Aural Skills in Beginning Band: A Comparative Case Study

by

Erika St. Denis

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ABSTRACT

The purpose of this comparative case study was to describe how experienced directors of beginning band teach aural skills. Research questions that guided this study were: (a) How do beginning band teachers incorporate aural skills into their teaching?; (b) How do beginning band teachers describe their preparation, implementation, and assessment of aural skills?; and (c) How do teachers of beginning band balance the teaching of aural skills with other requirements?

Purposeful and criterion-based sampling were used to identify information-rich cases. Four experienced teachers of beginning band were interviewed and observed with special attention given to their techniques when teaching aural skills to their students. Each teacher was observed once in person and each teacher supplied no fewer than three recordings of lessons of their choosing that they felt best represented their aural skills teaching philosophy. Teacher participants shared that they believe teaching aural skills in band is essential for the following reasons: (a) teaching with aural skills first is an efficient way to start beginners; (b) asking students to learn the mechanics and executive skills on instruments concurrently with learning how to read, is unreasonable to expect from a student; (c) music is similar to a language and should be taught in the way that emerging reading behaviors are taught for any other language; (d) students are more likely to find quicker success and therefore motivation to keep trying if they are able to play tunes by ear early on in their education; (e) developing musicianship in students is a priority and aural skills plays a huge role in musicianship; and (f) students that learn aurally first tend to read music more effectively in the long run. Participant answers on when aural skills and notation should be taught included the following: (a) notation should be introduced during the second lesson; (b) notation should be introduced during the second year of instruction; (c) aural skills should be infused into every lesson; (d) aural skills must precede
notation; and (e) more time would mean more depth of knowledge in aural skills. Participants were observed teaching aural skills in a number of different ways through a number of different techniques, including: (a) solfege; (b) singing; (c) call-and-echo; (d) improvisation; (e) buzzing on brass mouthpieces; (f) background music; (g) tonal center identification; and (h) tonal patterns.
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CHAPTER I

Introduction

Personal Background

When I was in fourth grade, I was handed my first band instrument: the clarinet. I was shown how to put the instrument together, how to hold it, and make my first sounds. I was shown how to play an “E” and what it looked like on the musical staff. As I reflected back on how I was taught to read music and how I was taught to translate that reading to notes on my clarinet, I realized several things. First off, I was never taught anything by rote. Not one tune. Not even Hot Cross Buns. My first lesson with my band teacher consisted of me learning a few notes as I looked dutifully at the traditional notation in *Essential Elements 2000* (Lautzenheiser et al., 1999). Second, I never once sang in band until high school. Of course, at the time it never occurred to me that singing and band were related. As a fourth grader I easily stayed ahead of my peers in the book and I made the transition to saxophone in fifth grade easily. This leadership role I had assumed in band continued on throughout middle school and high school until my senior year. I knew at that point I wanted to become a music teacher and so in addition to being in the Wind Ensemble, I also joined our school’s Jazz Band. This was perhaps the biggest wake-up call for me as a musician. I could not play by ear. While my other peers excelled I suddenly was being left behind. Our final concert of the year was “off-the-book” and still to this day, I do not think I have ever been as musically frustrated as I was preparing for that concert. I did all I knew to memorize the material: I looked at the notes and tried to remember them. I never sang through the pieces; I never listened to recordings; I never tried to mimic what I was hearing instead of looking at the notes and trying to conjure them up somehow. I never made that aural-to-kinesthetic connection until I became a music education undergraduate. To say that my sight-
singing classes pushed me would be an understatement. Again, my peers were ahead of me before class had even begun. Since completing my undergraduate degree and now as an elementary band teacher myself, I have certainly come a long way with my aural skills, though even now, there are still gaps in my proficiency.

As an elementary band teacher, I have seen the importance of setting up a student for success right from day one. Currently I am incorporating aural skills into my own curriculum and have already observed the benefits. Though I believe this exploratory process has helped to grow my own abilities to teach students in such a way, I also believe that this study has brought to light master teachers that are skilled in teaching aural skills to beginning band students.

**Rationale**

Music is an aural discipline. Although musicians use a system of notation to record musical thoughts and ideas it is not the notation that is aesthetically pleasing, but rather our interpretation of that notation. In fact, Webster (2000) went so far as to say in his presentation at the 2000 Wisconsin Music Educators Association Conference, “Have we considered that musical notation is only a coding device, a storage and retrieval thing? It’s a system for translating musical ideas for future recall, not for acquiring or developing musical sensitivity or sensibility.” Yet so often instrumental music teachers introduce a musical instrument to students alongside learning musical notation. Not only are they learning the mechanics of their chosen instrument, they are also learning a new language before ever having learned what their new voice sounds like. Haack (1992) has said that listening is one of the most important aspects of becoming a musician. He relates listening to music and listening to speech by saying,

> It seems appropriate to recall that listening is the first communication skill humans develop, and it is the foundation for all other communication skills, including music. Just
as we cannot learn to speak well without learning to listen well, we cannot fully enjoy, or make music well, without learning to listen well. Music is essentially an aural art and we cannot use or appreciate it effectively without well-developed listening skills—skills relating to perception, cognition, memory, understanding, discrimination, uses and functions, judgment, and valuing. (p. 463)

The next layer to this process is learning how to internalize the sounds we hear and then giving them meaning. Edwin Gordon, creator of Gordon Music Learning Theory, defines audiation in the following way:

Audiation takes place when we assimilate and comprehend in our minds music that we have just heard performed or have heard performed sometime in the past… Sound itself is not music. Sound becomes music only through audiation, when, as with language, you translate the sounds in your mind to give them meaning. (Gordon, 1997, pp. 4-5)

Azzara (1993) builds on this by saying, “Improvisation is to music what speaking is to language” (p. 330).

Taking into consideration the idea from Haack (1992) that to “make music well” we must learn to “listen well” (p. 463), the idea from Gordon (1997) that sound only becomes music when we learn how to comprehend it in our minds (pp. 4-5), and the idea from Azzara (1993) that in order to speak the language, one must be able to improvise (p. 330), then it may be safe to say that aural skills are important to the music-making process.

