students without other language learning experience on written posttest 2. Based on these data, learning experience in other languages did affect students' performance in application of phonetic knowledge in phonetic translation of unstudied Latin texts in this study.

In addition, the results indicated a significant interaction between groups' performance on the written posttest 2 of phonetic translation and learning experience in other languages, $F = 4.18$, $p = .0482$.

Subsequently, differences in Least Square Means were used to compare the source of this interaction. The results of the data analysis are presented in Table 25 and Figure 3.
<table>
<thead>
<tr>
<th>Group / Language Experience</th>
<th>LSMeans X-Y</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA Group</td>
<td>0.7333333</td>
<td>.9239</td>
</tr>
<tr>
<td>With versus Without</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPA Group</td>
<td>22.8000000</td>
<td>.0050*</td>
</tr>
<tr>
<td>With versus Without</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 25. Differences in Least Square Means for Interaction Between Performance on the Written Posttest 2 and Language Learning Experiences

Figure 3. Interaction Between the Groups' Performance on the Written Posttest 2 and Other Language Learning Experiences
As seen in Table 25, the data indicated that in the EPA group, students with learning experience in other languages scored significantly higher on the written posttest 2 than students without learning experience in other languages at the .0050 level. However, in the IPA group, students with learning experience in other languages did not score any higher than students without learning experience in other languages at the .05 level.

Final Student Evaluations

Immediately following all the post-testing, all participating students were asked to complete a Student Evaluation Survey assessing the value of the experimental treatments and strategies, and assessing the improvement in their own understanding and pronunciation of Latin texts after the diction instruction. Percentages were used to report the students' responses in this Student Evaluation Survey. The results of the data analysis are presented in Table 26.

As seen in Table 26, the data of Questions 1-5 from the final Student Evaluation Survey indicated that the majority of students in the three treatment groups gave a highly positive reaction to the experimental treatments and rehearsal strategies used in the study. The treatments and strategies for the two experimental groups were reviewing common vowels, studying Latin vowels with the visual aid of vowel charts, incorporating Latin diction into warm-up exercises, and utilizing a phonetic system for diction instruction, while the treatments and strategies for the Control group were reviewing common vowels, studying Latin vowels through oral demonstration, incorporating Latin diction into warm-up exercises, and utilizing the imitation method for diction instruction. However, thirty-five percent of the students in the Control group responded with a negative no value to Question 3 concerning the strategies of incorporating Latin diction into warm-up exercises.

The data of Questions 6-8 showed that students in all three groups generally felt that the improvement of their understanding of Latin diction, pronunciation of the Latin texts,
<table>
<thead>
<tr>
<th>QUESTION</th>
<th>Answer</th>
<th>IPA</th>
<th>EPA</th>
<th>Con</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What value do you see in reviewing common vowels to achieve correct pronunciation of Latin vowel sounds?</td>
<td>No Value 0 0 10</td>
<td>Some Value 60 25 70</td>
<td>Much Value 40 75 20</td>
<td></td>
</tr>
<tr>
<td>2. What value do you see in studying Latin vowels with the visual aid of vowel charts / oral demonstration to establish clear concepts about vowel formation?</td>
<td>No Value 0 0 15</td>
<td>Some Value 75 50 75</td>
<td>Much Value 25 50 10</td>
<td></td>
</tr>
<tr>
<td>3. What value do you see in incorporating Latin diction into warm-up exercises to achieve good production of vowel and consonant sounds?</td>
<td>No Value 0 0 35</td>
<td>Some Value 20 65 50</td>
<td>Much Value 80 35 15</td>
<td></td>
</tr>
<tr>
<td>4. What value do you see in utilizing a phonetic system / imitation to reinforce your understanding of Latin diction?</td>
<td>No Value 0 0 0</td>
<td>Some Value 45 45 60</td>
<td>Much Value 55 55 40</td>
<td></td>
</tr>
<tr>
<td>5. What value do you see in utilizing a phonetic system / imitation to facilitate your pronunciation of Latin texts?</td>
<td>No Value 0 0 10</td>
<td>Some Value 45 60 75</td>
<td>Much Value 55 40 15</td>
<td></td>
</tr>
<tr>
<td>6. How do you rate the improvement of your understanding of Latin diction through phonetic / rote instruction by the end of the lesson?</td>
<td>Very Poor 0 0 5</td>
<td>Poor 0 0 5</td>
<td>Average 10 5 30</td>
<td>Good 50 55 45</td>
</tr>
<tr>
<td>7. How do you rate the improvement of your pronunciation of the Latin texts through phonetic / rote instruction by the end of the lesson?</td>
<td>Very Poor 0 0 0</td>
<td>Poor 0 0 0</td>
<td>Average 5 15 35</td>
<td>Good 45 35 60</td>
</tr>
<tr>
<td>8. How do you rate the class rehearsal of the Latin choral pieces?</td>
<td>Very Poor 0 0 5</td>
<td>Poor 0 0 0</td>
<td>Average 0 10 65</td>
<td>Good 60 45 30</td>
</tr>
<tr>
<td>9. How do you rate the phonetic / rote instruction of Latin diction used?</td>
<td>Very Poor 0 0 0</td>
<td>Poor 0 0 10</td>
<td>Average 30 30 60</td>
<td>Good 50 30 25</td>
</tr>
</tbody>
</table>

Table 26. Results of Student Evaluation Survey

93
and rehearsal of the Latin selections after their respective diction instruction was average to very good. However, the students in the IPA and EPA groups had a higher percentage of satisfaction with their own improvement in these aspects by the end of the diction instruction than the students in the Control group. In addition, the students in the IPA group responded with an even higher percentage of satisfaction with the improvement of their pronunciation of the Latin texts (Question 7) and the class rehearsal of the Latin choral selections (Question 8) than the students in the EPA group.

The data from Question 9 revealed that seventy percent of the students in both experimental groups indicated a strong preference (from good to very good) for their phonetic instruction of Latin diction, while only thirty percent of the students in the Control group indicated a strong preference (from good to very good) for their rote instruction of Latin diction. In addition, thirty percent of the students in the two experimental groups had a neutral response (average) regarding their preference for the respective phonetic instruction, while sixty percent of the students in the Control group indicated a neutral response (average) regarding their preference for the rote instruction.
CHAPTER 5

SUMMARY AND CONCLUSIONS

Purpose of the Study

The primary purpose of this research study was to investigate the effectiveness of three types of diction instruction, phonetic instruction using the International Phonetic Alphabet, phonetic instruction using the English Phonetic Alphabet, and the traditional rote instruction for performance of Liturgical Latin diction in two selected Latin choral pieces by middle school mixed choirs.

The secondary purpose of the research study had three aspects. First, the information concerning choral diction training and reference resources for Latin diction reviewed in this study might assist choral directors in choral diction rehearsal. Second, the results of demonstrating effective phonetic instruction for Latin choral diction in this study were expected to provide a potential resource for the preparation of future choral music educators. Third, it was also hoped that this study would show the practical applicability of Latin phonetic systems, using either the International Phonetic Alphabet or the English Phonetic Alphabet, under non-English texts, along with a word-by-word literal translation.
Design of the Study

A quasi-experimental design was employed using a "Nonrandomized Control-Group Pretest-Posttest Design" (Isaac & Michael, 1981) to assess the effect of diction instruction on performance of Liturgical Latin. The research treatments were randomly assigned to the groups. Three intact groups of students were involved, two experimental groups, IPA and EPA, and one control group.

The two experimental groups received the same phonetic instruction with the employment of visual charts of vowels and consonants and English equivalent words. However, the phonetic systems applied in diction instruction were different for the two groups. The IPA group was instructed using the phonetic system of the International Phonetic Alphabet exclusively, while the EPA group was instructed using the phonetic system of the English Phonetic Alphabet exclusively. The Control group received traditional diction instruction through imitation alone and with the use of English equivalent words.

Procedures

The sixty-two subjects participating in this research study were obtained from three intact eighth grade mixed choirs from one middle school in the suburban area of Columbus, Ohio. All three choirs were non-auditioned groups, meeting every other day for forty-five minutes each rehearsal. Each choir had approximately twenty students. The enrollment of this middle school was 820. The student population was primarily Caucasian, with the majority of the students coming from lower-middle class homes.

A Student Diction Experience Survey was used to test the initial equivalency of subjects in the choral ensemble participation and diction learning experiences. A spoken pretest and a written pretest were utilized to evaluate subjects' previous abilities and
knowledge in Latin diction and phonetics. In addition, a singing pretest was employed to assess the groups' previous performance skills in Latin diction.

The three intact mixed choirs were randomly assigned to one of the three experimental treatments before the experimental instruction. Both IPA and EPA groups received twenty twenty-minute lessons over a period of nine weeks, and the control group received sixteen fifteen-minute lessons for seven weeks. The three groups were rehearsed every other day during the afternoon, and all the treatments were administered by the investigator.

Because of the students' unfamiliarity with the phonetic symbols, the first four lessons for the IPA and EPA groups mainly dealt with the concepts of speech articulators and the IPA or EPA phonetic symbols associated with the vowel and consonant sounds. There was no diction instruction yet directly associated with instructional materials for the two selected Latin songs. The remaining sixteen lessons for both experimental groups included warm-up exercises, discussion of the diction rules of Latin, written practice of phonetic symbols, spoken practice of phonetic spellings and the Latin texts from the two selected songs, and rehearsal of the two Latin selections. The sixteen lessons for the Control group included warm-up exercises, spoken practice of the Latin texts from the two selected songs, and rehearsal of the two Latin choral selections. For the purpose of diagnosing treatment contents, all the treatment lessons for the three groups were videotaped.

To assess the groups' diction performance skill in Latin following the treatment period, a singing posttest was administered to each group at the end of the final lesson. To assess students' text reading ability and their abilities in application of Latin diction knowledge following the diction instruction, a spoken posttest was administered individually to each subject in all three groups. All the singing and spoken tests were audio-taped to facilitate the judges' rating process. To assess students' phonetic translation
ability and their abilities in application of phonetic knowledge following the phonetic instruction, a written posttest was administered to each subject in the two experimental groups. To measure subjects' responses concerning the value of the experimental treatments and strategies and the improvement in their own understanding and pronunciation of Latin texts after the diction instruction, a Student Evaluation Survey was administered to all the subjects at the end of the post-testing.

**Materials**

**Choral Music**

To assess the effect of Latin diction instruction, two sacred Latin selections with common Latin texts and a variety of pronunciation sounds of Latin vowels and consonants were chosen and rehearsed as part of this research study. *Ave Maria* was composed by Jacques Arcadelt (1505-1567) and edited by Joyce Eilers in a three-part mixed voicing. *Ave Verum* was composed by W. A. Mozart (1756-1791) and edited by Joyce Eilers in a three-part mixed voicing. The voice ranges of both selections were comfortable for eighth-grade middle school voices. In addition, the rhythmic structures of the selections were not difficult and all voices usually sang similar rhythms. The two Latin selections were within the selected choirs' capability and would be used in future performance by those choirs.

**Instruments of Evaluation**

Information concerning all participating students' previous diction experience was assessed through the Student Diction Experience Survey at the beginning of the study. At the conclusion of the study, information concerning all participating students' responses on the experimental treatments and their satisfaction with their improvement was assessed through the Student Evaluation Survey.
The Pretest Phonetic Translation Forms were developed to assess subjects' previous phonetic knowledge. The content of the written pretest was derived from the two Latin choral selections to be taught. The results of the phonetic instruction and the students' abilities in the application of phonetic knowledge were assessed through the Posttest Phonetic Translation Forms. They included not only the entire content of the pretest, but also the addition of two common Latin sentences which did not occur in the two Latin choral selections studied. These written tests were pilot tested prior to the study and were administered to each subject in the two experimental groups.

The Pretest Text Reading Form was developed to assess subjects' previous Latin diction knowledge. The content of the spoken pretest was derived from the two Latin choral selections to be taught. The results of the diction instruction and the students' abilities in the application of Latin diction knowledge were assessed through the Posttest Text Reading Form. It included not only the whole content of the pretest, but also the addition of three common Latin phrases which did not appear in the two Latin choral selections studied. These spoken tests were pilot tested prior to the study and were administered to each subject in the three treatment groups. A panel of judges analyzed the results of measurement of subjects' text reading skills using these two Forms.

The Choral Diction Inventory was used to evaluate the choirs' Latin diction performance skills such as uniform vowels, clear consonants, and text intelligibility for the two Latin selections. Content validity was obtained for the Inventory through expert judgment. A panel of choral experts rated the results of measurement of the choirs' diction performance skills using this Inventory.
Data Analysis

The scores obtained from the various pre- and posttests were subjected to statistical analysis at the Academic Computing Service Center of the Ohio State University using the SAS statistical package. The treatment results of the dependent variables were analyzed using the ANOVA or ANCOVA, and were reported in the form of Degrees of Freedom, Sum of Squares, Mean Square, F value, and Probability. When the results indicated significance, subsequent analysis of the source of the differences was to be performed using Least Square Means and Probability.

Relationships between the dependent variables and interactions between the dependent variable and other variable were analyzed using Correlation Coefficients, or F value and Probability. When the results indicated significance, subsequent analysis of the source of the interaction was to be performed using Least Square Means and Probability. Information concerning participating students' responses in the Student Evaluation Survey was reported using percentages.

Summary of Results

Null Hypothesis 1: There will be no significant difference in the diction performance skills for Latin selections between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups.

The statistical analysis indicated no significant difference among the means of the treatment groups. Therefore, the statistical decision was failure to reject Null Hypothesis 1. However, the results of the statistical analysis did indicate a significant difference among the judges' responses on the items of the Choral Diction Inventory at the .0049 level. The interjudge reliability was .253 for the singing posttest, indicating a low degree of agreement in judging. Only two judges agreed with each other significantly in this evaluation (r = .501, p = .0125).
Null Hypothesis 2: There will be no significant difference in the accuracy of Latin diction in text reading between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups.

