

THE EFFECTS OF VOCAL IMPROVISATION ON KODÁLY-BASED SIGHT SINGING  
TECHNIQUE IN HIGH SCHOOL CHORAL MUSIC STUDENTS

by

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(Under the Direction of Mary Leglar)

ABSTRACT

Music literacy is a key component in a fully enriching music education. Nearly all pedagogical approaches emphasize music reading and writing. However, sight singing, a specialized component of music literacy, is a skill that remains a challenge for many young singers. The purpose of this study was to examine the effects of vocal improvisation on Kodály-based sight singing instruction for high school choral music students. Based on results of the AMMA (Advanced Measures of Music Audiation, Gordon, 1989), participants ( $n = 52$ ) were assigned to an experimental group ( $n = 27$ ) or control group ( $n = 25$ ). Both groups received sight singing instruction using the Kodály method. The instructional strategies associated with this method included (a) tonic *solfa*, (b) Curwen hand signs, and (c) Chev   rhythm syllables. The experimental group, however, participated in researcher-compiled vocal improvisation activities for 10-15 minutes of the 30-minute lessons. Improvisation activities included (a) learning selected repertoire by rote, (b) sequentially developing a vocabulary of tonal syllables and rhythmic syllables, (c) improvising with voice and body percussion tonic, dominant, subdominant, and submediant tonal patterns within the context of major and minor tonalities, and (d) improvising with voice and body percussion macrobeat, microbeat, division, elongation, and

rest rhythm patterns within the context of duple meter. The Wilcoxon signed-rank test was used to determine if there were statistically significant differences between sight-singing performance pre-assessment and post-assessment, as well as pre-experiment and post-experiment AMMA administration. The Wilcoxon rank sum test was used to determine significant difference between control and experimental groups. Results suggest that regular sight singing instruction using the Kodály method benefited sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo). Incorporating vocal improvisation helps students build rhythm and tonal vocabulary and aurally explore the functions of harmonic structure. These practices seem to benefit overall music audiation, particularly rhythmic audiation. Survey findings suggest students' perception of their sight singing ability and of their ability to "hear music internally" (audiate) are positively impacted by vocal improvisation practices.

INDEX WORDS: Audiation, Choral Music Education, High School, Improvisation, Kodály Method, Music Literacy, Sight Singing

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## DEDICATION

To my wife, *Mallory*,  
to my children,  
*Fletcher* and *Finley*,  
and to my parents,  
*Chris* and *Alison*,  
and *Gigi*,  
for their unending support and love.

In loving memory of *Pop*,  
who was my biggest fan, always empowering me.  
He remains an inspiration.

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## CHAPTER 1

### INTRODUCTION

The power of understanding symbols, i.e. of regarding everything about a sense-datum as irrelevant except a certain *form* that it embodies, is the most characteristic mental trait of mankind. It issues in an unconscious, spontaneous process of *abstraction*, which goes on all the time in the human mind: a process of recognizing the concept in any configuration given to experience, and forming a conception accordingly. That is the real sense of Aristotle's definition of Man as "the rational animal." (Langer, 1979, p. 72)

In the mid-twentieth century, scientific advancement became part of our national paranoia. With the successful launch of Sputnik, critics began to look to education, doubting the continuous effectiveness of America's schools. Focus fell upon curriculum and the conversations of educational psychology and methodology entered the symposium: What are we teaching? How do we need to be teaching? And what resources do we need to get there? These questions continue to permeate educational (and political) conversations and should influence the teaching of practitioners, particularly in music education: What musical concepts and skills do we teach? What instructional strategies are most successful? And through what means can we reach the desired outcome?

At the most basic level, a proficient music educator seeks to guide students in creating music, performing music, responding to music, and making contextual connections to deepen musical understanding (National Core Arts Standards, 2014). It is through the practice of these skills that young musicians gain understanding of musical concepts: rhythm, melody, harmony, form, expression, and style. Music literacy is a key component in a fully enriching music education. Nearly all pedagogical approaches – Dalcroze, Orff, Kodály, Gordon – emphasize music reading and writing. Music literacy is a process of abstracting understanding from a visual



symbol and converting that understanding to musical sound, and vice versa. But teaching singers to sing from notation without hearing it first (sight singing) remains a challenge for choral music educators.

Similarly, improvisation (or the act of expressing or creating musical ideas spontaneously) has played a significant role in music creation throughout history; however, its presence in modern day music classrooms is inconsistent. In most cases, development of improvisation skills is absent from comprehensive music education, and this is particularly true in secondary education. With a deeper understanding of what it means to improvise, music educators may begin to understand how improvisation relates to teaching musical concepts and the learning process.

### Purpose of the Study

The purpose of this study was to examine the effects of vocal improvisation on Kodály-based sight singing instruction for high school choral music students. Specific objectives were: 1) to determine the effects of vocal improvisation on sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo) using the Kodály method, 2) to determine the effects of vocal improvisation on audiation as it relates to sight singing, and 3) to assess any changes in students' attitudes and interests toward sight singing. The following questions guided the research:

- 1) How does the practice of vocal improvisation affect sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo) using the Kodály method?
- 2) Does vocal improvisation affect audiation as it relates to sight singing?

- 3) Does incorporating vocal improvisation into the classroom change student perception of sight singing? Are there changes in student attitudes and interests?

### Limitations

Subjects were limited to two high school classes in a rural public school: one class of ninth grade choral music students; one class of tenth, eleventh, and twelfth grade choral music students. The treatment was limited to regularly scheduled class times over a period of six weeks. The conclusions drawn from the study were limited to those generalizations allowed by the experimental design, procedures, and criterion measures.

### Definition of Terms

For the purpose of this study, the pertinent terms are defined as follows:

*Audiation*: musical thinking; the comprehension and internal realization of music; the sensation of hearing or feeling sound when it is not physically present; “inner hearing.”

*Chev  rhythm syllables*: a system of associating rhythm values with a particular syllable, invented by Emile Joseph Chev  of France.

*Curwen hand signs*: a system of associating solf ge syllables with a specific shape and thoracic location of one’s hand, developed by John Spencer Curwen of England.

*Improvisation*: the act of expressing or creating musical ideas spontaneously.

*Music literacy*: the ability to convert a visual symbol to musical sound, and vice versa; the ability to understand and engage with music through performance and creation – reading, writing (or notating), composing, improvising, arranging.

*Solfège*: also called *solfa*, a system of solmization using anglicized solfège syllables – *do, re, mi, fa, sol, la, ti, do*.

*Solmization*: a system of associating each pitch of a musical scale with a particular syllable.

*Tonic solfa*: a system of solmization using anglicized solfège syllables in which each syllable corresponds to a scale degree and the first degree of a major scale (tonic) is *do*; invented by Sarah Ann Glover of England.

### Summary of Procedures

The study employed a pretest-posttest experimental design. Based on results of the AMMA (Advanced Measures of Music Audiation, Gordon, 1989), participants ( $n = 52$ ) were divided into two heterogeneous groups: an experimental group ( $n = 27$ ) and a control group ( $n = 25$ ). As a measure of music achievement, prior to the treatment period, each sang three researcher-authored four-measure criterion sight singing exercises for appropriate voice parts (soprano/tenor, alto, bass) and levels (beginning, intermediate).

The study was conducted over a period of six weeks. The experimental group and the control group received sight singing instruction using the Kodály method. The instructional strategies associated with this method included: (a) tonic *solfa*, (b) Curwen hand signs, and (c) Chevé rhythm syllables. For each lesson, the experimental group and the control group received parallel instruction in the skills and concepts associated with the Kodály method. The experimental group, however, participated in vocal improvisation activities compiled by the researcher for 10-15 minutes of the 30-minute lessons. Improvisation activities included (a) learning selected repertoire by rote, (b) sequentially developing a vocabulary of tonal syllables

and rhythmic syllables, (c) improvising with voice and body percussion tonic, dominant, subdominant, and submediant tonal patterns within the context of major and minor tonalities, and (d) improvising with voice and body percussion macrobeat, microbeat, division, elongation, and rest rhythm patterns within the context of duple meter.

At the end of the treatment period, participants individually performed three four-measure criterion sight singing exercises to measure musical achievement. Each participant was evaluated by a panel of three judges using the Sight Singing Performance Rating Scale (see Appendix A). Each performance was rated on pitch accuracy and rhythmic precision, intonation, and tempo. Participants completed the Perceptions, Attitudes, and Interests Survey following the treatment period (see Appendix F).

### Organization of the Study

Chapter 1 presents the introduction, statement of the problem, research questions, limitations, definitions of terms, as well as a summary of procedures. Chapter 2 contains a review of related literature focusing on (a) Pestalozzian principles, (b) historical context of school singing, (c) the process of sight singing, (d) the Kodály method and music literacy, and (e) the relationship between improvisation and music literacy. The methodology and procedures used to gather data for the study are presented in Chapter 3. The results of the analyses and findings that emerged from the study are contained in Chapter 4. Chapter 5 contains a summary of the study and findings, conclusions drawn from the findings, and recommendations for further research.

## CHAPTER 2

### REVIEW OF LITERATURE

Teaching, learning, and education as a whole, are evolutionary. As a form of social action, education is rooted in culture and expresses the philosophy and apparent needs of that culture. Therefore, in considering the history of American music education, it becomes crucial to also consider the relationships between school and community. As culture, society, and politics evolve, school curriculum and the theories involved begin to transform. Conservative and progressive ideologies have molded the educational practices of the United States throughout its history and this is certainly true in music education and in music teacher education. The review of literature related to this study can be classified as: (a) Pestalozzian principles, (b) historical context of school singing, (c) the process of sight singing, (d) the Kodály method and music literacy, and (e) the relationship between improvisation and music literacy.

#### Pestalozzian Principles

In the introduction of *The Education of Man* (Pestalozzi, 1951), William H. Kirkpatrick beautifully summarizes the principles that guided Pestalozzi's educational efforts:

1. Personality is sacred. This constitutes the "inner dignity of each individual for the young as truly as for the adult."
2. As "a little seed... contains the design of the tree," so in each child is the promise of his potentiality. "The educator only takes care that no untoward influence shall disturb nature's march of developments."

3. Love of those we would educate is “the sole and everlasting foundation” in which to work. “Without love, neither the physical nor the intellectual powers will develop naturally.” So kindness ruled in Pestalozzi’s schools: He abolished flogging – much to the amazement of outsiders.
4. To get rid of the “verbosity” of meaningless words Pestalozzi developed his doctrine of *Anschauung* – direct concrete observation, often inadequately called ‘sense perception’ or ‘object lessons.’ No word was to be used for any purpose until adequate *Anschauung* had preceded. The thing or distinction must be felt or observed in the concrete. Pestalozzi’s followers developed various sayings from this: from the known to the unknown, from the simple to the complex, from the concrete to the abstract.
5. To perfect the perception got by the *Anschauung* the thing that must be named, an appropriate *action* must follow. “A man learns by action... have done with [mere] words! Life shapes us and the life that shapes us is not a matter of words but action.”
6. Out of this demand for action came an emphasis on repetition – not blind repetition, but repetition of action following the *Anschauung* (p. 1).

### Historical Context of School Singing

From America’s conception, life in the colonies was highly theocratic and the presence of God assumed all aspects of life. As a result, early American education, both in conduct and curriculum, was highly religious. This time period included the publication of *The Bay Psalm Book* (1640). Its ninth edition, published in 1698, presented America’s earliest informal music instruction through fasola solmization (Birge, 1966, p. 5-6). In 1721, Rev. John Tufts published the first practical music instruction book on singing, and his methods of letter notation (*mi, fa, so, la*) simplified music reading for the non-musician (Birge, 1966, p. 7). That same year, Rev. Thomas Walter’s publication incorporated three-part harmonizations of psalms in traditional notation and were believed to have been intended for a more musically proficient audience of musicians (Birge, 1966, p. 8). Singing schools began to develop in New England, and the majority of singing-school masters composed tune books to carry out their educational purposes.

As the 18<sup>th</sup> century progressed, fuguing tunes were introduced in America, sparking considerable interest among singers, singing-school masters, and composers, including William Billings, who produced the *New England Psalm Singer* (1770), a tune book containing much original music (Birge, 1966, p. 16). With this new-found interest in music performance and composition, community musical and choral societies flourished throughout the colonies to provide new musical challenges. Likewise, academies and universities established societies for music study and performance.

During the late 17<sup>th</sup> and early 18<sup>th</sup> century, European sense-realism and scientific discovery began to penetrate the colonial culture and mindset. With the emergence of the Enlightenment and humanistic ideals, humankind became the focal point of American society. These humanistic ideals, in conjunction with separation of church and state and the Northwest Ordinance of 1787, signaled America's movement toward the establishment of public schooling (Pulliam & Van Patten, 2007, pp. 111-112).

