A COMPARATIVE STUDY OF APPROACHES TO TEACHING MELODIC DICTATION

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by

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CHAPTER I

INTRODUCTION

Most undergraduate music majors begin a course sequence in aural skills their first semester, whether it is a separate course or combined with the written portion. Functional aural skills are difficult for many students to develop, and some instructors find difficulty teaching aural skills effectively. Many college freshmen enter their studies with limited backgrounds in music theory; therefore, excellent instruction is necessary. Good instruction begins with a curriculum that covers the important fundamentals such as rhythm/meter, pitch, and tonality.

Ear training can include both sightsinging and dictation, but for the purpose of this study, ear training will refer to melodic dictation. The goal of ear training is to develop internal musical perception, which is the ability to hear musical relationships accurately and with understanding.[1] The purpose of dictation, as Michael Rogers states, is "not to produce correct written transcriptions, but to produce a certain kind of listener who can hear sound as a meaningful pattern."[2] Students need to be taught how to listen and for what to listen. "Many aural skills texts have focused on the drill-and-repetition aspects of learning to hear. The weakness of this approach centers on a failure to distinguish between sound events (requiring just ears) and musical events (requiring ears and minds)."[3]

An approach used for teaching students to learn dictation is to memorize the melody and notate it. Instructors who use this approach often suggest learning tonal

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[1] Michael R. Rogers, *Teaching Approaches in Music Theory*, 2nd ed. (Carbondale: Southern Illinois University Press, 2004), 100.
[2] Ibid.
[3] Ibid., 100-101.

patterns. These patterns are common melodic fragments found in Western music and often range from two to five pitches.[4] The students sing these patterns and commit them to memory. Gordon's book emphasizes audiation, which he defines as taking "place when one hears music silently through recall."[5] This means that students hear the music in their mind when the sound is not physically present.

According to Gordon, there are five stages for audiation. Stage 1 is the recall of a short series of notes that was aurally or visually perceived a few seconds earlier; stage 2 is the organization of that series of notes into one or more patterns of essential notes; stage 3 is the retention of the patterns of essential notes that have been organized in a tonality or meter as the next series of tones is perceived; stage 4 is the recall of the patterns of essential notes; stage 5 is the perception of anticipated patterns of essential notes that are being created or improvised. Gordon discusses different types of music learning, of which one fundamental type is called discrimination learning. In discrimination learning, students are taught by a teacher how to listen to pieces. Some techniques used to achieve discrimination learning are performing music through singing, learning tonal and rhythmic patterns, and learning to read and notate music.[6]

Some studies have suggested that there is a connection between analysis and aural skills. Ear training is mind and sense training. The ear catches aural sensations but the mind evaluates, discriminates, and identifies what was heard; we hear with our ears and listen with our minds.[7] In my thesis, I will examine recent studies on memory, hearing pitch, finding tonic, finding mode, and melodic expectation. This study will focus on

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[4] For the tonal patterns that Edwin E. Gordon lists, see *Learning Sequences in Music: Skill, Content, and Patterns* (Chicago: G.I.A. Publications, 1984), 145-162.
[5] Ibid., 2.
[6] Ibid., 11, 20-21.
[7] Rogers, 104.

teaching students to internalize sound and hear the functional relationships of pitches. Also, I will determine what is currently considered important for an aural skills curriculum. This determination will be made by an examination of the content in dictation textbooks and the pedagogy topics addressed in music theory journals.

It is significant that there is little published research describing such a task. Some theorists have discussed techniques that work well for their classroom, but they have not given an inclusive description of many techniques. Limited resources are available that teach one how to listen, so this study will be helpful for a beginning teacher who is uncertain how to teach aural skills or for an experienced teacher who would like to read about the most current methodology.

CHAPTER II

METHODOLOGY

For the comparative study of the aural skills textbooks, I devised a list of important fundamentals for developing melodic dictation skills. These fundamentals include inference of pulse, meter, key, mode, and tonic; identification of intervals; and development of short-term and long-term memory. Steps for taking melodic dictation and the importance of extra practice outside of the classroom were also included. According to current research, it is especially important to teach students how to internalize pitch and recognize meter.

Edward Klonoski has developed a method to determine which students may have trouble internalizing pitch. One of his techniques is asking students to think of any pitch and sing it. If students are able to sing the imagined pitch, pitch internalization probably will not be a problem for them. If some of the students are unable to sing the imagined pitch, pitch internalization may be a problem and they will need extra practice to develop the ability to internalize pitches. Klonoski also suggests imagining the first three scale degrees of the major scale and singing the fourth scale degree.[1]

Students who have difficulty with pitch internalization can develop that ability in various ways. It is important for students to recognize and retain a single pitch, preferably the tonic. One way for the class to develop this ability is to sing a major scale and ask those who had trouble internalizing pitch to sing *do* afterwards. If it is still a problem, students who had difficulty internalizing a pitch should hum the tonic pitch, while the rest of the class sings the major scale. Klonoski also suggests the instructor

[1] Edward Klonoski, "Teaching Pitch Internalization Processes," *Journal of Music Theory Pedagogy* 12 (1998): 86-87.

play a melody and the students sing the tonic pitch. It is important for students to have the ability to internalize pitch, and to recognize and retain tonic.

Karpinski uses a technique called familiar-tune dictation to help students transfer internalized sounds into written notation. This technique involves singing a familiar tune, patriotic song, nursery-rhyme, or Christmas carol using scale degree numbers or solfége without the aid of any instrument or notation.[2] At the beginning of the semester he uses a shorthand system for notation since notation may be a hindrance to students at this point.

Edwin Gordon and Laurdella Foulkes-Levy ask students to learn and memorize basic melodic patterns and arpeggiations.[3] In Gordon's study, the basic melodic patterns are organized into three categories according to the level of difficulty. This approach will help students group melodic patterns in a dictation melody in a way that will help them understand the melody and remember more of it. According to George A. Miller, on average a listener can remember seven pitches.[4] If students learn to group melodic patterns, they no longer are limited to being able to remember seven individual pitches but can remember seven chunks.[5]

Most of the dictation textbooks examined for this study encourage the use of computer-assisted melodic practice exercises. These exercises can reinforce the classroom study. I will provide a list of techniques that dictation instructors employ and use these techniques to devise my proposed curriculum. This list will give current and future instructors some ideas on how to improve the pedagogy of melodic dictation.

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[2] Gary S. Karpinski, *Manual for Ear Training and Sight Singing* (New York: W.W. Norton, 2007), 11.
[3] Laurdella Foulkes-Levy, "Tonal Markers, Melodic Patterns, and Musicianship Training, Part I: Rhythm Reduction," *Journal of Music Theory Pedagogy* 11 (1997): 13; Gordon, 69.
[4] George A. Miller, "The Magical Number Seven, Plus or Minus Two: Some Limits On Our Capacity for Processing Information," *The Psychological Review* 63/2 (March 1956): 84.
[5] Chunking (def.): the efficient grouping of larger numbers of small events into a smaller number of large events so that fewer bits of information are needed for memory. See Rogers, 116.