The statistical analysis indicated a significant difference among the means of the treatment groups at the .0076 level in favor of the experimental treatment of the IPA phonetic instruction. Therefore, the statistical decision was to reject Null Hypothesis 2. The interjudge reliability was .915 for the spoken pretest and .828 for the spoken posttest 1, indicating a high degree of agreement in judging.

The results of the subsequent analysis by least square means of the scores of the spoken posttest 1 indicated that the IPA group scored significantly higher than the EPA group at the .0030 level. In addition, the results showed that the IPA group scored significantly higher than the Control group at the .0041 level. In relation to the diction instruction for the EPA and Control groups, the phonetic instruction received by the IPA group made a difference in terms of subjects' text reading accuracy on the Latin texts studied.

Null Hypothesis 3: There will be no significant difference in the application of Latin diction knowledge in the posttest text reading scores between subjects in (a) the IPA and EPA groups, (b) the IPA and Control groups, and (c) the EPA and Control groups.

The statistical analysis indicated a significant difference among the means of the treatment groups at the .0044 level in favor of the experimental treatment of the EPA phonetic instruction. Therefore, the statistical decision was to reject Null Hypothesis 3. The interjudge reliability was .898 for the spoken posttest 2, indicating a high degree of agreement in judging.

The results of the subsequent analysis by least square means of the scores of the spoken posttest 2 indicated that the EPA group scored significantly higher than the Control group at the .0010 level. Although it was not significant at the .05 level, the results
showed that the EPA group scored higher than the IPA group at the .0743 level, indicating a favorable result for the EPA group. The phonetic instruction received by the EPA group made a difference in terms of subjects' ability in application of Latin diction knowledge in reading unstudied Latin texts.

Null Hypothesis 4: There will be no significant difference in the accuracy of phonetic translation of Latin texts between subjects in the IPA and EPA groups.

The statistical analysis indicated no significant difference between the means of the treatment groups on the written posttest 1. Therefore, the statistical decision was failure to reject Null Hypothesis 4. The phonetic instruction received by both IPA and EPA groups made no difference in terms of subjects' phonetic translation accuracy on the Latin texts studied, although both groups had a significant gain in score on the written posttest 1.

Null Hypothesis 5: There will be no significant difference in the application of phonetic knowledge in the posttest phonetic translation scores between subjects in the IPA and EPA groups.

The statistical analysis indicated a significant difference between the means of the treatment groups at the .0083 level in favor of the experimental treatment of the IPA phonetic instruction. Therefore, the statistical decision was to reject Null Hypothesis 5.

The results of the written posttest 2 indicated that the IPA group scored significantly higher than the EPA group. In relation to the phonetic instruction for the EPA group, the phonetic instruction received by the IPA group made a difference in terms of subjects' ability in application of phonetic knowledge in phonetic translation of unstudied Latin texts.

Research Question 1: Is there a relationship between students' ability in diction accuracy in the tests of text reading and phonetic translation?

The results of the Pearson Product-Moment Coefficient of Correlation indicated that a significant and positive correlation existed between performance of text reading and phonetic translation on the posttest 1 scores ($r = .3067, p < .0542$). This positive
relationship showed that students scoring higher on the spoken posttest 1 also scored higher on the written posttest 1, while students scoring lower on the spoken posttest 1 also scored lower on the written posttest 1.

Research Question 2: Is there an interaction between students' diction performance in the tests of text reading and gender, and/or in the tests of phonetic translation and gender?

The statistical analysis indicated a significant interaction between groups' performance on the spoken posttest 2 of text reading and gender at the .0284 level. The results of the subsequent analysis by least square means indicated that girls in the IPA group scored significantly higher on the spoken posttest 2 than boys in the IPA group at the .0278 level.

The statistical analysis indicated no significant interaction between groups' written posttests of phonetic translation and gender at the .05 level. Thus, gender did not affect the written test performance of phonetic translation in this study.

Research Question 3: Is there an interaction between accomplishment in Latin diction instruction and learning experience in other languages?

The statistical analysis indicated no significant interaction between groups' spoken posttests of text reading and learning experience in other languages at the .05 level. Thus, learning experience in other languages did not affect the spoken test performance of text reading in this study.

The statistical analysis indicated a significant difference between with and without learning experience in other languages on the written posttest 2 at the .0358 level. Students with learning experience in other languages scored significantly higher on this written posttest than students without learning experience in other languages. In addition, the statistical analysis indicated a significant interaction between groups' performance on the written posttest 2 of phonetic translation and learning experience in other languages at the .0138 level.
The results indicated that in the EPA group, students with learning experience in other languages scored significantly higher on the written posttest 2 than students without learning experience in other languages at the .0050 level.

Discussions, Conclusions and Implications

The purpose of this study and the results presented in Chapter IV suggest the following conclusions and implications.

1. The result of the singing tests indicated no significant difference in the diction performance skills among the three treatment groups. From the investigator's observation during the treatment, this result might be due in part to the majority of the students' uncertainty of the musical notation and lack of fundamental skills of sight-reading, which caused the delay of learning the Latin selections and performing them with accurate diction. In addition, there exists a low degree of agreement among the experienced choral directors serving as adjudicators regarding text intelligibility and accuracy of Latin diction in the production of pure Latin vowel sounds and the correctness of articulated Latin consonants. This low interjudge agreement could also have influenced the finding of no significant difference of the groups' diction performance skills. During the evaluation procedure of the singing tests, some judges indicated that inaccurate pitches and part singing took their attention away from the performance of Latin diction.

2. Eighth grade choral students who received systematic instruction and regular practice in Latin diction were able to make great improvement in their Latin text reading ability from the pretest to the posttest, with both the IPA and EPA phonetic instruction, and the traditional rote instruction.
However, the results of the study indicated a significant advantage in the IPA phonetic instruction for Latin text reading accuracy.

3. The methods of the IPA/EPA phonetic instruction, especially the EPA phonetic instruction, are superior to the methods of the traditional rote instruction for teaching Latin diction in choral rehearsals, and strengthen eight grade choral students' ability in application of Latin diction knowledge when speaking unstudied Latin texts.

4. The methods of the IPA and EPA phonetic instruction appear to be effective for improving students' ability in the accuracy of phonetic translation of Latin texts. However, eighth grade choral students who received the IPA phonetic instruction performed with greater accuracy than those who received the EPA phonetic instruction in application of phonetic knowledge in phonetic translation of unstudied Latin texts.

5. With regard to the specific treatment methods used, the results from this study suggest that phonetic diction instruction using either the IPA or the EPA phonetic system, and especially the IPA (International Phonetic Alphabet) phonetic system, is much more beneficial than traditional diction instruction using imitation alone for Latin diction training. Therefore, as utilized in this study, the use of the phonetic systems and the design of the experimental treatments and strategies provide a foundation for diction training in Liturgical Latin to middle school eighth grade singers.

6. A positive correlation between performance on the tests for text reading and phonetic translation was revealed. Students performing with greater accuracy on text reading of Latin texts studied also performed with greater accuracy on phonetic translation of Latin texts studied, while students performing with less accuracy on text reading of Latin texts studied also...
performed with less accuracy on phonetic translation of Latin texts studied.

7. The two significant interactions detected in the ANOVA/ANCOVA were the interactions between gender and the test of text reading in the IPA group, and between learning experience in other languages and the test of phonetic translation in the EPA group. In the IPA group, girls scored significantly higher than boys on the posttest for the application of Latin diction knowledge in reading unstudied Latin texts. The method of the IPA phonetic instruction was more beneficial for the girls than for the boys, perhaps because the girls had more interest in learning the Latin language through the new phonetic symbols, the International Phonetic Alphabet. In the EPA group, students with learning experience in other languages scored significantly higher than students without learning experience in other languages on the posttest for the application of phonetic knowledge in phonetic translation of unstudied Latin texts. These students with learning experience in other languages might have already been exposed to some of the English Phonetic Alphabet symbols in spite of their inability to recognize them.

8. The Student Evaluation Survey revealed that students receiving the phonetic instruction gave more positive reaction to their experimental treatments and rehearsal strategies than those students receiving the rote instruction. In addition, students receiving the phonetic instruction felt more confident in their diction performance and were more satisfied with their own improved understanding after the diction instruction than those receiving the rote instruction. From the results of the study, students' perception of their performance accuracy levels did coincide with their self-reported understanding of the subject matter. Finally, students in the experimental
groups gave a significantly high preference (70%) to their phonetic instruction, while students in the control group gave a lower preference (30%) to their traditional rote instruction.

**Recommendations for Future Research**

The following recommendations for future research are suggested from the findings and limitations of the present study. Studies are needed to:

1. Determine the effects of a longer period of treatment time with more opportunity for practice on the dependent variables, especially the diction singing skills. The present study consisted of 15 minutes of diction instruction for the control group and 15 minutes of diction instruction plus 5 more minutes' study of IPA or EPA phonetic symbols and Latin diction rules in each rehearsal for the experimental groups.

2. Explore the effects of an aural training session for judging the performance skills on diction clarity and text intelligibility to achieve higher interjudge agreement for measuring the groups' diction singing ability. Unlike the judging procedure for the individual spoken tests in the present study, the procedure for the judges in the group singing tests included no aural training session. Only a verbal explanation and discussion of the judging procedure were provided in order to bring the judges' full concentration to the rating of the choirs' diction singing skills and text intelligibility. A low interjudge agreement, however, was revealed in the results of the choirs' singing tests.

3. Explore the educational background of the diction pedagogues as related to diction training in Latin and other languages, and choral/vocal performance experience of choral experts to provide useful objective information towards
the understanding of Latin and other languages and to provide a potential resource for the preparation of future choral music educators.

4. Determine the effects of sight-reading ability or sight-singing ability on the development of phonetic concepts and on the accurate performance of choral diction.

5. Explore the effects of various voicing of a choral selection such as unison, two parts, or three parts for men's voices, women's voices, or mixed voices on the measurement of a choir's diction performance skills in certain languages.

6. Determine the effects of group IPA or EPA phonetic instruction in other languages in the regular choral rehearsal to provide choral directors additional teaching and programming options.

7. Explore the effects of IPA phonetic instruction on the development of phonetic concepts and on diction performance skills with beginners or younger singers in middle and elementary schools.

Like sight-reading ability, the ability to pronounce musical texts independently is a useful and important skill for the choral musician and for eighth grade choral singers. Without a fundamental understanding of phonetic systems and common diction rules, choral singers are restricted to learning various pronunciations aurally, and they are totally dependent on their directors when learning new choral repertoire. If choral singers who can understand and read phonetic symbols are provided enough information concerning the pronunciation of musical texts with those symbols, they can study new repertoire in several different languages independently. In addition, they can spend more rehearsal time learning musical literature, make beautiful choral sounds, and convey the aesthetic message of music to their audience through good choral diction.

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LIST OF REFERENCES


Coker, T. C. (1985). Choral warm-up exercises as a key to teaching music literature and vocal technique (Doctoral dissertation, the University of Southern Mississippi, 1984). Dissertation Abstracts International, 46 (6), 1549A.


APPENDIX A

PHONETIC EQUIVALENT CHART
FOR PRONUNCIATION OF LITURGICAL LATIN
<table>
<thead>
<tr>
<th>Liturgical Latin Letter(s)</th>
<th>IPA &amp; EPA</th>
<th>English Example</th>
<th>Latin Example</th>
<th>IPA &amp; EPA Spellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>[a]</td>
<td>father</td>
<td>Ave</td>
<td>[ˈa-ve]</td>
</tr>
<tr>
<td></td>
<td>/ah/</td>
<td></td>
<td></td>
<td>/əh-veh/</td>
</tr>
<tr>
<td>ae, a digraph</td>
<td>[e]</td>
<td>set</td>
<td>aeternae</td>
<td>[e-ˈter-ne]</td>
</tr>
<tr>
<td></td>
<td>/eh/</td>
<td></td>
<td></td>
<td>/eht-ehr-neh/</td>
</tr>
<tr>
<td>au, a diphthong</td>
<td>[aːu]</td>
<td>laudate</td>
<td>laudate</td>
<td>[ləu-ˈda-te]</td>
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<td>/ah-oo/</td>
<td></td>
<td></td>
<td>/lah-oo-ˈdah-teh/</td>
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<tr>
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<td>Raymundi</td>
<td>Raymundi</td>
<td>[ˈræj-mun-di]</td>
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<td>/rah-ee-ˈmoon-dee/</td>
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<td>benedicta</td>
<td>[be-ne-ˈ dik-ta]</td>
</tr>
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<td></td>
<td>/b/</td>
<td></td>
<td></td>
<td>/beh-neh-ˈdeek-tah/</td>
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<td>[tʃ]</td>
<td>church</td>
<td>cruce</td>
<td>[ˈkru-tʃe]</td>
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<td></td>
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<td>ecce</td>
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<td></td>
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<td>/ˈeht-cheh/</td>
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<td>Christe</td>
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<td>/ˈveh-reh/</td>
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<td>/ˈfrook-toos/</td>
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<td>fudge</td>
<td>Virgine</td>
<td>[ˈvɪr-dʒi-ne]</td>
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<td>Liturgical Latin Letter(s)</td>
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<td>ascendit</td>
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<td>Liturgical Latin Letter(s)</td>
<td>IPA &amp; EPA Spellings</td>
<td>IPA EPA</td>
<td>English Example</td>
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<td>hits</td>
<td>graltia</td>
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<td>mortis</td>
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<td>Thomas</td>
<td>sabaoth</td>
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<td>u</td>
<td>/u/</td>
<td>/ool/</td>
<td>moon</td>
<td>latys</td>
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<td>/wwl/</td>
<td>sanguine</td>
<td>/sahn-gwee-neh/</td>
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<td>value</td>
<td>Virgine</td>
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<td>/gs/</td>
<td>/gs/</td>
<td>eggs</td>
<td>examine</td>
</tr>
<tr>
<td>before a vowel</td>
<td>/gs/</td>
<td>/gs/</td>
<td>eggs</td>
<td>exsules</td>
</tr>
<tr>
<td>before h or s followed by a vowel</td>
<td>/ksk/</td>
<td>/ksk/</td>
<td>exclude</td>
<td>excanto</td>
</tr>
<tr>
<td>before c followed by a, o, u</td>
<td>/kʃ/</td>
<td>/kʃ/</td>
<td>pink shell</td>
<td>excelsis</td>
</tr>
<tr>
<td>before c followed by e, ae, oe, i, or y</td>
<td>/kʃ/</td>
<td>/kʃ/</td>
<td>box</td>
<td>fluxit</td>
</tr>
<tr>
<td>in other cases</td>
<td>/ks/</td>
<td>/ks/</td>
<td>beads</td>
<td>zelus</td>
</tr>
<tr>
<td>y</td>
<td>/i/</td>
<td>/ee/</td>
<td>me</td>
<td>Kyrie</td>
</tr>
<tr>
<td>z</td>
<td>/dz/</td>
<td>/dz/</td>
<td>beads</td>
<td>zelus</td>
</tr>
</tbody>
</table>

122
STUDENT DICTION EXPERIENCE SURVEY

Please print your name and indicate your gender.

