

MELODIC CONVENTIONS THROUGH IMPROVISATION

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ABSTRACT

The study of the common melodic units in western music — motives and phrase and period models — begins with a solid understanding of the fundamentals of music. At the same time, a solid understanding of the fundamentals is strengthened by the study of the common melodic units. Using improvisation on the student's applied instrument as a means of engaging melodic elements in active musical contexts strengthens student's ability to recall fundamental concepts quickly in order to use the units appropriately. In doing so, improvisation strengthens their understanding of both the common melodic units in western music and the fundamentals of music. This paper will focus on using jazz improvisation as a model for teaching improvisation in the standard music theory classroom in order to supplement the acquisition of basic concepts and connect these concepts to the student's applied instrument.

In this paper I outline a four-tier jazz improvisation model that focuses on the melodic aspects of improvisation, and a three-tier adaptation of that model to function in the classical music theory classroom in the context of common-practice era repertoire. The first tier of the adapted model is concerned with the acquisition of the fundamentals of music. The second tier is concerned with the acquisition of embellishment patterns, cadence patterns, and

motivic development. The final tier is concerned with the acquisition of phrase and period models, irregular phrase and period structure, and phrase extensions. Each tier of the adapted model is divided into two to three sub-tiers that detail basic improvisation exercises designed to target specific skills or concepts. This adapted model is designed to strengthen students' fluency in recalling the fundamentals of music and to supplement the understanding of the common melodic units in common-practice era music, including embellishment patterns, cadence patterns, phrase models, period models, and motivic development.

APPROVAL PAGE

The faculty listed below, appointed by the Dean of the Conservatory of Music and Dance have examined a thesis titled “Melodic Conventions through Improvisation,” presented by Taylor M. Carmona, candidate for the Master of Music degree, and certify that in their opinion it is worthy of acceptance.

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CHAPTER 1

INTRODUCTION

The study of the common compositional units in western music — motives, phrase and period models, cadence patterns, etc... — begins with a solid understanding of the fundamentals of music. At the same time, an understanding of the fundamentals is strengthened by the study of these common compositional units. Using improvisation on the student's applied instrument as a means of learning to manipulate melodic ideas in the context of real music forces students to recall fundamental concepts quickly in order to use the melodic ideas appropriately. Doing so strengthens students' understanding of both the common compositional units and the fundamentals of music. In his article, "Audiation-Based Improvisation Techniques and Elementary Students' Music Achievement," Christopher D. Azzara argues that improvisation requires the student to express musical ideas from an "internal source" and "is at the heart of musical expression and is fundamental to all types and levels of music instruction and curriculum".¹ Improvisation develops the students' inner hearing and the ability to materialize the music in their heads.

The importance of improvisation for musicians' development is also evidenced by its inclusion in the National Association of Schools of Music (NASM) requirements for professional baccalaureate degrees in music. The NASM Handbook states that students should study improvisation to "gain a basic understanding of how to work freely and

¹Christopher D. Azzara, "Audiation-Based Improvisation Techniques and Elementary Student Music Achievement," *Journal of Research in Music Education* 41, No. 4 (1993): 330.

cogently with musical materials.”² Although NASM requires improvisation to be a component of professional music degree programs, it does not define at what point in the program students should learn improvisation, or how it should be taught. Because of this, improvisation is often skimmed over. It is briefly discussed instead of deeply engaged. One possible place improvisation can be taught is in the music theory classroom.

After attending the Improvisation Interest Group meeting at the 2014 Society for Music Theory/American Musicological Society joint conference, it became clear to me that the biggest hurdle for incorporating improvisation into the music theory classroom is an inability to construct a working definition for improvisation. The participants in the interest group were from two different traditions, jazz and historical improvisation. The conversation at this meeting centered on the benefits of teaching jazz improvisation in the music theory classroom and the best way to implement it. Scholars in the historic improvisation tradition expressed concerns about the aesthetic association of jazz improvisation with creative individuality, and didn’t believe this degree of creative freedom had a place in the music theory classroom. Scholars in the jazz tradition responded to these concerns by explaining that the goal of teaching jazz improvisation is to teach students the thought processes that take place when a jazz musician improvises. The problem that arose was that the jazz scholars could not effectively explain what thought processes occur during jazz improvisation. This stalled the conversation because participants from the jazz tradition were not able to distinguish their proposal for using improvisation as a pedagogical tool from its use solely for the sake of creativity and expression.

² National Association of Schools of Music. “VIII.B.3.” *Handbook 2015-2016*.

Part of this disconnect between improvisation traditions stems from the fact that improvisation has a wide variety of definitions, including spontaneous free composition, spontaneous composition within given constraints, and spontaneous creative expression. Although all of these definitions represent valid uses for improvisation, they are inherently misleading. They neglect to include the painstaking and highly structured work necessary to prepare musicians to engage in improvisation. Improvisation is not the “expression of aimless, random tonal and rhythm patterns. It is the meaningful manipulation of tonal and rhythm [sic] music content created in ongoing musical thought.”³ Improvising musicians spend time studying the basic elements of music and musical style both aurally and on paper. Depending on the type of improvisation, the depth of study will vary. For example, in spontaneous free composition, musicians may have a basic understanding of the fundamentals of music, but ultimately this style of improvisation offers a degree of freedom that leads to an infinite number of results. However, when improvisation is practiced with specified constraints, a fluent understanding of the fundamentals of music and the components of musical composition is required because the constraints limit the number of possible results. Most jazz improvisation fits into the latter category.

What I observed in that meeting inspired me to write this thesis. In what follows, I plan to outline a model for jazz improvisation pedagogy I have developed from my education, teaching experience, and various sources I will discuss in the next chapter, and to present an adaptation of that model for use in the classical music theory classroom. In the remainder of this introduction, I will argue for the importance for such teaching in the

³ Azzara, “Audiation-Based Improvisation Techniques,” 330.

classroom. In the next chapter I will outline the jazz improvisation pedagogy model I have developed and discuss the key thought processes that adapt well to the traditional theory classroom. Chapter three consists of the presentation of the adapted model and sample exercises. In the next chapter I will address the logistics of teaching improvisation, and the final chapter will be devoted to my conclusions.

Before I explain my model, I must first discuss why improvisation should be taught in the music theory classroom. In her article “The Core Curricula in Music Theory: Developments and Pedagogical Trends,” Elizabeth West Marvin writes that the purpose of the music theory sequence is to teach students to “think in music,” to help them “read, write, and play music with understanding,” and to promote “artistry.”⁴ Several pedagogical advances have been made to achieve this purpose in recent years, including the integration of ear training and written skills, the analysis of real musical examples, and an increased use of technology.⁵ These advances help students “think in music” by developing a fluent connection between their ears and eyes. This allows students to be better at reading and manipulating music, as well as playing it expressively and intelligently.

Although these advances are invaluable, they fall short in one aspect of musicianship. None of them help students develop a connection between music as written, as heard, and as played by each individual on an instrument. This connection enables students to have control over the music they play, by developing their understanding of how to manipulate melodic and rhythmic elements on their instrument. In his article “Improvisation: An Essential

⁴ Elizabeth West Marvin, “The Core Curricula in Music Theory: Developments and Pedagogical Trends,” *Journal of Music Theory Pedagogy* 26 (2012): 255.

⁵ *Ibid.*, 255- 261.

Element of Musical Proficiency,” jazz pianist Bill Dobbins argues that in order for students to understand the process of improvisation they have to be able to see music as a “fluid, ongoing development of sounds rather than as a static object fixed by a notated score.”⁶ Part of what comes out of this process is a glimpse of music’s hierarchical aspect, one that deeply influences the way the music is played. Music no longer consists of notes on a page that need to be “read expressively,” but as a “development of sounds” that possess their own tendencies of motion. Improvisation helps to develop this view in students because it requires them to understand all of the compositional tools used to create the music they play, as well as to foresee how certain choices change the end musical product. Improvisation also allows students to develop a view of music as malleable. The ability to manipulate various components allows students to develop a stronger understanding of music’s elements and their organization.

The idea that improvisation has pedagogical benefits is not new. Improvisation was a standard component of common-practice era musicianship. In fact, in Beethoven’s audition to study with Mozart, one of the requirements was to improvise a piece on the spot.⁷ There are traces of improvisation throughout the compositional history of western music. Pieces written in the Baroque era were “sketched rather than fully realized.”⁸ This placed the responsibility of the realization on the performer. Performers were expected to be able to

⁶ Bill Dobbins, “Improvisation: An Essential Element of Musical Proficiency,” *Music Educators Journal* 66, No. 5 (1980): 37.

⁷ Gould, Carol S. and Kenneth Keaton, “The Essential Role of Improvisation in Musical Performance,” *Music Educators Journal* 66, No. 5 (1980): 143.

⁸ David Fuller, “The Performer as Composer.” In *Performance Practice*, edited by Howard Mayer Brown and Stanley Sadie (New York: W. W. Norton, 1990), 117.

ornament the melody through graces, trills, mordents, and diminution.⁹ Continuo players in the Baroque era were also expected to be able to fill in the composer's sketches. Their parts consisted of figures and a bass line that they would realize into the harmonic accompaniment of the piece.

Musicians were expected to improvise more than just ornaments in the Baroque and Renaissance. The ability to practice diminution was expected from all musicians. Diminution consisted of "substituting the long notes of a written melody with passages of rapidly moving ones." The goal was to embellish notes of the melody without changing its overall contour. Essentially, musicians would insert embellishment patterns in place of some melody notes. In the Classical period the most common occasion for improvisation was the concerto cadenza. Most composers expected the performer to improvise a cadenza based on music from previous movements before the final orchestral coda.¹⁰ It was not until relatively recently that its educational and musical importance has been overlooked.

Although historically improvisation has been an important component of music education, there is not a substantial amount of existing research into its pedagogical benefits. One area that has been researched addresses the benefits of improvisation on the development of musicianship. Improvisation is believed to help students develop higher-level music thinking skills.¹¹ Christopher D. Azzara argues that "[A] person must create organized musical meaning in his or her thought processes in order to be able to manipulate the

⁹ Neumann, Frederick. *Performance Practices of the Seventeenth and Eighteenth Centuries*. (New York: Schirmer Books, 1993), 300-472.

¹⁰Ibid., 144.

¹¹ Christopher D. Azzara, "An Aural Approach to Improvisation," *Music Educators Journal* 86, no. 3 (1999): 24.

structures of music into an organized, spontaneous, meaningful performance.”¹² In his article “Global Perspective on Music Theory Pedagogy: Thinking in Music,” Peter Schubert argues that it is imperative for students to be allowed to “play in the sandbox” with the concepts they learn in the music theory classroom.¹³ Using their instruments to apply classroom concepts allows students to internalize those concepts and develop fluency in using and manipulating them.

The thought processes that improvisation requires make it a great tool for students to use to “play in the sandbox.” In his article “Growing with Improvisation,” John Kratus argues that students need to possess the following skills in order to improvise at an expert level: fluid audiation, an understanding of musical coherence, facility on an instrument or with the voice, enough flexibility to adjust ideas and plans mid-way, and knowledge of “stylistic convention.”¹⁴ By practicing improvisation, students develop these skills and the knowledge required to utilize them.

For example, in order to possess the ability to adjust ideas or plans mid-improvisation, students must have a thorough understanding of all aspects of the music they are improvising over. Because students are working with pieces from classical repertoire where the phrases are already laid out, they need to know the function of the harmony at any given moment, and the appropriate progressions necessary to arrive at the cadence. Students also need to be able to hear when their plan or idea needs to be adjusted and what adjustment will be likely to improve upon the original.

¹² Azzara, “Audiation Based Improvisation,” 338.

¹³ Peter Schubert, “Global Perspectives on Music Theory Pedagogy,” *Journal of Music Theory Pedagogy* 24 (2010): 221.

¹⁴ John Kratus, “Growing with Improvisation,” *Music Educators Journal* 78, No. 4 (1991): 38.

Improvisation also improves sight-reading ability. Azzara argues that “reading comprehension begins when students attain solid musicianship away from notation, and it continues when they apply their acquired musicianship to notation.”¹⁵ Manipulating basic music vocabulary helps students begin to internalize some of the many patterns that exist in music, which, in turn, allows them to recognize these patterns while sight-reading. For example, if students were asked to sight-read the four-measure melody in Figure 1, previously internalized musical patterns allow them to immediately read this melody as a series of tonic arpeggios, instead of as individual pitches. Several ear-training exercises have been developed to target pattern recognition. For example, in their article “Developing Aural Skills: It’s Not Just a Game,” Deborah Rifkin and Diane Urista argue that adopting a game-playing approach to ear training is more effective than the standard dictation method.¹⁶ They outline several improvisational ear-training exercises that are built upon a vocal warm-up. This warm-up consists of students singing one conventional pattern for each scale degree (Fig. 2). The authors use these patterns to teach students to hear scale degree functions.