CHAPTER III

COMPARISON OF STUDIES ON AURAL PERCEPTION

Perception is important for dictation. Many music theorists studying perception have been influenced by the Gestalt laws, which were first stated in the early twentieth century. The Gestalt laws have influenced music theorists Harold E. Fiske and Matthew S. Royal. They wrote, "the Gestalt laws state that elements are more likely to be grouped together a.) the closer they are to each other along a dimension (proximity), b.) the more alike they are (similarity), c.) the more they follow a predictable trajectory across time or space (good continuation), and d.) the more two or more co-present elements move in parallel with each other (common fate)."[6] Gestalt laws have also influenced Carol Krumhansl and Irène Deliège; I will discuss these researchers later in this chapter.

Another study influenced by the Gestalt laws is Eugene Narmour's implication-realization model. This model assumes that the expectations listeners form when they hear a melody are based on a limited number of factors that are inborn and learned. The inborn factors are related to the Gestalt principles of proximity, similarity, and symmetry. Two main concepts of the study include an *implicative interval* (consisting of two tones) followed by a *realized interval* (consisting of the last tone of the implicative interval and the following tone). "According to the theory, an implicative interval implies that some tones are more likely to follow than others, which signifies that some successions of implicative and realized intervals (strings of three tones) are more expected than others."[7]

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[1] Harold E. Fiske and Matthew S. Royal, "Cognitive, Context and Musical Learning: How to Have It Both Ways," *Bulletin of the Council for Research in Music Education* 147 (Winter 2000-2001): 160.
[2] Erik Jansen and Dirk-Jan Povel, "Harmonic Factors in the Perception of Tonal Melodies," *Music Perception* 20/1 (Fall 2002): 60.

When students listen to a melody, what they expect to hear may influence what they actually hear.

Three music theorists who have conducted studies on tonic inference include Krumhansl, René van Egmond, and Mila Boswijk. Krumhansl has also developed the probe-tone technique. The probe-tone tests consist of a subject listening to a melody. A probe-tone is heard after the melody and the listener identifies how well it fits into the tonality. The results of this test provide a hierarchy of tones.[8] Krumhansl claims that tonality induction[9] relies on two basic principles of perception and cognition:

> The first principle is the existence of cognitive reference points. In music, the tonality establishes certain tones as reference points, creating a hierarchy of tones. The tonic heads the hierarchy, followed by fifth and third scale degrees, followed by the other scale tones, and finally the nonscale tones. This suggests that students can aurally recognize this hierarchy and should use these reference points of the tonic triad as tools in dictation. The second principle is sensitivity to the frequencies with which instances occur. In music, tones given higher ratings in the probe-tone task are also sounded more frequently in Western music.[10]

This suggests that tonal melodies sound the tonic pitch more frequently than any other pitch, which could influence a student's decision for a pitch being labeled tonic.

Laurdella Foulkes-Levy claims there is a hierarchy of tones in a melody. The important tones are generally members of tonic and dominant chords and they are recognized because they are emphasized in an obvious way in the melody. Sequences, scales, scale segments, and neighbor tones are common patterns found in many tonal melodies. Foulkes-Levy believes that "by making our students aware of the patterns that

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[3] Wolfgang Auhagen, "Experimental Methods in Tonality Induction Research: A Review," *Music Perception* 17/4 (Summer 2000): 429.

[9] Tonality induction is similar to tonic inference. Tonality induction (def.): the process through which a listener identifies the key of a piece including tonic and mode. See Carol L. Krumhansl, "Tonality Induction: A Statistical Approach Applied Cross-Culturally," *Music Perception* 17/4 (Summer 2000): 461

[10] Ibid., 462.

appear at structural levels close to the surface of a melody, we can greatly facilitate their abilities to hear, memorize, sight sing, improvise, and take dictation of tonal melodies."[11]

Tonal patterns often suggest a tonality. An ascending fourth can be heard as *sol* to *do,* and some scale degrees have a tendency to resolve to a specific scale degree. For example, the leading tone has a strong tendency to resolve to tonic. The location of half steps in a melody provides cues to the tonality. "A group of tonal patterns which suggests a tonality is unique to that tonality. Thus the importance of a vocabulary of tonal patterns to tonal learning."[12] Gordon provides tonal patterns for students to learn. They are categorized according to mode, function, and difficulty level. "A student cannot adequately perform, read, or write a pattern unless he can audiate it."[13] Unless students can sing, they will not be able to build a vocabulary of tonal patterns.[14] Providing class members with tonal patterns and sequential patterns can help develop their memory and can help students understand what they hear in a melodic dictation. With tonal patterns, they can see what they are singing and connect it to their ear. When they hear it in a piece, they can recall that piece of information.

Key perception is a topic about which numerous theorists have written. Scholars hold two different views on key perception: distributional and structural. Theorists of the distributional view claim that the perception of key depends on the distribution of pitch-classes in the piece. Theorists of the structural view claim that "key perception depends crucially on pitch ordering and on the intervallic and scale-degree patterns that pitches

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[11] Foulkes-Levy, 10.
[12] Gordon, 69.
[13] Ibid., 163.
[14] Ibid., 201.

form."[15] Elizabeth West Marvin and David Temperley researched and tested these two views. They used random melodies that seemed to lack important cues to tonality. Their results show low agreement on key identification for melodies, which suggests doubts on the distributional view of key perception.[16] A study by Andrea R. Halpern and Amber M. Leaver produced similar results. They were testing to see if the order of pitches in a pitch set would affect the perception of key and tonic. They used six pitches, (C, D, E, G, A, B), that can belong to four scales in two different orders. They discovered that listeners perceive keys of melodies by use of other characteristics as well as pitch set.[17]

When listening to a melody or a short fragment of pitches, listeners will often infer a sense of tonality. As Erik Jansen and Dirk-Jan Povel note,

> Van Dyke Bingham performed an experiment in 1910 in which all melodic intervals within one octave were presented and the subjects answered the question "Can you make this second tone a final tone? Does this melody end?" The results indicate that the descending perfect fifth, the descending major third, and the ascending perfect fourth show the strongest tendency to be heard as final.[18]

It was concluded that a listener infers two tones as melodically related and tries to establish a tonality. "The melody ends when the final tone is a member of the tonic triad, preferably the tonic."[19] This is an interesting observation and it indicates that even when perceiving single melodic intervals listeners tend to interpret the tones in a tonal frame by establishing a key. This suggests that intervals should be taught in a functional approach since students are already hearing them in that way.

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[15] Elizabeth West Marvin and David Temperley, "Pitch-Class Distribution and the Identification of Key," *Music Perception* 25/3 (February 2008): 193.
[16] Ibid., 209.
[17] Andrea R. Halpern and Amber M. Leaver, "Effects of Training and Melodic Features of Mode Perception," *Music Perception* 22/1 (Fall 2004): 141.
[18] Jansen and Povel, 52.
[19] Ibid., 52.