Name ________________________________________________________________

Male     Female     Period 1     Period 2     Period 3

Please answer the following questions about your previous diction experience.

1. How many years have you sung in choir including choirs in church, community, and elementary school?
   _____ first semester     _____ one year     _____ two years
   _____ three years     _____ four and more than four years

2. Check all the language(s) in which you have sung in choir.
   _____ English
   _____ French
   _____ German
   _____ Italian
   _____ Latin
   _____ Other (please specify) __________________________________________

3. Have you ever taken private voice lessons?     _____ Yes     _____ No
   If yes, how long have you studied? ______________
   Are you currently taking voice lessons?     _____ Yes     _____ No

4. Check all the language(s) in which you have sung in your voice lessons.
   _____ English
   _____ French
   _____ German
   _____ Italian
   _____ Latin
   _____ Other (please specify) __________________________________________
5. If you marked Latin on Question 2 or 4 please indicate when you most recently sang a Latin piece.
   - ______ Currently singing a Latin piece
   - ______ Last semester
   - ______ Two semesters ago
   - ______ Longer than two semesters ago

6. Have you ever been enrolled in a Latin language class? ______ Yes ______ No
   If yes, how many semesters have you studied Latin? ____________
   (If this is your first semester please indicate "1 semester")
   Are you currently in a Latin language class? ______ Yes ______ No
   Have you ever been enrolled in any other language class? ______ Yes ______ No
   If yes, which language(s) have you studied? ____________________

7. If you have ever sung a Latin piece or studied the Latin language, how did you learn to pronounce the Latin words?
   ______ By imitation
   ______ By the employment of phonetic symbols
   ______ Other (please specify) ________________________________

8. If you marked "By the employment of phonetic symbols" in Question 7, please indicate which types of phonetic symbols you have used and where you learned those symbols.
   ______ International Phonetic Alphabet [a, e, i, o, u, 'a-nus, 'dse-nus, etc.]
     at ______ choir ______ voice lesson ______ language class
   ______ English Phonetic Alphabet /ah, eh, ee, aw, oo, ah-nyoos, jeh-noos, etc./
     at ______ choir ______ voice lesson ______ language class
   ______ Webster's Dictionary Symbols (a, e, ë, o, û, an-yûs, je-nûs, etc.)
     at ______ choir ______ voice lesson ______ language class
   ______ Other (please specify) ________________________________

THANK YOU FOR TAKING PART IN THIS SURVEY
1. What value do you see in reviewing common vowels to achieve correct pronunciation of Latin vowel sounds? (circle one)
   
   No value          Some value          Much value

2. What value do you see in studying Latin vowels with the visual aid of vowel charts / oral demonstration to establish clear concepts about vowel formation? (circle one)
   
   No value          Some value          Much value

3. What value do you see in incorporating Latin diction into warm-up exercises to achieve good production of vowel and consonant sounds?
   
   No value          Some value          Much value

4. What value do you see in utilizing a phonetic system / imitation to reinforce your understanding of Latin diction? (circle one)
   
   No value          Some value          Much value

5. What value do you see in utilizing a phonetic system / imitation to facilitate your pronunciation of Latin texts? (circle one)
   
   No value          Some value          Much value

6. How do you rate the improvement of your understanding of Latin diction through phonetic / rote instruction by the end of the lesson? (circle one)
   
   Very Poor        Poor           Average       Good       Very Good
7. How do you rate the improvement of your pronunciation of the Latin texts through phonetic / rote instruction by the end of the lesson? (circle one)

   Very Poor    Poor    Average    Good    Very Good

8. How do you rate the class rehearsal of the Latin choral pieces? (circle one)

   Very Poor    Poor    Average    Good    Very Good

9. How do you rate the phonetic / rote instruction of Latin diction used? (circle one)

   Very Poor    Poor    Average    Good    Very Good

10. This instruction was presented through:

    ______ International Phonetic Alphabet Instruction

    ______ English Phonetic Alphabet Instruction

    ______ Imitation

THANK YOU FOR TAKING PART IN THIS SURVEY!

PLEASE FEEL FREE TO MAKE ANY COMMENTS!!!

Comments:
CHORAL DICTION INVENTORY

Judge # _____
Choir # _____

1. The Latin pure vowel sounds are clearly established and consistently maintained.

   SD   D   N   A   SA
   1  2  3  4  5

2. The vowels are unified and distinctly articulated throughout the section or the choir.

   SD   D   N   A   SA
   1  2  3  4  5

3. Initial consonants need more emphasis.

   SD   D   N   A   SA
   1  2  3  4  5

4. Final consonants need more crispness.

   SD   D   N   A   SA
   1  2  3  4  5

5. The consonants are clearly established and precisely executed across the section or the choir.

   SD   D   N   A   SA
   1  2  3  4  5

6. The phrasing is proper and coherent as it pertains to the placement of breaths or the grouping of the texts.

   SD   D   N   A   SA
   1  2  3  4  5

7. The overall diction of this group is accurate and understandable.

   SD   D   N   A   SA
   1  2  3  4  5

8. The diction of this group is excellent.

   SD   D   N   A   SA
   1  2  3  4  5

1 2 8
PRETEST PHONETIC TRANSLATION FORM FOR EPA GROUP

Transcribe Latin texts into EPA symbols or transcribe these symbols into Latin texts.

Student Name __________________________

1. / beh-neh-ˈdeek-toos ˈfrook-toos ˈvehn-trees ˈtoo-ee ˈyeh-soos /

2. nunc et in hóra mórtis nóstrae

3. / ˈnah-toom deh mah-ˈree-ah ˈveer-jee-neh /

4. immolátum in crúce pro hómine

vowels _____ consonants _____

129
POSTTEST PHONETIC TRANSLATION FORM FOR EPA GROUP

Transcribe Latin texts into EPA symbols or transcribe these symbols into Latin texts.

Student Name ________________________________

1. / beh-neh-ˈdeek-toos ˈtroot-toos ˈvehn-trees ˈtoo-ee ˈyeh-soos /

2. nunc et in hóra mórtis nóstrae

3. / ˈnah-toom deh mah-ˈree-ah ˈveer-jee-neh /

4. immolátum in crúce pro hómine

5. / kwee ˈtawl-lees pehk-ˈkah-tah ˈmoon-dee mee-seh-ˈreh-reh/

6. Réquiem aetérnam dóna ēis Dómine

vowels _____ consonants _____

130
PRETEST PHONETIC TRANSLATION FORM FOR IPA GROUP

Transcribe Latin texts into IPA symbols or transcribe these symbols into Latin texts.

Student Name ______________________

1. [be-ne-'dik-tus 'fruk-tus 'ven-tris 'tu-i 'je-sus ]

2. nunc et in hóra mórtis nóstrae

3. [ 'na-tum de ma-'ri-a 'vir-dʒi-ne ]

4. immolátum in crúce pro hómine

vowels _____ consonants _____

131
POSTTEST PHONETIC TRANSLATION FORM FOR IPA GROUP

Transcribe Latin texts into IPA symbols or transcribe these symbols into Latin texts.

Student Name ____________________________

1. \[ be-ne-'dik-tus 'fruk-tus 'ven-tris 'tu-i 'je-sus \]

2. nunc et in hóra mórtis nóstrae

3. \[ 'na-tum de ma-'ri-a 'vir-dsi-ne \]

4. immolátum in crúce pro hómine

5. \[ kwi 'to1-lis pek-'ka-ta 'mun-di mi-se-'re-re \]

6. Réquiem aetérnam dóna éis Dómine

vowels _____ consonants _____

132
PRETEST TEXT READING FORM

Student Number ___________

1. Ésto nóbis praegustátum in mórtis exámine
   v: _____
   c: _____

2. immolátum in crúce pro hómine
   v: _____
   c: _____

3. únda flúxit et sánquine
   v: _____
   c: _____

4. Áve María grátia pléna
   v: _____
   c: _____

5. Benedícta tu in muliéribus
   v: _____
   c: _____

6. et benedíctus flúctus véntris tuí, Jésus
   v: _____
   c: _____

vowels _____ consonants _____

133
POSTTEST TEXT READING FORM

Student Number ___________.

1. Ésto nóbis praegustátum in mórtis exámine v:_____ c:_____ 
2. immolátum in crúce pro hómine v:_____ c:_____ 
3. únda flúxit et sán guine v:_____ c:_____ 
4. Áve María grátia pléna v:_____ c:_____ 
5. Benedícta tu in muliéribus v:_____ c:_____ 
6. et benedíctus flúctus véntris túi, Jésus v:_____ c:_____ 
7. Qui tóllis peccáta múndi miserére nóbis v:_____ c:_____ 
8. Réquiem aetérnam dóna éis Dómine v:_____ c:_____ 
9. Jubiláte Déo, allelúia v:_____ c:_____ 

vowels _____ consonants _____

134
APPENDIX C

RESULTS OF
STUDENT DICTION EXPERIENCE SURVEY
## STUDENT DICTION EXPERIENCE SURVEY

<table>
<thead>
<tr>
<th>Response</th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th>% of Total Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n=20)</td>
<td>(n=20)</td>
<td>(n=22)</td>
<td></td>
</tr>
</tbody>
</table>

1. How many years have you sung in choir including choirs in church, community, and elementary school?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>first semester</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>one year</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>two years</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>three years</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>13</td>
<td>9</td>
<td>four and more than four years</td>
</tr>
</tbody>
</table>

2. Check all the language(s) in which you have sung in choir.

<table>
<thead>
<tr>
<th>Language</th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th>% of Total Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>20</td>
<td>20</td>
<td>22</td>
<td>100 100 100</td>
</tr>
<tr>
<td>French</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>15   5   18</td>
</tr>
<tr>
<td>German</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>10   5   0</td>
</tr>
<tr>
<td>Italian</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>5    0   5</td>
</tr>
<tr>
<td>Latin (&quot;Gloria Deo&quot; only)</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>100 100 100</td>
</tr>
<tr>
<td>Latin (other choral pieces)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5  5  5</td>
</tr>
<tr>
<td>Other (Spanish, Japanese, and African)</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>15  25  18</td>
</tr>
</tbody>
</table>

3. Have you ever taken private voice lessons?

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th>% of Total Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>21</td>
<td>no</td>
</tr>
</tbody>
</table>

Are you currently taking voice lessons?

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th>% of Total Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>21</td>
<td>no</td>
</tr>
</tbody>
</table>

4. Check all the language(s) in which you have sung in your voice lessons.

<table>
<thead>
<tr>
<th>Language</th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th>% of Total Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0 0 100</td>
</tr>
<tr>
<td>French</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0</td>
</tr>
<tr>
<td>German</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Italian</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Latin</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0 0 0</td>
</tr>
</tbody>
</table>
### Response

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. If you marked Latin on Question 2 or 4 please indicate when you most recently sang a Latin piece.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Currently singing a Latin piece</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>22</td>
<td>Last Semester</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Two Semester</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Longer than two semester ago</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 6. Have you ever been enrolled in a Latin language class?

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
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<td></td>
<td>20</td>
<td>20</td>
<td>22</td>
<td>no</td>
<td>100</td>
<td>100</td>
<td>100</td>
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</table>

Are you currently in a Latin language class?

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>22</td>
<td>no</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Have you ever been enrolled in any other language class?

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>yes</td>
<td>30</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>15</td>
<td>14</td>
<td>no</td>
<td>70</td>
<td>75</td>
<td>64</td>
</tr>
</tbody>
</table>

If yes, which language(s) have you studied?

<table>
<thead>
<tr>
<th>Language</th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>17 20 75</td>
</tr>
<tr>
<td>Spanish</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>66 80 25</td>
</tr>
<tr>
<td>German</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>17 0 0</td>
</tr>
</tbody>
</table>

### 7. If you have ever sung a Latin piece or studied the Latin language, how did you learn to pronounce the Latin words?

<table>
<thead>
<tr>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
<th></th>
<th>IPA</th>
<th>EPA</th>
<th>CON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>20</td>
<td>22</td>
<td>By imitation</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>By the employment of phonetic symbols</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Other</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
APPENDIX D

STUDENT FOLDER
FOR IPA GROUP
Table of Five Latin Vowel Sounds:

<table>
<thead>
<tr>
<th>IPA Symbol</th>
<th>English Example</th>
<th>IPA Symbol Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>[a]</td>
<td>father</td>
<td></td>
</tr>
<tr>
<td>[ɔ]</td>
<td>for</td>
<td></td>
</tr>
<tr>
<td>[u]</td>
<td>moon</td>
<td></td>
</tr>
<tr>
<td>[ɛ]</td>
<td>head</td>
<td></td>
</tr>
<tr>
<td>[i]</td>
<td>me</td>
<td></td>
</tr>
</tbody>
</table>

Vowel Triangle of Nine Basic Vowels:

Table of Voiced and Voiceless Latin Consonants:

<table>
<thead>
<tr>
<th>Voiced</th>
<th>[z] [d] [b] [g] [v]</th>
<th>[ʣ] [m] [n] [j]</th>
<th>[l] [ɾ] [ɾ] [ɹ] [w] [ŋ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPA Exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voiceless</td>
<td>[s] [t] [p] [k] [f] [ʃ]</td>
<td>[ʦ] [ʧ]</td>
<td></td>
</tr>
<tr>
<td>IPA Exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ave Maria, gratia plena,
[ 'a-ve ma-'ri-a 'grā-tsi-a 'ple-na ]
Hail Mary, of grace full,

Dominus tecum,
[ 'dō-mi-nus 'te-kum ]
Lord with you,

benedicta tu in mulieribus,
[ be-ne-'dik-ta tu in mu-li-'e-ri-bus ]
blessed you among women,

et benedictus fructus ventris tui, Jesus.
[ et be-ne-'dik-tus 'fruk-tus 'ven-tris 'tu-i 'je-sus ]
and blessed fruit of womb your, Jesus.