¹⁵ John Kratus, “Growing with Improvisation” 24.

¹⁶ Deborah Rifkin and Diane Urista, “Developing Aural Skills: It’s Not Just a Game,” *Journal of Music Theory Pedagogy* 20 (2006): 57.

Figure 1. W.A. Mozart, Horn Concerto, K. 417, mvt. 3, mm.1-8.¹⁷



Figure 2. Vocal warm-up.¹⁸



Improvisation provides many pedagogical benefits, and professors have many different ideas about how to implement improvisation into the classroom. Jazz pedagogy is a good place to look for ways to implement improvisation, because it is a large component of jazz pedagogy. While jazz improvisation is often regarded as a spontaneous type of composition involving little preparation, it is more accurately understood as a fast-paced compositional process that utilizes advance planning, the recall of musical segments from memory, and the generation of new musical material. Many key thought processes take place during jazz improvisation that strengthen the understanding of theoretical concepts. Because of this, several aspects of jazz improvisation pedagogy can be utilized to teach improvisation in the music theory classroom, including the fact that it is taught in stages, that exercises are

¹⁷ Gary S. Karpinski and Richard Kram, *Anthology for Sight Singing* (New York: W.W Norton, 2007), 107.

¹⁸ Rifkin and Urista, "Developing Aural Skills," 59.

done within the context of real music, and that it utilizes the types of exercises and thought processes classical students require.

In my jazz model, improvisation is not taught all at once. It is taught by gradually introducing variables for the student to control. Instruction begins at a fundamental level by establishing the collections of pitches that can be played with a given tonal center. Next, students learn to target specific chord tones during their improvisation. Then students learn how to insert various melodic ii-V-I cadence patterns into the harmonic framework of the piece. In the upper tiers, students learn to manage more complex variables, including chromatic dissonance, imitation, and motivic development. This allows students to digest and deeply understand each variable and helps them build a stylistic vocabulary.

Jazz improvisation pedagogy is often equated to learning a language. The end goal is to be able to participate in musical conversation in real time with other musicians. Learning a new language consists of four interconnected practices: listening, reading, writing, and speaking.¹⁹ In this analogy, improvisation is similar to speaking the language being learned. In music theory class, students learn to read, write, and hear the vocabulary and basic structures of music, but rarely get the chance to engage in musical conversation while using instruments. Learning music requires students to “know the music and own it the same way that one has ownership of a language while speaking.”²⁰ For this reason some procedures for teaching a foreign language can also be used to teach improvisation in the music theory classroom.

¹⁹ Azzara, “An Aural Approach to Improvisation,” 22.

²⁰ Ibid.

Bill Dobbins sees the four stages of language learning as follows;²¹ the first stage consists of identifying isolated words and phrases. Next, students develop a basic vocabulary through imitation and reading. Then students use the vocabulary in conversation. Finally, the fourth stage consists of ingraining the vocabulary into the “subconscious thought process.”²² Although the stages seem self-enclosed, learning a language requires one to go back and forth between stages. For instance, someone can participate in a conversation in a new language without knowing all of the vocabulary of the language. Learning a new language requires more than one trip through the stages. It requires continuous circulation through them. For this reason, I have designed my jazz improvisation pedagogy model in four multi-staged tiers, each of which builds upon the previous tier. Similar to the language learning model, students begin by learning isolated musical segments, and then learn to imitate their classmates and famous composers. All the while, they are constantly participating in musical conversations with their classmates and learning to put all the concepts together in real time.

When adapting my model for use in the music theory classroom, I used only the first three tiers of the jazz model because the fourth tier deals strictly in jazz stylistic concerns. Though the adapted model, like the jazz model, is based on the language learning model, it is not a wholesale adaptation. Some aspects of the jazz model do not have classical equivalents, so I have made adjustments that target the same thought process within classical repertoire. The purpose of this model is to supplement the acquisition of concepts and help students understand and own the music they play. This model will allow them to “play in the

²¹ Dobbins, “Improvisation,” 37.

²² Ibid.

sandbox” using the common embellishment and cadence patterns of the western musical canon.

CHAPTER 2

THE JAZZ MODEL

Jazz and classical performance differ in a few major aspects, one of which is that jazz performance is “best understood as a process rather than a product.”¹ Where classical performance is treated as the artful reproduction of a score, jazz performance is treated as the collection of thought processes through which musicians create unique musical compositions. The thought processes that take place during jazz improvisation are a synthesis of the information given in the score combined with pre-existing knowledge of the common functions of the elements of music. In order to possess a commanding control over improvisation, musicians need to have a “clear understanding of the relationships between the basic elements of melody, rhythm, and harmony.”² Information about meter, key, phrasing, and form must be gathered from the score and processed with the knowledge of how jazz music commonly unfolds.

When jazz musicians are preparing to improvise over a new piece of music, they synthesize this information quickly and create a basic road map of the piece that guides their improvisation. For example, Fig. 3a shows the first sixteen measures of “All the Things You Are” by Hammerstein and Kern. If this chart was placed in front of a jazz musician who had never played it, several basic thought processes would occur in no particular order. He or she would identify the length of the excerpt as 16 bars and the form as AA with the second A in a different key from the first A section. They would also identify the key signature as that of

¹ Brian Zimmerman, “How Do You Teach Jazz Improvisation,” *Canadian Winds: The Journal of the Canadian Band Association* 9, No. 1 (2010): 44.

² Dobbins, “Improvisation,” 38.

A-flat major/F minor and note that the piece visits A-flat (mm.1-5), C (mm. 6-8), E-flat (mm. 9-13), and G (mm. 14-16) tonal centers³ (Fig. 3b). This information, combined with an understanding of melodic structure gathered while playing the song, along with the melodies and melodic patterns stored in the musician’s memory, inform the construction of their improvised solos.

Figure 3a. Oscar Hammerstein and Jerome Kern, “All the Things You Are,” mm. 1-16.⁴

The image displays a musical score for the first 16 measures of the song "All the Things You Are" by Oscar Hammerstein and Jerome Kern. The score is written in 4/4 time and features a key signature of three flats (B-flat major or D-flat minor). The melody is presented on a single treble clef staff. Above the staff, chord progressions are indicated for every measure. The chords are: Fm7 (measures 1-2), Bbm7 (measure 3), Eb7 (measures 4-5), Abmaj7 (measures 6-8), Dbmaj7 (measures 9-10), Dm7 (measure 11), G7 (measures 12-13), Cmaj7 (measures 14-15), and Ebmaj7 (measures 16-17). The melody consists of quarter and eighth notes, with some measures containing rests. A slur is present under the final two notes of measures 12 and 13.

³ In Jazz, the phrase “tonal center” is used to describe localized tonicizations, as well as structural modulations.

⁴ *The Real Book*, Vol. 1, 6th Ed. (Milwaukee: Hal Leonard, 2004), 18.

Figure 3b. Map of tonal centers for “All the Things You Are,” mm. 1-16.

The image displays a musical score for the first 16 measures of the jazz standard "All the Things You Are." The score is written in 4/4 time and features a key signature of three flats (B-flat major/C minor). The tonal centers are indicated by letters in parentheses above the staff: (Ab) at the beginning, (Eb) at measure 9, and (G) at measure 13. The chord progressions are as follows:

- Measures 1-4: Fm7, Bbm7, Eb7, Abmaj7
- Measures 5-8: Dbmaj7, Dm7, G7, Cmaj7
- Measures 9-12: Cm7, Fm7, Bb7, Ebmaj7
- Measures 13-16: Abmaj7, Am7, D7, Gmaj7

The notation includes treble clefs, a key signature of three flats, and various chord symbols with accidentals. Measure numbers 5, 9, and 13 are clearly marked at the start of their respective lines.

As one can see, jazz students get the unique opportunity to learn music theory concepts directly on their instruments. This helps them identify and understand the concepts in the music they play. They can see directly their integral role in creating the music they play. They are expected to continually recall the concepts and their functions in lessons, ensembles, jam sessions, and gigs. This gives them the opportunity to gain fluency in recalling the concepts while improvising and to develop a deeper understanding of the music they are playing. In addition, jazz students have to grapple with their musical weaknesses when they improvise. Jazz improvisation is a decision-making process that is ultimately limited by the improviser’s theoretical knowledge, aural skills, and facility on their

instrument.⁵ This forces jazz students to address their shortcomings in order to become better improvisers. Introducing improvisation into the music theory classroom can impart on classical students many of these skills, by providing them with a platform for them to use their knowledge to create music on their instruments. Having this hands-on experience with the concepts teaches students to understand that music is not etched in stone, but is malleable.

In this chapter I will outline a four-tiered model for teaching improvisation in the jazz idiom (Fig.4). Each of the four tiers progresses through several stages and builds on the knowledge and skills gained from the previous tiers. I will highlight the thought processes and exercises that are most important in adapting the model for the music theory classroom. This model encourages the development of the fluent thought processes that need to occur during jazz improvisation. The tiers are designed to develop these thought processes in small, manageable parts, isolating a small number of processes at a time then gradually building upon them. The main focus of improvisation in the classroom should be to foster a willingness to apply concepts in a positive environment as a means of reinforcing and strengthening students' understanding of those concepts.

⁵ Kratus, "Growing with Improvisation," 37.

Figure 4. Diagram of jazz improvisation model.



Tier I

In his article “Descriptions of Improvisational Thinking by Artist-Level Jazz Musicians,” Martin Norgaard discusses a study he conducted with seven professional jazz players to find out what they think about when they improvise.⁶ He recorded and transcribed their improvisations, and had them listen to the recordings and tell him what they were thinking about during each chorus of their improvisation. His study revealed that the four most common ways that jazz musicians decide what notes to play during their improvisation are first, by using melodic ideas ingrained in their memory, then picking notes based on harmonic or melodic priority, and finally by reusing material from earlier in their improvisation.⁷ The difference between harmonic and melodic priority is that the first uses the knowledge of the components of each chord and its function to aim for chord tones and their resolution into the next chord, whereas melodic priority involves choosing notes based on the melodic contour desired for the improvisation. In order to successfully utilize any of the four methods of choosing notes that Norgaard discusses, musicians have to recognize the basic tonal structure of the music they are playing. This creates the foundation they need to properly insert a melodic idea from memory or to decide what collection of notes is most appropriate to improvise with based on melodic priority.

The first tier of my jazz model begins at this fundamental level: playing the basic collection of pitches for a passage with a specific tonal center. For example, for a four-bar passage that consisted of the chord progression F minor seven, B-flat minor seven, E-flat

⁶ Martin Norgaard, “Descriptions of Improvisational Thinking by Artist-Level Jazz Musicians,” *Journal of Research in Music Education* 59, no. 2 (2011): 109-127.

⁷ *Ibid.* 115.

dominant seven, and A-flat major seventh chords, the student is expected to identify that the entire four measures is a progression in A-flat major, and to play a melody that utilizes notes from the A-flat major scale only. In developing fluency in the thought processes discussed in this tier, students develop a stronger understanding of relative major and minor scales, diatonic functional harmony, and the roles the circle of fifths and chromatic root movement play in harmonic motion.

This tier consists of a progression of stages that gradually increases the number of variables students work with in developing control over their improvisations. The first of these stages consists of being able to identify the key/s of any given passage, and to play the corresponding collection/s of pitches over the measures in which each tonal center is activated. Consider the example shown in Fig. 5a: in this tier a student will learn to identify the key as F major and from that information be able to improvise using only the diatonic pitches in F major. Gaining fluency in this thought process is invaluable, because it allows the soloist to quickly map out the tonal centers visited in the music and provides basic pitch-collection information to use for improvising.

Figure 5a. Ray Henderson and Mort Dixon, “Bye Bye Blackbird.”⁸



In order to create a road map for the piece, the soloist looks for all of the V^7-I and ii^7-V^7-I cadence patterns. Because these are the most common cadence patterns in jazz, identifying them allows the soloist to create a rough sketch of the tonal centers visited in the song. Then the soloist branches out from the cadence patterns and identifies the functions of the chords leading to them. Knowledge of the quality of chords built on each degree of the major and minor scales is what allows a soloist to identify the chords outside of the cadence patterns. With this information, a soloist can generate a rough road map of how to navigate the chord changes based on when each tonal center is activated (Fig. 5b). This map gives

⁸ The Real Book 2, 2nd Ed. (Milwaukee: Hal Leonard, 2005), 51.

soloists the confidence of knowing that, at the bare minimum, they can play the correct collection of pitches for the tonal centers that are used in the piece.