Memory is also important, according to theorists. "Audiation is the mind's ability to perceive, retain, compare, and synthesize tonal patterns and rhythm patterns as music, particularly when the sound is not physically present, and reproduce and create tonal patterns and rhythm patterns as music."[20] As discussed previously, Gordon presents tonal patterns for students to learn, which will help them to group pitches of a melody into chunks. The students are thus able to remember more of the music and understand it. The more tonal patterns students learn, the more pieces of information they can retrieve when working on a dictation exercise. These tonal patterns aid students in memorizing a melody. "Several behavioral investigations, mostly focused on cognitive aspects of information processing such as recognition strategies and memory coding, have evidenced that the abstract knowledge of familiar tonal relations facilitates pitch recognition and memorization."[21] Dan F. Ayers, W. Jay Dowling, and Barbara Tillman performed a study that showed "memory processing of previously presented information continues even while new information is entering the system . . . and the listener's experience of the piece is in a continual state of flux."[22]

In melodic dictation, the tonal patterns mentioned earlier are studied by singing. First the student learns to recognize patterns by singing them, which connects them to aural memory. Studies have shown that singing can improve dictation. In a study conducted by Deborah Sheldon, students who received an extra fifty minutes of training in sight singing and aural training for eleven weeks of the semester received higher scores

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[20] Michael D. Goldberg, John M. Holahan, and T. Clark Saunders, "Tonal Cognition in Pattern Discrimination: Evidence from Three Populations," *Journal of Research in Music Education* 48/2 (2000): 163.

[21] Elvira Brattico, Risto Näätänen, and Mari Tervaniemi, "Context Effects on Pitch Perception in Musicians and Nonmusicians: Evidence from Event-Related-Potential Recordings," *Music Perception* 19/2 (Winter 2002): 200.

[22] Dan F. Ayers, W. Jay Dowling, and Barbara Tillmann, "Memory and the Experience of Hearing Music," *Music Perception* 19/2 (Winter 2002): 273.

on error detection than those who did not receive the extra training.[23] Singing helps students to sight-read melodies, and eventually students will be able to internalize a melody without singing or producing a pitch. According to Klonoski,

> One of the primary goals of aural training is to develop in students the ability to recognize and understand musical relationships. That is, we strive to teach students to internalize pitches and pitch relationships. By internalize, I mean the ability to mentally create or recreate auditory images without singing, playing, or otherwise outwardly reproducing the pitches.[24]

Developing memory is important for dictation. As shown above, it is helpful if students learn pitch patterns and can sing them. The students need to be able to internalize pitches. It is important for them to understand the melody and hear functional relationships. Michael Rogers suggests that the instructor "do as much listening as possible when teaching analysis and do as much analysis as possible when teaching ear training."[25] In addition to learning patterns from tonal patterns studied and melodies heard, students innately group pitches together according to the Gestalt laws.

The Gestalt laws introduced earlier may play a role in how students chunk music. The properties of proximity, similarity, common fate, and good continuation determine how events are segmented and how they are organized into groups by generating boundaries between regions. The Gestalt ideas

> led to the development of a model based on principles of similarity and difference as the organizing principles underlying musical listening. These principles arose directly from the Gestalt principles of which they are an extension, or, more precisely, a generalization insofar as the psychological mechanisms concerned are henceforth divided into only two categories: similarity and difference.[26]

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[23] Deborah A. Sheldon, "Effects of Contextual Sight-Singing and Aural Skills Training on Error-Detection Abilities," *Journal of Research in Music Education* 46/3 (1998): 392.
[24] Klonoski, 81.
[25] Rogers, 103.
[26] Irène Deliège, "Introduction: Similarity Perception ↔ Categorization ↔ Cue Abstraction," *Music Perception* 18/3 (Spring 2001): 235-236.

Some students have difficulties learning melodic dictation because they cannot physically hear properly, cannot remember short passages, are unable to discern scale-degree function, and/or are unable to write the correct answer due to a lack of training in the principles of notation. Karpinski's model for music perception, which addresses these difficulties, consists of four phases: hearing, memory, understanding, and notation.

The students who have physical difficulty hearing may need to see an audiologist. If it is not a problem with their hearing, another consideration is that these students may have difficulties focusing. Patricia Flowers, John Geringer, and Clifford Madsen claim that attentive listening is absolutely essential in music and that focus of attention is the most important variable in music listening.[27]

Karpinski, Gary Potter, Klonoski, and others actively researching in aural skills use a wide variety of techniques when teaching dictation strategies. When introducing students to dictation, many teachers employ a shorthand form of notation. Karpinski developed what he calls "protonotation," which is a way to notate rhythms, pitches, and meter without using a staff. In this shorthand, a long vertical line designates the primary beat and short vertical lines represent secondary beats. He uses horizontal lines to show durations. Pitches are shown by writing solfége syllables or scale-degree numbers. This methodological approach can be helpful if regular notation is a problem. His idea is to listen to melody, memorize it, chunk if needed, and then notate.

Some theorists may disagree with this method. For example, Potter claims that it is best to write while hearing the melody the first time. In his study, he observed that

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[27] Patricia Flowers, "Patterns of Attention in Music Listening," *Bulletin of the Council for Research in Music Education* 148 (Spring 2001): 48; John M. Geringer and Clifford K. Madsen, "A Focus of Attention Model for Meaningful Listening," *Bulletin of the Council for Research in Music Education* 147 (Winter 2000-2001): 106.

students who wrote during the first hearing were closer to having the correct answer.[28] Karpinski responded that students who listened and wrote later were not trained in the proper use of selective and accurate memory. Philosophically, he questioned Potter's goal of training in dictation. Is it "to get the correct answer or to develop a broad slate of skills including hearing, memory, understanding, and notation?"[29]

Many different strategies exist for writing melodic dictation. Jukka Louhivuori provides these suggestions: a. sketch an outline of the melody without exact durations and add rhythms later; b. write melodies linearly, note by note, trying to write the pitch and rhythm simultaneously; and c. write the end of the melody first.[30] It is believed that memory is divided into two main parts, long-term memory and short-term memory. The long-term memory consists of declarative and procedural knowledge. "Declarative knowledge is about names and objects, for example musical pitches. Procedural knowledge is about the use of declarative knowledge, for example rules about how to generate melodies."[31] The capacity of short-term memory is crucial in writing melodies and is strongly dependent on the content of long-term memory. If our long-term memory contains stable cognitive reference points, *do, mi,* and *sol,* and melodic and rhythmic patterns, then we have more capacity in our short-term memory. "This implies that the main goal in teaching should be the consolidation of melodic and rhythmic formulas and

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[28] Gary Potter, "Identifying Successful Dictation Strategies," *Journal of Music Theory Pedagogy* 4/1 (Spring 1990): 68-69.
[29] Gary S. Karpinski, "A Model for Music Perception and Its Implications in Melodic Dictation," *Journal of Music Theory Pedagogy* 4/2 (Fall 1990): 199.
[30] Jukka Louhivuori, "Memory Strategies in Writing Melodies," *Bulletin of the Council for Research in Music Education* 141 (Spring 1999): 81.
[31] Ibid., 81.

schemes typical for specific musical cultures."[32] This research further shows the importance of mastery of tonal and rhythmic patterns.

Learning tonal patterns and practicing dictation can be labor intensive, so students must have the proper motivation. Most musical activities require the acquisition of a range of skills through practice. Susan Hallam suggests that these include "aural, cognitive, technical, musicianship, performance, and learning skills. In general, the extent to which the individual is prepared to practice predicts the level of expertise that they can attain."[33] The instructor needs to motivate the students and show excitement for the subject.