Sancta Maria, Mater Dei,
[ 'san-kta ma-'ri-a 'ma-ter 'de-i ]
Holy Mary, Mother of God,

ora pro nobis peccatoribus,
[ 'o-ra pro 'no-bis pek-kā-'to-ri-bus ]
pray for us sinners,

nunc et in hora mortis nostrae.
[ nunk et in 'o-nā 'mor-tis 'no-stre ]
now and at hour of death our.
Read and transcribing the following phonetic symbols into Latin texts

1. ['a-ve ma-'ri-a 'gro-tsi-a 'ple-na ]

Hail Mary, of grace full,

2. ['do-mi-nus 'te-kum ]

Lord with you,

3. [be-ne-'dik-ta tu in mu-ri-ri-bus ]

blessed you among women,

4. [et be-ne-'dik-tus 'fruk-tus 'ven-tris 'tu-i 'je-sus ]

and blessed fruit of womb your, Jesus.

5. ['san-kta ma-'ri-a 'ma-ter 'de-i ]

Holy Mary, Mother of God,

6. ['c-ra pro 'no-bis pek-kra-ri-bus ]

pray for us sinners,

7. [nunk et in 'c-ra 'mar-tis 'no-stre ]

now and at hour of death our.

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Read and transcribe the following Latin texts into phonetic symbols

1. Ave Maria, gratia plena,
Hail Mary, of grace full,

2. Dominus tecum,
Lord with you,

3. benedicta tu in mulieribus,
blessed you among women,

4. et benedictus fructus ventris tui, Jesus.
and blessed fruit of womb your, Jesus.

5. Sancta Maria, Mater Dei,
Holy Mary, Mother of God,

6. ora pro nobis peccatoribus,
pray for us sinners,

7. nunc et in hora mortis nostrae.
now and at hour of death our.
<table>
<thead>
<tr>
<th>Liturgical Latin Letter(s)</th>
<th>IPA</th>
<th>English Example</th>
<th>Latin Example</th>
<th>IPA Spellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>[a]</td>
<td>father</td>
<td>Ave</td>
<td>[ˈa-ve]</td>
</tr>
<tr>
<td>e</td>
<td>[e]</td>
<td>set</td>
<td>vere</td>
<td>[ˈve-re]</td>
</tr>
<tr>
<td>i</td>
<td>[i]</td>
<td>me</td>
<td>tu</td>
<td>[ˈtu-i]</td>
</tr>
<tr>
<td>o</td>
<td>[ɔ]</td>
<td>for</td>
<td>nóbis</td>
<td>[ˈno-bis]</td>
</tr>
<tr>
<td>u</td>
<td>[u]</td>
<td>moon</td>
<td>látus</td>
<td>[ˈla-tus]</td>
</tr>
<tr>
<td>y</td>
<td>[i]</td>
<td>me</td>
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<td>[ˈki-ri-e]</td>
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<td>set</td>
<td>aeternae</td>
<td>[ˈe-ter-ne]</td>
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<td>[e]</td>
<td>set</td>
<td>coèlum</td>
<td>[ˈko-olum]</td>
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<td>laudate</td>
<td>Raymundi</td>
<td>[rɔi-ˈmun-di]</td>
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<td>[ˈ8:u-d3£]</td>
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<td>euge</td>
<td>[ˈeːu-dʒe]</td>
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<td>u following ng or q and preceding a vowel</td>
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<td>[ˈsan-gwi-ne]</td>
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<tr>
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<td>[b]</td>
<td>baby</td>
<td>benedicta</td>
<td>[ˈbe-ne-ˈdik-ta]</td>
</tr>
<tr>
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<td>church</td>
<td>cruce</td>
<td>[ˈkru-tʃe]</td>
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<tr>
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<td>[k]</td>
<td>kie</td>
<td>cruce</td>
<td></td>
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<tr>
<td>cc</td>
<td>[tʃ]</td>
<td>eat cheese</td>
<td>ecce</td>
<td>[ˈet-tʃe]</td>
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<td>[ˈkri-ste]</td>
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<td>d</td>
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<td>day</td>
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<td>[ˈdo-mi-nus]</td>
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<td>for</td>
<td>fructus</td>
<td>[ˈtruk-tus]</td>
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<tr>
<td></td>
<td>[ɡ]</td>
<td>go</td>
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<td>[ˈgra-tsi-a]</td>
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<tr>
<th>Liturgical Latin Letter(s)</th>
<th>IPA</th>
<th>English Example</th>
<th>Latin Example</th>
<th>IPA Spellings</th>
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<tbody>
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<td>Agnus</td>
<td>[ˈa-nus]</td>
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<td>homine</td>
<td>[ˈɔ-mi-ne]</td>
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<td>[ˈje-sus]</td>
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<td>k</td>
<td>[k]</td>
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<td>Kyrie</td>
<td>[ˈki-ri-e]</td>
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<td>[l]</td>
<td>love</td>
<td>plena</td>
<td>[ˈple-na]</td>
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<td>[ˈno-ˀtum]</td>
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<td>[f]</td>
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<td>[kw]</td>
<td>quick</td>
<td>aqua</td>
<td>[ˈa-kwa]</td>
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<td>as a final letter or between two vowels-flipped</td>
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<td>[ˈɔ-ra]</td>
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<td>[ˈpas-sum]</td>
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<td>[ʃ]</td>
<td>show</td>
<td>ascendit</td>
<td>[ə-ˈʃen-dit]</td>
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<tr>
<td></td>
<td>[sk]</td>
<td>skip</td>
<td>scuto</td>
<td>[ˈsku-tə]</td>
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<tr>
<td>t</td>
<td>[t]</td>
<td>two</td>
<td>tecum</td>
<td>[ˈte-kum]</td>
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<td>ti before a vowel and after a letter other than s, t, or x</td>
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<td>hits</td>
<td>gratia</td>
<td>[ˈgra-tsi-ə]</td>
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<td></td>
<td>[ti]</td>
<td>tea</td>
<td>mortis</td>
<td>[ˈmor-tis]</td>
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<td>[t]</td>
<td>Thomas</td>
<td>sabaoth</td>
<td>[ˈsa-ba-ɔt]</td>
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<th>Liturgical Latin Letter(s)</th>
<th>IPA</th>
<th>English Example</th>
<th>Latin Example</th>
<th>IPA Spellings</th>
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<tr>
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<td>value</td>
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<td>[ˈvɪr-dʒi-nej]</td>
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<td>[dz]</td>
<td>beads</td>
<td>zelus</td>
<td>[ˈdзɛ-lus]</td>
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<tr>
<td>x after e</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>before a vowel</td>
<td>[gs]</td>
<td>eggs</td>
<td>examine</td>
<td>[eg-ˈsa-mi-ne]</td>
</tr>
<tr>
<td>before h or s followed by a vowel</td>
<td>[gs]</td>
<td>eggs</td>
<td>exsules</td>
<td>[eg-ˈsu-les]</td>
</tr>
<tr>
<td>before c followed by a, o, u</td>
<td>[ksk]</td>
<td>exclude</td>
<td>excanto</td>
<td>[ek-ˈskænto]</td>
</tr>
<tr>
<td>before c followed by e, ae, oe, i, or y</td>
<td>[kf]</td>
<td>pink shell</td>
<td>excelsis</td>
<td>[ek-ˈfel-sis]</td>
</tr>
<tr>
<td>in other cases</td>
<td>[ks]</td>
<td>box</td>
<td>fluxit</td>
<td>[ˈflʌk-sit]</td>
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</tbody>
</table>
AVE VERUM CORPUS

Ave verum Corpus,
[ 'a-ve 've-rum 'kor-pus ]
Hail true Body,

natum de Maria Virgine,
[ 'na-tum de ma-'ri-a 'vir-dsi-ne ]
born of Mary Virgin,

Vere passum,
[ 've-re 'pas-sum ]
Truly has suffered,

immolatum in cruce pro homine.
[ im-mo-'la-tum in 'kru-te pro 'o-mi-ne ]
was sacrificed on cross for mankind.

Cujus latus perforatum,
[ 'ku-jus 'la-tus per-fo-'ra-tum ]
whose side was pierced,

unda fluxit et sanguine;
[ 'un-da 'fluk-sit et 'san-gwi-ne ]
flowed water and blood;

Esto nobis praegustatum in mortis examine.
[ 'e-sto 'no-bis pre-gu-'sta-tum in 'mor-tis eg-'sa-mi-ne ]
Be for us foretaste in of death weighing.
Read and transcribing the following phonetic symbols into Latin texts

1. [ 'o-ve 've-rum 'kor-pus ]

Hail true Body,

2. [ 'na-tum de ma-ri-a 'vir-dgi-ne ]

born of Mary Virgin,

3. [ 've-re 'pas-sum ]

Truly has suffered,

4. [ im-mo-tum in 'kru-tse pro 'c-mi-ne ]

was sacrificed on cross for mankind.

5. [ 'ku-jus 'la-tus per-fa-rat ]

whose side was pierced,

6. [ 'un-da 'fluk-sit et 'san-gwi-ne ]

flowed water and blood;

7. [ 'e-sta 'no-bis pre-gu-sa-tum in 'mar-tis eg-sa-mi-ne ]

Be for us foretaste in of death weighing.

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Read and transcribe the following Latin texts into phonetic symbols

1. Ave verum Corpus,
   Hail true Body,

2. natum de Maria Virgine,
   born of Mary Virgin,

3. Vere passum,
   Truly has suffered,

4. immolatum in cruce pro homine.
   was sacrificed on cross for mankind.

5. Cujus latus perforatum,
   whose side was pierced,

6. unda fluxit et sanguine;
   flowed water and blood;

7. Esto nobis praegustatum in mortis examine.
   Be for us foretaste in of death weighing.

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APPENDIX E

STUDENT FOLDER
FOR EPA GROUP
Table of Five Latin Vowel Sounds:

<table>
<thead>
<tr>
<th>EPA Symbol</th>
<th>English Example</th>
<th>EPA Symbol Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ah/</td>
<td>father</td>
<td></td>
</tr>
<tr>
<td>/aw/</td>
<td>for</td>
<td></td>
</tr>
<tr>
<td>/oo/</td>
<td>moon</td>
<td></td>
</tr>
<tr>
<td>/eh/</td>
<td>head</td>
<td></td>
</tr>
<tr>
<td>/ee/</td>
<td>me</td>
<td></td>
</tr>
</tbody>
</table>

Vowel Triangle of Nine Basic Vowels:

Table of Voiced and Voiceless Latin Consonants:

<table>
<thead>
<tr>
<th>Voiced</th>
<th>/r/ /d/ /g/</th>
<th>/l/ /w/</th>
<th>/y/ /r/</th>
<th>/l/ /d/</th>
<th>/s/ /sh/</th>
<th>/t/ /ch/</th>
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</thead>
<tbody>
<tr>
<td>EPA Exercise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voiceless</td>
<td>/s/ /t/ /f/</td>
<td>/l/ /f/</td>
<td>/sh/</td>
<td>/ts/</td>
<td>/ch/</td>
<td></td>
</tr>
<tr>
<td>EPA Exercise</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AVE MARIA

Ave Maria, gratia plena,
Hail Mary, of grace full,

Dominus tecum,
Lord with you,

benedicta tu in mulieribus,
blessed you among women,

et benedictus fructus ventris tui, Jesus.
and blessed fruit of womb your, Jesus.

Sancta Maria, Mater Dei,
Holy Mary, Mother of God,

ora pro nobis peccatoribus,
pray for us sinners,

nunc et in hora mortis nostrae.
now and at hour of death our.
Read and transcribing the following phonetic symbols into Latin texts "C"

1. / 'ah-veh mah-ree-ah grah-tsee-ah pleh-nah /  
   Hail Mary, of grace full,

2. / 'daw-mee-noos teh-koom /  
   Lord with you,

3. / beh-neh-'deek-tah too een moo-lee-'eh-ree-boos /  
   blessed you among women,

4. / eht beh-neh-'deek-toos 'frook-toos 'vehn-trees 'too-ee 'yeh-soos /  
   and blessed fruit of womb your, Jesus.

5. / 'sahn-ktah mah-ree-ah mah-tehr deh-ee /  
   Holy Mary, Mother of God,

6. / 'aw-rah praw 'naw-bees pehk-kah-'taw-ree-boos /  
   pray for us sinners,

7. / noonk eht een 'aw-rah 'mawr-tees naw-streh /  
   now and at hour of death our.
Read and transcribe the following Latin texts into phonetic symbols

1. Ave Maria, gratia plena,
   Hail Mary, of grace full,

2. Dominus tecum,
   Lord with you,

3. benedicta tu in mulieribus,
   blessed you among women,

4. et benedictus fructus ventris tui, Jesus.
   and blessed fruit of womb your, Jesus.

5. Sancta Maria, Mater Dei,
   Holy Mary, Mother of God,

6. ora pro nobis peccatoribus,
   pray for us sinners,

7. nunc et in hora mortis nostrae.
   now and at hour of death our.