Just before the War of 1812, Americans began to experience an increase in educational provisions at the state level and an increase in academies and institutions. Education became a reflection of the new American spirit. Education was the means of becoming real Americans. The Jacksonian democracy impacted the social, political, and economic development of the nation. And with the rise of nationalism, the Industrial Revolution, and westward expansion, the common school ideal was born. Education, viewed as a basic right that should be provided for all, became a centerpiece of the age of the common man. The influx of immigrants and the expansive population growth brought about a need to transfer American culture to the foreigners. Education became the great equalizer of the conditions of men (Labuta & Smith, 1997, p. 15). National leaders believed that the newly independent nation's survival required balancing

freedom and order, instilling patriotism, and educating Americans about their new Constitution. Leaders set out to establish educational uniformity and efficiency by promoting standardization (Labuta & Smith, 1997, p. 16). It is interesting to consider the mindsets of James G. Carter, Horace Mann, and Henry Barnard – the fear that private education would give rise to a differentiation between classes (a divide that would be detrimental to a newly established America).

As American leaders were reforming education prior to the Civil War, singing schools and musical societies remained popular. In the South, singing schools and shape-note singing were prevalent. However, in the North, educators were developing early models of vocal music instruction in common schooling through adaptation of Pestalozzi's educational principles (Labuta & Smith, 1997, pp. 17-18). William Woodbridge and Lowell Mason played a large role in the development of vocal music instruction in the common schools during the 19<sup>th</sup> century. In 1832, Lowell Mason founded the Boston Academy of Music, the first school of music pedagogy in the United States, and shortly thereafter issued his *Manual of Instruction* which became the handbook of every singing-school teacher (Birge, 1966, p. 27). With Mason's guidance, and after the experimental inclusion of vocal music at Hawes School, the Boston school board voted in 1838 to include vocal music in several Boston public schools (Birge, 1966, p. 54).

Now with vocal music as an integral part of common school education, educators began debating instructional approaches. Singing schools had demonstrated the value of singing by note, focusing on repetition, drill, and memorization. However, Lowell Mason and his contemporaries promoted the Pestalozzian approach of experiencing musical sound before deriving the function of music symbols. This method of rote teaching was highly criticized by the end of the 19<sup>th</sup> century and systematic methods books began to emerge, beginnings with



Joseph Bird's *Vocal Music Reader* in 1861 (Labuta & Smith, 1997, p. 19). George Loomis, Luther Whiting Mason, Hosea Edson Holt and John Wheeler Tufts, and Benjamin Jepson all compiled sequential music materials as a response to the need of progressive music instruction through all grades – *Loomis' Progressive Music Lessons* (1868-1869), *National Music Course* (1870), *Normal Music Course* (1883), and *Standard Music Reader* (1889), respectively.

### Sight Singing

In the late 19<sup>th</sup> century, when the high school became part of America's common schooling, "music educators made four-part choral singing the high school music activity" (Mark & Gary, 2007, p. 288). But teaching singers to sing from notation without hearing it first (sight singing) remains a challenge for choral music educators. Textbooks for junior high and high school choirs (Crocker & Synder, 2005; Killian, Daniels, & Rann, 2001) present ideas and strategies for building skills in sight singing; however, few directors of high school choirs use materials published especially for sight singing instruction, preferring to use octavos or create their own exercises (Hales, 1961; May, 1993).

Researchers have surveyed in-service educators (May, 1993), college professors (Pembroke & Riggins, 1990), and all-state chorus members (McClung, 2001) to gather preferences of sight singing methodologies. Respondents have made mention of: solfège (tonic *solfa* and fixed *solfa*), numbers, neutral syllable (i.e. "loo"), letter names, and intervals. No single approach has emerged as consistently superior (Demorest, 1998b; McClung, 2001). Research regarding different aspects of sight singing has included group versus individual achievement (Henry & Demorest, 1994), factors related to individual achievement (Demorest & May, 1995), individual assessment (Demorest, 1998a), use of tonal patterns (Henry, 2004), traditional

notation versus solfège symbols (Killian, 1991), harmonic context (Boyle & Lucas, 1990; Henry, 2004; Lucas, 1994), use of visual-spatial representations such as Curwen hand signs (Cassidy, 1993; Forsythe & Kelly, 1989), and even the attitude of the teacher toward sight singing (Daniels, 1988).

An examination of the experiential backgrounds of the singers – instrumental playing experience versus years in choir (Demorest & May, 1995) and experience in piano instruction (Demorest & May, 1995; Henry & Demorest, 1994) – reveals little agreement regarding specific experiential factors positively influencing sight singing accuracy.

May (1993) found that Texas high school choirs seem to devote more class time to music reading; 80% of the 192 directors surveyed spent 4-5 days per week teaching sight singing. Similarly, Brendell (1996) found that the largest percentage of pre-literature rehearsal time was devoted to sight singing instruction in the Florida high school choirs he observed. However, he noted that his observations occurred during preparation for a spring choral festival. This is consistent with multiple survey results that report directors spending more time on sight singing more at the beginning of the year and before adjudication. Practice time prior to sight singing assessment was the focus of a study by Killian and Henry (2005). Practice strategies used by high-accuracy singers included vocally establishing the key, the use of hand signs, singing aloud during practice, and physically keeping the beat. Results of the study indicate that choral directors should permit students practice time prior to sight singing evaluation.

Yarbrough, Orman, and Neill (2007) examined the teaching process prior to sight singing adjudication and wanted to know what choral directors say and do in that instructional period. Directors “talked about 42.46% of the total time” and it was noted that “reinforcement is more effective if it is specifically related to the musical task” (p. 32).

## The Kodály Method and Music Literacy

The Kodály method was developed in Hungary in the 1940s and 1950s by Zoltán Kodály as a comprehensive system of music education. According to Choksy, Abramson, Gillespie, and Woods (1986), the underlying philosophy of the Kodály method is as follows:

- (1) All people capable of lingual literacy are also capable of music literacy.
- (2) Singing is the best foundation for musicianship.
- (3) Music education to be most effective must begin with the very young child.
- (4) The folk songs of a child's own linguistic heritage constitute a musical "mother tongue" and should therefore be the vehicle for all early instruction.
- (5) Only music of the highest artistic value, both folk and composed, should be used in teaching.
- (6) Music should be at the heart of the curriculum, a core subject, used as a basis for education (pp. 71-72).

While the goals, philosophy, and principles evolved in Hungarian schools under Kodály's inspiration and guidance, none of the practices or tools associated with the Kodály method originated with him. *Solfa* originated from Italy and *tonic solfa* came from England; rhythm syllables were the invention of Emile Joseph Chevé in France, and many of the *solfa* techniques employed were taken from the work of Emile Jaques-Dalcroze; hand-singing was adapted from John Curwen's approach in England and the teaching process was derived from Pestalozzian principles. However, the distinctiveness of the Kodály method comes in the way these techniques were combined into one integrated approach that supported a viable philosophy of music education.

In the relative solmization (movable tonic pitch system) used by Kodály, students are taught to associate specific scale degree with a specific solfège syllable and to connect that syllable with the specific shape and thoracic location of a Curwen hand sign. Teaching strategies used to achieve this objective require a variety of simultaneous responses from the student: (a) an aural response – to listen, audiate, identify, and label pitches with specific solfège syllables; (b) a visual response – to identify and connect specific solfège syllables to modeled Curwen hand signs or notated pitches; (c) a kinesthetic response – to create the physical hand shapes for the various solfège syllables while using the same hand to relate the intervallic rise and fall of pitches to the appropriate thoracic region; and (d) an oral response – to match with the singing voice a specific pitch using a specific solfège syllable (McClung, 2008).

Child development drives the overall sequence in the Kodály method. Table 1 provides examples of some possible Kodály sequences in rhythm, melody, harmony, and form:

Table 1. Possible Kodály sequences (Choksy, Abramson, Gillespie, & Woods, 1986, p. 79-88).

**POSSIBLE KODÁLY SEQUENCES IN RHYTHM, MELODY, HARMONY & FORM**

<b>Rhythm</b>	<ol style="list-style-type: none"> <li>1. Music moves to a steady BEAT.</li> <li>2. Some beats have a feeling of stress or ACCENT.</li> <li>3. Music moves in groups of beats defined by accented beats. This is known as METER.</li> <li>4. All music moves in twos or in threes or in a combination of twos and threes.</li> <li>5. Over the beat, music moves in longer and shorter sounds and silences. This is known as RHYTHM.</li> <li>6. There can be one sound on a beat, two sounds on a beat, or more sounds on a beat.</li> <li>7. Some sounds last longer than one beat.</li> <li>8. Sounds over beats can be evenly or unevenly arranged.</li> <li>9. Longer and shorter sounds and silences may be grouped in patterns.</li> </ol>
<b>Melody</b>	<ol style="list-style-type: none"> <li>1. Pitches may move from higher to lower.</li> <li>2. Pitches may move from lower to higher.</li> <li>3. Pitches may be repeated.</li> <li>4. Pitches may move by step, skip, or leap.</li> </ol>
<b>Harmony</b>	<ol style="list-style-type: none"> <li>1. Tonal center (<i>do</i> or <i>la</i>).</li> <li>2. Dominant tone (<i>so</i> or <i>mi</i>).</li> <li>3. Triads (1-3-5) on <i>do</i> (I) or <i>la</i> (i).</li> <li>4. Triads on <i>so</i> (V) (<i>s-t-r'</i>) or <i>mi</i> (v) (<i>m-s-t</i>).</li> <li>5. Chord inversions in order to produce good voice leading.</li> <li>6. Subdominant tone (<i>fa</i>).</li> <li>7. Triad on <i>fa</i> (IV). Inversions best for singing I-IV-V-I.</li> <li>8. Triads on <i>re</i> (ii) and <i>la</i> (vi).</li> </ol>
<b>Form</b>	<ol style="list-style-type: none"> <li>1. Music has patterns.</li> <li>2. Patterns are organized into PHRASES.</li> <li>3. Sometimes two phrases are the same.</li> <li>4. Sometimes two phrases are different.</li> <li>5. Sometimes phrases are not the same, but are similar.</li> <li>6. Similar phrases can give a feeling of question (incomplete) or answer (complete).</li> <li>7. Same, different, and similar phrases are organized into FORMS.</li> <li>8. Some common forms of songs are AABA, AABB, ABAC.</li> </ol>

Musical discrimination of tempo, dynamics, and timbre is encouraged from the earliest lessons. In addition to the elements of music – rhythm, melody, harmony, form, tempo, dynamics, timbre – certain skill areas, such as inner hearing and musical memory, are a regular part of Kodály training.

Kodály musical training is active music making. Musical learning evolves from musical experience. Singing games, folk songs and art songs, songs sung in unison, rounds, or canons, and part songs each provide material from which musical concepts are drawn and practiced. These musical concepts and skills are then applied to more complex music, and more involved concepts evolve and further musical skills are developed. “It is a spiral curriculum process in the truest sense of the word – a spiral aimed at the fullest development of the musicianship inherent in all people” (Choksy, Abramson, Gillespie, & Woods, 1986, p. 91). In the words of Kodály:

It is the richness of both the musical experiences themselves and the memory of them that makes a good musician. Individual singing plus listening to music (by means of active and passive well-arranged experiences) develops the ear to such an extent that one understands music one has heard with as much clarity as though one were looking at the score; if necessary – and if time permits – one should be able to reproduce such a score.

This, and certainly no less, is what we expect from a student of a language; and music is a manifestation of the human spirit similar to a language. Its great men have conveyed to mankind things unutterable in any other language. If we do not want such things to remain dead treasures, we must do our utmost to make the greatest number of people understand their secrets (Szöny, 1954, p. 8).

### Improvisation

Improvisation has played a significant role in music creation throughout history; however, its presence in modern day music classrooms is inconsistent. In most cases, development of improvisation skills is absent from comprehensive music education, and this is particularly true in secondary education. With a deeper understanding of what it means to

improvise, music educators may begin to understand how improvisation relates to teaching musical concepts and the learning process.

In much of the research literature, improvisation encompasses the ability to spontaneously create music within specified guidelines. Kratus (1990) distinguishes between improvisation and exploration: “A person who is improvising is able to predict the sounds that result from certain actions, whereas a person who is exploring cannot” (p. 35). Briggs (1987) describes improvisation as “musical dialogue” and found that model sound patterns and processes of interaction were commonalities between each improvisation he investigated. In a study of fifth-grade instrumentalists and their ability to improvise, Azzara (1992) defined improvisation as a manifestation of musical thought. Azzara found that successful improvisation emerges from an individual’s internalization of music vocabulary and their ability to understand and to express musical ideas spontaneously. B. Dobbins (1980) compares improvisation to language:

Full proficiency in a verbal language must include the ability to command a considerable vocabulary with equal facility at the reading, conversational, and intuitive levels. The development of proficiency in a music “language” involves the same general process. The ability to play a Beethoven sonata or an Art Tatum solo is, by itself, no more indication of musical creativity than the ability to read a Shakespeare play an indication of the ability to use the English language creatively (p. 37).