Potter conducted a study with the aim of identifying successful dictation strategies. His findings show that understanding rhythm is imperative in dictation, while the methods for finding the rhythm differ. When the melody was played, he noted that some students tapped or conducted, while some made slashes or dots above the staff. Students tended to be unsuccessful if they notated the entire rhythm first on or above the staff before dealing with pitch at all. Some students moved the pen across blank measures in time with music, jotting occasional noteheads or rests in their proper slots. Potter found that conducting was valuable only if it had become second-nature.

It is important to focus on both scale degree and interval recognition. In terms of pitch, Potter noted that students who thought in terms of scale degrees did better than those whose main strategy was interval recognition. Several successful subjects mentally retained tonic and dominant pitches. Many others used intervals to check a scale-degree

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[32] Ibid., 83.
[33] Susan Hallam and Jackie Shaw, "Constructions of Musical Ability," *Bulletin of the Council for Research in Music Education* 153/4 (Spring and Summer 2002): 102-103.

decision.[34] Potter noted that the students who had a broad musical background scored higher on dictation melodies compared to other students with less of a musical background. He thought it was due to familiarity with the melodic conventions and expressed the importance of introducing students "to common musical patterns of pitch, rhythm, and harmony, presenting them as conventions."[35] Fewer subjects reacted to implied harmonies in the melodies than were expected. Potter concluded that dictation should be a holistic procedure in which hearing and understanding come together.[36]

As my overview of current research in aural skills has shown, there are many ideas regarding how certain topics of dictation should be taught. The next chapter will examine dictation textbooks to see how this research has impacted pedagogy of melodic dictation.

[34] Potter, 66-67.
[35] Ibid., 68.
[36] Ibid., 69.

CHAPTER IV

COMPARISON OF DICTATION TEXTBOOKS AND RELATED JOURNAL ARTICLES

For this part of my study I surveyed eight aural skills textbooks used at colleges and universities.[1] I created a list of fundamentals developed from my research in journals and textbooks. These fundamentals included inference of pulse, meter, key, mode, tonic, and identification of intervals. I also observed which textbooks suggest tonal patterns to remember, techniques used to memorize a melody, error dictation, importance of singing, and the use of computer-assisted software or extra practice outside of the classroom.

All of the textbooks I compared use tonal music examples, and some contain a small amount of post-tonal music examples, though not enough to be significant. The textbooks are designed to coordinate with the tonal portion of an undergraduate music theory curriculum of one or two years. It is evident that there has been a shift in the types of melodies used in recent editions. Older editions used many self-composed melodies as well as fewer melodies from the literature. There are exceptions to this statement, e.g., Benward's textbook added more melodies from the literature and some self-composed. There are books that emphasize both self-composed melodies and melodies from the literature. Newer editions tend to emphasize melodies from the literature.

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[1]Bruce Benward, *Basic Sightsinging and Ear Training* (Dubuque, IA: Wm. C. Brown Publishers, 1989); Jane Piper Clendinning, Elizabeth West Marvin, and Joel Phillips, *The Musician's Guide to Aural Skills,* Vol. 1 (New York: W. W. Norton, 2005); David Damschroder, *Listen and Sing* (London: Schirmer Books, 1995); Thomas L. Durham, *Beginning Tonal* Dictation, (Prospect Heights, IL: Waveland Press, 1994); Arthur Gottschalk and Phillip Kloeckner, *Functional Hearing: A Contextual Method for Ear Training* (New York: Ardsley House Publishes, 1997); Micheál Houlahan and Philip Tacka, *From Sound to Symbol: Fundamentals of Music* (New York: Oxford University Press, 2009); Gary S. Karpinski, *Manual for Ear Training and Sight Singing* (New York: W. W. Norton, 2007); Leo Kraft, *A New Approach to Ear Training,* 2nd ed. (New York: W. W. Norton, 1999).

All of the textbooks provide ways for the students to practice outside of the classroom. Many provide CD ROMs or cassettes to practice melodic dictation.[2] Others suggest computer-assisted software such as *MacGamut, Musica Practica* or *CASPAR* for practice.[3] It is helpful to offer practice outside of the classroom, so that students can further develop their dictation skills. Many textbooks are offering their own CD ROMs as shown above. Janice N. Killian comments that "based on the number of music publishers offering videos or CD ROMs as part of their classroom materials, the assumption apparently has been made that audio-visual musical presentations are an effective approach to the teaching of listening."[4] Durham's *Beginning Tonal Dictation* does not provide CD ROMs or computer-assisted software; instead, his textbook suggests that students can work with other students to develop their aural skills. The book provides exercises for the students to practice outside of class; one student plays the exercise and a different student notates it.

Some dictation textbooks focus on teaching intervals, while others brush over them. "It is debatable the degree to which isolated interval practice transfers meaningfully to larger musical environments."[5] The teaching of intervals can be compiled into two categories: functional approach and isolation. Other considerations for teaching intervals include the following: order in which intervals should be taught, melodic versus harmonic, and ascending versus descending. Six of the theorists' textbooks, Benward, Clendinning, Gottschalk, Houlahan, Karpinski, and Kraft, favor the functional approach. Intervals are approached a little differently by each, but overall they

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[2] Clendinning, Marvin, and Phillips; Damschroder; Houlahan and Tacka; Karpinski; Kraft.
[3] Benward; Clendinning, Marvin, and Phillips; Gottschalk and Kloeckner; Kraft.
[4] Janice N. Killian, "The Effect of Audio, Visual, and Audio-Visual Performance on Perception of Musical Content," *Bulletin of the Council for Research in Music Education* 148 (Spring 2001): 77.
[5] Rogers, 101.

favor the presentation of intervals within the context of a piece of music. Damschroder and Durham teach intervals by playing two isolated pitches. Clendinning and Gottschalk suggest using familiar music to learn intervals. Clendinning says we can learn intervals by associating them with music or sounds that we know. However, "this method is not recommended as a primary mode of learning."[6] She emphasizes that the best way to learn to hear these intervals is to associate them with their scale degrees.[7]

Five of the eight textbooks ask for students to learn the sound of the major second and the minor second before the other intervals.[8] The location of half steps can help students identify tonic and mode. Karpinski suggests as an exercise to sing a half step above and below any given pitch and to sing a whole step above and below any given pitch. He asks his class to identify whole steps and half steps above and below any given pitch by listening to friends, classmates, or instructors producing these intervals on different instruments and by singing.[9]

The order in which intervals are introduced in a textbook tends to occur in three basic ways: 1) small to large, 2) consonant intervals first and dissonant intervals second, and 3) other. Damschroder teaches students to hear an interval performed melodically either ascending or descending. He begins with teaching the members of a tonic triad, the major third and perfect fifth, followed by the remaining perfect intervals, the perfect fourth and perfect octave. The other intervals are taught small to large with one slight deviation: the minor seventh is taught before the major sixth and minor sixth. Gottschalk introduces intervals according to how they appear in the overtone series. Intervals are

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[6] Clendinning, Marvin, and Phillips, xii.
[7] Ibid., 176.
[8] Benward; Clendinning, Marvin, and Phillips; Durham; Houlahan and Tacka; Karpinski.
[9] Karpinski, 27.

drilled and studied according to their basic functional character. He provides tables showing where each interval occurs in major and minor scales. Durham teaches intervals from the smallest to the largest with a slight departure. He teaches all of the perfect intervals consecutively and the perfect octave is taught before the perfect fourth and perfect fifth. The tritone is taught last. These intervals are emphasized in melodies in the sections in which they were introduced, following a functional approach. Benward teaches the intervals from the smallest interval to the largest interval with deviation in the placement of the augmented fourth and diminished fifth; tritones are taught after the major sixth and before the minor seventh.