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<thead>
<tr>
<th>Liturgical Latin Letter(s)</th>
<th>EPA</th>
<th>English Example</th>
<th>Latin Example</th>
<th>EPA Spellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>/ah/</td>
<td>father</td>
<td>Ave</td>
<td>/'ah-veh/</td>
</tr>
<tr>
<td>e</td>
<td>/eh/</td>
<td>set</td>
<td>vere</td>
<td>/'veh-reh/</td>
</tr>
<tr>
<td>i</td>
<td>/ee/</td>
<td>me</td>
<td>tui</td>
<td>/'too-ee/</td>
</tr>
<tr>
<td>o</td>
<td>/aw/</td>
<td>for</td>
<td>nobis</td>
<td>/'naw-ee/</td>
</tr>
<tr>
<td>u</td>
<td>/oo/</td>
<td>moon</td>
<td>latus</td>
<td>/'lah-toos/</td>
</tr>
<tr>
<td>y</td>
<td>/ee/</td>
<td>me</td>
<td>Kyrie</td>
<td>/'kee-ree-eh/</td>
</tr>
<tr>
<td>ae, a digraph</td>
<td>/eh/</td>
<td>set</td>
<td>aeternae</td>
<td>/eh-`tehr-neh/</td>
</tr>
<tr>
<td>oe, a digraph</td>
<td>/eh/</td>
<td>set</td>
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<td>/'cheh-loom/</td>
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<td>au, a diphthong</td>
<td>/ah-oo/</td>
<td>laudate</td>
<td>/lah-oo-`dah-teh/</td>
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<td>ay, a diphthong</td>
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<td>Raymundi</td>
<td>/rrah-ee-`moon-dee/</td>
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<tr>
<td>eu, a diphthong</td>
<td>/eh-oo/</td>
<td>euge</td>
<td>/`eh-oo-jeh/</td>
<td></td>
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<tr>
<td>b</td>
<td>/b/</td>
<td>baby</td>
<td>benedicta</td>
<td>/beh-neh-`deek-tah/</td>
</tr>
<tr>
<td>c before e, ae, oe, i, or y</td>
<td>/ch/</td>
<td>church</td>
<td>cruce</td>
<td>/`kroo-cheh/</td>
</tr>
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<td></td>
<td>/k/</td>
<td>kite</td>
<td>cruce</td>
<td>/`kroo-cheh/</td>
</tr>
<tr>
<td>cc</td>
<td>/t-ch/</td>
<td>eat cheese</td>
<td>ecce</td>
<td>/`eht-cheh/</td>
</tr>
<tr>
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<td>/d/</td>
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<th>Latin Letter(s)</th>
<th>EPA Spelling</th>
<th>English Example</th>
<th>Latin Example</th>
<th>EPA Spellings</th>
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<td>EPA</td>
<td>English Example</td>
<td>Latin Example</td>
<td>EPA Spellings</td>
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<td>/ˈvɛr-je-neh/</td>
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<td>/dz/</td>
<td>beads</td>
<td>zelus</td>
<td>/ˈdzɛh-loʊs/</td>
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x after e
- before a vowel /gs/ eggs examine /ehg-ˈsah-mee-neh/
- before h or s followed by a vowel /gs/ eggs exsules /ehg-ˈsoo-lehs/
- before c followed by a, o, u /ksk/ exclude excanto /ehk-ˈskahn-taw/
- before c followed by e, ae, oe, i, or y /ksh/ pink shell excelsis /ehk-ˈshel-sees/
- in other cases /ks/ box fluxit /ˈflʊk-seet/
Ave verum Corpus,
/ 'ah-veh 'veh-room 'kawr-poos /
Hail true Body,

natum de Maria Virgine,
/ 'nah-toom deh mah-'ree-ah 'veer-jee-neh /
born of Mary Virgin,

Vere passum,
/ 'veh-reh 'pahs-soom /
Truly has suffered,

immolatum in cruce pro homine.
/ eem-maw-'lah-toom een 'kroo-cheh praw 'aw-mee-neh /
was sacrificed on cross for mankind.

Cujus latus perforatum,
/ 'koo-yoos 'lah-toos pehr-faw-'rah-toom /
whose side was pierced,

unda fluxit et sanguine;
/ 'oon-dah 'flook-seet eht 'sahn-gwee-neh /
flowed water and blood;

Esto nobis praegustatum in mortis examine.
/ 'eh-staw 'naw-bees preh-goo-'stah-toom een 'mawr-tees ehg-'sah-mee-neh /
Be for us foretaste in of death weighing.
Read and transcribing the following phonetic symbols into Latin texts

1. / āvēh veh-room ākwār-pōs /

Hail true Body,

2. / nā-toom deh mah-ērē-ah āveer-jē-nēh /

born of Mary Virgin,

3. / āvēh-reh pōh-soom /

Truly has suffered,

4. / eem-maw-Īlah-toom ēn ākroo-cheh praw āaw-mē-nēh /

was sacrificed on cross for mankind.

5. / koo-yōos īlah-toos pehr-faw-Īrah-toom /

whose side was pierced,

6. / ūon-dah ēflōok-seet eht āsahn-gwee-nēh /

flowed water and blood;

7. / ēh-staw ānaw-bees prēh-goo-Īstah-toom ēn āmawr-tees ehg-Īsah-mē-nēh /

Be for us foretaste in of death weighing.
Read and transcribe the following Latin texts into phonetic symbols

1. Ave verum Corpus,
   Hail true Body,
2. natum de Maria Virgine,
   born of Mary Virgin,
3. Vere passum,
   Truly has suffered,
4. immolatum in cruce pro homine.
   was sacrificed on cross for mankind.
5. Cujus latus perforatum,
   whose side was pierced,
6. unda fluxit et sanguine;
   flowed water and blood;
7. Esto nobis praegustatum in mortis examine.
   Be for us foretaste in of death weighing.

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APPENDIX F

DAILY LESSON PLANS
FOR EXPERIMENTAL GROUPS
Daily Lesson Plans

Experimental Groups

Lesson 1

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up (lift chin) and then down (lower chin to chest); turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Practice deep breath: exhale first and then inhale.
   2. Inhale through "a straw" ([u] /oo/ lips) slowly; exhale through the "straw" slowly.
   3. Inhale through the "straw"; exhale slowly with a soft hiss [s].
   4. Echo the following rhythm (consonantal) patterns (place one hand on one side of the waist and the other hand in front of the stomach):

   a) \[ I \ I \ I \ I \ \ \ \ \ s s s s s s t t t t \]
   b) \[ I \ I \ I \ I \ \ \ \ \ s s s t t t \]
   c) \[ I \ I \ I \ I \ \ \ \ \ p p p t t t t t \]
   d) \[ I \ I \ I \ I \ \ \ \ \ s s t t p p \]

5. Yawn-sigh from a low pitch in the middle vocal register to a high pitch in the higher register and back to a comfortable low pitch in the lower register by using the [u] /oo/ vowel to create a vertical oral space and to relax jaw and throat.

III. Vocalization (place one hand on the cheek to check the inner space and relaxation of jaw):
   1. Pronounce [a] /ah/ in Father and [a] /aw/ in For. Vocalize the vowel sounds [a] /ah aw/ and then add [s] /s/ and/or [t] /t/ before the vowels in 5-3 4-2 1.

Discussion (sitting position):

I. Introduce the speech articulators including lips, teeth ridges, gum ridges, hard palate, soft palate, tongue, and vocal folds (using the Organ Picture).

II. Introduce the IPA/EPA symbols associated with the formation of the three vowel sounds [a o u] /ah aw oo/ through the following sequence (using the Vowel Pictures):

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1. Present the phonetic symbols (IPA symbols are put inside square brackets and EPA symbols are put between two slanted lines).
2. Pronounce the phonetic symbol and its English example word.
3. Explain the jaw position for the vowel sound.
4. Explain the position of the tip of tongue for the vowel sound.
5. Explain the lip position for the vowel sound.

Spoken Practice: the three vowel sounds \[a o u\]/ah aw oo/.

Written Practice: the phonetic symbols \[a o u\]/ah aw oo/ (using Handout A).

Discussion:
I. Introduce the voicing of consonants, voiced and voiceless consonants.

II. Introduce the IPA/EPA symbols associated with the formation of three pairs of voiced and voiceless consonants [z s; d t; b p]/z s; d t; b p/.

III. Explain the place of articulation and the manner of formation of each pair of consonants.

IV. Pronounce and write these phonetic symbols (using Handout A).

Spoken Practice:  
1. \([sə sə sə]/sah saw soo/ 2. \([pə pə pə]/pah paw poo/

Written Practice:  
1. \([tə tə tə]/tah taw too/ 2. \([də də də]/dah daw doo/"

Lesson 2

Warm-up Exercises (standing position):

I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up (lift chin) and then down (lower chin to chest); turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):  
1. Inhale slowly through "a straw"; exhale slowly with a soft hiss [s]/s/.
2. Inhale slowly through "a straw"; exhale slowly with a soft hiss [ʃ]/ʃ/.
3. Imagine holding a birthday cake in front of the chest; blow out candles through \[u\]/oo/ lips 4 times and then 6 times.
4. Echo the following rhythm patterns (place one hand on one side of the waist and the other hand in front of the stomach):

\[
\begin{align*}
\text{a)} & \quad | \quad \text{[\text{s}] } \text{[\text{s}] } \text{[\text{s}] } | \quad \text{b)} & \quad | \quad | \quad | \\
\text{[\text{s}] } \text{[\text{s}] } \text{[\text{s}] } | \quad \text{[\text{ʃ}] } \text{[\text{ʃ}] } | \quad \text{[\text{k}] } \text{[\text{k}] } \text{[\text{t}] } \text{[\text{t}] } \text{[\text{t}] } \\
\text{c)} & \quad | \quad | \quad | \quad \text{d)} & \quad | \quad | \quad | \\
\text{[\text{ʃ}] } \text{[\text{ʃ}] } | \quad \text{[\text{ʃ}] } \text{[\text{ʃ}] } \text{[\text{k}] } \text{[\text{k}] } \text{[\text{s}] } \text{[\text{s}] } | \quad \text{[\text{ʃ}] } \text{[\text{ʃ}] } \\
\end{align*}
\]
5. Yawn-sigh from low voice to high voice and then back to low voice using the [u] /oo/ vowel.

III. Vocalization (place one hand on the cheek to check the inner space and relaxation of jaw):
3. Pronounce [e] /eh/ in Head and [i] /ee/ in Me. Vocalize the vowel sounds [e i] /eh, ee/ and then add [f] /f/ and/or [k] /k/ before the vowels in 5-3 4-2 1.

Discussion (sitting position):
I. Review vowels [a u u] /ah aw oo/ (using the Vowel Pictures).
II. Introduce the IPA/EPA symbols associated with the formation of the two vowel sounds [e i] /eh ee/ through the following sequence (using the Vowel Pictures):
1. Present the phonetic symbols (IPA symbols are put inside square brackets and EPA symbols are put between two slanted lines).
2. Pronounce the phonetic symbol and its English example word.
3. Explain the jaw position for the vowel sound.
4. Explain the position of the tip of tongue for the vowel sound.
5. Explain the lip position for the vowel sound.

Spoken Practice: the two vowel sounds [e i] /eh ee/.

Written Practice: the phonetic symbols [e i] /eh ee/ (using Handout A).

Discussion:
I. Review the voicing of consonants, voiced and voiceless consonants.
II. Review the IPA/EPA symbols associated with the formation of three pairs of voiced and voiceless consonants [z s; d t; b p] /z s; d t; b p/.
III. Introduce the IPA/EPA symbols associated with the formation of two pairs of voiced and voiceless consonants [g k; v f] and one voiceless consonant [ʃ] /ʃ/.
IV. Explain the place of articulation and the manner of formation of each consonant.
V. Pronounce and write these phonetic symbols (using Handout A).

Spoken Practice:
1. [vi ve vo vu] /vee vah vaw voo/
2. [fi fe ko ko ku] /shee sheh kah kaw koo/

Written Practice:
1. [fi fe fo] /fee feh fah/ 2. [go go gu] /gah gaw goo/
Lesson 3

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up (lift chin) and then down (lower chin to chest); turn the head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Inhale slowly through a straw; hiss \( [ʃ] /\text{sh} \) out slowly in 6 counts and then 8 counts.
   2. Imagine holding a birthday cake in front of the chest; blow out candles through \( [u] /\text{oo} \) lips 6 times and then 8 times.
   3. Echo the following rhythm patterns (place one hand on one side of the waist and the other hand in front of the stomach):

   a) \[
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{cccc}
   s & s & s & t s \quad /\text{sh/} \\
   \hline
   \end{array}
   \]

   b) \[
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{cccc}
   t s & t s & t s & t s \quad /\text{sh/} \quad [ʃ] /\text{sh} \end{array}
   \]

   c) \[
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{c}
   \text{I} \\
   \hline
   \end{array} \\
   \begin{array}{cccc}
   t t & t t & [ʃʃ \quad /\text{ch/} \\
   \hline
   \end{array}
   \]

   4. Yawn-sigh from low to high and then to low using the \( [u] /\text{oo} \) vowel.

   5. Sigh two short \( [u] /\text{oo} \) vowels in the high pitch of the head voice and then sigh one long \( [u] /\text{oo} \) vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   1. Pronounce \( [i \ e \ a] /\text{ee eh ah/} \). Vocalize \( [v i \ v e \ v a] /\text{vee veh vah/} \) in 1-2-1 1-3-5-3-1.

   2. Pronounce \( [i \ e \ a \ o \ u] /\text{ee eh ah aw oo/} \). Vocalize \( [m i \ m e \ m a \ m o \ m u] /\text{mee mah maw moo/} \) and then \( [n i \ n e \ n a \ n o \ n u] /\text{nee nah naw noo/} \) in 5-5-5-5 5-5-3-2-1.

   3. Pronounce \( [j a] /\text{yah/} \); \( [j o] /\text{yaw/} \). Vocalize \( [j o \ h a \ h a \ h a] /\text{yah hah hah hah/} \) and then \( [j o \ h o \ h o \ h o \ h a] /\text{yaw haw haw haw haw/} \) in 1/3/5/3/1.