In this context, the process of improvisation allows musicians to express musical thoughts and ideas from an internal source, with meaning, and it also promotes increased cognitive processing.

Nachmanovitch (1990) states: “When we think *improvisation*, we tend to think first of improvised music or theater or dance; but beyond their own delights, such art forms are doors to an experience that constitutes the whole of everyday life. We are all improvisers” (p. 17). If we are all improvisers, shouldn’t improvisation easily present itself in every music lesson? Much of the literature suggests the necessity of creating a culture that embraces and encourages

improvisation, creativity, and risk-taking. Csikszentmihalyi (1996) writes: “Creativity is an act, idea or product that changes an existing domain, or that transforms an existing domain into a new one” (p. 28). Improvisation happens in the interaction between a person’s thoughts and sociocultural context.

An improvisation culture requires the absence of fear. Nachmanovitch (1990) discusses the five fears Buddhists describe as obstacles of our creative freedom: (1) fear of loss of life, (2) fear of loss of livelihood, (3) fear of loss of reputation, (4) fear of unusual states of mind, and (5) fear of speaking before an assembly. Werner (1996) also writes of the aspect of fear: fear-based practicing, fear-based teaching, fear-based listening, and fear-based composing. Werner explains that improvisation and self-expression require “the taming of the mind, the dissolution of the ego, and the letting go of all fears” (p. 75). Nachmanovitch and Werner both cite Aaron Copland (1952), saying: “Inspiration may be a form of super-consciousness, or perhaps of subconsciousness – I wouldn’t know. But I am sure that it is the antithesis of self-consciousness” (Nachmanovitch, 1990, p. 51).

Elliot (1995) writes that musical creativity (performance, improvisation, composition, or arrangement) exists in the context of musical practice and is the result of musical intelligence (“enabling” abilities) and musicianship (“promoting” abilities). According to Webster (1988, 1991), creativity depends on “enabling skills” (aptitude, conceptual understanding, aesthetic sensitivity) and is influenced by “enabling conditions” (motivation, personality, environment). Webster proposes that through a process of divergent and convergent thinking these enabling skills and conditions ultimately come together in the creation of a product. McPherson (1996) examined the degree of correlation and developmental differences among five visual, aural, and creative aspects of performance: sight-reading, performing rehearsed music, playing from



memory, playing by ear, and improvising. Results showed significant to moderate correlations between (1) an ability to sight-read and perform rehearsed music and (2) an ability to sight-read and improvise.

Dalcroze and Orff-Schulwerk curricula emphasize improvisation in the music learning process. Dalcroze improvisation activities include spontaneous movement, vocal performance, and instrumental performance. Joseph (1983) studies a Dalcroze Eurhythmics approach to learning music for Kindergarten children. He states:

In Dalcroze Eurhythmics, movement is not an end in itself; it is a means for heightening music perception and clarifying abstract concepts by relating physical motion to musical motion. Vocal and instrumental improvisation are the synthesis of rhythmic movement and ear-training; innate creativity and accumulated experiences interact to produce one's personal musical statement (p. 59).

An important goal of Orff-Schulwerk teachers is to establish “an environment conducive to nurturing the creative ability and musical independence of students” (Martin, 1993). Munsen (1987) and Martin (1993), who replicated the study, examined and analyzed aspects of an Orff-Schulwerk program of music education. They observed Orff-Schulwerk activities involving singing, the use of borduns, improvised rhythms, improvised movement, improvised pitches from the pentatonic scale (more advanced activities included church modes, diatonic scales and functional harmony, and chromatic material).

Other methodologies also emphasize improvisation. Flohr (1979) cites the Manhattanville Music Curriculum Project (MMCP) definitions for improvisation and incorporates a hierarchy of “exploratory improvisation,” “free exploration,” and “guided exploration.” In a study that combined Gordon's audiation-learning sequence techniques and Orff-Schulwerk rhythm improvisation activities, Jessen (1993) found that (1) audiation and improvisation techniques must be developed slowly; (2) a correlation exists between rhythm aptitude, as measured by

Gordon's *Intermediate Measures of Music Audiation*, and three dimensions of rhythm performance: completeness of beats, steadiness of pulse, and sense of finality; and (3) understanding steady beat is a prerequisite to audiating rhythm.

Many of the studies of improvisation in music education center around instrumental and jazz improvisation. A number of researchers in the field have studied the relationship between improvisation and the ability to read music as a criterion measure of musical achievement (Azzara, 1992; McPherson, 1993; Montano, 1983; Wilson, 1971). Results suggest that improvisatory abilities transfer to a student's ability to comprehend music performed from notation. Bash (1984), Carlson (1981), Paulson (1986), Schenkel (1980), Zwick (1987), among others, have developed and examined the effects of instructional materials and methods for teaching jazz improvisation. Jazz improvisation at the junior high level (Coy, 1990; Alibrio, 1988) and measurements of jazz improvisation skills and achievement (Madura, 1993, 1995, 1996; Greennagel, 1995; Pfenninger, 1991; Horowitz, 1995) have also been areas of research.

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

#### Data Sources

The subjects for this research were 52 high school choral music students in a rural public school district in northeast Georgia. School enrollment profile is as follows: race/ethnicity – 90% White, 4% Hispanic, 3% Multi-Racial, 2% Black or African American, roughly 1% Asian; gender – 51% Male, 49% Female; 51% Economically Disadvantaged, 51% Eligible for Free/Reduced Meals, 13% Students with Disabilities, 70% Vocational, 13% Special Education, 9% Gifted, 6% Remedial Education.

#### Data Collection

All subjects were administered the AMMA (Advanced Measures of Music Audiation, Gordon, 1989) as a measure of music aptitude. This standardized measure of music aptitude yields tonal, rhythm, and composite scores. As a measure of musical achievement, each participant sang three four-measure criterion sight singing exercises written by the researcher for appropriate voice parts (soprano/tenor, alto, bass) and levels (beginning, intermediate). The exercises contain tonic, dominant, and subdominant tonal pattern functions and macrobeat, microbeat, division, elongation, and rest rhythm pattern functions. Participants were provided the block chord in the appropriate tonality, the arpeggio of the block chord, and the starting pitch before being given a 30-second practice period. All performances were recorded for subsequent evaluation by a panel of three judges, with participants identified by number only. Performances

were rated for pitch accuracy and rhythmic precision, intonation, and tempo using the Sight Singing Performance Rating Scale.

Participants were awarded points for each half measure sung with accurate pitches and precise rhythms. They were also awarded points for maintaining tonality and a relatively steady tempo throughout each exercise. If a participant began an exercise on a pitch other than the one given by the judge but sang the intervallic relationships and rhythms correctly throughout the exercise, he or she received credit for all but the first half measure. Similarly, if a participant changed tonality midway through a sight singing exercise but sang intervallic relationships and rhythms correctly throughout the rest of the exercise, credit was given for all subsequent measures beyond the half measure where the tonality change occurred.

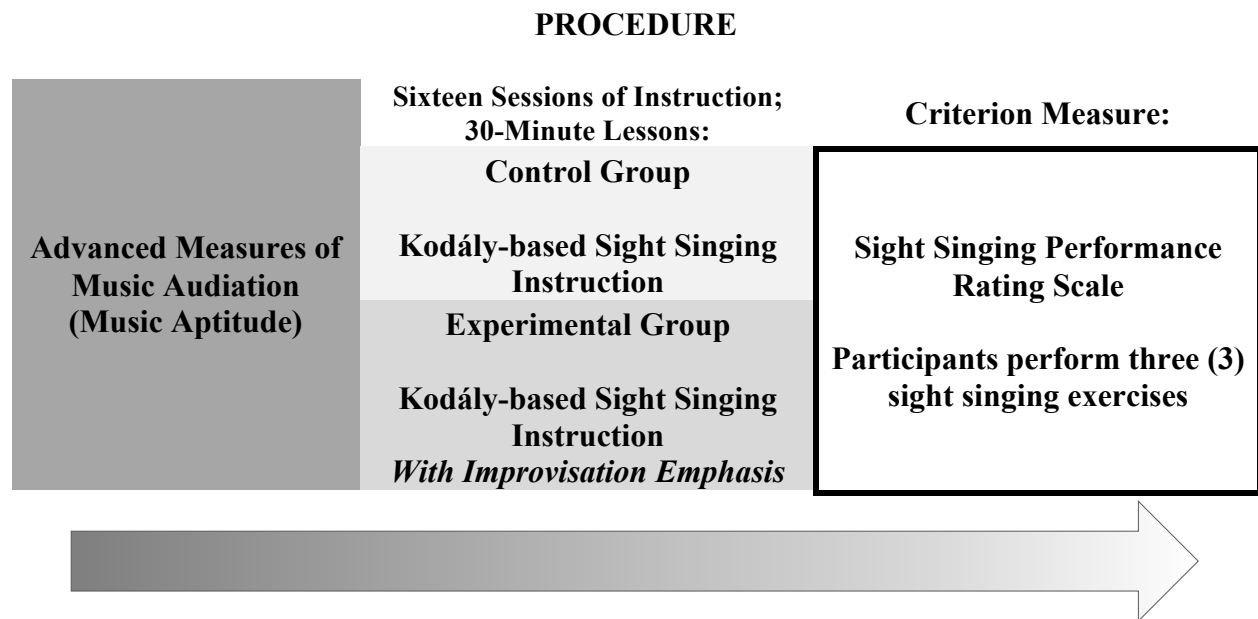
### Procedure

The research design involved 52 high school choral music students in a rural public school district in northeast Georgia. School enrollment by race/ethnicity was as follows: 90% White, 4% Hispanic, 3% Multi-Racial, 2% Black or African American, roughly 1% Asian. School enrollment by other subgroups was as follows: 51% Male, 49% Female, 51% Economically Disadvantaged, 51% Eligible for Free/Reduced Meals, 13% Students with Disabilities. Special programs enrolled the following percentages of students: Vocational, 70%; Special Education, 13%; Gifted, 9%; Remedial Education, 6%.

Before receiving instruction, all participants were administered the AMMA (Advanced Measures of Music Audiation, Gordon, 1989) as a measure of music aptitude. Participants with AMMA scores less than or equal to 20<sup>th</sup> percentile were identified as low-aptitude, those with AMMA scores greater than the 20<sup>th</sup> percentile and less than the 80<sup>th</sup> percentile were identified as

average-aptitude, and those with AMMA scores greater than or equal to the 80<sup>th</sup> percentile were identified as high-aptitude (Gordon, 2012, p. 281).

Participants were heterogeneously mixed between the experimental and control groups. Each group received sixteen 30-minute lessons, over the period of six weeks. In addition to the lessons, all participated in five ensemble experiences per week.



*Figure 1.* Procedures used in this study.

The experimental group and the control group received sight singing instruction using the Kodály method. The instruction associated with this method included tonic *solfa*, Curwen hand signs, and Chevé rhythm syllables. For each lesson, the experimental group and the control group received parallel instruction in the skills and concepts associated with the Kodály method. The order and the duration of the lesson content were designed to be identical for both instructional groups; the experimental group, however, participated in researcher-compiled vocal improvisation activities for 10-15 minutes of the 30-minute lessons [four instructional units (see

Appendix C)]. Improvisation activities included (a) learning selected repertoire by rote, (b) sequentially developing a vocabulary of tonal syllables and rhythmic syllables, (c) improvising with voice and body percussion tonic, dominant, subdominant, and submediant tonal patterns within the context of major and minor tonalities, and (d) improvising with voice and body percussion macrobeat, microbeat, division, elongation, and rest rhythm patterns within the context of duple meter.

The posttest required participants to perform three four-measure criterion sight singing exercises similar to those used for the pretest. Each participant was evaluated by a panel of three judges using the Sight Singing Performance Rating Scale. Each performance was rated on pitch accuracy and rhythmic precision, intonation, and tempo. Participants completed the Perceptions, Attitudes, and Interests Survey following the treatment period.

## CHAPTER 4

### RESEARCH FINDINGS

The purpose of this study was to examine the effects of vocal improvisation on Kodály-based sight singing instruction for high school choral music students. Specific objectives were: 1) to determine the effects of vocal improvisation on sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo) using the Kodály method, 2) to determine the effects of vocal improvisation on audiation as it relates to sight singing, and 3) to assess any changes in students' attitudes and interests toward sight singing. The following questions guided the research:

- 1) How does the practice of vocal improvisation affect sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo) using the Kodály method?
- 2) Does vocal improvisation affect audiation as it relates to sight singing?
- 3) Does incorporating vocal improvisation into the classroom change student perception of sight singing? Are there changes in student attitudes and interests?