A. West (2015) specifically considers the importance of internalizing rhythm:

To fully develop our students’ rhythmic abilities, we must address rhythmic skills beyond interpreting notation and mastering theoretical knowledge of rhythms. A rhythm curriculum should include, and in fact begin with, experiences that help children develop
an internal sense of steady beat, the ability to perform rhythms in various meters with their voices, bodies, and instruments, and the ability to create rhythms that make sense within a given musical context. If students first develop these skills, they can then bring more meaning to the study of rhythmic notation, as they will have thoroughly experienced and internalized the sounds that those symbols represent. (p. 157)

Hornbach (2015) describes the importance of learning musical sounds at an early age:

Children learn music in markedly the same way that they learn a language. In order to form a listening vocabulary in music, children must first be exposed to sounds and the musical syntax of the culture. This is a similar process to how the listening vocabulary develops in children’s native language…. In order to learn to speak, children informally listen to people talk all day long; this language learning even begins in the womb. Similarly, children acquire musical knowledge and a means of sharing it (singing or chanting), through human, and in this case, specifically human musical interaction. (p. 182)

In New York, the state requires that public schools provide music instruction to students in grades PreK-6. Since all students during this timeframe are required to attend general music classes, teaching these fundamental rhythmic and tonal building blocks is often synonymous with the general music experience. However, teaching these important skills should not begin and end in the general music classroom. When students elect to play a band or orchestra instrument, further emphasis should be placed on developing the rhythmic and tonal accuracy of these students.

**Need for the Study**
There have been numerous studies on the effects teaching students by ear has on their musical achievement (Azzara, 1993; Bernhard, 2004; Bernhard, 2006; Grutzmacher, 1987; Haston, 2010; Josuweit, 1991; Karas 2005; Kendall, 1988; Liperote, 2004; Mishra, 2014; Musco, 2009; Persellin, 1992; Shehan, 1987; Stoltzfus, 2005). This literature has provided a solid foundation supporting the effectiveness of teaching aural skills to band students, particularly during the early years of instruction. However, a very limited amount of research has been done on this topic that describes what band directors actually do in their classrooms when teaching such aural skills. In the aforementioned studies, teaching aural skills to band students had a positive impact on various aspects of their musicianship, but this study shows how music teachers are actually doing this in the classrooms. This study tells the story of teachers successfully using aural skills in the beginning band class and other music educators may find the information presented here relatable to their own teaching.

The four band teacher participants of this study cover a wide range of experiences, responsibilities, and teaching approaches. They bring to this study four different perspectives: one teaches in just a single building; another teaches in multiple buildings; the third teaches in a private school; the fourth teaches students in grades four through twelve. One of the goals of this study was to show how teaching aural skills to beginning band students can manifest itself in a number of settings.

**Purpose Statement**

The purpose of this comparative case study was to describe how experienced directors of beginning band teach aural skills.

**Research Questions**

1) How do beginning band teachers incorporate aural skills into their teaching?
2) How do beginning band teachers describe their preparation, implementation, and assessment of aural skills?

3) How do teachers of beginning band balance the teaching of aural skills with other requirements?

Definitions

For the purposes of this study, it is necessary to define the following terms:

**Audiation.** Audiation is a term coined by Edwin Gordon. Gordon (2010) says, "Audiation is the process of assimilating and comprehending, not simply rehearing music just performed or performed in the past. Musicians also audiate when they assimilate and comprehend music they may or may not be hearing or have heard, but are reading in notation, composing, or improvising." (p. 13)

**Aural perception.** Gordon (2010) says, “In aural perception, persons are immediately responding to sound events at hand whereas in audiation they are conceptualizing past and future musical events” (p. 14).

**Beginning band.** In the context of this study, beginning band includes students that are in their first year of musical instruction on a band instrument.

**Improvisation.** In this study, improvisation does not necessarily refer to the process typically found in the jazz idiom. Instead, the definition that Azzara (2002) gives is more appropriate. He says that improvisation is the “ability to make music spontaneously within specific musical parameters” (Azzara, 2002, p. 171). He also says that “improvisation means that an individual has internalized a music vocabulary and is able to understand and to express musical ideas spontaneously” (Azzara, 1993, p. 330). In addition, “Improvisation is a
manifestation of musical thought” and “Improvisation is to music what speaking is to language” (Azzara, 1993, p. 330).

**Tonal training.** According to Bernhard (2004), tonal training is “the use of vocalization and solfege syllables to emphasize sensitivity to pitch relationships” (p. 90-91).

**Summary**

Chapter I has identified a need for the present study. The chapter has stated the purpose of the study, the research questions that guide it, and has defined terms pertinent to the study. The motivation behind this study stems from my own experiences as a band student and now as a band teacher. Chapter II will investigate the literature that supports this study.
CHAPTER II

Review of the Literature

This literature review examines the research revolving around the internalization of tonal and rhythmic comprehension in regards to the achievement of instrumental music students when aurally taught. Entire music teaching methods are based on the development of aural skills. Perhaps most relevant to this review is the work of Edwin Gordon and his Music Learning Theory and audiation. Zoltán Kodály popularized the tonic solfa system alongside Curwen hand signs, both of which are used internationally today to discriminate between pitches and intervals. In fact, Kodaly believed music should be read “in the same way that an educated adult… reads a book: in silence, but imagining the sound” (Choksy, 1981, p. 8). Shinichi Suzuki’s method emphasizes the importance of listening and memorization. Emile Jacques-Dalcroze’s method is also relevant to this idea of internalization. Known as “the movement-based method,” Dalcroze was not just concerned with Eurhythmics; Dalcroze viewed the body as the “intermediary between sounds and thought” (Dalcroze, 1921, p. 8).