An article by Paula Telesco shows the importance of singing, and hearing and recognizing scale degrees for developing dictation skills. Telesco says "practicing sight singing is one of the best ways to practice ear training."[10] She uses moveable *do* because it teaches one to hear and recognize scale degrees and their functions. She observed that students do not need to be proficient in identifying isolated intervals before moving on to melodic dictation. Students need to be proficient at hearing scale degrees and relationships within the context of the key. The goal is to produce musicians who can hear and think about music equally well and musicians who can understand and see what they hear, and hear and understand what they see. It is important to teach students to hear larger relationships, e.g., scale degrees and harmonies. "Intervals should be taught and understood only as parts of harmonies, not as discrete units to be recognized in the absence of a tonal context."[11] Telesco provides a chart that lists the scale-degree pairs she most often uses. She tells her students that these diatonic intervals can be found in

[10] Paula Telesco, "Contextual Ear Training," *Journal of Music Theory Pedagogy* 5/2 (Fall 1991): 180.
[11] Ibid., 182.

several other places in a key. She is primarily concerned with teaching important tonal patterns that can be given interval labels.[12]

Clendinning's *The Musician's Guide to Aural* Skills, Houlahan's *From Sound to Symbol: Fundamentals of Music*, Karpinski's *Manual for Ear Training and Sight Singing*, and Kraft's *A New Approach to Ear Training* downplay interval study in favor of functional approaches. These textbooks are influenced by newer studies in comparison to the older textbooks. Kraft does not include any practice on intervals but suggests keeping the tonic triad in mind; Karpinski emphasizes whole and half steps and identification of all members of the tonic triad; Clendinning focuses on whole and half steps and then lists all of the intervals on the same page in relation to the major scale. Kraft and Karpinski both suggest keeping the members of the tonic triad in mind when taking dictation. With that approach, the students will listen to intervals in a functional context rather than note to note. Karpinski and Clendinning both suggest assigning familiar tunes for students to identify the intervals. The students have the melody memorized, so this step focuses understanding on what is being played back in the mind. Students can practice this technique in any location.

The authors who downplay intervals realize that there is an importance to knowing them. Intervals are important at certain points in the curriculum, e.g., establishing pitch collection leads to hearing key and notating an atonal melody. It is important to emphasize how frequently each interval can occur in the major and minor scales. Gottschalk provides charts showing every location where each interval occurs in major scales and minor scales, whereas Benward provides one location where each interval occurs. If students can remember the tonic triad pitches and listen for the

[12] Ibid., 184-185.

relationships, they may not need to remember the sound of a major sixth, but listen to how it functions. Students are not listening for individual intervals, but for patterns.

Most of the textbooks introduce the intervals melodically and later add them harmonically. Intervals are often introduced in relation to the major scale. Benward writes "when you have related the sound of an interval to pitches found in the major or harmonic minor scale, then you are ready to write the answer."[13]

Interval identification is valuable for students when heard in a functional context. It is beneficial when identifying key or listening to atonal music. As shown above, many instructors favor the functional approach instead of the isolated approach. As suggested by Rogers, upward melodic intervals should be introduced first. He argues that the order in which the intervals are taught should be presented in groups of intervals with similar properties, not presented in order from small to large, or randomly. Rogers suggests grouping them as stable intervals including thirds, sixths, the perfect fifth, and perfect octave, followed by unstable intervals including seconds, sevenths, the tritone, and usually the perfect fourth.[14] The overuse of familiar tunes as a crutch should be discouraged. One idea that works well with familiar tunes is used by Karpinski and Clendinning. This idea is a type of silent dictation, in which sound is not aurally present and where students are asked to notate a familiar melody they know such as a Christmas carol or children's tune. Clendinning asks the students to label the intervals, which focuses on identification of intervals in the context of a familiar piece.

Textbooks by Benward, Damschroder, Durham, Gottschalk, and Kraft provide the meter for dictation exercises, whereas textbooks by Clendinning, Houlahan, and

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[13] Benward, 12.
[14] Rogers, 105.

Karpinski do not. Karpinski asks students to think of a piece they have in their long-term memory, but which they have never seen in notation, e.g., folk tunes, holiday songs, and nursery rhymes. The students are asked to sing the music in their minds without making a sound, and find a steady pulse in the music and tap or clap along with that pulse. They are told not to determine the meter yet and to find at least one other level of steady pulse. The students identify the relationship between those two levels of pulse as duple or triple and conduct along with the music using the appropriate conducting pattern. They write vertical pulse lines for a short passage of this music and fill in horizontal rhythm lines for that same passage.[15] Karpinski suggests listening to a variety of music from recordings and live performances and determining the pulses and meter for each excerpt using the tasks listed above.

Karpinski suggests that pitch and rhythm portions should be remembered as a whole. "It is unmusical to remember and process the rhythms of an entire passage over the first several playings, and then return to try to remember and process the pitches after still more playings."[16] Karpinski claims that students must learn to extract a portion of a musical passage and retain it in short-term memory.

Clendinning asks students to bring their favorite CD to class. The class is asked to step the beats, tap the beat divisions on their body, and conduct the beats with their right hand. Because this may be awkward for some, the students may need to begin with just one task.[17] Another movement-based activity Clendinning suggests is to listen to music and have students bounce a tennis ball on each beat.

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[15] Karpinski, 4-5.
[16] Karpinski, "A Model for Music Perception and Its Implications in Melodic Dictation," 199.
[17] Clendinning, Marvin, and Phillips, 30.

The other textbook that stresses meter identification is by Houlahan. Of the textbooks I surveyed, this textbook is slightly different because the students are taught the sounds first before they are taught the theoretical concepts. This text begins teaching meter by having the students sing a familiar tune with text and telling the students to pat their knees on the downbeat and touch their shoulders on the upbeats. The textbook lists some statements for the class in which to respond. For example, describe what you hear; determine the number of beats in the phrase; and determine which beats are strong and which are weak. The students are asked to create a visual representation showing strong and weak beats for the familiar tune. The textbook uses kinesthetic, aural, and visual activities to develop the students' perception of sound.

According to Edward Klonoski,

> dictation exercises test three different skills: 1) the ability to remember what was played without analyzing or interpreting it; 2) the ability to identify the pitches and rhythms played, and to understand their relationship to other events in the exercise; and 3) the ability to notate what was heard. Typically, students must perform all of these tasks silently. That is, they must internalize the pitches and pitch relationships.[18]

Before beginning a dictation exercise, the key can be established to provide students with a tonic and other inherent relationships to internalize. If the key is not established, this tests the students' ability to determine key based on the content of the exercise. Klonoski adds, "determining the starting pitch of an exercise is among the most important and, for some students, the most difficult aural skills task."[19]

There has been a shift in practice for what is provided on the staff for melodic dictation. The older textbooks by Benward, Damschroder, Durham, Gottschalk, and Kraft, often provide clef, meter signature, key signature, and the first pitch and its

[18] Klonoski, 84.
[19] Ibid., 85.

rhythmic value. Gottschalk's textbook does not provide the first pitch and its rhythmic value. Kraft's textbook provides all in the list above in section one of his textbook. In section two, the rhythmic value of the starting pitch is not provided. In section three, the starting pitch and rhythmic value of that starting pitch are not provided.