Discussion (sitting position):

I. Review the five Latin vowels (using the Vowel Pictures).

II. Introduce the relationships among the nine basic vowels (using Handout A and Vowel Pictures).

Spoken Practice: the five Latin vowel sounds and other basic vowel sounds.

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Discussion:

I. Introduce the IPA/EPA symbols associated with six new Latin consonants

\[ \text{ts; tʃ; m; n; j} /\text{ts; j} \text{ ch; m; n; y}. \]

II. Explain the voicing, the place of articulation, and the manner of formation of each consonant.

III. Pronounce and write these phonetic symbols (using Handout A).

Spoken and Written Practice:

1. \[ \text{dʒi dʒæ gə gə gu} /\text{jee jeh gah gaw goo} /\]
2. \[ \text{tʃi tʃe kə kə ku} /\text{chee cheh kah kaw koo} /\]

Lesson 4

Warm-up Exercises (standing position):

I. Body Relaxation:

1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; roll head to the right and then to the left in the front.

II. Breath Exercises (place hands on both sides of the waist):

1. Inhale quickly through \[ u /oo/ \] lips; hiss \[ s/s/ \] out slowly and smoothly.
2. Blow out candles through \[ u /oo/ \] lips 6 times and then 8 times.
3. Yawn using \[ a /ah/ \] in a comfortable range with hand motion.
4. Sigh from low to high and then to low using the \[ u /oo/ \] vowel.
5. Sigh two short \[ u /oo/ \] vowels in the high pitch of the head voice and then sigh one long \[ u /oo/ \] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):

1. Pronounce \[ u i /oo ee/. \] Vocalize \[ du bi du bi du du bi du du bi du du du du /doo bee doe bee doo doo doo bee doe doe bee doe/ and then change the \[ d /du to [l] /l/ in 1-2-3-4 5/5 5-4-3-2-1. \]
2. Pronounce \[ a ə i ĕ u /ah eh ee aw oo/. \] Vocalize \[ nu /noo/ \] and then \[ mo me mi mo mo mu /mah meh mee maw moo in 5-4-3-2-1. \]

Discussion (sitting position):

I. Review five Latin vowels and other basic vowels (using the Vowel Pictures and Handout A).

Spoken Practice: five Latin vowel sounds and other basic vowel sounds.

Discussion:

I. Review previous learned phonetic symbols for the Latin consonants.

II. Introduce the IPA/EPA symbols associated with four new voiced Latin
consonants [l; r; r; w] /l; r; r; w/.

III. Pronounce and write these phonetic symbols (using Handout A).

IV. Introduce the function and placement of the Syllable Mark, - , and Accent Mark, ' .

Spoken Practice:
1. ['tsi-a 'do-mi-ne] /’tsee-ah 'daw-mee-neh/
2. ['je-sus] /’yeh-soos/

Discussion:
I. Explain the format of Handout B: the first lines in bold print are Latin texts, the second lines are the phonetic spellings, and the third lines are word by word English translation.

Spoken Practice (using Handout B):
1. Read the phonetic spellings in the first and second lines in Handout B.

Written Practice (using Handout B and Score "Ave Maria"):
1. Copy the phonetic spellings from lines 1-2 in Handout B to mm. 1-8 of the Score "Ave Maria" under the correct texts in the part sung.

Lesson 5

Warm-up Exercises (standing position):

I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Blow out candles through [u] /oo/ lips 6 times and then 8 times.
2. Yawn using [a] /ah/ in a comfortable range with hand motion.
3. Sigh from low to high and then to low using [u] /oo/ vowel.
4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
2. Pronounce [i e a o u] /ee eh ah aw oo/. Vocalize [mi me ma mo mu] /mee meh mah maw moo/ and then change the [m] /m/ to [d] /d/ in 5-5-5-5 5-4-3-2-1.
Discussion:

I. Introduce the diction rule for Latin vowels: Although there are six vowel letters (including letter Y in Kyrie), there are only five pure vowel sounds in Latin, which are consistent and never change.

II. Introduce the regular diction rule for Latin consonants: The Latin consonants are also consistent and similar to the pronunciation of English consonants; only a few of them involve more than one sound such as letters C, G, and X, and the letter combination TI.

III. Introduce the diction rule for the letter combination TI.

Spoken Practice (using Handout B):
   1. Read the phonetic spellings in the first and second lines in Handout B.

Written Practice (using Handout B and Score "Ave Maria"):
   1. Continue to copy the phonetic spellings from lines 1-2 in Handout B to mm. 1-8 of the Score "Ave Maria" under the correct texts in the part sung.

Spoken Practice (using Score "Ave Maria"):
   1. Read the texts in rhythm with piano accompaniment from m. 1 to m. 8.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
   I. Rehearse mm. 1-4: II -> III -> II + III -> I -> All parts.
   II. Rehearse mm. 5-8: II -> III -> II + III -> I -> All parts.
   III. Rehearse mm. 1-8: All parts.

Lesson 6

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   2. Sigh three circles from low, medium, to high by using [a o u] /ah aw oo/ vowels.
   3. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."
III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Vocalize [nu] /noo/ and then change to [lu] /lu/ in 5/5/5/5 5-4-3-2-1.
2. Vocalize [mi me ma mo mu] /mee meh mah maw moo/ and then change [m] /m/ to [v] /v/ in 1-2 3-4 5-4 3-2 1.

Discussion:
I. Review the diction rule for the six Latin vowel letters and five pure Latin vowel sounds.
II. Review the diction rule for the letter combination TI.

Spoken Practice (using Score "Ave Maria"):
   1. Read the texts in rhythm with piano accompaniment from m. 1 to m. 8.

Rehearsing "Ave Maria" (using Score "Ave Maria"): 
I. Rehearse mm. 1-8: II -> III -> II + III -> I -> I + III -> All parts.

Spoken Practice (using Handout B):
   1. Read the phonetic spellings in the third and fourth lines in Handout B.

Written Practice (using Handout B and Score "Ave Maria"): 
   1. Copy the phonetic spellings from lines 3-4 in Handout B to mm. 9-18 of the Score "Ave Maria" under the correct texts in the part sung.

Rehearsing "Ave Maria" (using Score "Ave Maria"): 
II. Rehearse mm. 9-13: II -> III -> II + III -> I -> All parts.

Lesson 7

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath; hiss out [ʃ] /sh/ slowly and smoothly.
   2. Sigh three circles from low, medium, to high by using [a o u] /ah aw oo/ vowels.
   3. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."
III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Vocalize [vi ve va] /v/ to [f] /l/ in 1-2-1 1-3-5-3-1.
   2. Vocalize [ha ho hu] /h/ in 1/1/1 2/2/2 3-4-5-3-1.

Discussion:
I. Introduce the diction rule for the letter C.

Written Practice (using Handout B and Score "Ave Maria"):
1. Continue to copy the phonetic spellings from lines 3-4 in Handout B to mm. 9-18 of the Score "Ave Maria" under the correct texts in the part sung.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 9 to m. 18.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 9-18 (mm. 9-13; mm. 14-18): II -> I -> II + I -> III -> I + III -> All parts.
II. Rehearse mm. 1-18: All parts.

Lesson 8

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; turn to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
2. Echo the following rhythm patterns (place one hand on one side of the waist and the other hand in front of the stomach):

   |   |   |   |   | d d   |
   | tʃ tʃ tʃ tʃ | ts ts tʃ tʃ k | ts -- tʃ -- |
   /ch ch ch ch ts ts ch ch k ts -- ch --/

3. Sigh from low to high and then to low using the [u] /oo/ vowel.
4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."
III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   1. Vocalize [ja ha ha ha jo ho ho ho ho]/yah hah hah yaw haw haw haw haw/ in 1/3/5/3 1-3-5-3-1.

Discussion:
   I. Review the diction rule for the letter C.
      1. Pronounce [tʃ] /ch/ as in Cruce.
      2. Pronounce [k] /k/ as in Cruce, Nunc, and Benedicta.

Spoken Practice (using Score "Ave Maria"):
   1. Read the texts in rhythm with piano accompaniment from m. 9 to m. 18.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
   I. Rehearse mm. 9-18: II -> III -> II + III -> I -> I + II -> All parts.
   II. Rehearse mm. 1-8: All parts -> Check parts.
   III. Rehearse mm. 1-18: All parts, watching phrasing and dynamics.

Spoken Practice (using Handout B):
   1. Read the spellings in the fifth and sixth lines in Handout B.

Written Practice (using Handout B and Score "Ave Maria"):
   1. Copy the phonetic spellings from lines 5-6 in Handout B to mm. 19-27 of the Score "Ave Maria" under the correct texts in the part sung.

Lesson 9

Warm-up Exercises (standing position):
   I. Body Relaxation:
      1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
      2. Roll shoulders backward; elevate both shoulders.
      3. Look up and then down; turn head to the right and then to the left.

   II. Breath Exercises: (place hands on both sides of the waist)
      1. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
      2. Sigh three circles from low, medium, to high by using [a o u] /ah aw oo/ vowels.
      3. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

   III. Vocalization (place one hand on the cheek to check the space of the inner mouth):

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3. Vocalize three-part harmony using [nu] /noo/ and then change to [du] /du/:
   Part I in [so sa so so so] /saw lah saw saw saw/;
   Part II in [mi fa mi fa mi] /mee fah mee fah mee/; and

Written Practice (using Handout B and Score "Ave Maria"):
1. Continue to copy the phonetic spellings from lines 5-6 in Handout B to mm. 19-27 of the Score "Ave Maria" under the correct texts in the part sung.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 19 to m. 27.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 19-23: II -> I -> II + I -> III -> All parts.
II. Rehearse mm. 23-27: II -> I -> II + I -> III -> All parts.
III. Rehearse mm. 19-27: All parts.
IV. Rehearse mm. 1-27: All parts, checking the transition in mm. 18-19.

Lesson 10

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.
II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; blow out slowly through [u] /oo/ lips.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh from low to high and then to low using the [u] /oo/ vowel.
   4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."
III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   2. Vocalize [pa po pu] /pah paw poo/ and then [na no nu] /nah naw noo/ in 5-3 1-2-3-4 5-4-3-2-1.
3. Vocalize [mi me ma mo mu] /mee meh mah maw moo/ and then change to [di de da do du] /dee deh dah daw doo/:
   Part I in [so la so so so] /saw lah saw saw saw/,
   Part II in [mi fa mi fa mi] /mee fah mee fah mee/, and

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 19 to m. 27.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 19-27: II -> III -> II + III -> I -> All parts, watching dynamics.
II. Rehearse mm. 1-18 and 19-27: All parts.

Discussion:
I. Introduce the diction rule for the letter H which is silent as in Hora.
II. Introduce the diction rule for the digraphs ae and oe which are pronounced exactly like the vowel letter E [e] /eh/.
III. Introduce the diction rule for syllabification: single consonant, double consonants, and a combination of three consonants "str."

Written Practice (using blackboard and Score "Ave Maria"):
1. With the students, translate the text line 7 on the blackboard to the phonetic spellings.
2. Copy the phonetic spellings from the blackboard to mm. 28-32 of the Score "Ave Maria" under the correct texts in the part sung.

Lesson 11

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; hiss out [s] /s/ slowly and smoothly.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh three circles from low, median, to high by using [a o u] /ah aw oo/ vowels.
   4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."
   5. Vocalization (place one hand on the cheek to check the space of the inner mouth):
2. Vocalize [nu] /noo/ and then change to [lu] /loo/ in 5/5/5/5 5-4-3-2-1.
3. Vocalize [du] /doo/ and then change to [ti te to to tu] /tee teh tah taw too/ with dynamic changes:
   Part I in [so lo so so so] /saw lah saw saw saw/;
   Part II in [mi fo mi fo mi] /mee fah mee fah mee/; and

Discussion:
I. Review the diction rule for the letter H.
II. Review the diction rule for the digraphs ae and oe.
III. Review the diction rule for syllabification: single consonant, double consonants, and a combination of three consonants "str."

Written Practice (using Handout B and Score "Ave Maria"):
1. Continue to copy the phonetic spellings from the line 7 in Handout B to mm. 28-32 of the Score "Ave Maria" under the correct texts in the part sung.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 28 to m. 32.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 28-32 (mm. 28-29; mm. 30-32): II -> III -> II + III -> I
   -> I + III -> All parts.
II. Rehearse mm. 19-32: I + II -> II + III -> All parts.
III. Rehearse the whole piece: All parts.

Lesson 12

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; blow out slowly through [u] /oo/ lips.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh from low to high and then to low using the [u] /oo/ vowel.
   4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

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III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   2. Vocalize [vi  ve  vo]/vee veh vah/ and then change to [zi  ze  zo]/zee zeh zah/ in 1-2-1 1-3-5-3-1.

Spoken Practice (using Score "Ave Maria"):
   1. Read the texts in rhythm with piano accompaniment from m. 28 to m. 32.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
   I. Rehearse mm. 28-32: II -> III -> II + III -> I -> All parts.
   II. Rehearse mm. 19-32: I + III -> II + III -> All parts.
   III. Rehearse mm. 1-18: All parts -> Check parts.
   IV. Rehearse the whole piece: All parts.

Discussion (using Handout E):
   I. Introduce the diction rule for the Latin consonant letters on pages 1-2 of Handout E, especially letters G and C.

Lesson 13

Warm-up Exercises (standing position):
   I. Body Relaxation:
      1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
      2. Roll shoulders backward; elevate both shoulders.
      3. Look up and then down; turn head to the right and then to the left.
   II. Breath Exercises (place hands on both sides of the waist):
      1. Take a deep breath in; hiss out [s] /s/ slowly and smoothly.
      2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
      3. Sigh from low to high and then to low using the [u] /oo/ vowel.
      4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

   III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
      1. Vocalize [nu] /noo/, [ma me mi ma mu] /mah meh mee maw moo/, and then [va ve vi vo vu] /vah vee vee vaw voo/ in 5-4-3-2-1.
      2. Vocalize [ban bo ban bo ban bo ban bo bi bi bi] /bahn baw bahn baw bahn baw bahn baw bahn baw bee bee bee/ and then change the [b] /b/ to [t] /t/ in 1-2-3-4-5-4-3-2 1/5/1.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
   I. Rehearse mm. 1-18 and mm. 19-20: III-> III + II.
II. Rehearse the whole piece: All parts.