#### Test of Inter-Rater Reliability

Fleiss's Kappa statistics is a common measurement of inter-rater reliability. If the raters are in complete agreement on all ratings, then values equal 1; if there is random agreement among the raters, then this statistic is nearer to zero. Landies and Koch (1977) gave the following table for interpreting K values:

*Table 2.* Fleiss's Kappa value's interpretation.

<b>K</b>	<b>Interpretation</b>
<0	Poor agreement
0.01-0.20	Slight agreement
0.21-0.40	Fair agreement
0.41-0.60	Moderate agreement
0.61-0.80	Substantial agreement
0.81-1.00	Almost perfect agreement

For this study, the Fleiss's Kappa statistics for judges at pre- and post-assessment are shown below:

*Table 3.* Fleiss's Kappa statistics of three judges at pre and post.

	<b>Control</b>	<b>Experimental</b>	<b>All</b>
<b>Pre</b>	0.6475	0.6280	0.6398
<b>Post</b>	0.4839	0.5175	0.5061

The above table demonstrates that the ratings of the three judges at pre-assessment showed substantial agreement on both control and experimental groups, while ratings at post-assessment had moderate agreement.

### Sight Singing Performance Assessment

*Table 4.* Descriptive statistics of sight singing performance pre-assessment and post-assessment final scores.

	<b>Control</b>		<b>Experimental</b>	
	preFinal	postFinal	preFinal	postFinal
<b>Min</b>	0.00	0.00	0.00	0.00
<b>Median</b>	0.00	4.00	0.00	6.00
<b>Mean</b>	<b>0.92</b>	<b>5.41</b>	<b>1.33</b>	<b>5.926</b>
<b>Max</b>	9.00	15.00	8.00	19.00
<b>Sd</b>	2.17	4.92	2.15	5.44



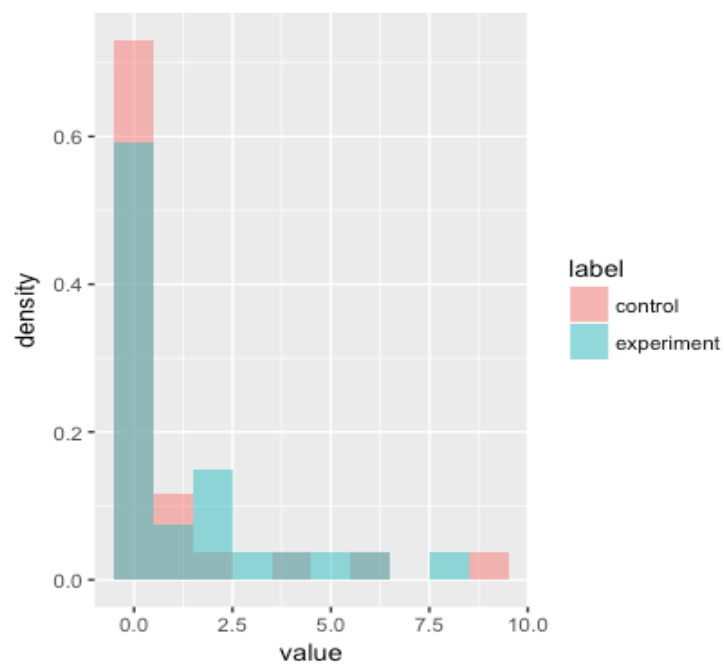


Figure 2. Histogram of sight singing performance pre-assessment final scores.

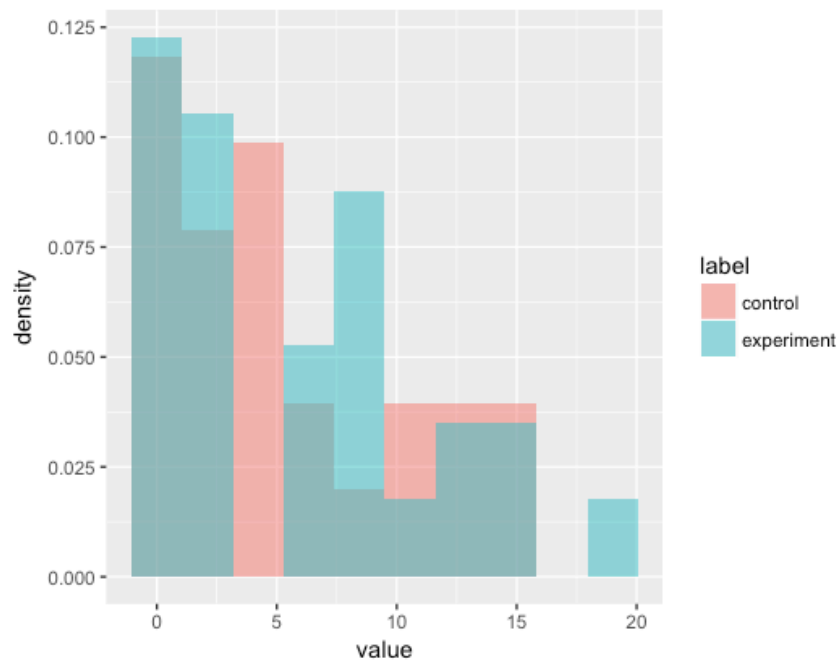


Figure 3. Histogram of sight singing performance post-assessment final scores.

The above plots show the distribution of sight singing performance pre-assessment and post-assessment final scores by group. The mean of final scores in the experimental group was higher

than that of the control group for both pre-assessment and post-assessment. The mean of post-assessment final scores was higher than pre-assessment final scores for both groups.

To determine whether there existed statistically significant differences between pre-assessment and post-assessment scores, the Wilcoxon signed-rank test, a non-parametrical statistical hypothesis test, was applied (since samples are paired).

*Table 5.* Wilcoxon signed-rank test results (*p-values*) for sight singing performance pre-assessment and post-assessment final scores.

	<b>Control</b>	<b>Experimental</b>
<b>Final</b>	0.00021	3.93e-05

In order to ascertain whether there was significant difference between control and experimental group in both pre-assessment and post-assessment, the Wilcoxon rank sum test was applied (since samples are paired).

*Table 6.* Wilcoxon rank sum test results (*p-values*) for sight singing performance final scores of control and experimental group.

	<b>Pre</b>	<b>Post</b>
<b>Final</b>	0.277	0.8196

The above tables show that the final score of both control and experimental group change significantly from pre-assessment to post-assessment. However, there was no significant difference between the control and experimental group in pre-assessment and post-assessment.

## Advanced Measures of Music Audiation

*Table 7.* Descriptive statistics of pre-experiment AMMA administration.

	<b>Control</b>			<b>Experimental</b>		
	Tonal	Rhythm	Composite	Tonal	Rhythm	Composite
<b>min</b>	19.00	11.00	14.00	7.00	2.00	4.00
<b>Median</b>	50.00	45.00	45.50	50.00	50.00	44.00
<b>Mean</b>	<b>47.15</b>	<b>44.65</b>	<b>45.15</b>	<b>48.19</b>	<b>43.48</b>	<b>45.15</b>
<b>Max</b>	91.00	80.00	88.00	91.00	93.00	91.00
<b>sd</b>	21.47	19.55	21.93	21.52	23.69	23.34

*Table 8.* Descriptive statistics of post-experiment AMMA administration.

	<b>Control</b>			<b>Experimental</b>		
	Tonal	Rhythm	Composite	Tonal	Rhythm	Composite
<b>min</b>	14.00	1.00	7.00	1.00	1.00	1.00
<b>Median</b>	53.50	47.50	52.00	57.00	56.00	58.00
<b>Mean</b>	<b>53.29</b>	<b>47.08</b>	<b>50.21</b>	<b>54.74</b>	<b>51.96</b>	<b>53.81</b>
<b>Max</b>	91.00	80.00	86.00	88.00	85.00	86.00
<b>sd</b>	24.15	24.45	26.01	23.10	22.98	24.49

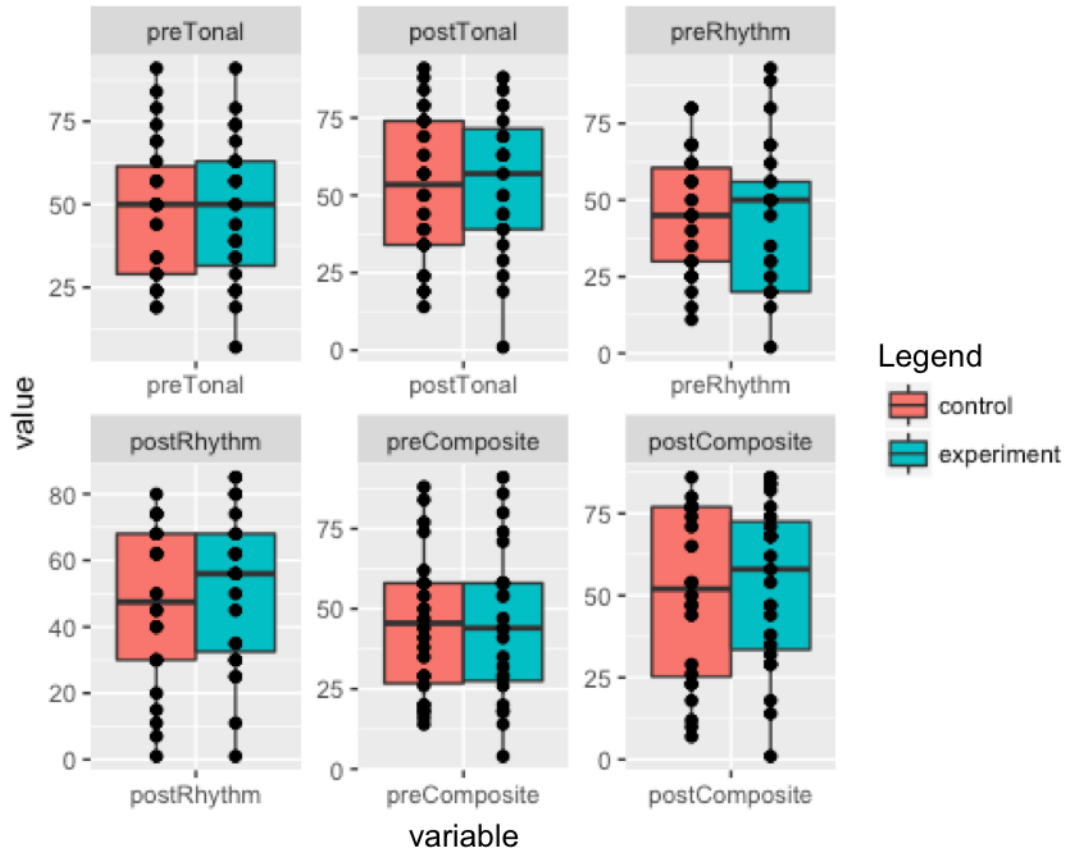


Figure 4. Box plot of pre-experiment and post-experiment AMMA administration.

As can be seen from the above tables and plot, for tonal scores in the pre-experiment administration, the means and standard deviations of both groups are close (47.15 v. 48.19); while for tonal scores in the post-experiment administration, the means of both groups are close (53.29 v. 54.74), but the standard deviation for the experimental group is smaller than that of the control group. Both groups show an increase in the average tonal scores from the pre-experiment administration to the post-experiment administration, and the increase is greater for the experimental group.

For rhythm scores in the pre-experiment administration, means of both groups are close (44.65 v. 43.48), while in the post-experiment administration, the differences of the means of both groups are greater (47.08 v. 51.96). When comparing rhythm scores of pre-experiment and

post-experiment administrations by groups, both the experimental group and the control group have higher means in the post-experiment administration.

For composite scores in the pre-experiment administration, the means of both groups are close (45.153 v. 45.148), while in the post-experiment administration, the means are different (50.21 v. 53.81). For both experimental and control groups, composite scores of the post-experiment administration have higher means than pre-experiment administration.