Perhaps besides the Suzuki method, these methods are very much rooted in choral and general music traditions. However, these methods may be effective in the education of an instrumental student. Though it is growing, empirical research regarding singing and movement in band and orchestra is limited. Many non-empirical articles and books offer techniques in teaching instrumental students through singing and movement (Azzara, 1999; Conway, 2003; Conway, Marshall, & Hartz, 2014; Dalby, 2005; Gordon, 1999; Green, 2005; Haston, 2007; Howard, 1996; Liperote, 2006; Musco, 2012; West, 2015; West, 2016; Wolbers, 2002). This literature review will examine the studies that support these teaching techniques.
Many studies on the comparison of aural versus visual approaches to teaching beginning musicians have been carried out and those will be investigated first in “Aural versus Visual Approaches.” “Rhythmic Perception” considers various methods of teaching rhythm to students. The next section, “Modeling,” specifically looks at the effects of using a modeling strategy. “Improvisation” examines a few studies that incorporate an improvisatory element, whether in the curriculum or when measuring how the improvisatory skills have increased through an aural teaching approach. Finally, in “Correlation of Different Types of Performance,” comparisons will be drawn between how different approaches to performance are intertwined.

**Aural versus Visual Approaches**

MacKnight (1975) investigated the difference in sight reading skills and auditory-visual discrimination skills when taught using tonal pattern instruction versus using note identification teaching techniques. Ninety fourth-grade students participated in this study. There was one experimental group and two control groups. All groups learned the same concepts but in different ways. “The experimental group was introduced to pitch through a series of tonal patterns” using solfege syllables (MacKnight, 1975, p. 27). Each pattern was taught through a series of three stages:

1. an aural presentation,
2. an auditory-visual presentation of the tonal pattern, and
3. an auditory-visual presentation of the pattern within a musical phrase. The students responded vocally, with tonal syllables or letter names, and instrumentally. The instruction book used was specially prepared with melodies containing the tonal patterns in order of presentation. (MacKnight, 1975, p. 27)

Rhythm was presented similarly using syllables which students would chant back. The control group used *Breeze Easy* (Anzalone & Kinyon, 1958), a standard method book. Students learned
material in the manner in which the book presented it. In each lesson, several new pitches and rhythms were introduced. However, “no effort is made to demonstrate the significance of the new pitch beyond that of a letter name, fingering, and sound” and rhythm was taught only “as it directly relates to a beat in the book” (MacKnight, 1975, p. 28). At the end of the 32-week treatment period, students in the experimental group outperformed students in the control groups in both sight reading skills and auditory-visual discrimination skills. MacKnight (1975) believed that, considering these results, “tonal pattern instruction is superior to the note identification teaching techniques and materials in the development of both sight reading skills and auditory-visual discrimination skills” (p. 34). MacKnight (1975) encourages the following techniques when instructing students: “(1) identification of musical patterns, (2) active involvement in listening, (3) singing with tonal syllables, (4) chanting with rhythm syllables, (5) thought and conceptualization, and (6) preorganized reading materials that introduce tones and rhythms in their most frequent patterns” (p. 34).

Grutzmacher (1987) investigated “the relationship of tonal pattern instruction using harmonization and vocalization to tonal concept development and the performance achievements of beginning wind instrumentalists” (p. 173). The researcher stressed that band method books do not emphasize the “sound-before-symbol” approach that so many prior studies seem to support as effective learning strategies for instrumentalists. Forty-eight fifth- and sixth-grade students studying brass and woodwind instruments were studied. Students were randomly assigned to either the experimental or control group. Students were administered the Iowa Tests of Musical Literacy (ITML) Level 2, Tonal Aural Perception as a pre-test and as a post-test (Gordon, 1970), the Iowa Tests of Musical Literacy (ITML) Level 2, Tonal Reading Recognition as a pre-test and as a post-test, the Musical Aptitude Profile (MAP) Tonal Imagery subtest (Gordon, 1965) as a
pre-test only, and the Melodic Sight-reading Achievement Test (MSRAT), a researcher-constructed test, as a post-test only. Sight-reading achievement, aural perception of tonal patterns, and reading recognition were investigated. The experimental group was taught a set of ten major-key and ten minor-key tonal patterns through long tones and scales and arpeggios taught through harmonization and vocalization syllables. The control group was presented tonal material notationally by using *Alfred’s Basic Band Method* (Feldstein & O’Reilly, 1977). The melodic sight-reading skills of the experimental group were significantly better than the control group that was taught through more traditional methods. The researcher also notes that using a tonal conceptual approach did not delay the development of technical skills. Further, “instruction involving tonal pattern content in combination with vocalization and harmonization activities is a more efficient means of developing certain inherent tonal abilities of students and thus translating aptitude into achievement” (Grutzmacher, 1987, p. 179).

Liperote (2004) studied 50 fourth-grade wind and percussion students and the connections between audiation-based instruction, music aptitude, and music achievement. While these students were in third grade, half of them had learned recorder using audiation-based instruction (Group A) while the other half learned from a general music curriculum only (Group B). To measure their music achievement, students sang and played three etudes on their band instruments in fourth grade after having utilized three different methods: teacher-taught, self-taught, and sight-read. Students were judged based on tonal, rhythm, and expressive achievement. There were no significant differences in music aptitude or music achievement, but the mean achievement was higher overall for Group A. Students in Group A scored higher in relationship to their comparable high- or low-aptitude counterparts in Group B. “Audiation-based
instruction playing recorder in third grade contributed to beginning instrumental achievement in this study” (Liperote, 2004, p. v).