The newer textbooks by Clendinning, Houlahan, and Karpinski, often provide clef, meter signature, and key signature. Karpinski's textbook provides the bottom number in the meter sign for most dictations. This guides all of the students to notate examples in relatively the same time signature. Karpinski says "we should only reveal those facts that are not audible. Thus, the beat unit or bottom number of the meter sign should be given in all cases (since, for example, 2/4 is audibly indistinguishable from 2/2)."[20]

Clendinning's textbook sometimes provides the starting pitch and/or meter. Often, she will ask the students to notate rhythm, and write melody with solfége syllables and scale-degree numbers. After writing the melody in a shorthand method, the students are given a key or starting pitch, so that the melody can be notated on the staff. Houlahan's textbook includes both written dictation and aural dictation. Written dictation in his textbook follows the conventional method of students listening to a melody and notating it. Aural dictation is when the students listen to a melody and sing it back using solfége. Before students learn to notate a melody, the textbook introduces them to writing contour graphs and conducting in a manner that shows the contour. This helps students to listen to a melody as a whole and notice which notes are the same.

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[20] Karpinski, *Aural Skills Acquisition: The Development of Listening, Reading and Performing Skills in College-Level Musicians,* (New York: Oxford University Press, 2000), 203.

Sometimes notation can become a hindrance and students become too focused on note-to-note progression.

Only two of the textbooks, Clendinning's and Karpinski's, provide pitch patterns for the students to learn, which will help them perceive a group of notes as one entity. The other textbooks provide several melodies from which students could infer some of these patterns.

A group of tonal patterns that suggests a tonality is unique to that tonality. That concept demonstrates the importance of a vocabulary of tonal patterns. Gordon emphasizes the importance of being able to sing in this context. "Unless a student can sing, he will not be able to build a vocabulary of tonal patterns."[21] Several behavioral investigations, mostly focused on cognitive aspects of information processing such as recognition strategies and memory coding, have evidenced that the abstract knowledge of familiar tonal relations facilitates pitch recognition and memorization.[22]

The newer textbooks have followed the studies that demonstrate the importance of tonal patterns. These tonal patterns become part of students' long-term memories and are useful tools for dictation. They can be difficult to learn and be able to internalize. Gordon states that "it has been demonstrated that persons of all ages can be taught to audiate. It is more difficult to help students learn to audiate than to teach them to memorize the rules of part writing. Further, because many professors themselves cannot audiate, they cannot conceptualize how to help others learn to audiate."[23] Some

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[21] Gordon, 201.
[22] Brattico, Näätänen, Tervaniemi, 200.
[23] Edwin E. Gordon, "The Stakes are Low But the Consequences are High," *Bulletin of the Council for Research in Music Education* 151 (Winter 2001): 3.

professors who do not teach students to audiate teach melodic dictation according to a different method such as writing while the melody is playing.

Melodic dictation is approached differently in each textbook. Some of the textbooks are methodical about teaching steps for taking melodic dictation, while other textbooks expect students to learn by doing. Damschroder emphasizes mind training for dictation in *Listen and Sing.* He does not present a methodical method, but he does provide suggestions during the dictation to help guide the listener, such as comparing the last pitch to the first pitch.

Kraft, in *A New Approach to Ear Training*, tells students to hear the notes of each melody in coherent groups, listen to the high and low notes of a melody, imagine the harmonic background, and listen for repeated patterns. He proceeds to tell students to memorize the melody and only write it after the students can sing it back in its entirety, stating that "it is not very useful to write down a few notes at a time."[24] Every dictation melody is preceded by the sounding of a tonic pitch. Kraft's textbook suggests the students pause the recording after hearing tonic and sing the scale that is built on that tonic. A problem I see with this suggestion is that the tonic pitch is not provided in section three, so it is unknown if the melody is major or minor. Kraft's textbook recommends listening to the dictation melodies three times or fewer.

Karpinski, in *Manual for Ear Training and Sight Singing*, emphasizes internalizing the pitch. For most melodic dictations he provides the students with the clef, tonic, and the bottom number in the time signature. The students must learn to hear the functional relationships of pitches and determine the meter. As mentioned earlier, Karpinski developed a system of notation called "protonotation." This method reduces

[24] Kraft, 4.

the possibility of notational errors on the staff and can help the instructor to isolate and determine why the students are not notating the correct melody. Karpinski is methodical in his steps for taking melodic dictation. Early in the teaching of melodic dictation, the students are asked to focus on pitch or rhythm in isolation. Here is the procedure he recommends for focusing on pitch: step 1, memorize melodic fragment; step 2, find the tonic of the melodic fragment; step 3, calculate the first pitch of the melodic fragment by comparing it to *do*; step 4, determine the proper scale degree labels for each of the melodic fragment's pitches; and step 5, write the scale-degree syllables that correspond to the pitches of the melodic fragment.[25] In chapter three of his book, students are taught to notate both pitch and rhythm together. Some melodies are long and students may have trouble remembering the entire melody. He suggests that students learn to extract and remember short sections (up to ten notes) of the melody after individual hearings. Here is his process for taking melodic dictation once the students are accustomed to notating longer melodies: hear, remember, understand, and notate.[26] During the first hearing, the students hear the entire excerpt, remember the first half of the excerpt, understand the first half of the excerpt, and notate the first half of the excerpt. During the second listening, the students repeat the pattern above, this time remembering, understanding, and notating the second half of the excerpt. During the third listening or last playing, the students are asked to fill in any missing information.

Clendinning, in *The Musician's Guide to Aural Skills*, emphasizes internalizing pitch. Some examples provide a clef and key signature but not a starting pitch, so students must determine the tonic. Similar to Karpinski, Clendinning takes out staff

[25] Gary S. Karpinski, *Manual for Ear Training and Sight Singing*, 12.
[26] Ibid., 45.

notation early in the semester. For an excerpt, Clendinning asks students to write solfége syllables, scale-degree numbers, and letter names. The last step listed is to notate pitches on the staff. In the text, Clendinning recommends that students who require some physical sensation when doing internal listening should learn to whistle, but exhale so little air as to be almost silent. For later melodies, she recommends that students notate rhythm first, write melody with solfége syllables, write melody with scale degree numbers, and notate pitches of the melody on staves.[27]

Gottschalk's *Functional Hearing* is very systematic in its approach. Gottschalk provides five steps to follow when taking a melodic dictation test. Step one is score setup, which includes marking a staff with bar lines and notating clef, key, and meter. Steps two and three assume that a triad or scale will be played before the melody to establish pitch and that a tempo will be counted aloud as preparatory measures. Step two is establishing key; step three is setting the tempo; step four is listening without writing during the first hearing; and step five is writing down what is heard. He emphasizes notating rhythm followed by pitches to provide a framework and internalizing the music. In the text, he teaches shorthand for notating duration of pitches and rests.