Figure 5b. Tonal centers visited in “Bye Bye Blackbird.”

The image displays a musical score for the piece "Bye Bye Blackbird" in 4/4 time, featuring a key signature of one flat (B-flat). The score is divided into four measures, each with a specific tonal center indicated above it. Measure 1 (measures 1-4) is in the key of F major (I Fmaj). Measure 2 (measures 5-8) is in the key of A-flat minor (Abdim). Measure 3 (measures 9-12) is in the key of G minor 7 (ii7 Gm7). Measure 4 (measures 13-16) is in the key of C major 7 (V7 C7). The notation includes a treble clef, a key signature of one flat, and a 4/4 time signature. The notes are: Measure 1: F4, G4, A4, Bb4, C5, Bb4, A4, G4; Measure 2: Ab4, Gb4, F4, Eb4; Measure 3: Gb4, F4, Eb4, D4, C4, Bb3, Ab3, Gb3; Measure 4: C4, Bb3, Ab3, Gb3.

Once the sketch is in place, the soloist improvises using it and the four methods of choosing notes that Norgaard discusses in his article. Building this road map of tonal centers utilizes one of the two processes that Norgaard argues that jazz musicians engage in during improvisation, “sketch planning.”⁹ The other, “evaluative monitoring,” is the skill of being able to hear what was just played and using that information to plan what comes next.¹⁰ Both

⁹ Norgaard, “Descriptions of Improvisational Thinking,” 115.

¹⁰ Ibid.

of these processes are influential in all types of improvisation, and fluency in either of them requires a strong understanding of the fundamentals.

The second stage of this tier concerns harmonic priority by teaching students to target chord tones for each chord change. This helps keep the sound of the harmonic motion in the improvisation and teaches students how to choose what pitch they play with each chord change in their improvisation. In order to effectively target chord tones, students practice playing the arpeggio of each chord in the piece in real time. Figure 6a shows an example of this for the song “All the Things You Are.” It is beneficial to play the arpeggios over the song with a metronome or a backing track to ensure that the arpeggios can be played at tempo. Once students are fluent with these arpeggiations, they can pick a target chord tone for each chord. These chord tones are commonly called “guide tones.”¹¹ The tones to target are the third and seventh of each chord, because they are the tones that control the quality of the chord and the voice leading.¹² Figure 6b shows a sample improvisation with thirds and sevenths as targeted chord tones.

¹¹ Leo Welch, “Using Guide Tones in Improvisation,” *American String Teacher* 52, no. 4 (2002): 35.

¹² *Ibid.*, 35.

Figure 6a. Arpeggio exercise over the first 16 measures of “All the Things You Are.”

Figure 6b. Sample improvisation with the thirds and sevenths of chords used as targeted chord tones.

Chord Tones: 3 3 3 3 3 3 3 7

The final stage of this tier focuses on approaching the guidetone. The goal is to have smooth motion through chord changes, so that the improvisation has coherence of thought. Essentially, students use the guide tones as a counterpoint sketch and embellish them in a

way that uses stepwise motion, diatonic or chromatic, to connect the guide tones. Figure 6c is the same as 6b, rewritten to show smooth motion into the target guide tones.

Figure 6c. 6b Rewritten to show smooth motion into the target guide tones.

Chord Tones: 3 3 3 3 3 3 3 7

Fm7 Bbm7 Eb7 Abmaj7 Dbmaj7 Gm7 D7 Cmaj7

Tier II

Jazz improvisation is a conversation, in which the music is “created by everyone playing at the time.”¹³ The melody of the song being played is the topic that all of the soloists “discuss.” The conversational aspect of jazz improvisation fosters the fragmentation of the melody for use as motivic material in a soloist’s improvisation. The second tier of the jazz model consists of learning common melodic patterns and learning how to incorporate them into the road map of the piece. These are the patterns that musicians ingrain in their memories and recall during improvisation. Studying these patterns help musicians recognize and imitate patterns in other musicians’ solos. In this tier, students learn how to play common melodic patterns that are played over ii⁷-V⁷-I⁷ progressions. Next, students learn how to create melodic material that leads into each pattern. Through working with these patterns, students develop a vocabulary from which they can draw material for their improvisations.

¹³ Zimmerman, “How to Teach Jazz Improvisation,” 45.

This is one of the things jazz improvisation technique can offer students in the music theory classroom. Developing a vocabulary allows students to focus their attention on advanced ways to craft their melodies, instead of on generating completely new material for their improvisations.

In order to build a substantial vocabulary, jazz students' practice regimens focus on developing a substantial catalogue of motives and melodic cadence patterns, as well as the ability to quickly plug these patterns and motives into their road map of a song. Gaining fluency in creating and developing motives from pre-existing material strengthens students' ability to fragment the melody or even part of another musician's solo to use in their own improvisation. This allows them to discuss the melody of the song, and to respond to other musicians' commentary on the melody as well. Students strive to make the road-map thought processes as fluent as possible. This fluency is what allows for creativity in improvisation.

In "The Jazz Notebook Method: Teaching Improvisation in the Applied Studio," Andrew Dahlke stresses the importance of transcribing other musicians' solos and compiling a notebook full of the common motives used in the solos.¹⁴ He then explains that, in order to incorporate a motive, it needs to be transcribed and altered so it can be played in more than one major and/or minor key. In this article, he provides common melodic patterns in the jazz idiom that are placed over the ii^7-V^7-I and $ii^{7b5}-V^7-i$ cadence patterns.¹⁵ Most are written in a form that works over the cadence pattern in major keys (ii^7-V^7-I) and require alterations to work over the cadence pattern in minor ($ii^{7b5}-V^7-i$). He tells students to first learn any pattern

¹⁴ Andrew Dahlke, "The Jazz Notebook Method: Teaching Improvisation in the Applied Studio," *Jazz Education Journal* 40 (2007): 53-54.

¹⁵ In jazz, the phrase "cadence pattern" is used to describe local tonicizations, as well as structural cadences.

in the key in which they initially transcribed it, and then make the necessary alterations to transpose it into all twelve keys in that mode and the parallel mode of the original key. This exercise requires students to recall what pitches are different between parallel keys as well as what notes can be effectively borrowed and used with the given cadence pattern.

Figure 7a shows a melodic pattern from Dahlke's article. It is a two-measure melody over a $ii^{7b5}-V^7-i$ cadence pattern in C minor. Figure 7b shows how the melody must be altered to work in the parallel major. The original melodic pattern has been altered in three ways. First, the original melody starts on the lowered sixth scale degree in C minor (A-flat), or the fifth of the D half-diminished seventh chord. The lowered sixth scale degree needs to be raised to become the major sixth scale degree required for C major cadence pattern. Second, because the original melody ends on the third degree in minor, this pitch must be raised a half step to the third degree in major. Finally, the lowered seventh scale degree in minor on the second beat of measure 1 has to be raised a half step to become the leading tone in major.

Figure 7a. Sample $ii^{7b5} - V^7 - i^7$ Cadence Pattern.¹⁶



¹⁶ Dahlke, "The Jazz Notebook Method," 2-3.

Figure 7b. The cadence pattern in Figure 7a altered to a $ii^7-V^7-I^7$ pattern.



Once students can play the pattern in all twelve keys, they can use it in their improvisations no matter what song they are playing. Most of the common melodic patterns in Dahlke’s article are ii^7-V^7-I cadence patterns that come directly from pieces in the jazz repertoire, and have been played in enough musicians’ solos to have become conventional in jazz. Figure 8a shows a common ii^7-V^7-I cadence pattern that has been adapted into colloquial use; Figure 8b shows the Charlie Parker song from which the pattern was taken, “Anthropology.” Studying these melodic patterns allows students to learn how musicians like Parker and John Coltrane improvised. Playing examples of how noted performers navigate chord progressions before being required to create their own melodies gives students a frame of reference on creating effective motion within the jazz idiom.

Figure 8a. Common $ii^7 - V^7 - I^7$ cadence pattern.



Figure 8b. Charlie Parker, “Anthropology.”¹⁷

The image shows a handwritten musical score for Charlie Parker's "Anthropology". The title "ANTHROPOLOGY" is written in large, bold, capital letters at the top. To the right of the title, the number "25." and the name "- CHARLIE PARKER" are written. The score is written on a single staff in G major, 4/4 time. The key signature has one sharp (F#). The score consists of five lines of music. The first line starts with a treble clef and a key signature of one sharp. The notes are G4, A4, B4, C5, B4, A4, G4. Above the staff are the chords Bb6 and G7. The second line continues the melody with notes G4, F#4, E4, D4, C4, B3, A3, G3. Above the staff are the chords C-7, F7, F-7, Bb7, Eb7, and Ab7. The third line starts with a first ending bracket over the notes G4, F#4, E4, D4, C4, B3, A3, G3. Above the staff are the chords D-7, G7, C-7, and F7. The second ending bracket covers the notes G4, F#4, E4, D4, C4, B3, A3, G3. Above the staff are the chords C-7, F7, and Bb6. The fourth line starts with a treble clef and a key signature of one sharp. The notes are G4, A4, B4, C5, B4, A4, G4. Above the staff are the chords D7 and G7. The fifth line starts with a treble clef and a key signature of one sharp. The notes are G4, A4, B4, C5, B4, A4, G4. Above the staff are the chords C7 and F7. There are several handwritten annotations, including slurs, accents, and a circled "3" above the first line.

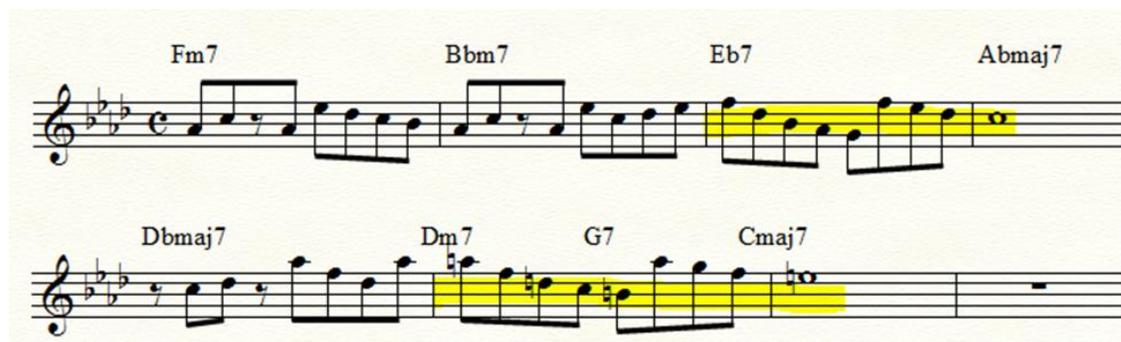
It is important to note that students are normally asked to practice cadence patterns within the harmonic framework of a piece from standard jazz repertoire. Initially students are expected to simply insert the cadence patterns into the harmonic framework in mm. 3-4 and 7-8 (Fig. 9a). Then, as seen in Figure 9b, students are expected to play the melodic pattern they played in Figure 9a, and also add a coherent melodic line that leads into the melodic pattern. This exercise helps students put those patterns into various contexts, which allows them to recall the patterns fluently during their improvisation.

¹⁷ *The Real Book*, Vol. 1, Sixth Edition (Milwaukee: Hal Leonard, 2004), 25.

Figure 9a. Cadence patterns inserted into the harmonic framework of the first eight measures of “All the Things You Are.”



Figure 9b. Coherent melodic lines added to lead into the cadence patterns in Figure 9a.



Tier III

The third tier in the model focuses on the music before the cadence. Once a soloist can create a conclusive cadence and build up to it in a basic manner, the focus shifts to finding more interesting ways to get from cadence to cadence. One of the ways a soloist does this is through motivic development.¹⁸ Arnold Schoenberg covers this topic extensively in his

¹⁸ Motivic development in jazz differs from Schoenberg’s motivic development in that motives tend to be less generative in jazz. Schoenberg’s idea of generative motive entails generating new music from a small motive. In jazz, motives tend to be larger and are developed by varying the contents of the motive.

book *Fundamentals of Musical Composition*.¹⁹ Schoenberg defines a motive as “intervals and rhythms combined to produce a memorable shape or contour which usually implies an inherent harmony.”²⁰ A motive can be any size, but usually a simpler motive is more conducive to development. In this tier, students transcribe small segments of material from solos, analyze it to discover embedded motive(s), and then learn different ways to develop it than those the soloist used. Figure 10a shows motivic material I transcribed from Jim Hall’s solo on “Autumn Leaves.”²¹ It is a two-beat figure that starts on the downbeat and is played over an F minor seventh chord, which is part of a ii⁷-V⁷-I in E-flat major in this song.