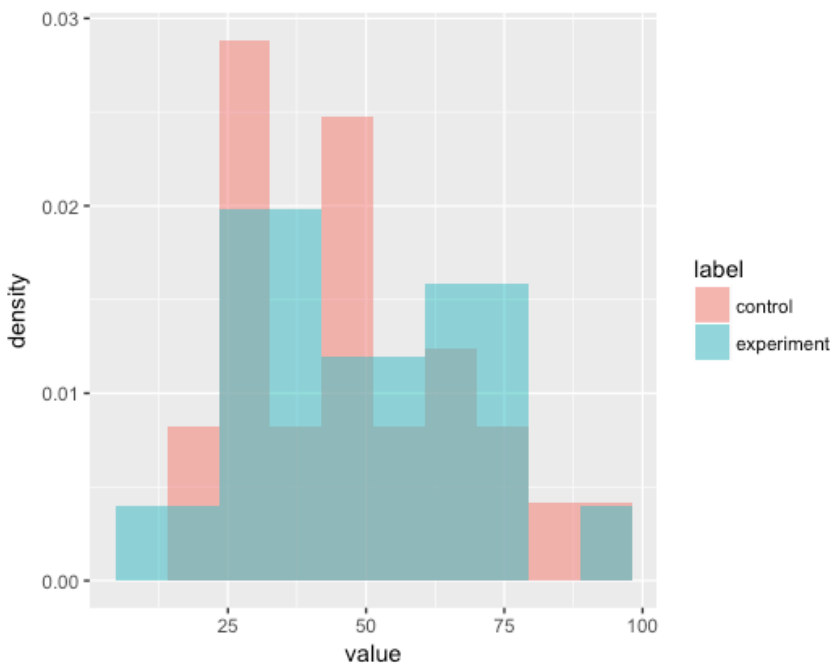


Figure 5. Histogram of pre-experiment AMMA administration tonal scores.

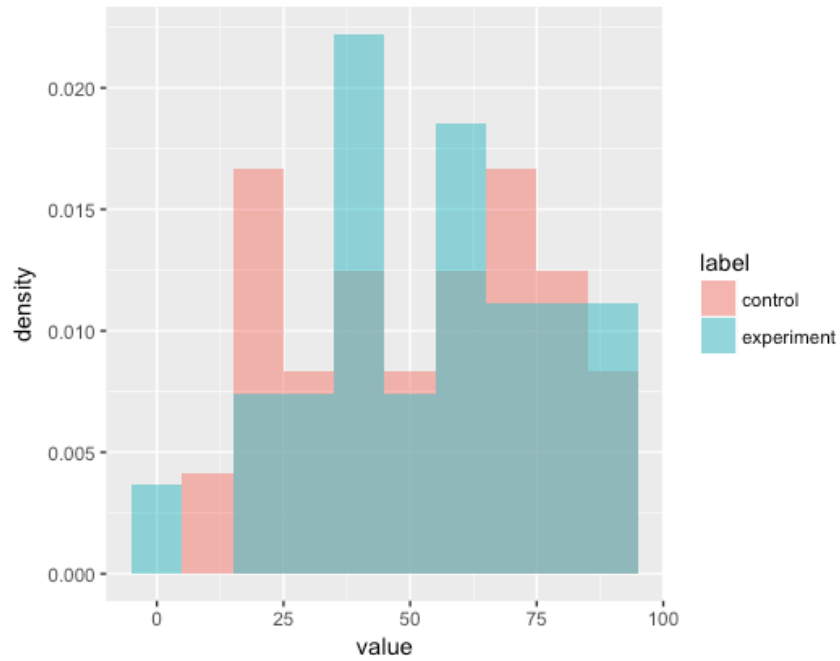


Figure 6. Histogram of post-experiment AMMA administration tonal scores.

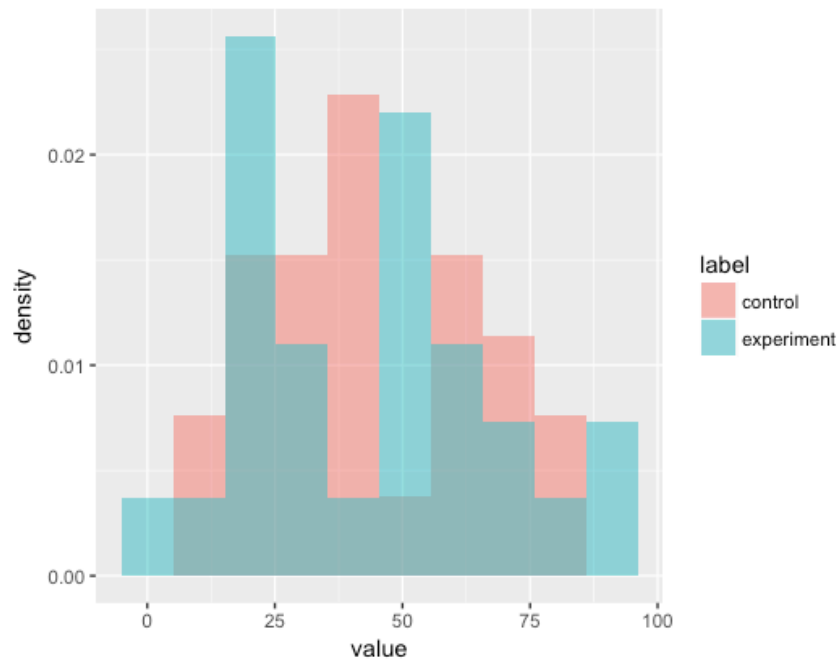


Figure 7. Histogram of pre-experiment AMMA administration rhythm scores.

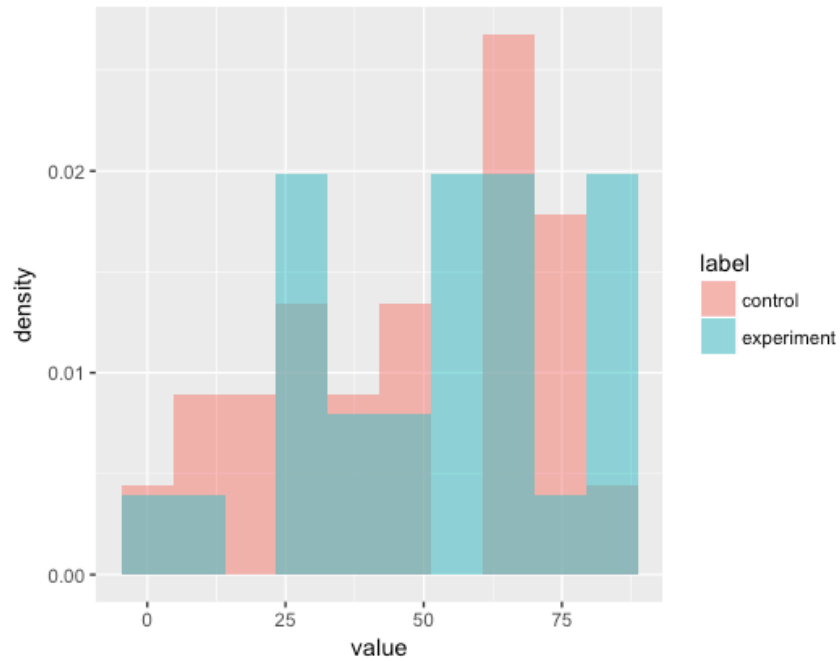


Figure 8. Histogram of post-experiment AMMA administration rhythm scores.

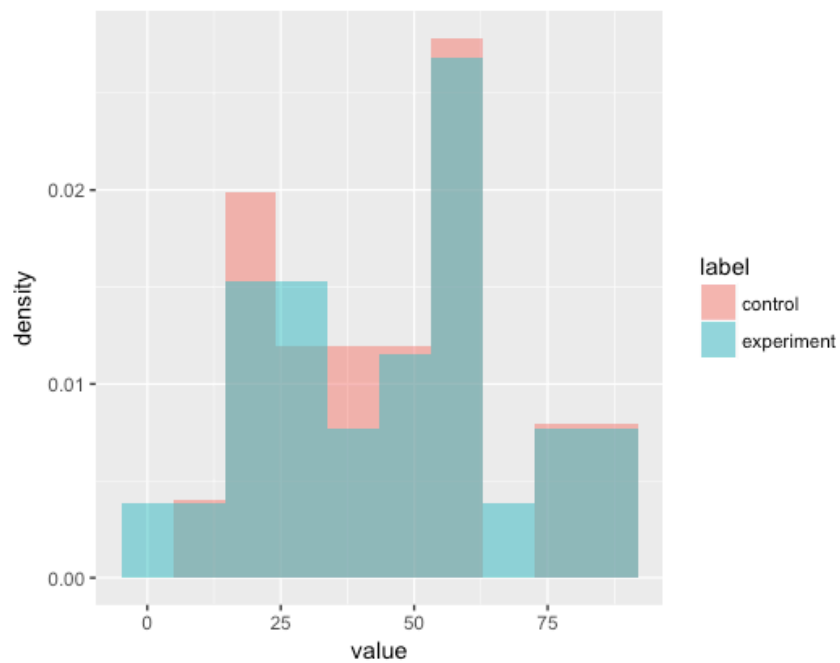


Figure 9. Histogram of pre-experiment AMMA administration composite scores.

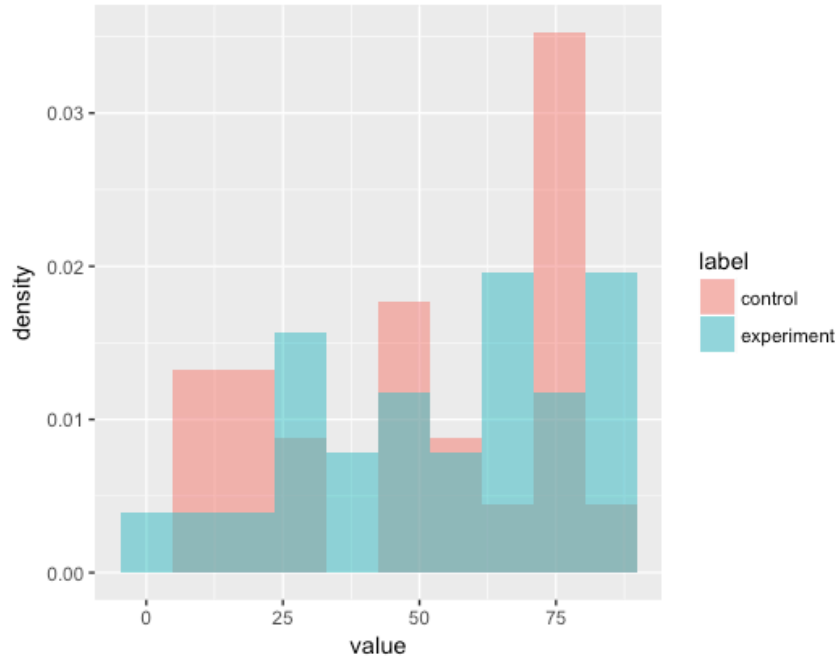


Figure 10. Histogram of post-experiment AMMA administration composite scores.

The above plots show that none of the pre-experiment and post-experiment AMMA administration scores for experimental and control groups follow the normal distribution (bell curve).

A Wilcoxon signed-rank test was applied to see whether there existed a statistically significant difference between the pre-experiment administration and the post-experiment administration (since samples are paired).

Table 9. Wilcoxon signed-rank test results (*p-values*) for pre-experiment and post-experiment AMMA scores.

	<b>Control</b>	<b>Experimental</b>
<b>Tonal</b>	0.2232	0.1223
<b>Rhythm</b>	0.5588	0.0948
<b>Composite</b>	0.2903	0.0632

The above table shows that, in the control group, there was no significant difference between pre-experiment administration and post-experiment administration in each domain. Rhythm and



composite scores in experimental group show significant difference between the pre-experiment and post-experiment administrations. The rhythm and composite scores in the post-experiment administration are higher at the 0.1 level of significance.

The Wilcoxon rank sum test was applied to see whether there existed significant difference between control and experimental groups in the AMMA administration (since samples are paired). Table 10 shows that none of these tests is significant.

*Table 10.* Wilcoxon rank sum test results (*p-values*) for pre-experiment and post-experiment AMMA scores.

	<b>Pre</b>	<b>Post</b>
<b>Tonal</b>	0.7681	0.7911
<b>Rhythm</b>	0.7955	0.5636
<b>Composite</b>	0.9715	0.6297

#### Perceptions, Attitudes, and Interests Survey

*Table 11.* Frequency table of the survey.

<b>Score</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Question 1</b>	4	5	13	5	0
<b>Question 2</b>	1	0	13	6	7
<b>Question 3</b>	0	0	10	14	3

The above table shows the most common score of Question 1 and Question 2 was 3 (neither agree nor disagree) and 4 (agree) for Question 3. Question 1 had no score of 5 (strongly agree), Question 2 had no score of 2 (disagree), Question 3 had no score of 1 (strongly disagree) or 2 (disagree).

## CHAPTER 5

### DISCUSSION

#### Summary of the Findings

The purpose of this study was to examine the effects of vocal improvisation on Kodály-based sight singing instruction for high school choral music students. Specific objectives were: 1) to determine the effects of vocal improvisation on sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo) using the Kodály method, 2) to determine the effects of vocal improvisation on audiation as it relates to sight singing, and 3) to assess any changes in students' attitudes and interests toward sight singing. The following questions guided the research:

- 1) How does the practice of vocal improvisation affect sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo) using the Kodály method?
- 2) Does vocal improvisation affect audiation as it relates to sight singing?
- 3) Does incorporating vocal improvisation into the classroom change student perception of sight singing? Are there changes in student attitudes and interests?