Benward's *Basic Sight Singing and Ear Training* suggests that students should memorize the entire melody, and should not attempt to write anything on paper before it is memorized because

> you will learn almost nothing by trying to write too early. . . . If memorizing the entire melody requires more than three hearings, by all means do so, and do not be embarrassed. Remember that you will learn only when you obtain the correct answers. Improvement will be steady, and only after a bit of experience, you will require fewer repetitions of the melody.[28]

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[27] Clendinning, Marvin, and Phillips, 159.
[28] Benward, 7.

Once the melody is memorized, students are to write the melody on the staff in regular music notation.

Houlahan's *From Sound to Symbol: Fundaments of Music* teaches students melodic dictation by introducing the sounds first and then linking them to music symbols. The students are asked to describe what they hear, e.g., the number of phrases, the meter, and the number of beats within the phrase. The students are directed to sing rhythmic syllables or solfége to the melody. Before using notation, the students are asked to draw a contour graph using filled-in circles to represent the pitches. The circles that are on the same horizontal plane are the same pitches. The ones that are higher represent higher pitches, and the ones that are lower represent lower pitches. Students are then given opportunities to notate on staff paper the dictation exercises.

Durham does not mention how to take melodic dictation in *Beginning Tonal Dictation*. His basic approach is to drill melodies and hope that students will learn on their own what method is most effective for them.

Rogers offers another approach to dictation. He observes that students often write too much during a first hearing. He suggests they listen to general features of the melody such as mode, meter, length, phrases, high points, and low points. Attention should also be directed to memorizing its sound. After the first hearing, some sketching can begin. It is often useful to sing back the melody silently or aloud with the whole class immediately following that first hearing so as to imprint it more firmly, rather than rushing to write notes down. He recommends a short pause between first and second hearings and much longer subsequent pauses as notation begins. Students usually work from left to right. Frequently students will remember the beginning and ending fairly well with the middle

somewhat blurred. Working backwards from the end is often a good way to connect the beginning to the end. Students should write quickly and with pencils. Stemless pitches can be jotted down with rhythms added later. Some students like to indicate rhythms early (perhaps above the staff) and add pitch details later. Students are sometimes shy about putting specific notes down until they are absolutely certain of their correctness. This can result in blank paper, so it is better to make estimates than nothing. Much of the sketching should be structural, meaning that the members of the tonic triad should be notated and downbeats of each measure should be notated. It is helpful if the students have a sense of scale-degree function.

Rogers provides two stages for taking dictation. Step 1 involves "perception and labeling of individual events," and stage two involves "the comprehension of musical relationships."[29] Rogers also suggests intelligent guessing. If the actual hearing fades out, the mind often can take over by making educated predictions.[30] When giving a dictation, the instructor should be active. Walk around the room, look over shoulders, offer suggestions to guide the listeners, and offer encouragement. Discuss some of the melodies.

All of the textbooks examined except for Durham's *Beginning Tonal Dictation* suggest that students memorize melodies. Karpinski provides some drills to help students exercise their memories. He suggests that students should sing back or auralize fragments extracted from what the students hear when they walk past practice rooms, listen to the radio, watch television, listen to recordings, and so forth. When students listen to a melody, the students should sing the first six to ten notes back very quietly or

[29] Rogers, 101.
[30] Ibid., 116.

auralize the opening without actually singing it. Clendinning suggests an exercise in which the instructor creates a melody by pointing to solfége syllables, scale-degree numbers, note names, or staff notation. The students hear it internally rather than singing it aloud. The instructor repeats the melody in the same way, and then asks the class to sing it aloud from memory. Houlahan's *From Sound to Symbol: Fundamentals of Music* focuses much on rhythm. For developing music memory, he suggests that students analyze rhythmic form, memorize the rhythm of each phrase separately, clap the rhythm from memory, and write the rhythm of each melody from memory. He also suggests singing each melody with rhythm syllables while conducting and singing each melody using solfége syllables from memory.[31]

It is important for students to practice error detection early in the semester. Error detection is a useful skill for the many students who will become conductors. All of these textbooks mention error detection, whether it is to tell the instructor to change a melody or to provide a melody with some errors to be identified. Rogers suggests giving students multiple choice materials with options A-E, with E being none of the above. The other letters will provide melodies that are similar to the one played, and one of them may be that melody.

Karpinski offers another method for error detection. Before students hear the music, they should auralize the notation as if they were performing it. When notating errors, students should be specific by naming where the error occurred and what was actually played. Students should be ready to accept "no errors" as a possible answer. Durham does the typical error detection where students have a written notation in front of them and must find errors based on what the instructor plays. He also does error

[31] Houlahan and Tacka, 147.

detection from memory. The students do not look at a melody while the instructor plays it with errors. After the instructor completes the playing of the melody, the students look at the melody and identify any errors.

Identifying tonality and modality were recurring topics in many of the articles and textbooks. According to Karpinski, "key signature does not represent a key at all. It represents a diatonic pitch collection. Key is a result of diatonic collection and tonic. Tonic is the result of the temporal and structural ordering of the pitches in the scale."[32] Identifying tonality and modality is important in the textbooks by Clendinning, Houlahan, and Karpinski. Textbooks by Benward, Damschroder, Durham, Gottschalk, and Kraft provide the key signature, which limits the choices for tonic. Karpinski is systematic in his approach for finding tonic. Step one is to establish the collection. Some suggestions for this step are to listen to the starting pitch, sing stepwise by whole steps to reach the nearest half steps within the collection, sing the entire scale, etc. Step two is establishing the tonic. Some suggestions for this step are to sing by step to reach the tonic, sing tonic and dominant pitches.[33] Clendinning suggests that students learn melodic patterns in both major and minor keys. Knowing these patterns will help them to identify if the melody is in major or minor mode.

Newer textbooks[34] emphasize developing relative pitch. This subject was an important idea in the older textbooks, but it seems to be stressed more in the newer ones. Clendinning suggests that students should know the lowest pitch their voices can sing on a typical day and on a sick day. This knowledge can help the students identify the key of a melody and identify the first pitch. Most of the textbooks ask students to hear the first

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[32] Gary S. Karpinski, *Manual for Ear Training and Sight Singing*, 159.
[33] Ibid., 50-51.
[34] Clendinning, Marvin, and Phillips; Houlahan and Tacka; Karpinski.

pitch in a functional context. Gottschalk asks students to compare the first pitch to the last pitch. Karpinski asks students to recognize notes of identical pitch, to distinguish a higher note from a lower note, calculate the first pitch of the fragment by comparing it to *do*, and to pay particular attention to the sound of the first pitch---latching on to the first note will help students successfully combine contour memory with pitch memory.[35]

An instructor can play a dictation melody in many different ways. If the goal is to see which students can hear functional relationships and it is not focused on selective listening, the instructor can split the melody in half. If the goal is selective memory, it does not help if an instructor breaks a dictation into short fragments and repeats those fragments several times. Karpinski, Rogers, and others say that a typical number of times a melody should be played are three. Karpinski writes that "theoretically, the proper number of times a melody should be played is the product of the total number of bits in the melody divided by Miller's limit of 5-9 bits, plus one playing to account for the task of discerning the relationships between separate remembered portions of the melody."[36] Bits refer to pitches or chunks. Being able to chunk pitches allows students to remember more of a melody.

[35] Karpinski, 12.
[36] Ibid., 201.