Figure 10a. Motive from Jim Hall’s solo on “Autumn Leaves.”



The first step in motivic transformation is learning to play the idea in all twelve major keys and the parallel minor key. As seen in Figure 10b, the motive is transposed around the circle of fifths and, upon its return to E-flat, in the parallel minor key. Once the motive is accessible in all keys, it can be developed in several ways. In his book *How to Improvise: an Approach to Practicing Improvisation*, Hal Crook discusses the most common ways to develop a motive: these include rhythmic sequence, rhythmic transformation, transposition,

¹⁹ Arnold Schoenberg, *Fundamentals of Musical Composition* (New York: St. Martin's Press, 1967).

²⁰ *Ibid.*, *Fundamentals*, 8.

²¹ Jim Hall and Ron Carter, “Autumn Leaves,” *Alone Together*, Original Jazz Classics OJCCD-467-2, 1990, Compact disc.

and embellishment.²² Rhythmic sequence occurs when the rhythm of the motive is retained, but the melody and intervals are changed. Alternatively, under rhythmic transformation the melody or melodic contour is retained, but the rhythm is changed. When both the rhythmic and intervallic content of a motive is retained, but the pitch level is changed, it is called transposition. Embellishment involves adding a pitch or rhythm to the motive. Figure 10c shows the motive from Figure 10a developed in each of these ways.²³

Figure 10b. The motive from 10a transposed around the circle of fifths.



Figure 10c. Hal Crook’s four transformation methods.



²² Hal Crook, *How to Improvise: An Approach to Practicing Improvisation* (Rottenburg, Germany: Advance Music, 1991), 86-87.

²³ For additional information on motivic development in jazz consult: Dariusz Terefenko, *Jazz Theory: From Basic to Advanced Study* (Florence: Taylor and Francis, 2014), 124-131.

Once the student can develop a motive using all of these methods, the next step is learning to insert a motive and altered versions of it into the context of any given jazz standard. As seen in Figure 11, the student transposes the original motive to fit into the key of the song and practices developing it in different ways that lead into one of the melodic cadence patterns learned in the previous tier. Having students work with such specific limitations allows them to be more comfortable with the freedom that is present on the bandstand. It subdues the fear of improvising by helping them build a catalogue of musical material that they can recall quickly.

Figure 11. Sample student improvisation over the first eight measures of “All the Things You Are.”

The image displays two staves of musical notation in the key of F major (three flats). The first staff contains four measures: 1. Original motive (Fm7), 2. Embellished transposition (Bbm7), 3. Embellished rhythmic sequence* (Eb7), and 4. ii7-V7-I cadence pattern (Abmaj7). The second staff contains four measures: 1. Rhythmic sequence (Dbmaj7), 2. Varied trasposition* (Dm7), 3. ii7-V7-I cadence pattern (G7), and 4. ii7-V7-I cadence pattern (Cmaj7). The asterisked notes indicate that the last two notes of the motive in measures 2 and 5 are switched in order to create better motion into the cadence pattern.

*The last two notes of the motive in measures 2 and 5 are switched in order to create better motion into the cadence pattern.

Tier IV

The final tier in this system consists of using chromaticism and altered scales to create greater dissonance at the cadence for effect rather than for function. In this tier, students work to use certain arpeggios or scales over specific chords in a progression in order to create aural interest at the cadence. In many cases, the majority of pitches in the scale or arpeggio are dissonant with the underlying harmony. This tier is reliant on artistic preference and allows students the freedom to choose which arpeggio or scale they want to play based on what sound they prefer. The focus of my classical model is on functional aspects of music, therefore this tier is not included in my adaptation.

CHAPTER 3

THE CLASSICAL MODEL

Three of the four tiers in the jazz improvisation model are conducive to teaching improvisation within classical music. Figure 12 is a chart of the three-tier model as I have adapted it from my jazz model for use in the music theory classroom. As with the jazz model, each tier is broken up into stages that feature exercises designed to target specific concepts. As before, the exercises presented in this chapter are basic models that can be adjusted to fit the needs of each individual classroom.

The first tier, similar to that of the jazz model, focuses on the fundamentals of music and familiarizes students with improvisation. In the second tier students participate in exercises that supplement the acquisition of voice leading skills by learning to create and play embellishment and cadence patterns to expand tonal pillars, much like using the $ii^7-V^7-I^7$ patterns in jazz. Finally, the third tier concerns phrase and period models, sentence structure, and motivic development similar to the imitation and motivic development in the third tier of the jazz model.

Figure 12. Diagram of model for classical improvisation pedagogy.



Even given my belief that a classical model could closely parallel the jazz model outlined in Ch. 2, I have made several types of adjustments meant to improve its function in a different repertoire environment. The first adjustment I made was change slightly the order in which some concepts are presented. For instance, I moved motivic development from the second tier in the jazz model to the third tier in the classical model. This is because improvisation in the classical repertoire environment requires an understanding of basic counterpoint before students can improvise within that counterpoint utilizing motivic development. Another adjustment I made

was in the treatment of cadence patterns. Jazz's heavy reliance on ii-V-I cadence patterns as the basis for melodic material transfers both directly and indirectly to the classical model. Classical repertoire contains many cadence patterns as well, but features non-cadential embellishment patterns as melodic material with more frequency. In the interest of good melodic design, cadence patterns are reserved for structural cadences in classical music. Because of this, the second tier of the classical model treats embellishment and cadence patterns separately.

With that said, the larger conceptual and thought processes targeted in each tier of the jazz model remain largely the same in the classical model. Any other changes that occur while adapting the jazz model will be addressed during the discussion of each tier. I will address these differences by relating each tier of the classical model to the analogous tier in the jazz model. I will also establish the point at which each exercise in the classical model can be introduced in the music theory curriculum based on what concept is targeted in the exercise.

Tier I

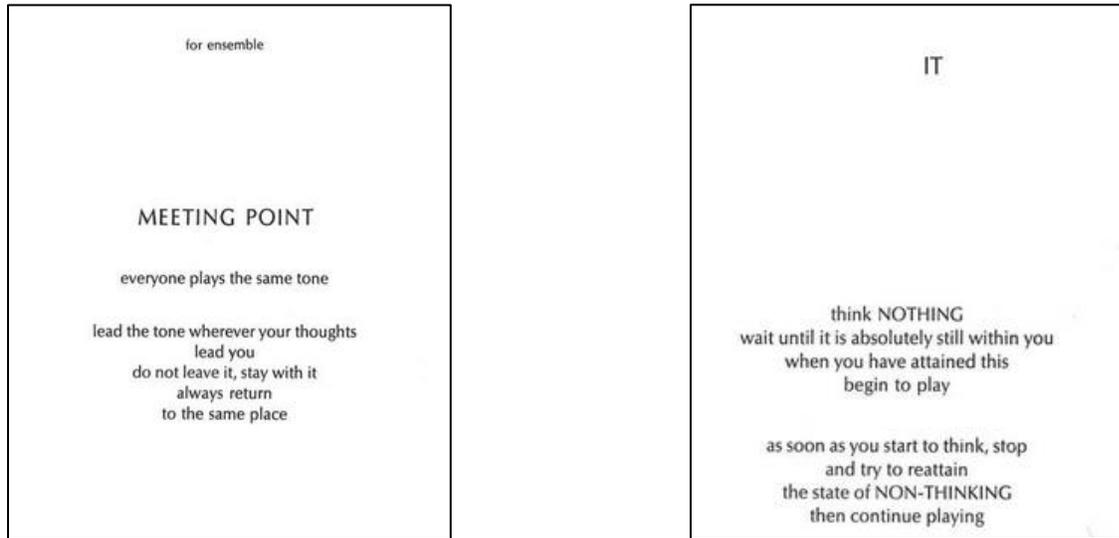
This first tier assumes that students can play all scales on their instruments and are able to sight-read at a basic level. Most first-semester musicianship and music theory classes begin with a review of the fundamentals of music. Because of this, the exercises in this tier can be introduced as early as the first day of class and adjusted to target different concepts as the class progresses through the semester. These exercises should set the tone for improvisation exercises in all tiers. In all of the tiers students should always be given time outside of class to prepare for improvisation exercises. The point of the exercises is to have students thoughtfully improvise within given constraints. This will help to create an environment for students that does not punish them for mistakes, but rewards them for grappling with the concepts they have learned in class and building these into their instrumental technique.

Like the first tier of the jazz model, the first tier of the classical model encourages students to strengthen their understanding of the community of pitches and intervals that exist in major and minor keys. These include the harmonic relationships between scale degrees functioning as roots, as well as the contrapuntal relationships scale degrees share as potential melodic embellishments of each other. Students will be asked to think through these relationships from several different perspectives. In addition to being able to accurately spell major and minor scales, they will be expected to understand how scale degrees behave relative to one another and to their tonic. This will help them begin to see that a pitch has implications of motion based on scale-degree identity and the contrapuntal context in which it appears. This tier will also provide students with a strong understanding of the pitch collection appropriate to key and embellishment pattern when improvising. Furthermore, it provides students with a safety net that allows them to improvise with more confidence, knowing that they can generate material

within any key. Such confidence-building is an essential step in teaching students to improvise, because it allows them to focus attention on specific targets, and sets the foundation for them to experiment and internalize the exercises as their own creations.

Another goal of the first stage of this tier is to get students more comfortable improvising together. The exercises in this tier include several that utilize indeterminacy and rhythmic improvisation. Although indeterminacy is a twentieth-century development that is usually taught at the end of a music theory sequence, it can be a useful tool for introducing students to improvisation. One indeterminate composition that can be used is Karlheinz Stockhausen's *Aus den sieben Tagen*. Figure 13 shows two movements from *Aus den sieben Tagen*. These movements do not give concrete musical instructions; rather they provide abstract instructions that the student can interpret in many different ways. For instance, the first directs students to start by playing the same pitch together, and then each of them can leave it in whatever way they choose but must return to it. Although some of the prompts may seem basic, they serve as a fantastic ice breaker for building trust among the students and the professor.

Figure 13. Karlheinz Stockhausen, *Aus den sieben Tagen*, mvts. 4 and 13.¹



Like text-prompt improvisations, rhythmic improvisations can take various forms at the professor's discretion. The purpose of these exercises is to teach students to actively listen to each other and to imitate what they hear on their instrument or with their voice. It also allows them to begin developing control over their improvisations in a setting that offers only a small group of variables to consider. These exercises allow students to build up a rhythmic vocabulary that they can use in future exercises. Also, by strengthening the students' ability to actively listen to each other, these exercises strengthen students' ability to listen to other music and hear its basic material.

A basic model for rhythmic improvisation is shown in Figure 14a. The students sit or stand in a circle, and take turns being the soloist by clapping or playing 1-2 measures of rhythmic figures. In between turns the circle claps or plays the rhythm back to the soloist. When this exercise is first introduced, students can use a chart of rhythmic ideas as a reference until they feel more comfortable improvising. At that point, an instructor can develop the exercise by

¹ Karlheinz Stockhausen, *Aus den sieben Tagen* (Vienna: Universal Edition, 1968), 9.

defining the meter, limiting the durational values the students can use, requiring the use of specific rhythmic patterns (e.g. triplets), and asking students to pick out one rhythmic pattern from the previous soloist's improvisation to use in their own. These constraints allow the professor to tailor the exercise around the concepts currently being taught in class. Figure 14b shows how some of these constraints might shape student performances. The basic format of this exercise can also be adjusted to emphasize different thought processes. For example, instead of the class playing the rhythm back to the soloist, the professor can have the class transcribe the soloist's improvisation. This shifts the focus of the exercise from aural imitation to dictation.

Figure 14a. Basic model for rhythmic improvisation.