Bernhard (2004) studied the effects of tonal training versus the effects of standard method book learning in the melodic ear playing and sight reading achievement of beginning sixth-grade band students. Also studied was the relationship between “tonal aptitude, years of experience with a different instrument, years of vocal experience, melodic ear playing achievement, and melodic sight reading achievement” (Bernhard, 2004, p. 93). Forty-two students participated in the study and were randomly assigned to either the experimental or control group. Students began by filling out a student questionnaire created by the researcher that addressed their musical experiences. Then, students were given the Tonal Imagery test of Gordon’s (1995) Musical Aptitude Profile (MAP) to measure tonal aptitude. Both groups learned the same melodies out of O’Reilly and Williams’ Accent on Achievement: Book One (1997) and Feldstein and Clark’s The Yamaha Advantage: Book One (2001). The experimental group followed this process of learning melodies out of the method book:

(a) listened to the researcher sing the melody using the syllable “loo,” (b) sang the melody using the syllable “loo,” (c) listened to the researcher sing the melody using solfege syllables, (d) sang the melody using solfege syllables, (e) performed the melody instrumentally by ear, and (f) performed the melody instrumentally by sight. (Bernhard, 2004, p. 95)

The process for the control group consisted of: “(a) visually identified pitch letter names of the melody, (b) visually identified associated fingerings or slide positions, and (c) performed the melody instrumentally by sight” (Bernhard, 2004, p. 95). After the 10-week treatment period students in the experimental group scored higher than the control group participants and there
was less variance in the scores compared to the control group. Bernhard (2004) summarizes by saying “tonal training using standard method book melodies significantly affected beginning wind instrumentalists’ melodic ear playing achievement, but did not significantly affect their melodic sight reading achievement” (p. 101). In a follow-up study, Bernhard (2006) investigated the long-term effects of the Bernhard (2004) study. Though the experimental group still scored higher than the control group, the control group’s performance had improved and the average experimental group performance had deteriorated. It should be noted, however, that during the 5-month hiatus, all students returned to just using the method book. Bernhard (2006) emphasizes that more research is needed in this area in order to measure the rate of performance deterioration.

In Musco (2009), 28 middle school band students were divided into an experimental and a contact-control group. The experimental group learned melodies by ear in one familiar (concert Bb) and two unfamiliar (concert Db and concert G) keys while the control group learned technical exercises from notation. Strategies for teaching by ear to the experimental group “included questions and movement activities to draw attention to melodic contour, phrase structure, and meter” and “clapping back the rhythm or matching on instruments the starting pitch of each phrase before attempting playback” (Musco, 2009, p. 84). Treatment of the experimental group did not include music reading. Students in the contact-control group “practiced from notation scale drills, arpeggios, interval studies, and other technical exercises in the key of Bb, and then in the keys of Db and G concert” (Musco, 2009, p. 86). The experimental group improved significantly in playing by ear in the two new keys, but there was no improvement observed when playing by ear in the familiar key. Meanwhile, the control group did not improve in any key. However, both did improve in sight-reading in all keys. As a follow-
up, the researcher distributed a survey to the students to evaluate their personal perception of whether or not they improved. The students in the experimental group perceived improvement in performance, particularly when playing in the new keys. To explain why there was no improvement observed in playing in the familiar key, Musco (2009) says that it was “perhaps due to relatively high pretest scores in that key compared to the unfamiliar keys, with the average group pretest score in Bb of 68% compared to the average group pretest scores in the new keys of 39%” (p. 90). Musco (2009) summarized their results by saying:

(a) Playing by ear in a new key may assist musicians in the initial stages of learning to perform in a new key; (b) sound-before-sight instruction may benefit musicians during the intermediate years of study; and (c) for teaching the skill and concept of playing in a new key, isolated technical drills or specially composed exercises are not the only option. (p. 92)

Haston (2010) studied the effectiveness of teaching beginning band with either an aural or visual approach. Twenty fourth-graders were assigned randomly to either the control or experimental group (ten in each). The aural group was taught with an emphasis on aural and modeling strategies. These strategies included the following: singing while fingerling, playing-by-ear, call and response, and playing from printed music. The visual group was taught with one primary strategy: playing from printed music. Students were assessed using the Watkins Farnum Performance Scale (Watkins & Farnum, 1954) and their ability to prepare a piece. Though the aural/modeling group did score higher on both the Watkins Farnum Performance Scale (Watkins & Farnum, 1954) and in the preparation of the assigned piece, they did not score significantly higher than the visual group. It is interesting to note that students in the aural/modeling group that did not have prior musical experiences scored highest followed by visual participants that
did have prior musical training. Haston (2010) suggests that perhaps the reason why participants in the aural/modeling group with prior experience scored lower than these two aforementioned groups was because they “may have been hampered by their prior dependence on their eyes” (p. 22). Though more research is needed regarding this phenomenon, this could mean that students need aural training as early as possible in their musical career. Conversationally, Haston (2010) says “aural/modeling participants without prior training were not hampered by a dependence on their eyes, and scored the highest on both posttests, possibly because they relied on their ears as well as their eyes” (p. 22). To explain the high achievement of students with prior musical experience in the visual group, Haston (2010) says it could be “because they had more practice reading music” (p. 22). Haston (2010) does acknowledge, however, that due to such a small number of participants, these results would need to be confirmed by future studies.

**Rhythmic Perception**

Shehan (1987) examined short-term retention when using aural and visual approaches to teaching. Specifically, answers to the following questions were investigated:

1. What are the effects of the visual and aural modes of presentation on the ability to perform brief rhythmic phrases? 2. What part does maturation play in the ability to perform brief rhythmic phrases through visual and aural modes of presentation? 3. Are mnemonic techniques useful in effecting short-term storage for rhythmic phrases?” (Shehan, 1987, p. 120)

Participants in this study included 25 second-grade and 24 sixth-grade students. All students were taught four 8-beat rhythm patterns in four different ways: “(1) audio-rhythm, (2) audio-mnemonics, (3) (audio) visual-rhythm, and (4) (audio) visual-mnemonics” (Shehan, 1987, p. 117). Shehan (1987) describes these various modes:
Rhythm 1 was delivered in an audio-rhythm mode (the pattern was sounded on a
woodblock). For the audio-mnemonics mode, Rhythm 2 was presented using mnemonics
syllables. Rhythm 3, in the (audio) visual rhythm mode, was illustrated in bold black
notation on an 11” x 14” card that was presented while the pattern was sounded on a
woodblock. Rhythm 4 was presented in an (audio) visual-mnemonics mode that
combined the notation and vocalization of the pattern. (p. 121)