CHAPTER V

PROPOSAL FOR POSSIBLE CURRICULUM DESIGN AND CONCLUSIONS

For a course of study, Gordon writes that the instructor should provide a purpose, current class achievement, comprehensive objectives, sequential objectives, individual differences, and measurement and achievement.[80] The purpose of a melodic dictation class is to produce a listener who can hear sound as meaningful patterns through a system of structural points of reference with an understanding of what is heard. The others listed will be discussed later in the chapter.

Every school's needs are unique when it comes to designing a curriculum. Some offer remedial classes while others begin all freshman musicians in the same class. Because of this uniqueness, the textbook must reflect the objectives of the curriculum. Many schools offer individual sections of the same melodic dictation course, which may be taught by different instructors or graduate assistants. It is important that the instructors share a common set of goals and skills, so that when the students are remixed in later semesters, they have comparable backgrounds.

Melodic dictation is introduced in rudiments or in the first course of an aural skills sequence. When designing the curriculum of a melodic dictation course, it ideally should coordinate with the written theory portion. Based on research from this study, some fundamental skills that should be developed are short-term melodic memory, perception of pulse and meter, inference of tonic, identification of rhythmic durations, and identification of scale degrees or audiation.

It is important to find the students who may have trouble with inference of tonic. An idea adopted from Klonoski is for the students to imagine a pitch and sing that pitch

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[80] Gordon, *Learning Sequences in Music: Skill, Content, and* Patterns, 206.

on *la*. Ask the students if they sang the pitch they imagined. Tell the entire class to sing a major scale based on a pitch provided by the instructor. After they sing it, ask the students who had trouble singing their imagined tone to sing tonic. This exercise will let the instructor know which students may have difficulties internalizing pitch. These students should receive extra help later.

In current dictation classrooms, the fundamentals are no longer focused entirely on pitch and rhythm. "Traditionally, aural training has concentrated on the pitch and rhythmic domains of music."[81] A first-semester aural skills sequence will teach notation of rhythms in simple and compound meter, along with notation of pitch. The recently published textbooks teach inference of tonic, meter, key, and error detection, which suggests these skills are important to include in the curriculum. Many of the students will be conductors and performers and these skills are vital for success.

Classroom study needs to be reinforced by digital technology and computer-assisted melodic practice exercises. Guided, inventive classroom teaching will always reveal, from each example, something about how melodies are formed or how listeners hear that will apply to the next melody. Learning is gradual and cumulative. Drill is useless without analysis. The most effective ear training classes are those that teach students how to practice outside of class on their own. It is important to be open to different ideas and offer suggestions for how to take dictation.

When making a syllabus, it is important to provide a grading policy and how much weight each category receives in determining a final grade. If there is an

[81] Kate Covington, "An Alternate Approach to Aural Training," *Journal of Music Theory Pedagogy* 6 (1992): 6.

attendance policy, include it on the syllabus. Be clear on all of the standards for the course.

As listed above, Gordon provides a list of topics to help develop a curriculum including purpose, current class achievement, comprehensive objectives, sequential objectives, individual differences, and measurement and achievement. The current class achievement indicates the level of music achievement of the average student in the class, which can be discovered through separate assessments. It is important to know the skill level of the students. If the material is too easy or difficult, students could easily lose interest. For this reason, it is best to pace the material for the middle percentage of the class.

The comprehensive objective is a statement that indicates the degree of music achievement to which a teacher feels a class can progress by the end of a semester or year. In a melodic dictation course this statement could be the comprehensive objective: students will learn to hear functional relationships between scale degrees, notate in simple and compound meter, notate rhythm and pitches, perform error detection, and infer key and tonic.

Sequential objectives are small goals that are met throughout the semester. The current level of achievement is the first sequential objective and the comprehensive objective is the last sequential objective in the logical progression of sequential objectives for a class in a course of study. The next category is individual differences. The instructor should measure and evaluate students' music aptitude. Students' individual musical differences should be taken into consideration.

The last category is measurement and evaluation, which refers to tests. Exams can provide information on what material the students have learned well and what areas the students have difficulties. This information lets the instructor know what weaknesses may be in the course. Before giving an exam, it is helpful to the students if the instructor specifies the content, length, and difficulty level of an exam. This information given "will result in a greater likelihood of study and preparation."[82] Practice tests can help to reduce test anxiety and inform the students of the test structure. "Lots of shorter tests are best so that no single score is over-weighted. This is especially true of ear-training exams where the possibility of having an off day is more likely."[83] With dictation texts, beginning with a few simple items will help build the students confidence and decrease nervousness, and ending with difficult items will challenge the strongest students. Feedback throughout the semester is helpful for students, so that they know in which areas they are deficient. It is important to grade and return exams quickly and discuss the tests upon returning them.

In conclusion, the articles in my study showed that in a melodic dictation course, it is important to introduce cognitive reference points and hierarchy of tones, attentive listening, inference of tonic and tonality, and the importance of developing memory especially from learning tonal patterns.

I have listed some techniques that instructors use at universities such as Klonoski's method for pitch internalization and Karpinski's familiar-tune dictation. These techniques help to improve aural skills. Students who can internalize pitch are able to play back a melody in their mind at a slow pace and notate it, whereas students

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[82] Rogers, 166.
[83] Ibid., 166.

who cannot audiate have trouble hearing a melody in their mind and may be stuck with a blank page in notation. Klonoski's method for developing pitch internalization can be beneficial for students. Karpinski's familiar-tune dictation develops the students' ability to internalize the pitch and lets the students practice this skill.

There has been a shift of emphasis in the newer textbooks. The newer textbooks expect students to determine meter, tonality, and first pitch, and they emphasize learning tonal patterns and developing short-term memory. These skills prepare the students for their careers. In a syllabus, it is important for students to state a purpose so that they know why they are studying dictation.

As discussed above, Krumhansl showed that students infer a hierarchy of tones, with tonic, dominant, and mediant being the top three. These three pitches belonging to the tonic triad should be used as reference points in dictation. According to Potter's study, students who retain the pitches of the tonic triad perform well in dictation. These reference points should be emphasized in the dictation classroom.

Some students have trouble focusing on a melody because of physical reasons, nervousness, lack of attention, or some other reason. This problem should be discovered and treated early because if students do not hear the melody, students cannot notate the melody.

Gestalt laws can help explain how students group melodic fragments. Students often group elements together that are similar and mark boundaries where elements are different. Tonal patterns teach students how to chunk melodic fragments. Singing the tonal patterns can help a student commit a pattern to memory, which helps the student to recognize the pattern when it occurs in a melody. These acquired tonal patterns and the

tendency of half steps to resolve upward often offer clues to identifying the tonality. It is important to make students aware of these patterns and tendencies. Miller showed that students can remember five to nine chunks of information at a time. This statement suggests that students who recognize more tonal patterns are capable of remembering longer melodies. It is helpful if students can memorize the entire melody and play it back in their minds numerous times until they notate the entire melody.

It is best to provide a method for the students to follow when taking dictation. For many college freshmen, it is the first time they have been asked to notate a melody they heard. Providing them with a systematic method can be effective. When teaching a course in dictation, it is important to provide a purpose, lay out clear expectations and goals, be aware of different methods used to teach dictation, understand the methods, and provide a systematic method for taking dictation.

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