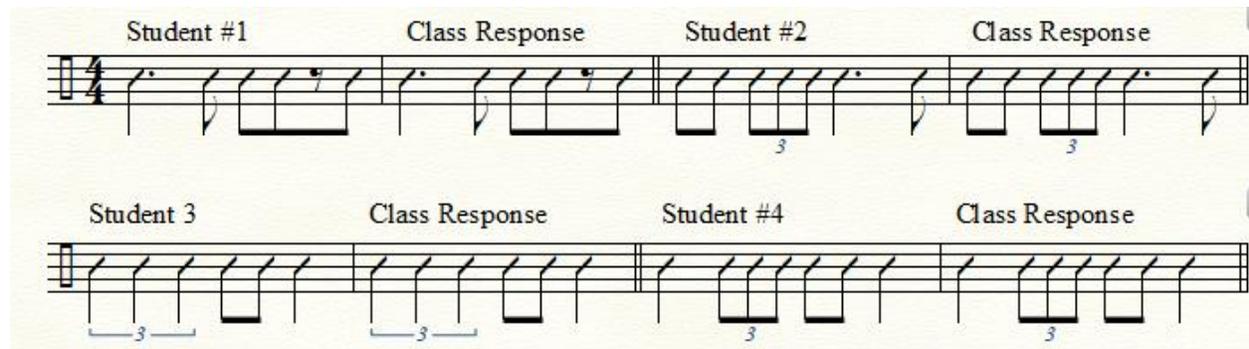
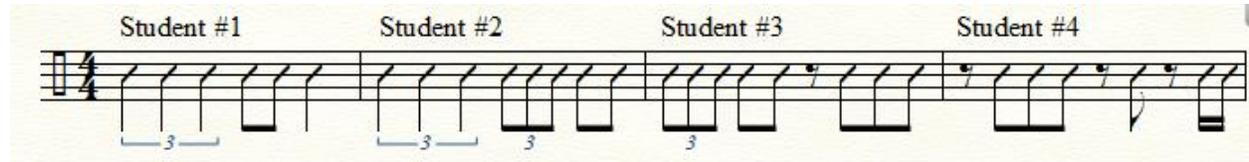
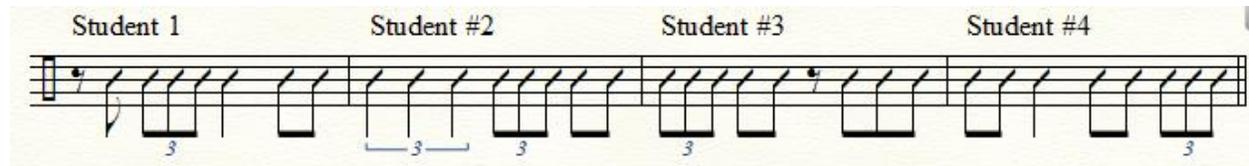


Figure 14b. Sample student improvisations with different constraints.

Using a rhythmic pattern from the previous student's improvisation.



Requiring the use of one eighth-note triplet.



The second stage in this tier is designed to help students develop a fluent understanding of scale-degree communities. A scale-degree community is the set of intervals that surround a given pitch, and that changes according to the pitch's relationship to its tonic. For example, when B flat is the third degree of a major scale it has a whole-step lower neighbor, A flat, and half-step upper neighbor, C flat. When B flat is the first degree of a major scale, it has a half-step lower neighbor, A natural, and whole-step upper neighbor, C natural. The scale degree a pitch is identified as determines the collection of pitches that exist in its community. When B flat is acting as the third degree in major, it is part of the G-flat-major community. When B flat is acting as the tonic in major, it is part of the B-flat-major community.

The exercises in this stage are designed to strengthen students' understanding of what collections of pitches they have to choose from when improvising. These exercises also strengthen students' facility in recalling key signatures, building major and minor scales, building triads and seventh chords, and using basic embellishments. One of the goals is to teach

students how to access the information they already have to solve the problem at hand. For example, a student might be asked what the lower neighbor of F natural is when F is the fifth degree of a major scale. This requires the student to process that F's lower neighbor will be some type of E and that F natural occurs diatonically as the fifth of the B-flat major scale. This thought process brings them to the conclusion that E flat is F natural's lower neighbor when F is the fifth of B-flat major.²

The exercise verbalized above is the first exercise in this stage of the first tier. The student can be guided around the community and any pitch played can be used as a pivot to a new community. Figures 15a-b present a sample script for this exercise and an imagined student response. This exercise flows from one question to another, and can be tailored to concepts being discussed in class. This exercise can be used to emphasize the construction of intervals, triads, and seventh chords, as well as basic embellishment methods. For example, in Figure 15a the professor asks the student to play G natural and treat it as the third degree of a major scale. Next, the student identifies the key and plays that descending major scale to the fifth scale degree. Then the student is asked to identify his/her ending pitch and make it the second degree of a major scale. The exercise finishes with the student navigating through the new key before ending on its leading tone. This exercise helps students internalize the pitch content of each key, and to be able to visualize the scale no matter the starting scale degree

² Although non-chord tones may not be covered in class until the middle of the first semester of the undergraduate music theory sequence, students can be taught basic melodic embellishments like passing tones and neighbor tones earlier in the semester. This prepares them for understanding embellishments inside of a harmonic context taught later in the semester.

Figure 15a. Sample script of scale-degree-community continuous exercise.

Professor: Play G natural and treat it like the third scale degree of a major scale. What key are we in?

Student: E-flat major

Professor: Play a descending scale from G natural to the fifth scale degree. What pitch are you playing?

Student: B flat

Professor: Treat B flat like it is the second scale degree of a minor scale. What key are we in now?

Student: A-flat minor

Professor: Play an ascending scale from B flat to the fifth scale degree. What pitch are you playing?

Student: E flat

Professor: Play a descending scale from E flat to the leading tone. What pitch are you playing?

Student: G natural

Figure 15b. Imagined student response to scale-degree-community exercise.



This exercise can be introduced within the first weeks of music theory and musicianship classes. It can be adjusted to include many other concepts including intervals, the construction of triads and seventh chords, and simple embellishments as these concepts are discussed in class.

Figures 16a and b show how this exercise can be used to emphasize the construction of intervals and of triads and seventh chords. In this example the student is asked to play E-flat and treat it as the fifth of a minor scale. Next, the student identifies the key and is asked to play and

speaking the pitch that is a minor third above E-flat. Then he/she is asked to build the quality of triad that occurs diatonically on that scale degree. The exercise ends with the student playing the most common alteration to that triad, and identifying the reason the triad is commonly altered.

Figure 16a. Sample script of scale-degree-community exercise targeting intervals and triads.

Professor: Play A natural and treat it as the fifth of a minor scale. What key are we in?

Student: D minor

Professor: Play and speak the pitch that is a minor third above A natural.

Student: C natural

Professor: What scale degree is it?

Student: It is the seventh scale degree of D minor.

Professor: Play and speak the triad that is diatonically built on this scale degree. What quality of triad is it?

Student: C, E, G. It is a major triad.

Professor: Play and speak the triad that is commonly borrowed to be used in the triad's place in music. What quality of triad is it?

Student: C sharp, E, G. It is a diminished triad.

Professor: What pitch has been borrowed to change the quality of this triad and why is it borrowed?

Student: The leading tone was borrowed to take the place of the lowered seventh scale degree, because the leading tone creates increased motion towards the tonic melodically.

Figure 16b. Imagined student response to scale-degree-community exercise targeting intervals and triads.

The musical notation shows a single staff in 4/4 time. It is divided into four measures, labeled 1 through 4. Measure 1 contains a single note, A natural (A4). Measure 2 contains a single note, C natural (C4). Measure 3 contains a triad of C natural (C4), E natural (E4), and G natural (G4). Measure 4 contains a triad of C sharp (C#4), E natural (E4), and G natural (G4).

Figures 16c-d show how this exercise can be used to strengthen students' understanding of basic embellishments, like neighbor tones, passing tones, incomplete neighbor tones, and consonant skips. In this example the student is asked to play G natural and treat it like the fifth degree of a major scale. Next, the student is asked to do several things with the pitch including playing and speaking its upper and lower neighbor tones, making it one end of an incomplete neighbor motion, and identifying what other possible incomplete neighbor motions could exist. Next, the student is asked whether changing G's scale-degree function to tonic changes its upper and lower neighbors. Every time a student pivots to a new community they should verbally acknowledge the new key to solidify their awareness of it.

Figure 16c. Sample script of scale-degree-community exercise targeting embellishments.

Professor: Play G natural and treat it like it is the fifth of a major scale. What key are we in?

Student: C major

Professor: Play and speak G natural's lower neighbor tone.

Student: F natural

Professor: Play and speak G natural's upper neighbor tone.

Student: A natural

Professor: Make G natural one end of an incomplete neighbor motion.

Student: (plays)

Professor: What are the other possible incomplete neighbor motion in which G natural can exist as one of the two ends?

Student: G down to F up to C, C down to F up to G, and E up to A down to G.

Professor: Now make G the tonic of a major scale. What key are we in now?

Student: G major

Professor: Play and speak G natural's upper and lower neighbor tones.

Student: A and F sharp

Professor: Does G natural have the same possibilities for being one end of an incomplete neighbor motion when it is the tonic of a major scale as it did when it was the fifth of a major scale?

Student: No, because G natural's lower neighbor when it is tonic of major scale is the leading tone. The leading has a strong pull back to tonic and never leads away from it in an incomplete neighbor motion.

Figure 16d. Imagined student response to scale-degree-community exercise targeting embellishments

1 2 3 4 5 6 7 8 9

The second exercise is this stage of the tier strengthens students' understanding of diatonic harmony, as well as of scale-degree community. This exercise requires students to combine knowledge of triad qualities in both major and minor keys with their understanding of scale-degree communities in order to determine the function of the few triads and/or seventh chords they are given. This is a standard exercise in written theory that teaches students Roman numeral analysis, but is extended here to incorporate playing on their instrument.

For this exercise, students are given two to three triads or seventh chords and are asked to determine in what major and minor key/s the chords exist together. Next, students arpeggiate each chord and its inversions. For example, the student is given the triads C major and F major. Using the knowledge that major triads occur on the first, fourth, and fifth scale degrees of a major scale, students can deduce that C major and F major occur together in the keys of C major (I and IV) and F major (I and V). It is best to start with circle of fifths progressions and then work into other harmonic sequences if desired.

Various constraints can be placed on this exercise. For instance, students can be asked to improvise a two-to-four measure melody over the chords, using the arpeggios as a guideline for improvisation (Fig. 17). The other students in the class can play a bass line or full chordal accompaniment while the student improvises. This helps students build confidence by creating an environment where they do not need to have precise control over every aspect of their improvisation; they only need to demonstrate the ability to play within the key. Providing this nurturing environment is essential if they are to effectively demonstrate their ability to improvise in future exercises. Other constraints can be applied to this exercise, for instance, asking for exclusively major key or minor key possibilities or having students improvise an arpeggiated

bass line with voice leading that connects the chords. These constraints help students build an improvisational vocabulary that they can draw upon during future exercises.

Figure 17. Imagined four-measure improvisation over F-major triad.



While I have introduced this exercise and various modifications because of their usefulness in developing fluency with typical figurations, there is another underlying benefit to this and other similar studies. One of the biggest obstacles for students as they begin to understand the idea of harmony and the progressive nature of tonality is that their focus turns sharply away from melody and line to an emphasis on the verticality. In the exercises discussed here, the verticality is partially transformed into something closer to a line. In the process, this stage becomes an excellent opportunity for a discussion of line as the factor that guides chords in their progression from one to the next. This idea has been incorporated into many of the most recent undergraduate textbooks; in Laitz, for instance, it is the basis for his “second-level analysis.”³ Even before students are ready for that important concept, their fluency with arpeggiations can be re-voiced to create different top and bottom lines, and will serve as excellent preparation for the idea that, in some ways, chords are simply stacks of vertical coincidences.

³ Steven G. Laitz, *The Complete Musician*, 3rd ed. (New York: Oxford University Press, 2012), 126.

Tier II

In this tier students learn how to use motivic development ideals to improvise over common-practice era repertoire. Like in the jazz model, the second tier in this improvisation model builds upon the first tier. In it Students learn typical embellishment and cadence patterns, and how to use the former to melodically expand the latter. They learn to regard the typical embellishment and cadence patterns in the same way that jazz musicians regard their ii-V-I cadence patterns and “licks,” as melodic material that can be developed or varied. This sets the foundation for students to understand motivic development in the next tier. This tier also helps students develop a view of bass lines as melodic conveyers of harmony, by learning how they are built and by configuring them for themselves. Teaching students to see the bass’s melodic motion as well as the vertical aspect of chords helps students become stronger at identifying melodic and harmonic expansion.