In this study, 52 high school choral music students received sight singing instruction using the Kodály method over a period of six weeks. Following music aptitude and achievement assessments, one group participated in additional vocal improvisation activities compiled by the researcher. At the conclusion of the instructional unit, participants were again assessed in the areas of music aptitude and music achievement and completed the Perceptions, Attitudes, and Interests Survey.

Significant differences were found between sight singing performance pre-assessment and post-assessment; however, no statistically significant difference between the control and experimental group was found. Findings suggest that vocal improvisation may positively impact overall music audiation, particularly rhythmic audiation. The Perceptions, Attitudes, and Interests Survey revealed that vocal improvisation does seem to impact students' perception of their sight singing ability and of their ability to "hear music internally" (audiate).

### Discussion

Both control and experimental groups improved significantly from sight singing performance pre-assessment to post-assessment. The mean of pre-assessment final scores to post-assessment final scores in the control group increased from 0.92 to 5.41, and from 1.33 to 5.926 in the experimental group. However, there was no statistically significant difference between the control and experimental group. Sight singing performance significantly improved throughout the treatment period in both groups, regardless of vocal improvisation practice.

Similarly, both control and experimental groups improved in all domains (tonal, rhythm, composite) from pre-experiment to post-experiment AMMA administrations. Rhythm and composite scores in experimental group showed significant difference between pre-experiment and post-experiment administration. The mean of AMMA rhythm scores in the experimental group increased from 43.48 to 51.96 (as compared to 44.65 to 47.08 in the control group), and composite scores from 45.15 to 53.81 (as compared to 45.15 to 50.21 in the control group). However, while the experimental group exhibited greater improvement in overall music audiation (particularly in the rhythm domain), no statistically significant difference was found between the control and experimental group.

Participants completed the Perceptions, Attitudes, and Interests Survey following the treatment period. Most participants (48%) didn't have strong feelings about sight singing, while 33% either didn't enjoy or really didn't enjoy sight singing. The experimental group was evenly split (48% v. 48%) about whether they agreed/strongly agreed or neither agreed/disagreed that vocal improvisation positively impacted their ability to sight sing. However, 52% felt vocal improvisation positively impacted their ability to audiate, while 11% strongly agreed and 37% neither agreed nor disagreed. These responses suggest that incorporating vocal improvisation into the classroom did not significantly change students' attitudes toward sight singing. However, vocal improvisation did seem to impact students' perception of their sight singing ability and of their ability to "hear music internally" (audiate).

### Conclusions and Recommendations

The results of this study suggest that regular sight singing instruction using the Kodály method and regular sight singing practice benefit sight singing achievement (pitch accuracy, rhythmic precision, intonation, tempo). Incorporating the practice of vocal improvisation helps students build rhythm and tonal vocabulary and aurally explore the functions of harmonic structure. These practices seem to benefit overall music audiation, particularly rhythmic audiation. In fact, students' perception of their sight singing ability and of their ability to "hear music internally" (audiate) are positively impacted by vocal improvisation practices.

Research with a larger population should be undertaken to determine whether the practice of vocal improvisation impacts music achievement in the specific areas of (a) pitch accuracy, (b) rhythmic precision, and (c) intonation when sight singing. Further research should be pursued to

investigate the results indicating that vocal improvisation may affect a student's ability to audiate, particularly in the rhythm domain.

Further research could involve an examination of the role of improvisation in music education. Investigations of the relationship between improvisation and music achievement could be undertaken in vocal, instrumental, and general music instruction. Future studies might investigate possible correlations between competence in improvisation and competence in music reading.

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APPENDIX A

SIGHT SINGING PERFORMANCE RATING SCALE

## Sight Singing Performance Rating Scale Instructions for Judge

- Provide individual with three 4-measure sight singing exercises for their appropriate voice part (soprano/tenor, alto, bass) and level (beginning, intermediate). See Appendix B.
- Play the appropriate recorded audio for the individual's voice part and level. The audio will:
  - Provide the block chord in the appropriate tonality.
  - Provide the arpeggio of the block chord.
  - Provide the starting pitch.
  - Provide the starting pitch *again*, after a 30-second practice period.
- Award points for each half measure sung with (a) pitch accuracy and (b) rhythmic precision.
  - Place a "1" in each blank for every half measure with accurate pitches and precise rhythms.
  - Place a "0" in each blank that contains at least one pitch or rhythm error.
- Award points for maintaining tonality and a relatively steady tempo.
- Add points to determine total points for each exercise.  
(Pitch Accuracy/Rhythmic Precision + Intonation + Tempo = Total Points)
- Add total points to determine final score.  
(Total Points Exercise 1 + Total Points Exercise 2 + Total Points Exercise 3 = Final Score)
- Additional Notes:
  - If an individual begins a sight singing exercise on a pitch other than the one given by the judge, but sings intervallic relationships and rhythms correctly throughout the exercise, credit for the remaining half measures will not be affected.
  - If an individual changes tonality midway through a sight singing exercise, but sings intervallic relationships and rhythms correctly throughout the rest of the exercise, credit for all subsequent measures beyond the half measure where the tonality change occurred will not be affected.

\*Modeled after GMEA All State Chorus 2014-15 First Audition Sight-reading Score Sheet.

## Sight Singing Performance Rating Scale

Award points for each half measure sung with (a) pitch accuracy and (b) rhythmic precision.

Place a "1" in each blank for every half measure with accurate pitches and precise rhythms.

Place a "0" in each blank that contains at least one pitch or rhythm error.

Award points for maintaining tonality and a relatively steady tempo.

Add points to determine total points for each exercise.

Add total points to determine final score.

Student Number

Final Score

### Sight Singing Exercise 1:

Intonation			Tempo			
Maintains Tonality	Errors		Maintained Tempo	Did Not Maintain Tempo		
1	0		1	0		
			Measure 1	Measure 2	Measure 3	Measure 4
			Total Points Exercise 1:			

### Sight Singing Exercise 2:

Intonation			Tempo			
Maintains Tonality	Errors		Maintained Tempo	Did Not Maintain Tempo		
1	0		1	0		
			Measure 1	Measure 2	Measure 3	Measure 4
			Total Points Exercise 2:			

### Sight Singing Exercise 3:

Intonation			Tempo			
Maintains Tonality	Errors		Maintained Tempo	Did Not Maintain Tempo		
1	0		1	0		
			Measure 1	Measure 2	Measure 3	Measure 4
			Total Points Exercise 3:			



APPENDIX B

SIGHT SINGING PERFORMANCE ASSESSMENT

## Sight Singing Performance Pre-Assessment

### Beginning Soprano/Tenor



### Intermediate Soprano/Tenor



## Sight Singing Performance Post-Assessment

### Beginning Soprano/Tenor



### Intermediate Soprano/Tenor



## Sight Singing Performance Pre-Assessment

### Beginning Alto



### Intermediate Alto



## Sight Singing Performance Post-Assessment

### Beginning Alto



### Intermediate Alto



## Sight Singing Performance Pre-Assessment

### Beginning Bass



### Intermediate Bass



## Sight Singing Performance Post-Assessment

### Beginning Bass



### Intermediate Bass

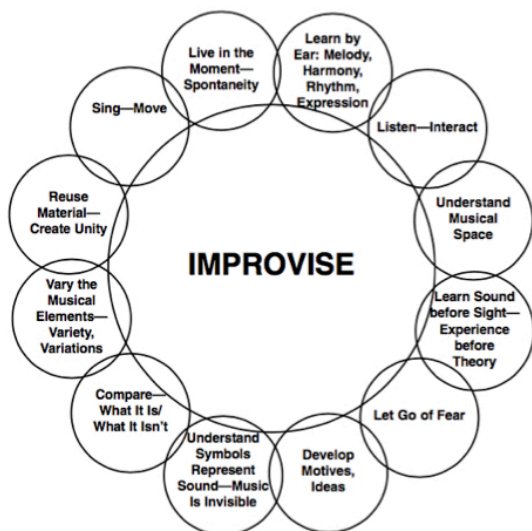


APPENDIX C

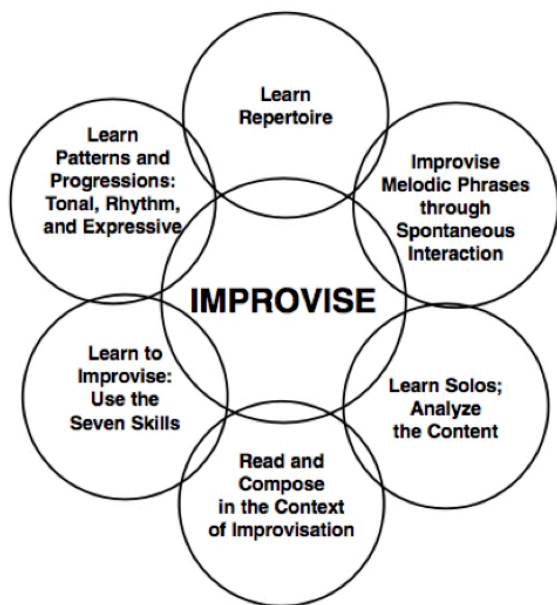
INSTRUCTIONAL PLANS







And application of improvisation (Azzara, 2008):



❑ **"I have a fear..."**: With a partner, students will discuss fears. Students will create a rhythmic patterns using fear.

❑ **Trading 8s**: With a partner, students will improvise over eight beats (using do, mi, sol), listening/responding to their partner.

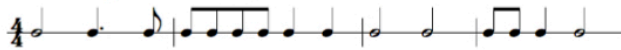
Chant using neutral syllable:



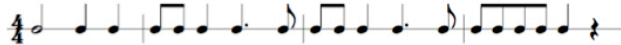
Student improvises:



Chant using the neutral syllable:

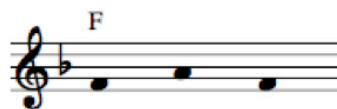


Student improvises:



❑ **Building tonal vocabulary**. Examples:

Sing:



bum bum bum

Students echo.

Sing:



bum bum bum



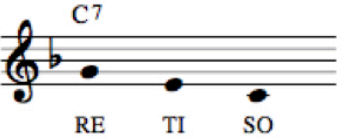
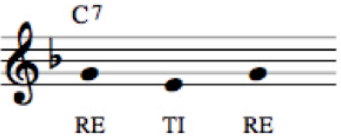

Students echo.

Sing:



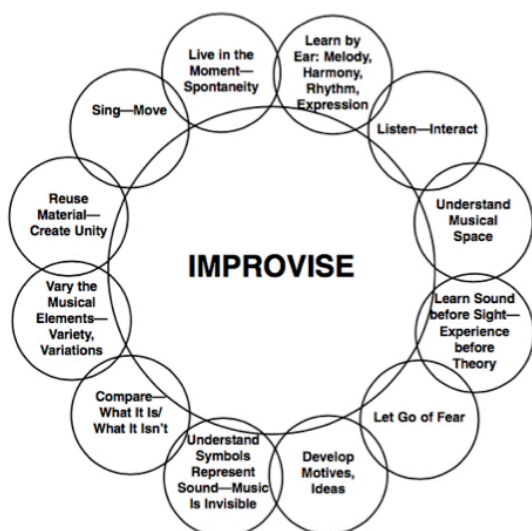
Students echo.