Discussion (using Handout E):

I. Review the diction rule for the Latin letter G.
   1. Pronounce [dʒ] /j/.
   2. Pronounce [g] /g/.

II. Review the diction rule for the Latin vowel letters.

Spoken Practice (using Score "Ave Verum"):
   1. Read the texts from m. 3 to m. 10.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
   I. Rehearse mm. 3-10 (mm. 3-6; mm. 7-10): II -> III -> II + III -> I -> All.

Lesson 14

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; hiss out [ʃ] /sh/ slowly and smoothly.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh three circles from low, median, to high by using [ə ɔ u] /ah aw oo/ vowels.
   4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   1. Vocalize [ma mo mu] /mah maw moo/ and then change the [m] /m/ to [f] /ʃ/ in 5-3 1-2-3-4 5-4-3-2-1.
   2. Vocalize [bən bo bən bo bən bo bən bo bi bi bi] /bahn baw bahn baw bahn baw bee bee bee/ and then change the [b] /b/ to [t] /t/ in 1-2-3-4-5-4-3-2 1/5/1.

Spoken Practice (using Score "Ave Verum"):
   1. Read the texts in rhythm with piano accompaniment from m. 3 to m. 10.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
   I. Rehearse mm. 3-10: II -> I -> II + I -> III -> All parts.
Spoken Practice (using Score "Ave Verum"):
1. Read the texts from m. 11 to m. 18.

Written Practice (using Handout F and Score "Ave Verum"):
1. Write or copy the phonetic spellings from lines 1-4 in Handout F to mm. 3-18 of the Score "Ave Verum" under the correct texts in the part sung.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 14-32: All parts, watching the phrasing and dynamics.

Lesson 15

Warm-up Exercises (standing position):
I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Blow out candles through [u]/oo/ lips 8 times and then 10 times.
2. Echo the following rhythm patterns: (place one hand on one side of the waist and the other hand in front of the stomach)
   
   a) \[\begin{array}{c}
   s \quad s \quad s \\
   s \quad s \quad t \quad t \quad t
   \end{array}\]  
b) \[\begin{array}{c}
   p \quad p \quad p \quad f \quad f \quad f
   \end{array}\]

c) \[\begin{array}{c}
   t \quad s \quad t \quad s \quad t \quad s
   \end{array}\]  
   \[\begin{array}{c}
   \[f\] /sh/
   \end{array}\]

3. Sigh from low to high and then to low using the [u]/oo/ vowel.

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Vocalize [mi me ma mo mu] /mee meh mah maw moo/ and then change the [m] /m/ to [v] /v/ in 1-2 3-4 5-4 3-2 1.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts in rhythm with piano accompaniment from m. 11 to m. 18.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 11-18: I + II -> I + III -> All parts.
II. Rehearse mm. 3-18: All parts -> Check parts.
Discussion (using Handout E):

I. Introduce the diction rule for the Latin letter U.
   1. Pronounce [u] /oo/.

II. Introduce the diction rule for the Latin letter X.
   1. Pronounce [ks].

Spoken Practice (using Handout F):
1. Read the spellings in the fifth and sixth lines in Handout F.

Rehearse "Ave Verum" (using Score "Ave Verum"): 
III. Rehearse mm. 22-29 (mm. 22-25; mm. 26-29): I -> III -> I + III.

Rehearsing "Ave Maria" (using Score "Ave Maria"): 
I. Rehearse mm. 1-18: All parts.

Lesson 16

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and
      then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises: (place hands on both sides of the waist)
   1. Take a deep breath in; blow out slowly through [u] /oo/ lips.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh from low to high and then to low using the [u] /oo/ vowel.
   4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and
      then sigh one long [u] /oo/ vowel from that high pitch descending
      gradually to a comfortable low pitch of the chest voice with the hand
      motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner
      mouth):
   1. Vocalize [nu] /noo/ in 5/5/5 5-4-3-2-1.
   2. Vocalize [vi ve va] /vee veh vah/ and then change to [zi ze za] /zee
      zeh zah/ in 1-2-1 1-3-5-3-1.

Discussion (using Handout E):
I. Review the diction rule for the Latin letter U.
   1. Pronounce [u] /oo/.

II. Review the diction rule for the Latin letter X.

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Written Practice (using Handout F and Score "Ave Verum"):

1. Copy the phonetic spellings from the lines 5-6 in Handout F to mm. 22-29 of the Score "Ave Verum" under the correct texts in the part sung.

Spoken Practice (using Score "Ave Verum"):

1. Read the texts from m. 22 to m. 29.

Rehearsing "Ave Verum" (using Score "Ave Verum"):

I. Rehearse mm. 22-29 (mm. 22-25; mm. 26-29): II -> I -> II + I -> III -> II + III -> All parts.

II. Rehearse mm. 3-18: II + III -> All parts.

III. Rehearse mm. 3-29: All parts.

Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse the whole piece: All parts.

Lesson 17

Warm-up Exercises (standing position):

I. Body Relaxation:

1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):

1. Take a deep breath in; hiss out [s] /s/ slowly and smoothly.
2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
3. Sigh three circles from low, median, to high by using [a u] /ah aw oo/ vowels.
4. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):

2. Vocalize [nu] /noo/ and then change to [vo ve vi vo vu] /vah vee voo/ in 5-4-3-2-1.

Discussion (using Handout F):

I. Introduce the diction rule for the letter combination EX.

Written Practice (using Handout H and Score "Ave Verum"):
1. Translate the Latin texts in line 7 of Handout H to the phonetic spellings, and then copy them to mm. 30-37 of the Score "Ave Verum" under the correct texts in the part sung.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts from m. 30 to m. 37.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 30-37 (mm. 30-33; mm. 33-37): II → I → II + I.
II. Rehearse mm. 31-37 (mm. 31-34; mm. 34-37): III.
III. Rehearse mm. 30-37: All parts.
IV. Rehearse mm. 22-37: I + III → II + III → All parts.
V. Rehearse mm. 3-37: All parts.

Lesson 18

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; blow out slowly through [u] /oo/ lips.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   2. Vocalize [vi ve va] /vee vah vah/ in 1-2-1 1-3-5-3-1.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts in rhythm with piano accompaniment from m. 30 to m. 37.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 30-37: I + II → III → All parts.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts in rhythm with piano accompaniment from m. 37 to m. 43.

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Rehearsing "Ave Verum" (using Score "Ave Verum"):

II. Rehearse mm. 37-43: II -> III -> II + III -> I -> All parts.
III. Rehearse mm. 30-43: All parts.
IV. Rehearse mm. 22-43: All parts.

Discussion (using Handout H):

I. Review the phonetic spellings for the texts in the line 7.

Written Practice (using Handout H):

1. Translate the Latin texts in line 4 of Handout H into phonetic spellings.

Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse the whole piece: All parts.

Lesson 19

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.

II. Breath Exercises (place hands on both sides of the waist):
   1. Sigh from low to high and then to low using [u] /oo/ vowel.

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   1. Vocalize [mi me ma mo mu] /mee meh mah maw moo/ and then change the [m] /m/ to [d] /d/ in 1-2 3-4 5-4 3-2 1.
   2. Vocalize [ja ha ha ha jo] /yah hah hah hah yaw/ in 1/3/5/3 1-3-5-3-1.

Spoken Practice (using Score "Ave Verum"):

1. Read the texts in rhythm with piano accompaniment from m. 37 to m. 43.

Rehearsing "Ave Verum" (using Score "Ave Verum"):

I. Rehearse mm. 37-43: I -> III -> I + III -> II -> I + II -> All parts.
II. Rehearse mm. 22-43: All parts.
III. Rehearse mm. 15-18: I -> III -> I + III -> II -> I + II -> All parts.
IV. Rehearse the whole piece: All parts.

Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse the whole piece from memory: All parts.

Spoken Practice (using Handout C):

1. Read the phonetic spellings on the blackboard derived from line 4 of 180.
Handout C.

Written Practice (using Handout C):

1. Translate the phonetic spellings in line 4 of Handout C to the Latin texts.

Lesson 20

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; blow out slowly through [u] /oo/ lips.
   2. Blow out candles through [u] /oo/ lips 8 times and then 10 times.
   3. Sigh two short [u] /oo/ vowels in the high pitch of the head voice and then sigh one long [u] /oo/ vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   2. Vocalize [mi me ma mo mu] /mee meh mah maw moo/ and then change the [m] /m/ to [k] /k/ in 5-5-5-5 5-3-1.

Spoken Practice (using Score "Ave Maria"):

1. Read through the whole texts.

Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse the whole piece: All parts -> Check parts.

Singing Posttest of "Ave Maria"

Rehearsing "Ave Verum" (using Score "Ave Verum"):

I. Rehearse the whole piece: All parts.

Singing Posttest of "Ave Verum"

Written Practice (using Handout C):

1. Translate the following phonetic spellings to the Latin texts:
APPENDIX G

DAILY LESSON PLANS
FOR CONTROL GROUP
Daily Lesson Plans
Control Group

Lesson 1

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up (lift chin) and then down (lower chin to chest); turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Practice deep breath: exhale first and then inhale.
   2. Inhale through "a straw" ([u]/oo/ lips) slowly; exhale through the "straw" slowly.
   3. Inhale through the "straw"; exhale slowly with a soft hiss [s].
   4. Echo the following rhythm (consonantal patterns (place one hand on one side of the waist and the other hand in front of the stomach):

   a)   I   I   I   I   I
       s   s   s   s   s   s   t   t
   b)   I   I   I   I   I
       s   s   s   s   s   t   t
   c)   I   I   I   I   I
       p   p   p   p   p   t   t   t
   d)   I   I   I   I   I
       p   p   p   p   p   t   t   t

   5. Yawn-sigh from a low pitch in the middle vocal register to a high pitch in the higher register and back to a comfortable low pitch in the lower register by using the [u] vowel to create a vertical oral space and to relax jaw and throat.

III. Vocalization (place one hand on the cheek to check the inner space and relaxation of jaw):
   1. Pronounce [a] in Father, [o] in Saw, and [u] in Moon. Vocalize the vowel sounds [a o u] and then add [s] and/or [t] before the vowels in 5-3 4-2 1.
   3. Pronounce [i] in Me, [e] in Head, and [a] Father. Vocalize the vowel sounds [i e a] in 5-4 3-2 1.
   4. Vocalize [pa pe pi po pu] in 5-4-3-2-1.

Discussion:

I. Introduce the five Latin vowel sounds associated with the five Latin vowel letters though oral demonstration and imitation with the use of English equivalent words: letter A pronounced as [a] in Father; letter O pronounced as [o] in Saw not [o] in Hope; letter U pronounced as [u] in Moon not [u] in Look; letter I pronounced as [i] in Me not [i] in Hit; and letter E pronounced as [e] in Head not [e] in Hate.
Spoken Practice: the five Latin vowel sounds and other basic vowel sounds.

Discussion:

II. Explain the format of Handout 1: the top lines in bold print are Latin texts, the bottom lines are word by word English translation.

Spoken Practice (using Handout 1):
1. Read the texts in the first and second lines in Handout 1.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 1-4: III -> II -> II + III -> I -> All parts.
II. Rehearse mm. 5-8: II -> II + III -> I -> All parts.
III. Rehearse mm. 1-8: All parts.

Lesson 2

Warm-up Exercises (standing position):

I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up (lift chin) and then down (lower chin to chest); turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Inhale slowly through "a straw"; exhale slowly with a soft hiss [f].
2. Imagine holding a birthday cake in front of the chest; blow out candles through [u] lips 4 times and then 6 times.
3. Echo the following rhythm patterns (place one hand on one side of the waist and the other hand in front of the stomach):

   a)  |   □   |
      s s s [f f]
   b)  |   □   |
      k k t t t
   c)  |   □   |
      f f f p p p
   d)  |   □   |
      f f k s s [f]

5. Yawn-sigh from low voice to high voice and then back to low voice using the [u] /oo/ vowel.

III. Vocalization (place one hand on the cheek to check the inner space and relaxation of jaw):
2. Pronounce [i] in Me, [e] in Head, and [a] in Father. Vocalize the vowel sounds [i e a] and then add [f] and/or [t] before the vowels in 5-4 3-2 1.
3. Pronounce [i e a o u]. Vocalize the vowel sounds [i e a o u] and then add [p] and/or [s] before the vowels in 5-5-5-5 5-3-1.
Discussion:
I. Review the five Latin vowel sounds associated with the five Latin vowel letters though oral demonstration and imitation with the use of English equivalent words.

Spoken Practice (using Score "Ave Maria"):
   1. Read the texts from m. 1 to m. 8.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
   I. Rehearse mm. 1-8: Π -> ΠΙΙ -> ΠΙΙ + ΠΙΙ -> ΠΠ -> ΠΠ + ΠΠ -> All parts.

Spoken Practice (using Score "Ave Maria"):
   I. Read the texts from m. 9 to m. 18.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
II. Rehearse mm. 9-18 (mm. 9-13; mm. 14-18): ΠΠ -> ΠΠ -> ΠΠ.

Lesson 3

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up (lift chin) and then down (lower chin to chest); turn the head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Inhale slowly through a straw; hiss [ʃ] out slowly in 6 counts and then 8 counts.
   2. Imagine holding a birthday cake in front of the chest; blow out candles through [u] lips 6 times and then 8 times.
   3. Echo the following rhythm patterns (place one hand on one side of the waist and the other hand in front of the stomach):

\[
\begin{align*}
\text{a)} & \quad | \quad \text{[s]} \quad \text{[s]} \quad \text{[ts]} \quad \text{[ts]} \\
\text{b)} & \quad | \quad \text{[ʃ]} \quad \text{[ʃ]} \quad \text{[ts]} \quad \text{[ts]} \\
\text{c)} & \quad | \quad \text{[t]} \quad \text{[t]} \quad \text{[ʃ]} \quad \text{[ʃ]} \\
\text{d)} & \quad | \quad | \quad \text{[ʃ]} \quad \text{[ʃ]} \quad \text{[ts]} \quad \text{[ʃ]}
\end{align*}
\]

4. Yawn-sigh from low to high and then to low using the [u] /oo/ vowel.
5. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Pronounce [i e o a u]. Vocalize [mi me ma mo mu] and then [ni ne no nu] in 5-5-5-5 5-4-3-2-1.
2. Pronounce [ja; ja]. Vocalize [ja ha ha ha ha] and then [jo ha ha ha ha] in 1/3/5/3/1.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 1 to m. 8.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 1-8: II + I -> III -> II + III -> All parts.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 9 to m. 13.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
II. Rehearse mm. 9-13: I -> II -> I + II -> III -> All parts.