The first stage in this tier consists of accumulating typical embellishment patterns and using them to embellish melodies. In this stage, students will learn to combine those methods of embellishment to create patterns. This stage of the tier can be introduced after the basic embellishments are discussed in class and prompts an extended discussion about embellishments that reaches beyond basic embellishments. As in the analogous part of the jazz model, students should will be responsible for keep a notebook that contains some of the embellishment patterns they find in the music analyzed in class, as well as the music they are playing in ensembles and lessons. Students will be responsible for understanding how the embellishment patterns are appropriately assembled and used, and for being able to play the patterns.

The notebook will begin with four to six embellishment patterns discussed in class, so that the students understand how to find the patterns and write them down. These beginning

patterns will be the basis for initial improvisation exercises until the students find other patterns they enjoy. Figure 18 shows an example page of an embellishment notebook organized into four columns. The first column tells whether the figure comes from a major-or-minor-key passage. The second column is the embellishment figure itself, transposed to the key of C (major or minor). The third column lists the composer and piece in which the figure was found. The fourth column names the key in which the embellishment figure appeared in the piece. Transposing all of the patterns so that they are in the same key helps students visually process the similarities and differences between the patterns and helps them see how they can be combined and used together. Although all of the patterns in their notebooks will be transposed to C major or minor, the excerpts they improvise over will not always be in C. Students will be responsible for transposing the patterns into the key the class uses.

Figure 18. Sample page of embellishment notebook.

Pattern	Original Key	Composer and Piece	Movement and Measure Numbers
	C Major	Mozart - 12 Variations on "Ah, vous dirai-je maman"	Variation 6 – m. 1
	C Major	Mozart - 12 Variations on "Ah, vous dirai-je maman"	Variation 6 – m. 2
	C Major	Mozart - 12 Variations on "Ah, vous dirai-je maman"	Variation 1 – m. 1
	C Major	Mozart - 12 Variations on "Ah, vous dirai-je maman"	Variation 1 – m. 1
	C Major	Schubert - 12 Ecossaises, D.299	Ecossaise no. 8 – m. 1

The first exercise in this stage of the tier asks students to embellish the theme of a theme and variation piece. They will use embellishment patterns to embellish most pitches of the theme they are given. First, as an example the students can delve into Mozart's *Twelve Variations on "Ah, vous dirai-je, Maman,"* K. 300e, and look at some of the different ways Mozart embellishes the theme. Figures 19a-b show the theme and the first of Mozart's variations on that theme, annotated with embellishment types. In the first variation the first eight measures consist of one embellished pitch per measure, and each measure can be broken down into two embellishment patterns. The first measure contains an upper and lower neighbor embellishment pattern spanning beats one and two, and a lower-neighbor embellishment spanning beats three and four.

Ideally, students will pick at least one of Mozart's embellishment patterns to add to their embellishment notebook. After Mozart's embellishment methods have been discussed, as homework the students practice different ways to embellish the theme themselves. They can use any of the embellishment patterns in their notebooks, or any of Mozart's patterns from his variations. In class, they play own their variation on the theme and discuss the embellishments they used and why they used them. Figure 19c shows an annotated example of a student variation on Mozart's theme.

Figure 19a. Theme from Mozart's *Twelve Variations on "Ah, vous dirai-je, Maman,"* K. 300e..



Figure 19b. Annotated Variation I from Mozart's *Twelve Variations on "Ah, vous dirai-je, Maman,"* K. 300e.

UN LN LN LN IN LN LN LN PT CS LN UN CS PT PT CS PT PT CS PT

7-6 SUS CS PT CS PT 4-3 sus CS PT PT CS PT CS IN CS

- UN= upper neighbor
- LN = lower neighbor
- IN = incomplete neighbor
- PT = passing tone
- CS = consonant skip
- SUS = suspension

Figure 19c. Annotated imagined student variation on the theme from Mozart, “Ah, vous dirai-je, Maman,” K. 300e.

UN= upper neighbor
 LN = lower neighbor
 IN = incomplete neighbor
 PT = passing tone
 CS = consonant skip
 SUS = suspension

After looking at theme and variations, students can analyze four-to-eight-bar melodies from common-practice repertoire and construct counterpoint sketches of the excerpts. These counterpoint sketches are not Schenkerian graphs, but rather representations of the surface-level, first-species counterpoint between the melody and the bass line. For Mozart’s *Twelve Variations on "Ah, vous dirai-je, Maman,"* the theme is the counterpoint sketch the variations are based on (Fig. 20). Superimposing the theme onto the variations gives students an idea of how Mozart embellished each note of the theme. Counterpoint sketches work in a similar fashion. The counterpoint sketch constructed from an excerpt gives students an idea of how the composer embellished that counterpoint in his melody and allows them to make their own variation by embellishing the sketch.

Figure 20. Counterpoint sketch of Mozart's *Twelve Variations on "Ah, vous dirai-je, Maman,"* K. 300e.



The first step in creating a counterpoint sketch is to identify the harmonic rhythm of the excerpt (Fig. 21a). In the beginning stages this may require the professor to indicate the level of harmonic rhythm of the excerpt, but this is dependent upon when harmonic rhythm is taught in the curriculum. Eventually students should be able to figure out what level of harmonic rhythm to use to construct their counterpoint sketch. In most cases it will be one or two chords per measure. Next, they stem the bass pitches that coincide with the harmonic rhythm (Fig. 21b). Then they stem the pitches that guide the counterpoint in the melody: these pitches must be consonant with the bass note stemmed and the object of the embellishment (Fig. 21c). The first note in the measure is not always the pitch to stem; this can be seen in Mozart's first variation in Figure 20.

Figure 21a. Harmonic analysis of Mozart, Sonata in A Major, K. 331, mvt. 1, mm.1-4.

Andante grazioso.

A:I V^{6/5} vi V⁶ I ii⁶ V

Figure 21b. Guide pitches stemmed in the bass of Mozart, Sonata in A Major, K. 331, mvt. 1, mm.1-4.

Figure 21c. Guide pitches stemmed in the melody of Mozart, Sonata in A Major, K. 331, mvt. 1, mm. 1-4.

Once students have constructed a counterpoint sketch, they can embellish each note of the sketch by using any of the five embellishment methods, as well as plugging in patterns from their embellishment notebooks. Students can then be asked to take the counterpoint sketch, practice embellishing it in different ways for homework, and then come back to class and play

one of their embellished versions of the basic counterpoint. As always, a discussion should be had regarding their embellishment decisions and whether their decisions changed the overall sound of the counterpoint. Figure 22 shows a sample embellishment of the counterpoint graph in Figure 21c.

Figure 22. Imagined student embellishment of the counterpoint sketch for Mozart, Sonata in A Major, K. 331, mvt. 1, mm.1-4.

UN= upper neighbor
 LN = lower neighbor
 IN = incomplete neighbor
 PT = passing tone
 CS = consonant skip
 SUS = suspension

The second exercise in this stage of the tier requires students to construct their own motives out of an interval. Students use their observations about the embellishment patterns they have studied to make their own patterns. This exercise further strengthens students' understanding of embellishments, by requiring them to break down the embellishment patterns in their notebook into the individual embellishments that combine to make the whole and then mix and match embellishments to form their own short patterns. These patterns can then be treated as motives and students can learn to develop them and the other patterns in their notebook. Students

should also add their embellishment patterns to their notebook to use in future improvisation exercises.

For this homework exercise, students are given a pitch or interval that spans one measure and are asked to embellish it in various ways. Meter and key is determined by the professor. In class, the student will play one of the embellished pitches or intervals and then sequence it. The first measure will consist of the embellished pitch or interval and the second measure will consist of a sequence using the embellished pitch or interval. Figures 23a-c show a few imaginary student improvisations. After they play their improvisations, students discuss how they embellished and sequenced the pitch (e.g. exact or modified, by what interval, in what direction, etc.). The two-measure improvisation should be treated harmonically as a tonic prolongation, with the students' decision about the starting pitch of the sequence with contrapuntal consonance or tonic chord-tone options in mind. For example, Figure 23b shows the embellished pitch sequenced up a minor third, but the student could have sequenced it to any of the tonic chord tones, or to a 6th above the root of tonic harmony.

Figures 23a-c. Imagined motive construction improvisations.

a.

Pitch Given CS UN PT Real Sequence a P4 Down

b.

Pitch Given PT CS CS PT PT IN Tonal Sequence up a minor 3rd

c.

Interval Given LN PT PT CS PT Tonal Sequence up major 2nd

UN= upper neighbor
 LN = lower neighbor
 IN = incomplete neighbor
 PT = passing tone
 CS = consonant skip
 SUS = suspension

Another exercise that emphasizes embellishments is an adaptation of the basic rhythmic improvisation exercise. Students sit in a circle and takes turns embellishing the same motive. Once again the rest of the class sings the improviser's embellishment in a responsorial style. This

exercise allows students to internalize the nuances of language by “mimicking” the language of the style of music in which they are improvising.⁴

The second stage in the second tier consists of learning typical two-voice cadence patterns and using the embellishment figures from the previous stage to expand both voices. This stage gives students a solid idea of how to construct the musical goal of their improvisation. Because of the goal-oriented nature of western tonal music, students need to learn how to construct strong musical goals for their improvisations before they can learn to improvise full phrases and periods. Like the first stage, this stage instills in students a linear perspective on harmonic expansion, as opposed to a vertical perspective. Students will expand harmonic pillars by melodically embellishing the bass line using their embellishment notebooks as a reference. By practicing these embellished bass lines, they will become stronger at identifying embellishments that support harmonic prolongation.

The first exercise in this stage requires students to embellish the top voice of the cadence pattern. Figure 24 contains a chart of the typical two-voice cadence patterns from *The Complete Musician*.⁵ This exercise requires students to improvise in the context of a three-measure T-D-T cadence pattern for authentic cadences, and a two-bar T-D pattern for half cadences. Before this exercise is assigned, class time should be spent analyzing the use and embellishment of the cadence patterns in “real” music. Figures 25a-b show examples of the cadence patterns in music. The first example is a HC pattern without embellishment, and the second example is a PAC pattern without embellishment. Once students have analyzed cadence patterns in context, they can begin to embellish them.

⁴ J Richard Dunscomb and Dr. Willie L. Hill Jr., *Jazz Pedagogy: The Jazz Educator’s Handbook and Research Guide* (Miami: Warner Bros. Publications, 2002), 96.

⁵ Laitz, *The Complete Musician*, 107.

Figure 24. Typical two-voice cadence patterns.⁶

Figure 24 illustrates typical two-voice cadence patterns, categorized into Perfect Authentic Cadences (PAC) and Imperfect Authentic Cadences (IAC). The patterns are shown in two rows of musical notation, each with six examples (A-F and G-K).

Row 1 (A-F):

- A:** PAC. Treble: $\hat{2}$ $\hat{1}$. Bass: $\hat{5}$ $\hat{1}$.
- B:** PAC. Treble: $\hat{7}$ $\hat{1}$. Bass: $\hat{5}$ $\hat{1}$.
- C:** IAC. Treble: $\hat{5}$ $\hat{5}$. Bass: $\hat{5}$ $\hat{1}$.
- D:** IAC. Treble: $\hat{2}$ $\hat{3}$. Bass: $\hat{5}$ $\hat{1}$.
- E:** IAC. Treble: $\hat{2}$ $\hat{1}$. Bass: $\hat{7}$ $\hat{8}$.
- F:** IAC. Treble: $\hat{7}$ $\hat{8}$. Bass: $\hat{2}$ $\hat{1}$.

Row 2 (G-K):

- G:** HC. Treble: $\hat{3}$ $\hat{2}$. Bass: $\hat{1}$ $\hat{6}$.
- H:** HC. Treble: $\hat{1}$ $\hat{7}$. Bass: $\hat{3}$ $\hat{6}$.
- I:** HC. Treble: $\hat{5}$ $\hat{5}$. Bass: $\hat{1}$ $\hat{5}$.
- J:** PAC (in minor). Treble: $\hat{7}$ $\hat{1}$. Bass: $\hat{6}$ $\hat{1}$.
- K:** IAC (in minor with Picardy third). Treble: $\hat{2}$ $\hat{3}$. Bass: $\hat{6}$ $\hat{1}$.

Labels: PAC, IAC, HC, PAC (in minor), IAC (in minor with Picardy third). Note: (contrapuntal cadences) is written below examples E and F.

Figure 25a. Example of perfect authentic cadence pattern in Mozart, Minuet and trio in G major, K. 1e, mm. 7-19.