Each student was tested on their ability to memorize the eight-beat pattern and play the rhythm
back on a woodblock for each of the different modes. Students in both second- and sixth-grade
needed the fewest number of tries when learning the patterns via the visual-mnemonics mode,
followed by the visual rhythm mode, then the mnemonics syllables mode, and finally, students
needed the most number of tries using the audio-rhythm mode. The common factor between the
top two most efficient modes for learning included the use of mnemonics. Shehan (1987) says
that “mnemonic syllables may provide an acoustic property that is influential in learning and
recalling rhythms” (p. 124). Also, sixth-graders learned the patterns presented twice as fast as the
second-graders no matter the mode that they were presented in, which the author says may be
because “informal exposure to music coupled with a more advanced level of cognitive
processing increases the speed at which sixth-grade students learn music” (Shehan, 1987, p.
124).

Persellin (1992) investigated the effects of three different rhythm presentation modalities
on the ability of first-, third-, and fifth-graders to recall those rhythms. The researcher aimed to
answer the following questions:

Which presentation modality allows children to recall rhythm patterns the best? Does the
most effective modality or combination of modalities remain constant from the first grade
through fifth grade? Do children have better short-term recall when presented with a rhythm pattern through a single modality or through multimodalities? Do multimodality presentations confuse younger children more than they confuse older children? (Persellin, 1992, p. 307)

The study consisted of 210 children total; 70 first graders; 70 third graders; 70 fifth graders. Each student was tested individually. Students picked at random one of the following modalities of presentation: visual, which involved only seeing the pattern on an iconic chart; auditory, which involved hearing the pattern played on a resonator bell; kinesthetic, which involved the teacher patting the rhythm on the forearm of the student; visual and auditory, which involved the child listening to the pattern on the resonator bell while looking at the iconic notation; visual and kinesthetic, which involved the teacher patting the rhythm on the forearm while looking at the iconic notation; auditory and kinesthetic, which involved the child listening to the pattern on the resonator bell while having it patted on their forearm by the teacher; visual, auditory, and kinesthetic, which involved seeing the iconic notation, hearing the resonator bell, and having the pattern patted on their forearm by the teacher. Persellin (1992) noticed that as grade levels increased, performance increased. Also, younger students did not score significantly lower when presented with multimodality options. First graders seemed to have the most difficulty with the visual-only modality. The researcher believed this may be due to not having been introduced to iconic notation before this study. The trend across all grades was that when multimodalities were used, generally the students did well, even in the younger grades. Persellin (1992) suggests that “traditional music notation may be introduced to children when they have had many auditory and kinesthetic experiences in music. Introducing notation with sound may give the written note or icon more meaning” (p. 314).
Modeling

Kendall (1988) compared two different modes of instruction and investigated “the effects of music reading activities on the development of aural and instrumental performance skills of beginning fifth-grade instrumental students” (p. 208). The primary purpose was to investigate whether introducing music reading skills early on would impede the aural development of beginning band students. Seventy-six fifth-grade students across four elementary school bands participated in this study. The questions that guided this study specifically were:

(a) Are there any advantages to teaching students exclusively with modeling (demonstration and imitation) activities in the first 4 months of instruction? (b) Does the process of learning to read music conflict with the development of aural and technical performance skills? (Kendall, 1988, p. 208)

Two band classes received the comprehensive mode of instruction and two band classes received the modeling mode of instruction. Both groups included “a sequence of imitation, discrimination, and association activities” (Kendall, 1988, p. 209). Essentially, the only difference between the two groups was the comprehensive model included music reading experiences while the modeling group did not. After the 16-week treatment period, students in the comprehensive group outperformed the modeling group in all areas. Due to these results, Kendall (1988) says that “the data showed that music reading instruction did not impede the development of ear-to-hand coordination and instrumental performance skills” (p. 217).

The purpose of Dickey (1991) “was to compare the effects of verbal instruction and nonverbal teacher-student modeling on instructional effectiveness in instrumental music ensembles” (p. 133). The researcher wanted to determine whether teaching through modeling strategies developed more effective “melodic ear-to-hand skills, kinesthetic response skills, and
general music discrimination skills than would students taught with verbal strategies” (Dickey, 1991, p. 133). In this study, 128 middle school students participated from three different middle schools. There was one experimental group and one control group led by the researcher, and another teacher concurrently replicated the study in their own school with an experimental and control group. The experimental groups, which received the modeling treatment, learned by imitating the teacher in regards to rhythm patterns, pitches, styles, articulation, and other elements. The control groups learned through verbal directions and explanations. At the end of the treatment period, the experimental group scored higher than the control group on ear-to-hand skills and kinesthetic response. However, there was no statistically significant difference on whether or not modeling strategies improved a student’s ability to make general music discriminations.

**Improvisation**

Josuweit (1991) studied “the role of audiation in the development of skills in music creativity” (p. iii). Twenty-one fourth-grade students participated in this study. Students were divided into an experimental group, which was taught through an audiation-based approach, and a control group, which was taught through a traditional approach. At the end of the 20-week treatment period, students were assessed for music aptitude and for achievement in music creativity. “No significant difference was found between the groups in music creativity” (Josuweit, 1991, iv). Josuweit (1991) summarizes by saying that:

This study has produced no evidence that beginning instrumental music students who have been taught by use of an audiation-based approach are able to create music better than beginning instrumental music students who have been taught by use of a traditional approach. (p. v)
Azzara (1993) investigated how improvisation embedded in the curriculum affects the music achievement of elementary school instrumental music students. Azzara (1993) posed two questions: “Is it possible that improvisation contributes to improved instrumental music achievement in nonimprovisatory performance skills such as reading familiar and unfamiliar music?” and “Is it also possible that understanding the relationships among music aptitude, improvisation, and music reading could facilitate elementary instrumental music instruction?” (p. 331). Azzara (1993) believed that “a lack of music recognition and aural understanding would result in a performance with poor music syntax characterized by poor intonation, incorrect notes, and incorrect rhythms” (p. 331). Sixty-six fifth-grade instrumental music students, whom had already been playing their instrument for one year, were observed in this study. Students were administered the Musical Aptitude Profile (MAP) (Gordon, 1965/1988) to measure their musical aptitude. Students that obtained scores greater than or equal to the 80th percentile were categorized as high-aptitude students; students that scored greater than the 20th percentile and less than the 80th percentile were categorized as moderate-aptitude students; students with scores less than or equal to the 20th percentile were categorized as low-aptitude students. Students were randomly assigned to an experimental or control group. Two teachers in different Rochester, NY area schools participated in this study and so there was one experimental and one control at one school, and one experimental and one control at the other. All students received instruction using Student Book One and the Home-Study Cassette from Jump Right In: The Instrumental Series (Grunow & Gordon, 1989). These methods included singing and movement activities before students performed using notation. In addition, the experimental group also received 10-15 minutes of improvisation performance activities, including:
(a) learning selected repertoire of songs by ear, (b) developing a vocabulary of tonal syllables and rhythm syllables, and (c) improvising with their voices and with their instruments tonic, dominant, and sub-dominant tonal patterns within the context of major tonality, and (d) improvising with their voices and with their instruments macrobeat, microbeat, division, elongation, and rest rhythm patterns within the context of duple meter.” (Azzara, 1993, p. 335)

Students in the experimental group had significantly higher etude performance scores on the “teacher-assisted” etude and the “sight-read” etude. High-aptitude students performed better than low-aptitude students. However, low-aptitude students performed better than medium-aptitude students. The results of this study provide evidence that improvisation skills may contribute to the increase in student performance when reading from traditional notation.

Karas (2005) examined how fifth-grade students’ traditional music notation reading abilities were affected by an aural/improvisatory instructional strategy. In addition, he observed how music aptitude and previous music instruction played a role in their traditional music notation reading abilities. In this case, an aural/improvisatory approach included listening skills, playing by ear, and improvising, which supplemented traditional instruction, which included playing out of the band method book Accent on Achievement (O’Reilly & Williams, 1997). The treatment group received an aural/improvisatory approach along with using the method book while the control group simply used the method book. Karas (2005) started with a null hypotheses and the data analyses supported some of these hypotheses. However, Karas (2005) did observe that “high aptitude students who received the supplemental group instruction scored higher than students who received the traditional instruction” and “low aptitude students who
received traditional instruction scored higher than students who received the supplemental instruction” (p. 92).

**Correlation of Different Types of Performance**

McPherson (1995/1996) considers five aspects of musical performance for his study: sightread; perform rehearsed music, play from memory, play by ear, and improvise. Two research questions guided his study:

1. What is the strength of correlation between the five aspects of musical performance: performing rehearsed music, sightreading, playing from memory, playing by ear, and improvising?

2. What factors can be identified to help distinguish between the performance skills of students with differing ability? (McPherson, 1995/1996, p. 116)

In this study, 101 high school instrumentalists, in grades 7 through 12, participated. There were 54 clarinet students and 47 trumpet students. Students were split into two groups based on age. Group 1 consisted of grades 7 to 9 and Group 2 consisted of grades 10 to 12. As was expected, older students scored stronger on all tests compared to the younger students and consequently had stronger correlations between all of these aspects of performance. In regards to the results, McPherson (1995/1996) says:

For the total sample, all correlations are significant and substantial. The highest correlation is a healthy .77 between an ability to play by ear and to improvise, confirming the strength of that relationship, as would be expected. The second highest correlations occur between an ability to sightread and perform rehearsed music (.75), and an ability to sightread and improvise (.75). (p. 118)
Of particular interest to this literature review is the strong correlation between playing by ear and sightreading, improvising and sightreading, improvising and performing rehearsed music, and playing by ear and performing rehearsed music. Though further research is needed, these correlations strongly support the idea that aural skills and visual skills in musical achievement are very much intertwined.

Mishra’s (2014) meta-analysis provides some insight on what factors influence improved sight-reading abilities. The meta-analysis included 92 quasi-experimental studies that considered different ways to improve sight-reading. Mishra (2014) observed that, among these studies, Training aural skills, eye movements (Controlled Reading), composition and improvisation (Creative Activities), and the use of singing and solfege improved sightreading. Collaborative activities, training in movement or on an instrument did not improve sightreading, nor did interval or rhythmic drill. (Mishra, 2014, p. 146)

Summary

The literature presented here explored various studies that included the development of audiation and tonal skills in an instrumental classroom. The research supports, to an extent, the positive value of training instrumental students in aural skills. Chapter II has provided a solid foundation for the proposed comparative case study presented here. It is necessary to investigate aural skills in the instrumental classroom as it is naturally done by master teachers to truly understand the practicality of integrating such methods. Chapter III will present the design and methods of the present study.
CHAPTER III
Design and Methodology

Purpose Statement
The purpose of this comparative case study was to describe how experienced directors of beginning band teach aural skills.

Research Questions
1) How do beginning band teachers incorporate aural skills into their teaching?
2) How do beginning band teachers describe their preparation, implementation, and assessment of aural skills?
3) How do teachers of beginning band balance the teaching of aural skills with other requirements?

Design
This study took the form of a comparative case study. Merriam and Tisdell (2016) define comparative case studies as those that “involve collecting and analyzing data from several cases” and thus “can be distinguished from the single case study” (p. 40). Four different beginning band teachers and their classrooms served as the case studies. This study did not aim to bring to light simply one case and the specific teaching techniques that that one teacher employs, but rather several cases that vary in their approaches in order to show the vastness of aural skills teaching.