Lesson 4

Warm-up Exercises (standing position):
I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; roll head to the right and then to the left in the front.

II. Breath Exercises (place hands on both sides of the waist):
1. Inhale quickly through [u] lips; hiss [s] out slowly and smoothly.
2. Blow out candles through [u] lips 6 times and then 8 times.
3. Yawn using [a] in a comfortable range with hand motion.
4. Sigh from low to high and then to low using the [u] vowel.
5. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Pronounce [u i] /oo ee/. Vocalize [du bi du du bi du bi du bi du] and then change the [d] to [l] in 1-2-3-4 5/5 5-4-3-2-1.
2. Pronounce [æ e i o u]. Vocalize [nu] and then [ma me mi mo mu] in 5-4-3-2-1.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 9 to m. 13.
Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 9-13: II -> III -> II + III -> I -> All parts.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 14 to m. 18.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
II. Rehearse mm. 14-18: II -> III -> II + III -> I -> All parts.
III. Rehearse mm. 9-18: All parts.
IV. Rehearse mm. 1-18: All parts.

Lesson 5

Warm-up Exercises (standing position):
I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Blow out candles through [u] lips 6 times and then 8 times.
2. Yawn using [a] in a comfortable range with hand motion.
3. Sigh from low to high and then to low using [u] vowel.
4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
2. Pronounce [i e a o u]. Vocalize [mi me ma mo mu] and then change the [m] to [d] in 5-5-5-5 5-4-3-2-1.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 9 to m. 18.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 9-18: II -> III -> II + III -> I -> All parts.
II. Rehearse mm. 1-18: All parts -> Check parts.

Discussion:
I. Introduce the diction rule for the letter H which is silent as in Hora.
II. Introduce the diction rule for the digraphs ae and oe which are pronounced
exactly like the vowel letter E [e].

Spoken Practice (using Score "Ave Maria"):
1. Read the texts from m. 28 to m. 32.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
III. Rehearse mm. 28-32: II -> I -> II + I.

Lesson 6

Warm-up Exercises (standing position):
I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and
      then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Blow out candles through [u] lips 8 times and then 10 times.
   2. Sigh three circles from low, medium, to high by using [a ɔ u] vowels.
   3. Sigh two short [u] vowels in the high pitch of the head voice and then
      sigh one long [u] vowel from that high pitch descending gradually to
      a comfortable low pitch of the chest voice with the hand motion,
      "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner
      mouth):
   1. Vocalize [nu] and then change to [lu] in 5/5/5 5-4-3-2-1.
   2. Vocalize [mi me ma mo mu] and then change [m] to [d]
      in 1-2 3-4 5-4 3-2 1.

Discussion:
I. Review the diction rule for the letter H.
II. Review the diction rule for the digraphs ae and oe.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 28 to m. 32.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 28-32: III -> II -> III + II -> I -> III + I -> All parts.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts from m. 19 to m. 27.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
II. Rehearse mm. 19-27 (mm. 19-23; mm. 23-27): II -> III -> II + III -> I ->
All parts.

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Lesson 7

Warm-up Exercises (standing position):

I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Take a deep breath; hiss out [ʃ] slowly and smoothly.
2. Sigh three circles from low, medium, to high by using [ə ɔ u] vowels.
3. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Vocalize [vi ve vo] and then change [v] to [f] in 1-2-1 1-3-5-3-1.
2. Vocalize [ho ho hu] in 1/1/1 2/2/2 3-4-5-3-1.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts in rhythm with piano accompaniment from m. 19 to m. 27.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 19-27: II -> I -> II + I -> III -> All parts.

Spoken Practice (using Score "Ave Maria"):
1. Read the texts from m. 28 to m. 32.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
II. Rehearse mm. 28-32: III -> II -> III + II -> I -> All parts.

III. Rehearse mm. 19-32: All parts.

IV. Rehearse the whole piece: All parts.

Lesson 8

Warm-up Exercises (standing position):

I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Blow out candles through [u] lips 8 times and then 10 times.

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2. Echo the following rhythm patterns (place one hand on one side of the waist and the other hand in front of the stomach):

\[
\begin{array}{ccccccc}
\text{t} & \text{t} & \text{t} & \text{t} & \text{t} & \text{t} & \text{t} \\
\text{ts} & \text{ts} & \text{ts} & \text{ts} & \text{ts} & \text{ts} & \text{k} \\
\end{array}
\]

3. Sigh from low to high and then to low using the [u] vowel.
4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
2. Pronounce [i], [wi] (We), and [pwi]. Vocalize [pwi pwi pwi] in 5/3/1.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 19-32: I + III -> I + II -> III -> All parts.
II. Rehearse mm. 1-19: II + III -> All parts, checking the transition in mm. 18-19.
III. Rehearse the whole piece: All parts.

Lesson 9

Warm-up Exercises (standing position):
I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises: (place hands on both sides of the waist)
1. Blow out candles through [u] lips 8 times and then 10 times.
2. Sigh three circles from low, medium, to high by using [a o u] vowels.
3. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Vocalize [ti te to] and [di de do] alternately in 1-2-1 1-3-5-3-1.
2. Pronounce [i], [wi] (We), and [pwi]. Vocalize [pwi pwi pwi] in 5/3/1.
3. Vocalize three-part harmony using [nu]: Part I in 5-5-5-5-5, Part II in 3-4-3-4-3, and Part III in 1-1-1-7-1.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse mm. 1-18 and mm. 19-20: III -> III + II.
II. Rehearse the whole piece: All parts.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts from m. 3 to m. 10.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 3-10 (mm. 3-6; mm. 7-10): II -> III -> II + III -> I -> All parts.

Lesson 10

Warm-up Exercises (standing position):

I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.
3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
1. Take a deep breath in; blow out slowly through [u] lips.
2. Blow out candles through [u] lips 8 times and then 10 times.
3. Sigh from low to high and then to low using the [u] vowel.
4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
2. Vocalize [pa pe pu] and then [na no nu] in 5-3 1-2-3-4 5-4-3-2-1.
3. Vocalize three-part harmony using [mi me ma mo mu] and then change to [di de do du]: Part I in 5-6-5-5-5, Part II in 3-4-3-4-3, and Part III in 1-1-1-7-1.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts in rhythm with piano accompaniment from m. 3 to m. 10.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 3-10: II -> I -> II + I -> III -> All parts, watching dynamics.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts from m. 11 to m. 18.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
II. Rehearse mm. 11-18: II -> III -> II + III -> I -> All parts
III. Rehearse mm. 3-18: All parts.

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Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse mm. 14-32: I + III -> III + II -> All parts, watching phrasing and dynamics.

Lesson 11

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; hiss out [s] slowly and smoothly.
   2. Blow out candles through [u] lips 8 times.
   3. Sigh three circles from low, median, to high by using [a o u] vowels.
   4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   2. Vocalize [nu] and then change to [lu] in 5/5/5/5 5-4-3-2-1.
   3. Vocalize [du] and then change to [ti te ta to tu] with dynamic changes:
      Part I in 5-6-5-5-5, Part II in 3-4-3-4-3, and Part III in 1-1-1-7-1.

Spoken Practice (using Score "Ave Verum"):

I. Read the texts in rhythm with piano accompaniment from m. 11 to m. 18.

Rehearsing "Ave Verum" (using Score "Ave Verum"):

I. Rehearse mm. 11-18: II + III -> I + III -> All parts.

II. Rehearse mm. 3-18: All parts -> Check parts.

Spoken Practice (using Score "Ave Verum"):

I. Read the texts from m. 22 to m. 29.

Rehearsing "Ave Verum" (using Score "Ave Verum"):

III. Rehearse mm. 22-29 (mm. 22-25; mm. 26-29): I -> III -> I + III.

Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse mm. 1-18: All parts -> Check parts.
Lesson 12

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; blow out slowly through [u] lips.
   2. Blow out candles through [u] lips 8 times and then 10 times.
   3. Sigh from low to high and then to low using the [u] vowel.
   4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   1. Vocalize [jo ha ha ha jo ha ha ha] in 1/3/5/3 1-3-5-3-1.
   2. Vocalize [vi ve va] and then change to [zi ze za] in 1-2-1 1-3-5-3-1.

Spoken Practice (using Score "Ave Verum"):
   1. Read the texts in rhythm with piano accompaniment from m. 22 to m. 29.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
   I. Rehearse mm. 22-29 (mm.22-25; mm. 26-29): II -> I -> II + I -> III -> II + III -> All parts.
   II. Rehearse mm. 3-18: All parts.
   III. Rehearse mm. 3-18 and mm. 22-29: All parts.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
   I. Rehearse the whole piece: All parts, watching dynamics.

Lesson 13

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.
   3. Look up and then down; turn head to the right and then to the left.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; hiss out [s] slowly and smoothly.
   2. Blow out candles through [u] lips 8 times and then 10 times.
   3. Sigh from low to high and then to low using the [u] vowel.
4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   1. Vocalize [nu], [mo me mi mo mu], and then [vo ve vi vo vu] in 5-4-3-2-1.
   2. Vocalize [ban bo ban bo ban bo ban bo bi bi bi] and then change the [b] /b/ to [t] /t/ in 1-2-3-4-5-4-3-2 1/5/1.

Spoken Practice (using Score "Ave Verum"):
   1. Read the texts from m. 30 to m. 37.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
   I. Rehearse mm. 30-37 (mm. 30-33; mm. 33-37): II -> I -> II + I.
   II. Rehearse mm. 31-37 (mm. 31-34; mm. 34-37): III.
   III. Rehearse mm. 30-37: All parts.
   IV. Rehearse mm. 22-37: I + III -> II + III -> All parts.
   V. Rehearse mm. 3-37: All parts.

Lesson 14

Warm-up Exercises (standing position):
   I. Body Relaxation:
      1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
      2. Roll shoulders backward; elevate both shoulders.
      3. Look up and then down; turn head to the right and then to the left.

   II. Breath Exercises (place hands on both sides of the waist):
      1. Take a deep breath in; hiss out [f] slowly and smoothly.
      2. Blow out candles through [u] lips 8 times and then 10 times.
      3. Sigh three circles from low, median, to high by using [a o u] vowels.
      4. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with the hand motion, "throw a tennis ball."

   III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
      1. Vocalize [mo mo mu] then change the [m] to [f] in 5-3 1-2-3-4 5-4-3-2-1.
      2. Vocalize [ban bo ban bo ban bo ban bo bi bi bi] and then change the [b] to [t] in 1-2-3-4-5-4-3-2 1/5/1.
Spoken Practice (using Score "Ave Verum"):
1. Read the texts in rhythm with piano accompaniment from m. 30 to m. 37.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 30-37: I + II -> I -> III -> All parts.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts from m. 37 to m. 43.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
II. Rehearse mm. 37-43: II -> III -> II + III -> I -> All parts.
III. Rehearse mm. 30-43: All parts.
IV. Rehearse mm. 22-43: All parts.

Spoken Practice (using Score "Ave Maria"):
1. Read through the texts.

Rehearsing "Ave Maria" (using Score "Ave Maria"):
I. Rehearse the whole piece: All parts.

Lesson 15

Warm-up Exercises (standing position):
I. Body Relaxation:
1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
2. Roll shoulders backward; elevate both shoulders.

II. Breath Exercises (place hands on both sides of the waist):
1. Sigh from low to high and then to low using [u] vowel.

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
1. Vocalize [mi me ma mo mu] and then change the [m] to [d] in 1-2 3-4 5-4 3-2 1.
2. Vocalize [jo ho ho ha jo] in 1/3/5/3 1-3-5-3-1.

Spoken Practice (using Score "Ave Verum"):
1. Read the texts in rhythm with piano accompaniment from m. 37 to m. 43.

Rehearsing "Ave Verum" (using Score "Ave Verum"):
I. Rehearse mm. 37-43: I -> III -> I + III -> II -> I + II -> All parts.
II. Rehearse mm. 22-43: All parts.
III. Rehearse mm. 15-18: I -> III -> I + III -> II -> I + II -> All parts.
IV. Rehearse the whole piece: All parts.
Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse the whole piece from memory: All parts.

Lesson 16

Warm-up Exercises (standing position):

I. Body Relaxation:
   1. Stretch upward; lean to the right and then to the left; twist to the right and then to the left.
   2. Roll shoulders backward; elevate both shoulders.

II. Breath Exercises (place hands on both sides of the waist):
   1. Take a deep breath in; blow out slowly through [u] lips.
   2. Blow out candles through [u] lips 8 times and then 10 times.
   3. Sigh two short [u] vowels in the high pitch of the head voice and then sigh one long [u] vowel from that high pitch descending gradually to a comfortable low pitch of the chest voice with hand motion, "throw a tennis ball."

III. Vocalization (place one hand on the cheek to check the space of the inner mouth):
   2. Vocalize [mi me ma mo mu] and then change the [m] to [k] in 5-5-5-5 5-3-1.

Spoken Practice (using Score "Ave Maria"):

1. Read through the whole texts.

Rehearsing "Ave Maria" (using Score "Ave Maria"):

I. Rehearse the whole piece: All parts -> Check parts.

Singing Posttest of "Ave Maria"

Rehearsing "Ave Verum" (using Score "Ave Verum"):

I. Rehearse the whole piece: All parts.

Singing Posttest of "Ave Verum"