Figure 25a shows an example of a perfect authentic cadence pattern in Mozart's Minuet and Trio in G major, K. 1e, measures 7-19. The notation includes fingerings and articulation marks. The first staff ends with a double bar line and repeat signs. The second staff begins with a 'Trio' section and ends with a 'Fine' section.

⁶ Laitz, *The Complete Musician*, 107.

Figure 25b. Example of half cadence pattern in Mozart, Sonata in A Major, K. 331, mvt. 1, mm. 1-4.



For this exercise, students are assigned a cadence type and several keys to practice in for homework. They are expected to come to class with prepared embellished melodies in each key, and the professor picks one of those keys for them to perform. Essentially, the student embellishes the melody notes in the first two measures of the authentic cadence pattern, or the first measure for half cadences. Figures 26a-b show imagined student improvisations over a three-measure authentic cadence and a two-measure half cadence.

Figure 26a. Imagined student improvisation over three-measure perfect authentic cadence pattern A.

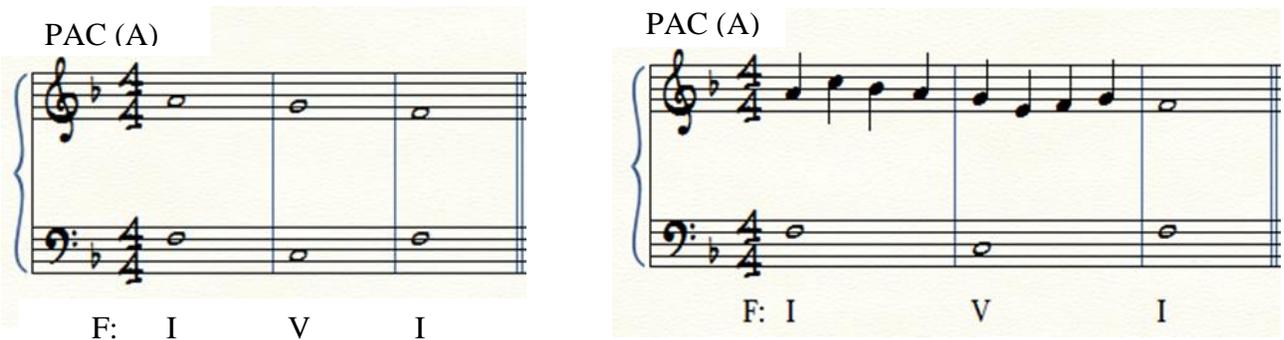


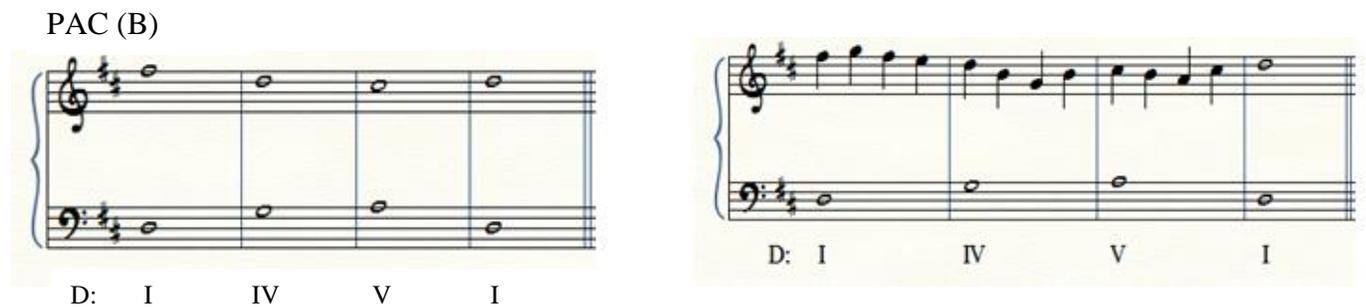
Figure 26b. Imagined student improvisation over two-measure half cadence pattern I.

The image contains two musical examples, both labeled "HC (I)", illustrating improvisation over a two-measure half cadence pattern in G major. The first example shows a simple improvisation with a treble clef staff containing two whole notes (G4 and B4) and a bass clef staff containing two whole notes (G3 and B2). The second example shows a more complex improvisation in 4/4 time, with a treble clef staff containing a sequence of notes (G4, A4, B4, C5, B4, A4, G4) and a bass clef staff containing two whole notes (G3 and B2). Both examples are labeled with "G: I V" below the staves, indicating the harmonic structure of the two measures.

This exercise is designed to be expanded to focus on various concepts including the V^7 chord and predominant chords. Cadence patterns can also be practiced in the context of both short and longer phrase lengths. Students can embellish a two-measure PD-D-T or a three-measure T-PD-D, among other contexts for improvisation. For authentic cadences, the first measure would contain both the predominant and the dominant harmonies and the tonic harmony would be in the second measure. For half cadences, the first measure would contain tonic harmony, the second measure would contain predominant harmony, and the third measure would contain the dominant harmony. The predominant can also share the last measure; the dominant and tonic can occupy the first two measures. Figures 27a-b show imaginary student improvisations of four-measure authentic and three-measure half cadences.

Figure 27a. Imagined student improvisation over four-measure perfect authentic cadence pattern B.

PAC (B)

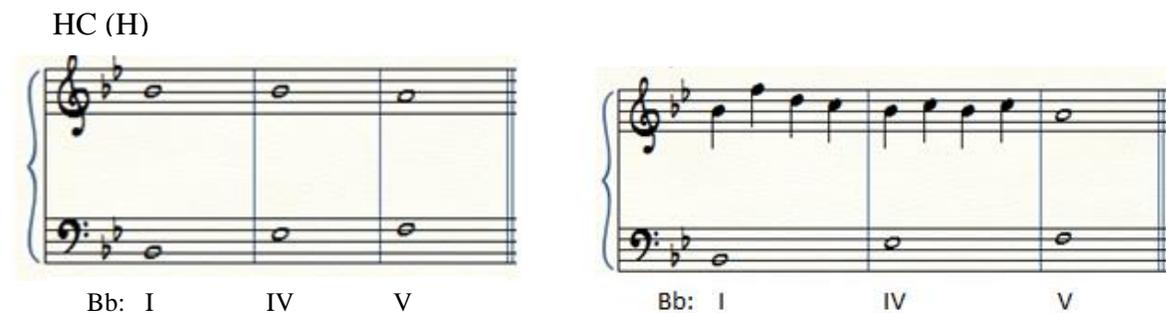


D: I IV V I

D: I IV V I

Figure 27b. Imagined student improvisation over three-measure half-cadence pattern H.

HC (H)



Bb: I IV V

Bb: I IV V

Once students have spent time embellishing melodies of cadence patterns, they can move on to the second exercise in this stage: embellishing the cadence-pattern bass line in various phrase lengths (Fig. 28). This exercise supplements the understanding of tonic and dominant expansion. It allows students to recognize that a melodic bass line acts to expand a harmony. Class time should be spent examining music to see how bass lines are embellished before this exercise is assigned. The exercise asks students to embellish the bass line in the same way they embellished the melody of the cadence patterns in the previous exercise. They embellish each note of the pattern striving for stepwise motion across the bar line. The earliest exercises should include only tonic and dominant harmonies in the cadence patterns; then the same

important ones.”⁸ The goal of this development is to avoid the monotony that can come from strict repetition, while still maintaining the unity necessary to coherence.

Schoenberg breaks down the methods of development into four categories: Rhythmic change, intervallic change, harmonic change, and melodic change.⁹ Rhythmic change consists of altering the rhythmic content of a motive by omitting pitches, repeating pitches, changing the durational value of specific pitches, augmentation/diminution, shifting rhythms to different beats, or changing the meter. Intervallic change takes place when the intervallic content of a motive is altered by adding, omitting, altering, or changing the order or direction of one or more intervals. Harmonic change consists of changing the harmonic content of the accompaniment by inverting the harmony, inserting prolongational chords, or substituting chords. When the melodic content of a motive is altered to adapt to harmonic change by transposition or real sequence, it is called melodic change. Figure 29 shows Schoenberg’s list of development methods from *Fundamentals of Musical Composition*.

⁸ Schoenberg, *Fundamentals of Musical Composition*, 9.

⁹ Ibid.

Figure 29. List of development methods.¹⁰

- 10 CONSTRUCTION OF THEMES
- The *rhythm* is changed:
1. By modifying the length of the notes (Ex. 17).
 2. By note repetitions (Exs. 17*h*, *i*, *k*, *l*, *n*).
 3. By repetition of certain rhythms (Exs. 17*l*, *m*, 18*e*).
 4. By shifting rhythms to different beats (Ex. 23; in particular, compare 23*d* with 23*e*, *f*, *g*).
 5. By addition of upbeats (Ex. 22).
 6. By changing the metre—a device seldom usable within a piece (Ex. 24).
- The *intervals* are changed:
1. By changing the original order or direction of the notes (Ex. 19).
 2. By addition or omission of intervals (Ex. 21).
 3. By filling up intervals with ancillary¹ notes (Exs. 18, 20 ff.).
 4. By reduction through omission or condensation (Ex. 21).
 5. By repetition of features (Exs. 20*h*, 22*a*, *b*, *d*).
 6. By shifting features to other beats (Ex. 23).
- The *harmony* is changed:
1. By the use of inversions (Exs. 25*a*, *b*).
 2. By additions at the end (Exs. 25 *c–f*).
 3. By insertions in the middle (Ex. 26).
 4. By substituting a different chord (Exs. 27*a*, *b*, *c*) or succession (Exs. 27*d–f*).
- The *melody* is adapted to these changes:
1. By transposition (Ex. 28).
 2. By addition of passing harmonies (Ex. 29).
 3. By 'semi-contrapuntal' treatment of the accompaniment (Ex. 29).
- Such exploration of the resources of variation can be of great assistance in the acquisition of technical skill and the development of a rich inventive faculty.
- ¹ In order to avoid aesthetically misleading and corrupted terms, *ancillary* will be preferred in referring to the so-called 'embellishing' or 'ornamental' notes of conventional melodic formulas.

The motivic development exercises in this tier will only focus on the three methods that concern melodic development of a motive; rhythmic, intervallic, and melodic change. Motivic development often requires a combination of all three of these methods. For example, developing a motive by adding a passing tone utilizes both rhythmic and intervallic change. The addition of a passing tone requires a shortening of duration of one or more of the surrounding pitches and splitting the pitch interval of a third into two seconds. The goal of this exercise is to teach flexibility with musical materials, to develop an understanding of some of the compositional tools used by common-practice composers, and to develop an understanding of the components of the music the students encounter in ensembles and lessons. Beyond these, an additional goal is

¹⁰ Schoenberg, *Fundamentals*, 10.

for students to begin to develop a basic understanding of the manipulations of the basic elements of music, an understanding that transcends genre.

A basic model for motivic development exercises consists of assigning students a specific one-measure motive that they practice developing with the three methods. Then students come to class prepared to play the original motive and several altered versions of the motive. Figure 30a shows sample student improvisations using each development method. This model can be adjusted to fit the needs of the classroom. For example, students can play the assigned motive and their development of it in the context of a sentence structure (Fig. 30b). The cadence should be provided to students, so they can practice inserting their motive and its development in characteristic ways, as well as learn to connect their altered motives to other musical material. Once students demonstrate a strong understanding of each of these methods, they can be asked to combine them.

Figure 30a. Sample motivic development improvisation.



Figure 30b. Sample motivic development improvisation in the context of sentence structure.



The second stage in this tier consists of soloing over phrase models. Preparing for this exercise requires that students spend time in class analyzing excerpts and recognizing how the

different types of phrase models shown in Figure 31 are used. The phrase model type defines the length of the tonic, predominant, and dominant prolongations, as well as the cadence type. For example, model 3 contains three and a half measures of tonic prolongation, half a measure of predominant space, and one measure of dominant space. These factors affect decisions made about the duration of a chosen embellishment pattern, the method/s of embellishment employed, and the cadence pattern used.

Figure 31. Chart of phrase model types.¹¹

Four-Measure Phrase Models					
<i>measures:</i>	1 _____	2 _____	3 _____	4 _____	<i>cadence</i>
model 1:	T _____	PD _____	D _____	T _____	authentic
model 2:	T _____	_____	PD____ D_____	T _____	authentic
model 3:	T _____	_____	_____ PD_____	D _____	half
model 4:	T _____	_____	_____	PD____ D_____	half

Fig. 32a shows a sample excerpt from common-practice repertoire that students can be given for this exercise, Mozart, Sonata in A Major, K. 331, mvt. 1. First, students do second-level Roman numeral analysis and identify the cadence type of the excerpt (Fig. 32b). Next, students construct a counterpoint sketch of the excerpt utilizing the same harmonic rhythm and cadence pattern (Fig. 32c). Finally, students embellish the sketch (Fig. 32d). Additional constraints can be established by the professor to focus the exercise, such as requiring students to keep the cadence pattern exactly the same in their improvisations as it appears in the excerpt,

¹¹ Laitz, *The Complete Musician*, 201.

requiring students to use a different cadence pattern for the cadence type in their improvisation, or instructing students to use melodic material from the excerpt as the motivic material for their improvisation.