Theoretical Framework
In order to connect the importance of both the researcher’s experiences as a teacher and the experiences of the participants, this study was guided by heuristic inquiry. According to Patton (2015), “heuristic inquiry focuses on intense human experiences, intense from the point of
As an elementary band director myself, I had been very conscientious of my approach in the classroom while I carried out this study. I have tried to incorporate aural skills into my classroom in different ways, yet at the time of this study, had not found one way that I felt worked best. I was eager to learn how other band teachers were teaching aural skills and how that might impact my own approach. It has always been particularly challenging for me to envision what a curriculum like that might look like all throughout the year, especially because that was not how I was taught. I went into the school year knowing that there is a body of literature that supports the importance of aural skills training in the band room, so I was convinced, to some extent, that this could work in my classroom as well. Being able to watch these same skills the literature spoke to actually being integrated into classrooms, made the idea that I could do this in my own room, more obtainable. While I observed these participants during the school year, I would try, here and there, to integrate aural skills using the techniques that I was observing. I intend to integrate these techniques more into the next school year right from the start.

Selection of Participants

A combination of two sampling strategies was used for this study: intensity sampling and criterion-based sampling. Patton (2015) offers appropriate definitions for both these strategies. He says of intensity sampling that such studies include “information-rich cases that manifest the phenomenon intensely but not extremely” (p. 267). Criterion-based studies are “based on an important criterion” and “all cases that meet the criterion are studied, implicitly (or explicitly) comparing the criterion cases with those that do not manifest the criterion” (p. 267). In order to
identify teachers and the classes they teach that meet such requirements, recommendations were gathered from Christopher Azzara, Professor of Music Education at the Eastman School of Music in Rochester, NY, Christian Bernhard, Professor of Music Education at the State University of New York at Fredonia in Fredonia, NY, Chad West, Associate Professor of Music Education at Ithaca College in Ithaca, NY, and Keith Kaiser, Professor of Music Education at Ithaca College in Ithaca, NY. These professors were chosen based on their own extensive research of the phenomenon being studied and because of their knowledge of fellow school teachers within the state of New York that exemplify this phenomenon. The aforementioned professors were supplied with the following criteria that should be met when recommending teachers:

- Hold a permanent/professional music teaching certificate in New York; to ensure that the teacher being studied has the appropriate qualifications needed to teach within the state of New York and has completed all requirements needed to continue teaching in New York.
- Obtained tenure in their school district or, if new to the district, had obtained tenure in the district they had taught in previously; to ensure that they have satisfied the expectations of their school district and thus are regarded as an effective teacher.
- Teach elementary band (considered the first year of instruction for the purposes of this study); because the first year of instruction is the focal point of this study.
- Use a sound-before-symbol approach in their band room; because this is the phenomenon that is planned on being observed.
In order to ensure that intensity sampling was achieved, professors were told that their recommendations should particularly be known for their commitment to teaching aural skills in their classrooms.

**Description of Participants**

**Amy.** Amy is the band director at a rural school in upstate New York, which will be referred to as Participant School A. At the time of this study, Amy is in her fourteenth year at this position. Amy was recommended for this study by Keith Kaiser, Professor of Music Education at Ithaca College in Ithaca, NY.

Amy attended Ithaca College, where she obtained a Bachelor of Music in Music Education and Performance and a Master of Music in Music Education degrees from Ithaca College. At Participant School A, she teaches band and lessons to 55 fourth and 20 fifth graders, as well as an additional 25 students in percussion and flute lessons in grades six through twelve.

**Laura.** Laura is the N-2 general music teacher and fourth and fifth grade band director at a private school in a large city in upstate New York, which will be referred to as Participant School B. At the time of this study, Laura is in her second year at this position. Laura was recommended for this study by Christopher Azzara, Professor of Music Education at the Eastman School of Music in Rochester, NY.

Laura studied at the Eastman School of Music at the University of Rochester in Rochester, NY where she obtained her Bachelor of Music in Music Education and Performance and her Master of Music in Music Education. Laura teaches N-2 general music and beginning band students at Participant School B. For band, her duties include pull-out lessons and full-band rehearsals. She has 28 students in fourth grade and sixteen in fifth grade. Laura a member of the New York Chapter of the Gordon Institute for Music Learning.
**Alex.** Alex is the band director at what will be referred to as Participant School C in a small town in upstate New York. At the time of this study, Alex is in his thirteenth year at this position. Alex was recommended for this study by Chad West, Associate Professor of Music Education at Ithaca College in Ithaca, NY.

Growing up in New Jersey, both of Alex’s parents were music teachers, his father being his own band director and partially his inspiration for becoming one himself. He went to Ithaca College for both his Bachelors and Masters of Music in Music Education degrees. He taught middle and high school band for a couple years, taught privately for five years, and is now the elementary band director at Participant School C. Alex has about 120 students.

**Ella.** Ella was recommended for this study by Christian Bernhard, Professor of Music Education at SUNY Fredonia in Fredonia, NY and Christopher Azzara, Professor of Music Education at the Eastman School of Music in Rochester, NY.

Ella grew up on Long Island. Ella obtained her Bachelors in Music Education from Indiana University. She then obtained her Masters in Performance from the Eastman School of Music at the University of Rochester in Rochester, NY. Ella currently teaches at two elementary schools in a large city in upstate New York and also does a handful of lessons at one of the middle schools. She gives pull-out lessons to her students and also conducts the full bands at her elementary schools. Between all of her buildings, Ella teaches about 150 students. For the purposes of this study, a focus has been placed on her work at the elementary level.

**Description of Research Sites**

**Participant School A.** Participant School A is a K-5 building located in a rural town in upstate New York. There is no dedicated band room in this building. Instead, band rehearsals are taught in the general music classroom and lessons throughout the day are given in a repurposed
custodial closet. The closet is rectangular in shape and also houses the band teacher’s instrument and music inventory. The closet does not have any windows, but it is well-lit.