❑ **Functionality**: Identify, discuss, and sing the functions of these patterns (tonic and dominant). Examples:

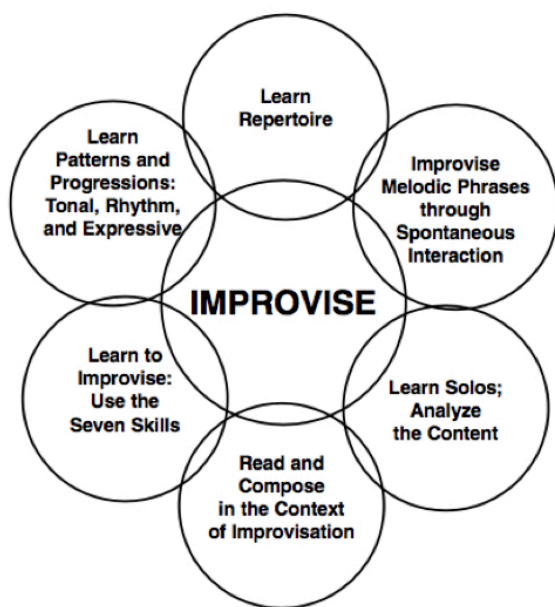
	<p>Sing tonic pattern:</p>  <p>Student improvises tonic pattern:</p>  <p>Sing dominant pattern:</p>  <p>Student improvises dominant pattern:</p> 
Guided Practice	Differentiation
<p><b>Performance Task:</b> Initiate practice activities that are under direct teacher guidance. What will students do to independently/cooperatively practice the concept or skill? What supports will the teacher offer?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Improvise rhythm patterns.</li> <li><input type="checkbox"/> Improvise tonal patterns.</li> </ul> <p><b>All participants:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Scale/interval warm-up (with hand signs).</li> <li><input type="checkbox"/> Determine tonality, patterns, and problem areas.</li> <li><input type="checkbox"/> Using tonic <i>solfa</i>, hand signs, and rhythm syllables, work through and practice sight singing exercise. 2 min.</li> <li><input type="checkbox"/> Sight sing exercise, subdividing the beat: Exercises 1-4 [See Appendix D]</li> </ul>	<p><b>Modifications/Accommodations:</b> Consider student readiness (including IEPs, 504s, giftedness), interests, and/or learning profile. How will instruction be modified in terms of content, process, product, affect, and/or environment?</p> <p>Learner profiles; task allows <i>choice</i>; some students will be included in teacher-guided small group</p>
Closure and Extension	
<p><b>Summarization:</b> How will students summarize and/or share what they have learned? Will opportunities be provided for students to apply new knowledge while making connections to prior knowledge?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Teacher will assess individual progress and group process.</li> <li><input type="checkbox"/> Students will complete  <b>Journal Prompt:</b> What is improvisation? How might developing improvisation skills enhance my musicianship?</li> </ul>	

Unit Two: Harmonic Progression	
<b>Teacher:</b> Brandon Nonnemaker	<b>Class/Period:</b> Beg/Int/Adv Chorus / 1st and 2nd Block
<b>Materials &amp; Technology:</b>	<b>Content Standard(s)</b>
<i>What resources are used to engage?</i> Computer, Apple TV Piano Sight Singing Exercises 5-8	<b>MHSIC.1 Singing, alone and with others, a varied repertoire of music</b> <b>MHSIC.3 Reading and notating music</b> <b>MHSIC.4 Improvising melodies, variations, and accompaniments</b> <b>MHSIC.6 Listening to, analyzing, and describing music</b> <b>MHSIC.7 Evaluating music and music performances</b>
Learning Target	
<i>How can these statements be used to guide learning and instruction?</i> <b>I can describe harmonic structure and demonstrate harmonic progressions.</b>	
Essential Vocabulary	
<i>What academic language will be used to teach or will be developed? What is the essential vocabulary and/or symbols? What is the key language demand?</i> dominant, harmonization, improvisation, melody, pattern, progression, rhythm, subdominant, tonal, tonic	
Assessment & Evaluation	
<i>How will students exhibit an understanding/mastery of the learning objectives? How will you provide feedback? What data collection procedures are used?</i>	
<b>Performance tasks/projects:</b> Vocal improvisation performance Sight singing performance	<b>Test, quiz, writing prompts:</b> <b>Journal Prompt:</b> How does harmony provide the foundational structure of music? How does harmonic structure make music interesting? [See Appendix E]
<b>Other evidence to be used (observations, artifacts, discussions):</b> Student observation	<b>Student self-assessment:</b> 5-point rating scale: Sight-reading success
Instructional Strategies	
Activation	Direct Instruction
<b>Motivation/Hook:</b> How is this relevant? How will you gain the students' attention to begin the lesson and relate it to the learning objectives? Consider prior knowledge, objectives, learner profiles before designing anticipatory set.  <input type="checkbox"/> <b>What is improvisation?</b> Teacher will review the basic principles of learning improvisation (Azzara, 2008):	<b>Presentation:</b> Include content pieces and strategies for teaching, modeling, and checking for understanding. How does this relate to students' lives and career readiness? What questions will be asked to promote high-order thinking?  <input type="checkbox"/> <b>Harmonic Structure:</b> Teacher will explain that harmonic structure supports all melodic material in music. This requires an understanding of: <ol style="list-style-type: none"> <li>1. Progression of tonal patterns (branches)</li> <li>2. Roots of these patterns/chords (roots and trunk)</li> <li>3. Tonal center (earth)</li> </ol> <input type="checkbox"/> <b>Tonic and Dominant:</b> Review the functionality of triads built on the tonic <b>I</b> ( <i>d r m</i> ) and dominant <b>V</b> ( <i>s t r</i> ).  <input type="checkbox"/> <b>"Simple Gifts":</b> Teach the melody of "Simple Gifts." Begin layering in tonal center, roots of chords, and tonal patterns. Example:





And application of improvisation (Azzara, 2008):



- Group A sings melody; Group B sings tonal center.
- Group B sings melody; Group A sings roots of chords.
- Group A sings melody; Group B improvises tonal patterns on neutral syllable.
- Group B sings melody; Group A improvises tonal patterns on neutral syllable.

☐ **Voice Leading:** Explore the most fundamental voice leading for harmonic context by ear.

☐ **Subdominant:** Introduce the functionality of triad built on the subdominant **IV** (*f / d*).

☐ **Harmonic Progression:** Explore with different harmonic progressions using **I, IV, V**.

### Guided Practice

**Performance Task:** Initiate practice activities that are under direct teacher guidance. What will students do to independently/cooperatively practice the concept or skill? What supports will the teacher offer?

☐ Improvise harmonic progressions.

**All participants:**

☐ **Scale/interval warm-up (with hand signs).**


☐ **Determine tonality, patterns, and problem areas.**


☐ **Using tonic *solfa*, hand signs, and rhythm syllables, work through and practice sight singing exercise. 2 min.**

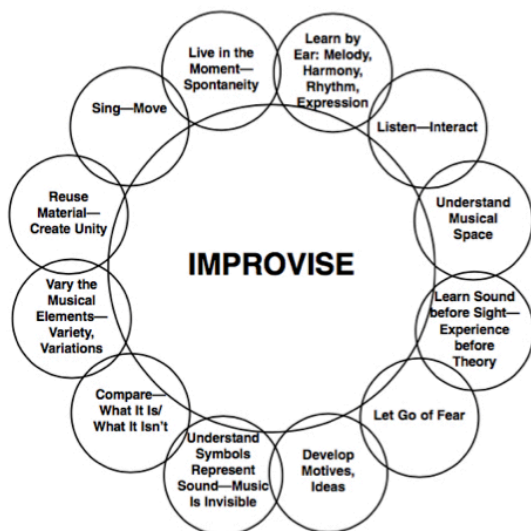
### Differentiation

**Modifications/Accommodations:** Consider student readiness (including IEPs, 504s, giftedness), interests, and/or learning profile. How will instruction be modified in terms of content, process, product, affect, and/or environment?

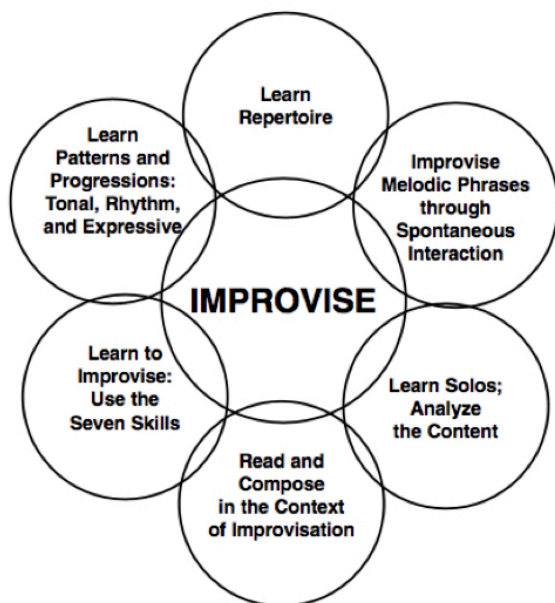
Learner profiles; task allows *choice*; some students will be included in teacher-guided small group

<input type="checkbox"/> Sight sing exercise, subdividing the beat: Exercises 5-8 [See Appendix D]	
<div>Closure and Extension</div> <p><i>Summarization: How will students summarize and/or share what they have learned? Will opportunities be provided for students to apply new knowledge while making connections to prior knowledge?</i></p> <p><input type="checkbox"/> Teacher will assess individual progress and group process.</p> <p><input type="checkbox"/> Students will complete  <b>Journal Prompt:</b> <i>How does harmony provide the foundational structure of music? How does harmonic structure make music interesting?</i></p>	

Unit Three: Melodic Phrases and Building Skills	
<b>Teacher:</b> Brandon Nonnemaker	<b>Class/Period:</b> Beg/Int/Adv Chorus / 1st and 2nd Block
<b>Materials &amp; Technology:</b>	<b>Content Standard(s)</b>
<i>What resources are used to engage?</i> Computer, Apple TV Piano Sight Singing Exercises 9-12	<b>MHSIC.1 Singing, alone and with others, a varied repertoire of music</b> <b>MHSIC.3 Reading and notating music</b> <b>MHSIC.4 Improvising melodies, variations, and accompaniments</b> <b>MHSIC.6 Listening to, analyzing, and describing music</b> <b>MHSIC.7 Evaluating music and music performances</b>
Learning Target	
<i>How can these statements be used to guide learning and instruction?</i> <b>I can improvise melodic phrases within a harmonic structure.</b>	
Essential Vocabulary	
<i>What academic language will be used to teach or will be developed? What is the essential vocabulary and/or symbols? What is the key language demand?</i> dominant, harmonization, improvisation, melody, pattern, phrase, progression, rhythm, subdominant, tonal, tonic	
Assessment & Evaluation	
<i>How will students exhibit an understanding/mastery of the learning objectives? How will you provide feedback? What data collection procedures are used?</i>	
<b>Performance tasks/projects:</b> Vocal improvisation performance Sight singing performance	<b>Test, quiz, writing prompts:</b>
<b>Other evidence to be used (observations, artifacts, discussions):</b> Student observation	<b>Student self-assessment:</b> Thumbs Up-Thumbs Down: Sight-reading success
Instructional Strategies	
Activation	Direct Instruction
<b>Motivation/Hook:</b> <i>How is this relevant? How will you gain the students' attention to begin the lesson and relate it to the learning objectives? Consider prior knowledge, objectives, learner profiles before designing anticipatory set.</i>  <input type="checkbox"/> <b>What is improvisation?</b> Teacher will discuss the basic principles of learning improvisation (Azzara, 2008):	<b>Presentation:</b> <i>Include content pieces and strategies for teaching, modeling, and checking for understanding. How does this relate to students' lives and career readiness? What questions will be asked to promote high-order thinking?</i>  <input type="checkbox"/> <b>Melodic Phrases:</b> Students will improvise responses to melodic phrases. Example: 



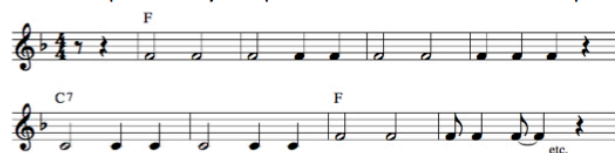
And application of improvisation (Azzara, 2008):



**Harmonic Structure:** Review harmonic structure and chords built on tonic I, subdominant IV, and dominant V.

## Building Improvisation Skills:

1. Improvise rhythm patterns on **chords roots**. Example:





2. Practice **voice leading**. Example:




3. Learn the harmonic rhythm. Sustain chord tones with the **harmonic progression**.
4. Improvise rhythm patterns to the harmonic progression using the **macrobeat**. Example:





	<p>5. Improvise rhythm patterns to the harmonic progression using the <b>microbeat</b>. Example:</p>  <p>etc.</p> <p>6. Combine tonal patterns and rhythm patterns to <b>improvise a melody</b>. Example:</p>  <p>etc.</p> <p>7. <b>Decorate and embellish</b> the melodic material.</p>
Guided Practice	Differentiation
<p><b>Performance Task:</b> Initiate practice activities that are under direct teacher guidance. What will students do to independently/cooperatively practice the concept or skill? What supports will the teacher offer?</p> <p><input type="checkbox"/> Improvise melodic phrases.</p> <p><b>All participants:</b></p> <p><input type="checkbox"/> Scale/interval warm-up (with hand signs).</p> <p><input type="checkbox"/> Determine tonality, patterns, and problem areas.</p> <p><input type="checkbox"/> Using tonic <i>solfa</i>, hand signs, and rhythm syllables, work through and practice sight singing exercise. 2 min.</p> <p><input type="checkbox"/> Sight sing exercise, subdividing the beat: Exercises 9-12 [See Appendix D]</p>	<p><b>Modifications/Accommodations:</b> Consider student readiness (including IEPs, 504s, giftedness), interests, and/or learning profile. How will instruction be modified in terms of content, process, product, affect, and/or environment?</p> <p>Learner profiles; task allows <i>choice</i>; some students will be included in teacher-guided small group</p>
Closure and Extension	
<p><b>Summarization:</b> How will students summarize and/or share what they have learned? Will opportunities be provided for students to apply new knowledge while making connections to prior knowledge?</p> <p><input type="checkbox"/> Teacher will assess individual progress and group process.</p>	