Figure 32a. Mozart, Sonata in A Major, K. 331, mvt. 1, mm. 1-4.

Figure 32b. Harmonic Analysis of Mozart, Sonata in A Major, K. 331, mvt. 1, mm. 1-4.

Figure 32c. Counterpoint sketch of Mozart, Sonata in A Major, K. 331, mvt. 1, mm. 1-4.

Figure 32d. Sample student improvisation over Mozart, Sonata in A Major, K. 331, mvt. 1, mm. 1-4.

UN= upper neighbor
LN = lower neighbor
IN = incomplete neighbor
PT = passing tone
CS = consonant skip
SUS = suspension

This exercise can be implemented in the classroom in several ways. Students can all prepare the same excerpt, or the class can be divided into groups improvising over different excerpts. Either way, the class or group sits in a semicircle and takes turns improvising over the excerpt. Students who play bass-clef instruments can trade off playing the bass line of the excerpts for their classmates when they are not improvising. Once each student has improvised over the excerpt, the professor can place improvisational constraints on the students to get them to focus on specific aspects of their improvisation. This strengthens their understanding of how constraints on certain musical aspects of their improvisation change the end product. For example, changing the cadence type of an excerpt can change the conclusiveness of the phrase.

This exercise should utilize excerpts with a simple harmonic framework at the forefront, but gradually incorporate more elaborate tonic prolongations, chromatic harmony, altered pre-dominants and modulations. As these harmonic concepts are learned in class, they can be incorporated into improvisations to help students understand how they sound and are used in the

music they play. Another adjustment that can be made with this exercise is allowing students to alter the counterpoint sketch in their improvisation. For example, instead of students embellishing Mozart's counterpoint sketch as in Figure 32c, students can embellish a new counterpoint sketch over the bass line. (Fig. 33).

Figure 33. Sample student improvisation with altered counterpoint sketch.

The musical score for Figure 33 is in 6/8 time and D major. The Treble staff contains the following notes: D4 (quarter), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (quarter). The Bass staff contains the following notes: D3 (quarter), E3 (quarter), F#3 (quarter), G3 (quarter), A3 (quarter), B3 (quarter), C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter), E3 (quarter), D3 (quarter). The labels above the Treble staff are: CS (above D4), PT (above E4), PT (above F#4), CS (above G4), LN (above A4), UN (above B4), LN (above C5), LN (above B4).

- UN= upper neighbor
- LN = lower neighbor
- IN = incomplete neighbor
- PT = passing tone
- CS = consonant skip
- SUS = suspension

The final stage in this tier consists of soloing over period models found in common-practice era repertoire. Preparation for this exercise is similar to the preparation for phrase model exercise; time should be spent in class analyzing excerpts from standard repertoire and identifying the different types of period models, as shown in Figure 34. The exercise is designed to emphasize the basic characteristics of the different phrase models, as well as to expand that understanding to the different period models that result from the pairing of phrases. It also forces students to think about the implications some of these characteristics have for their improvisations. For example, a contrasting interrupted period has melodically contrasting

phrases with the first phrase ending in a half cadence and the second phrase ending in a perfect authentic cadence. These characteristics have melodic and harmonic implications for the improvisation. Harmonically, the phrases often begin in the same place, but the student has to ensure that he/she progresses to the appropriate strength of cadence for each phrase. Melodically, the phrases have contrasting material, so the student needs to assemble new musical material for the second phrase of the period.

Figure 34. Chart of period models.¹²

Period Diagrams and Their Labels		
Period label	Abbreviation	Formal diagram
parallel interrupted period	PIP	
contrasting interrupted period	CIP	
parallel sectional period	PSP	
contrasting sectional period	CSP	
parallel continuous period	PCP	
contrasting continuous period	CCP	
parallel progressive period	PPP	
contrasting progressive period	CPP	

Figure 35a shows a sample excerpt from Beethoven's Sonatina No.2 in F Major, Anh. 5, mm. 1-9. First, students do a second-level Roman numeral analysis and identify the cadence types (Fig. 35a). Next, students construct a counterpoint sketch of the excerpt and identify the period type (Fig. 35b). Finally, students embellish the counterpoint sketch (Fig. 35c). As with the phrase model exercises, similar constraints can be established by the professor to focus the exercise.

¹² Laitz, *The Complete Musician*, 304.

Figure 35a. Harmonic analysis of Beethoven, Sonatina No.2 in F Major, Anh. 5, mm. 1-9.

Figure 35a displays the harmonic analysis of Beethoven's Sonatina No. 2 in F Major, measures 1-9. The score is in 3/4 time and F major. It features two systems of music. The first system shows measures 1-3 with a forte (*f*) dynamic in the bass and piano (*p*) in the treble. The second system shows measures 4-9 with piano (*p*) dynamics in both staves. Fingerings are indicated by numbers 1-5. Roman numerals for chords are provided below the bass staff: I, V4/2, I, V in the first system; V6/5, I6, V6, I in the second system.

Figure 35b. Counterpoint sketch of Beethoven, Sonatina No.2 in F Major, Anh. 5, mm.1-9.

Figure 35b displays a counterpoint sketch of Beethoven's Sonatina No. 2 in F Major, measures 1-9. The score is in 3/4 time and F major. It consists of two staves, treble and bass, showing a simple counterpoint sketch with single notes and rests.

Figure 35c. Sample student improvisation over Beethoven, Sonatina No.2 in F Major, Anh. 5, mm.1-9.

- UN= upper neighbor
- LN = lower neighbor
- IN = incomplete neighbor
- PT = passing tone
- CS = consonant skip
- SUS = suspension

This exercise can be implemented in the classroom in the same way as was the phrase model improvisation. Students take turns improvising over the period model of the assigned excerpt with classmates playing the bass line. This exercise can also be implemented as a “complete the period” type of exercise. Students are given a phrase excerpt and are required to improvise a second phrase to create a specific period type. The entire class can improvise the same period type, or the class can be divided into groups and improvise different period types. Figure 36 shows an example of a “complete the period” type of improvisation exercise.

Figure 36. “Complete the period” exercise with Mozart, Sonata in A Major, K. 331, mm. 1-4.

The image displays two systems of musical notation for a piano exercise. The first system, titled "Given Phrase", shows the first four measures of a musical phrase in A major, 3/4 time. The melody in the treble clef consists of quarter notes: A4, B4, C5, B4, A4, G4, F4, E4, D4, C4. The bass line consists of quarter notes: A3, B3, C4, B3, A3, G3, F3, E3, D3, C3. The second system, titled "Student's improvised parallel interrupted period", starts at measure 5 with the same melody and bass line. The improvisation continues for three more measures, ending with a different cadence: the treble clef has quarter notes A4, B4, C5, B4, A4, G4, F4, E4, D4, C4, and the bass line has quarter notes A3, B3, C4, B3, A3, G3, F3, E3, D3, C3. The improvisation ends with a different cadence than the original phrase.

Like the phrase-model improvisation, the period-model exercises should utilize excerpts with simpler harmonic frameworks at the outset, and gradually incorporate more advanced harmonic concepts like extended tonic and dominant prolongations, altered pre-dominants, and modulation. These exercises can also be adjusted to focus on phrase extensions and irregular phrases.

CHAPTER 4

CONCLUSIONS

Improvisation has been a National Association of Schools of Music (NASM) requirement for several years, but very little research has been done on ways to utilize improvisation as a tool for applying concepts learned in the music theory classroom. In this thesis, I have built a model for teaching common-practice improvisation based on jazz improvisation pedagogy. This model is designed to teach students that improvisation, much like language acquisition, is a skill that is gradually developed and in which various skill levels can engage. However, several logistical concerns arise when trying to implement the improvisation exercises I introduced in this paper. For instance, where is there class time to devote to improvisation? How are the different skill levels of the students accommodated? How do students participate whose instruments are too large or cumbersome to bring to class? These are a few of the logistical concerns I will address in this chapter.

One major concern is finding class time to teach improvisation. Although the amount of time professors have to teach the material has not changed, the list of concepts and thought processes they must teach has grown. For most classrooms, it is not feasible to conduct improvisation exercises every class period. However, there are a few methods to incorporate improvisation in a time-efficient manner. The methods will vary depending on the number of days a week the class meets, but by assigning the preparation for the exercise as homework, class time can be spent improvising.

For integrated classes (theory and aural skills) that meet five days a week, one day a week can be devoted to improvisation. Although the entire class period does not have to be used for improvisation, the size of the class and exercise type will dictate how much time needs to be

spent on improvisation. Another possible solution could be to break up the time spent on the improvisation exercise over the course of multiple days. The class can be divided into groups and each group can play the exercise on different days. This allows for improvisation to become part of class routine, instead of a special occasion.

For classes that meet three days a week, one day every other week can be devoted to improvisation exercises. As mentioned before, class size and exercise type will determine how much of the class period will be used for the exercise. Another method is using improvisation to review for exams. The day before each exam can be “improvisation review day.” This allows students to use and internalize the concepts covered in class before they are tested on them. As with classes that meet five days a week, time spent on improvisation exercises may be spread out over the course of multiple days. The class may be broken into groups and each week one group can participate in the improvisation exercises.

Another concern about implementing improvisation in the music theory classroom is the different skill levels of the students. Music theory classrooms usually consist of a group of students with different levels of experience with music theory and varying degrees of facility on their instruments. Because of this, all of the exercises I proposed in this paper are designed to have the preparation assigned as homework. This allows students to spend as much time as they need outside of class working with the specifics of the exercise. How much time students spend preparing for the in-class improvisation depends on their facility on their instrument and their understanding of the concepts covered in class. The number of days students are given to prepare for the improvisation exercise depends on the average level of experience of the class. Three days to a week is a reasonable amount of time for students to prepare for any of the exercises.

The purpose of the exercises I propose in this paper is to help students use their instruments to apply and grapple with the concepts learned in class. All of the exercises can be conducted with any combination of instrumentalists and vocalists. The issue of accommodating transposing instruments is at the discretion of the professor. Students can be responsible for transposing concert-key material into their instrument's key or they can be given transposed excerpts by the professor. Along with transposing instruments, any student who plays an instrument that is too large or cumbersome to bring to class can play piano or sing the exercises. Some of the instruments that might fit this category include harp, double bass, and pitched percussion instruments.

Another concern about implementing improvisation in the music theory classroom is how to grade the exercises. I suggest that grading can be handled in one of three ways. The first way is by giving students a participation grade for each exercise. This allows the emphasis of the exercises to be on individual growth instead of the grade, which shifts the focus from perfection to learning from mistakes. The second way is to grade students on their ability to appropriately insert or apply the specific concept being discussed. For example, the motivic development exercise shown in Figure 34b can be graded based on the student's ability to sequence and develop a motive and not on their ability to continue to a cadence. This allows a student to focus the most attention on the motivic development portion of their improvisation, by assuring them that making mistakes on the continuation to the cadence will not affect their grade.

A third way to grade the improvisation exercises could be to require students to notate one of the improvisations they created while preparing to improvise in class. They can play the notated improvisation as their first in-class improvisation of the day, and then the professor can propose or suggest different constraints for the student to utilize for their next improvisation.

This method allows students to improvise multiple times during each session; however, they are only graded on their notated improvisation. The subsequent improvisations are merely an opportunity to continue to work with the concepts in the context of different constraints. The notated improvisation can have two separate scored components, a performance component and a written component.

One of the persistent questions about implementing improvisation in the music theory classroom is why improvisation exercises are important. After all, there are plenty of composition exercises designed to teach students how to apply concepts learned in class. Improvisation, however, allow students to grapple hands-on with the concepts in a much different way. Improvisation allows students to hear the results of the decisions they make when writing. It also helps students discover the reasons behind voice-leading and composition guidelines by experiencing them on their own. This helps students develop aural insights into why music unfolds the way it does. With future research, I believe that improvisation exercises can be used to supplement the study of form and analysis, twentieth century music, and contemporary music.

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