Unit Four: Practicing Improvisation Skills	
<b>Teacher:</b> Brandon Nonnemaker	<b>Class/Period:</b> Beg/Int/Adv Chorus / 1st and 2nd Block
<b>Materials &amp; Technology:</b>	<b>Content Standard(s)</b>
<i>What resources are used to engage?</i> Computer, Apple TV Piano Sight Singing Exercises 13-16	<b>MHSIC.1 Singing, alone and with others, a varied repertoire of music</b> <b>MHSIC.3 Reading and notating music</b> <b>MHSIC.4 Improvising melodies, variations, and accompaniments</b> <b>MHSIC.6 Listening to, analyzing, and describing music</b> <b>MHSIC.7 Evaluating music and music performances</b>
Learning Target	
<i>How can these statements be used to guide learning and instruction?</i> <b>I can describe vocal improvisation and demonstrate improvisational skills.</b>	
Essential Vocabulary	
<i>What academic language will be used to teach or will be developed? What is the essential vocabulary and/or symbols? What is the key language demand?</i> dominant, harmonization, improvisation, melody, pattern, phrase, progression, rhythm, subdominant, tonal, tonic	
Assessment & Evaluation	
<i>How will students exhibit an understanding/mastery of the learning objectives? How will you provide feedback? What data collection procedures are used?</i>	
<b>Performance tasks/projects:</b> Vocal improvisation performance Sight singing performance	<b>Test, quiz, writing prompts:</b> 🗒 <b>Perceptions, Attitudes, and Interests Survey</b> <b>[See Appendix F]</b>
<b>Other evidence to be used (observations, artifacts, discussions):</b> Student observation	<b>Student self-assessment:</b> Thumbs Up-Thumbs Down: Sight-reading success
Instructional Strategies	
Activation	Direct Instruction
<b>Motivation/Hook:</b> <i>How is this relevant? How will you gain the students' attention to begin the lesson and relate it to the learning objectives? Consider prior knowledge, objectives, learner profiles before designing anticipatory set.</i> <input type="checkbox"/> <b>What is improvisation?</b> Teacher will discuss the basic principles of learning improvisation.	<b>Presentation:</b> <i>Include content pieces and strategies for teaching, modeling, and checking for understanding. How does this relate to students' lives and career readiness? What questions will be asked to promote high-order thinking?</i> <input type="checkbox"/> <b>Submediant:</b> Introduce the functionality of triad built on the submediant <b>vi</b> ( <i>I d m</i> ). <input type="checkbox"/> <b>Practice Improvisation Skills:</b> Practice skills using songs that contain a <b>I, IV, V, vi</b> progression.
Guided Practice	Differentiation
<b>Performance Task:</b> <i>Initiate practice activities that are under direct teacher guidance. What will students do to independently/cooperatively practice the concept or skill? What supports will the teacher offer?</i> <input type="checkbox"/> Practice improvisation skills.	<b>Modifications/Accommodations:</b> <i>Consider student readiness (including IEPs, 504s, giftedness), interests, and/or learning profile. How will instruction be modified in terms of content, process, product, affect, and/or environment?</i> Learner profiles; task allows <i>choice</i> ; some students will be included in teacher-guided small group

<p><b>All participants:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Scale/interval warm-up (with hand signs).</li> <li><input type="checkbox"/> Determine tonality, patterns, and problem areas.</li> <li><input type="checkbox"/> Using tonic <i>solfa</i>, hand signs, and rhythm syllables, work through and practice sight singing exercise. 2 min.</li> <li><input type="checkbox"/> Sight sing exercise, subdividing the beat: Exercises 13-16 [See Appendix D]</li> </ul>	
<p style="text-align: center;"><b>Closure and Extension</b></p> <p><i><b>Summarization:</b> How will students summarize and/or share what they have learned? Will opportunities be provided for students to apply new knowledge while making connections to prior knowledge?</i></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Teacher will assess individual progress and group process.</li> <li><input type="checkbox"/> Students will complete the  <b>Perceptions, Attitudes, and Interests Survey</b> [See Appendix F].</li> </ul>	

APPENDIX D

SIGHT SINGING EXERCISES

The second system of the musical score, starting at measure 5. It continues in the same key of B-flat major and 4/4 time. The melody consists of eighth and quarter notes, with a final measure containing a whole note and a double bar line.

5

**Exercise 5.**



**Exercise 6.**



**Exercise 7.**



**Exercise 8.**



**Exercise 9.**



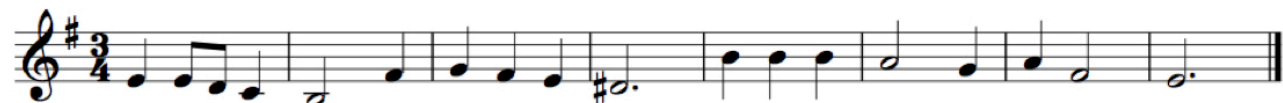
**Exercise 10.**



**Exercise 11.**



**Exercise 12.**



### Exercise 13.

Exercise 13 consists of two systems of two staves each, in G major (one sharp) and common time (C). The first system contains measures 1 through 4. The second system, starting with a measure number '5' above the first staff, contains measures 5 through 8. The notation includes quarter notes, eighth notes, and half notes, with rests and a double bar line at the end of the eighth measure.

### Exercise 14.

Exercise 14 consists of two systems of two staves each, in D major (two sharps) and common time (C). The first system contains measures 1 through 4. The second system, starting with a measure number '5' above the first staff, contains measures 5 through 8. The notation includes quarter notes, eighth notes, and half notes, with rests and a double bar line at the end of the eighth measure.



### Exercise 15.

Exercise 15 is written in 3/4 time. The first system contains measures 1 through 4. The second system, starting with a measure number '5' above the first staff, contains measures 5 through 8. The piece concludes with a double bar line at the end of measure 8.

### Exercise 16.

Exercise 16 is written in 3/4 time with a key signature of two sharps (F# and C#). The first system contains measures 1 through 4. The second system, starting with a measure number '5' above the first staff, contains measures 5 through 8. The piece concludes with a double bar line at the end of measure 8.

APPENDIX E

JOURNAL PROMPTS

What is improvisation? How might developing improvisation skills enhance my musicianship?

How does harmony provide the foundational structure of music? How does harmonic structure make music interesting?

APPENDIX F

PERCEPTIONS, ATTITUDES, AND INTERESTS SURVEY

# Perceptions, Attitudes, and Interests Survey

Please respond to the following statements.

I enjoy sight singing.

Strongly Disagree   1                      2                      3                      4                      5                      Strongly Agree

Vocal improvisation practice positively impacts my ability to sight sing.

Strongly Disagree   1                      2                      3                      4                      5                      Strongly Agree

Vocal improvisation practice positively impacts my ability to “hear music internally” (or audiate).

Strongly Disagree   1                      2                      3                      4                      5                      Strongly Agree

APPENDIX G

PARENT PERMISSION LETTER

Dear Parents and/or Guardians,

In partial fulfillment of his Doctor of Education degree at The University of Georgia, Mr. Nonnemaker is conducting a research project entitled *The Effects of Vocal Improvisation on Kodály-Based Sight Singing Technique in High School Choral Music Students*. The purpose of this study is to examine the effects of vocal improvisation on Kodály-based sight singing technique in high school choral music students. Dr. Mary Leglar (mleglar@uga.edu), UGA graduate advisor, is overseeing the study. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) Chairperson at 706.542.3199 or irb@uga.edu.

For this study, chorus students will continue in regular sight singing instruction using the Kodály method. The instructional strategies associated with this method include: (a) tonic *solfa*, (b) Curwen hand signs, and (c) Chevé rhythm syllables. An experimental group will also participate in improvisation activities designed by Mr. Nonnemaker. Improvisation activities comprise of (a) learning selected repertoire by rote, (b) sequentially developing a vocabulary of tonal syllables and rhythmic syllables, (c) improvising with voice and body percussion tonic, dominant, subdominant, and submediant tonal patterns within the context of major and minor tonalities, and (d) improvising with voice and body percussion macrobeat, microbeat, division, elongation, and rest rhythm patterns within the context of duple meter.

Statistical data will be collected by means of the Advanced Measures of Music Audiation, individual singing assessments, and a follow-up survey. For organizational purposes only, each participant will be assigned a number and audio recordings will be labeled with this number. All audio files will be used for assessment of the performance only. Data will only be reported for the groups as a whole. Student names and information will not be published or reported in any way.

Participation in the study is completely voluntary. You may refuse for your child to participate or to stop at any time without penalty including course grade or class standing. There are no direct benefits to the students and no foreseen risks or discomforts that could result from participation in the study. If you prefer your child not participate in the study, please write and sign a note indicating your preferences.

Please do not hesitate to contact me with any questions or concerns.

Regards,

Mr. Nonnemaker

APPENDIX H  
CONSENT LETTER



Dear Students,

In partial fulfillment of his Doctor of Education degree at The University of Georgia, Mr. Nonnemaker is conducting a research project entitled *The Effects of Vocal Improvisation on Kodály-Based Sight Singing Technique in High School Choral Music Students*. The purpose of this study is to examine the effects of vocal improvisation on Kodály-based sight singing technique in high school choral music students. Dr. Mary Leglar (mleglar@uga.edu), UGA graduate advisor, is overseeing the study. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) Chairperson at 706.542.3199 or irb@uga.edu.

For this study, chorus students will continue in regular sight singing instruction using the Kodály method. The instructional strategies associated with this method include: (a) tonic *solfa*, (b) Curwen hand signs, and (c) Chev  rhythm syllables. An experimental group will also participate in improvisation activities designed by Mr. Nonnemaker. Improvisation activities comprise of (a) learning selected repertoire by rote, (b) sequentially developing a vocabulary of tonal syllables and rhythmic syllables, (c) improvising with voice and body percussion tonic, dominant, subdominant, and submediant tonal patterns within the context of major and minor tonalities, and (d) improvising with voice and body percussion macrobeat, microbeat, division, elongation, and rest rhythm patterns within the context of duple meter.

Statistical data will be collected by means of the Advanced Measures of Music Audiation, individual singing assessments, and a follow-up survey. For organizational purposes only, each participant will be assigned a number and audio recordings will be labeled with this number. All audio files will be used for assessment of the performance only. Data will only be reported for the groups as a whole. Student names and information will not be published or reported in any way.

Participation in the study is completely voluntary. You may refuse to participate or to stop at any time without penalty including course grade or class standing. There are no direct benefits to you and no foreseen risks or discomforts that could result from participation in the study. If you prefer not to participate in the study, please write and sign a note indicating your preferences.

Please do not hesitate to contact me with any questions or concerns.

Regards,

Mr. Nonnemaker

APPENDIX I  
MINOR ASSENT SCRIPT

## **Assent Script for Participation in Research**

*(The Effects of Vocal Improvisation on Kodály-Based Sight Singing Technique in High School Choral Music Students)*

This semester we are doing a research study to find out if studying vocal improvisation effects how we sight sing using the Kodály method. We are asking you to be in the study because you are in a choral music course. If you agree to be in the study, you will continue in regular sight singing instruction using the Kodály method. The instructional strategies associated with this method include: (a) tonic *solfa*, (b) Curwen hand signs, and (c) Chev  rhythm syllables. An experimental group will also participate in improvisation activities designed by Mr. Nonnemaker. Improvisation activities comprise of (a) learning selected repertoire by rote, (b) sequentially developing a vocabulary of tonal syllables and rhythmic syllables, (c) improvising with voice and body percussion tonic, dominant, subdominant, and submediant tonal patterns within the context of major and minor tonalities, and (d) improvising with voice and body percussion macrobeat, microbeat, division, elongation, and rest rhythm patterns within the context of duple meter.

You do not have to say “yes” if you don’t want to. No one, including your parents, will be mad at you if you say “no” now or if you change your mind later. We have also asked your parent’s permission to do this. Even if your parents say “yes,” you can still say “no.” Remember, you can ask us to stop at any time. Your grades in school will not be affected whether you say “yes” or “no.”

Data will be collected by means of the Advanced Measures of Music Audiation, individual singing assessments, and a follow-up survey. For organizational purposes only, each participant will be assigned a number and audio recordings will be labeled with this number. All audio files will be used for assessment of the performance only. Data will only be reported for the groups as a whole. Student names and information will not be published or reported in any way.

You can ask any questions that you have about this study. If you have any questions later that you didn’t think of now, you can ask me anytime or send me an email. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board (IRB) Chairperson at 706.542.3199 or irb@uga.edu.

**Student Name:** \_\_\_\_\_ **Parental Permission on File:** ☐ Yes ☐ No

**Student’s Voluntary Response to Participation:** ☐ Yes ☐ No

**Signature of Researcher:** \_\_\_\_\_ **Date:** \_\_\_\_\_