**Participant School B.** Participant School B is an N-12 private school with a campus of buildings. One of those buildings houses the Performing Arts Department. In this building is a dedicated band room where rehearsals are done. Lessons take place in the general music classroom. There is an ample amount of room for the number of students enrolled in the program.

**Participant School C.** Participant School C is a K-5 building located in a small town in upstate New York. This is the only elementary school in this town that has band; the other two elementary schools only serve K-3 students. Participant School C has a band room that is not shared with any other teachers. The rehearsal space has an adequate amount of space for the number of students enrolled in the program. The room is well-lit and has several windows allowing in more light.

**Participant School D.** Participant School D is a K-5 building located in a large city in upstate New York. There is a space that is dedicated to where lessons are given. This space is not shared with any other teachers and provides enough space where larger lesson groups can function comfortably. There is a piano in the room and practice rooms connected to this room as well.

**Types of Data**

Various modes of data were collected throughout this study, including field notes from observations, video recordings of lessons, and transcripts from individual interviews.

**Observations.** I personally visited each of the four teachers in their classrooms once in November or December of 2017. I was an “observer as participant” in the classroom, which
Adler and Adler (1998) explains is when researchers “observe and interact closely enough with members to establish an insider’s identity without participating in those activities constituting the core of group membership” (p. 85). Since I was observing small-group lessons throughout the day, I would be more noticeable to students than I would be if I were just to observe a large ensemble. Students needed to feel comfortable with me physically in the room because I expected that they would be performing quite a bit in my presence, whether on their instruments or when singing. I attempted to put the students at ease as much as possible by answering their questions ahead of time as was needed. Otherwise, I did not participate in the activities that the teacher and student were doing. I wanted to see the organic learning process as if it would be if I were not there.

**Field notes.** Observation notes were taken as I observed teachers and their classrooms. This was primarily done on a laptop computer as I believed this would be the most efficient method for recording notes. Field notes were coded at the end of the observation period.

**Video recording.** I recorded all lessons I observed myself so as to have a visual record of what was occurring in the classroom so that I could refer to it later. Although I was taking notes during these observations, inevitably there was important data that revealed itself that I was unable to take note of in the moment. Recording the lessons negated some of this loss of data.

Teachers were asked to record no less than three additional lessons of their choosing throughout the school year. This gave the teachers the opportunity to choose, at their convenience, lessons that they felt may be particularly information-rich. It also allowed me to still collect data without missing more of my own teaching time. These recordings were then transcribed and coded.
In addition to all lessons being recorded, each interview was recorded so that it could be referred to later.

**Individual interviews.** Each teacher was interviewed as close to the beginning of the year as possible, or at least before the first observation of their class took place. These interviews were semistructured as defined by Merriam and Tisdell (2016): “specific information is desired from all the respondents… most of the interview is guided by a list of questions or issues to be explored” (p. 110). The primary purpose of these interviews was to obtain background information about the teacher, such as their education, their philosophy, experience teaching, and other such pertinent information (see Appendix C for the interview protocol).

Each teacher was then interviewed at the end of the year after their last observation. Again, this was semistructured in nature (Merriam & Tisdell, 2016). The primary purpose of this interview was to utilize member checks so that teachers may corroborate the findings at the end of the research period. This interview protocol was expanded upon for each individual teacher participant based on the observations (see Appendices D-G for the individualized end-of-year interview protocols).

**Data Collection**

**First interview.** In the middle of September 2017, I made contact with the teacher participants to set up an initial interview with each of them. Alex was the first interview I scheduled, which occurred on September 28, 2017 at Participant School C in his band room. The next interview that took place was on October 2, 2017 with Laura in her office at Participant School B. The third interview took place on October 10, 2017 at a Starbucks near Participant School D with Ella. The final interview was with Amy on October 12, 2017 in her office at
Participant School A. There was no particular reason for scheduling them in this order other than to accommodate the participants’ busy teaching schedules.

Once all initial interviews had been completed, I began transcribing each. I started first with Alex’s interview since his was the first interview I had carried out. Once I finished his, I moved on to transcribing Amy’s since hers was significantly shorter than the others. I then continued on in chronological order of how I did the interviews. I completed the transcription of Laura’s interview next. Lastly, I transcribed Ella’s interview. I transcribed each interview as "word-for-word" as I possibly could. I uploaded my recordings of the interviews from my iPad to my computer, as I could more easily manipulate rewinding and fast forwarding, and for the actual transcript, I typed it out in Microsoft Word.

**In-person observation.** The first in-person observation I did was of Alex at Participant School C. I visited his classroom on November 7, 2017. I sat in the back of his band room and he taught small group lessons at the front of the room. I recorded his lessons using my iPad. The next observation day was November 17, 2017 when I travelled to observe Ella at Participant School D in the morning and then to observe Laura at Participant School B in the afternoon. I recorded small group lessons of Ella’s using my iPad. Lessons took place in her office. I recorded one small group lesson and one beginning band rehearsal using my iPad at Laura's school. My final in-person observation was with Amy at Participant School A on December 1, 2017. I recorded her several small group lessons using my iPad in her lesson room. When I had collected all recordings from these in-person observations, I took notes on what was observed. I took notes on what the setting for the lesson was like, the procedure that was followed, and my own general thoughts on what was happening.
Participant-submitted recordings. After I observed each teacher in person, they sent me recordings of three separate lessons or “snapshots” of their teaching. Alex and Amy sent me their recordings via a USB storage device, Ella sent me her recordings through the Google Photos application, and Laura sent me her recordings through Google Drive. Amy also later sent an additional recording through Google Drive. I reviewed all recordings and took notes on what I observed in each. My note-taking process was the same for when I looked through my in-person observation recordings. I took notes on the setting, the procedure, and my thoughts.

Second interview. Only after I had transcribed all interviews and taken notes on all recordings I had with each participant did I reach out to them for their second and final interview for the study. I crafted interviews for each participant that included several questions that were the same for everyone and also a few that were specific to each participant. My reasoning for this was, through the initial interview and observations, I had additional questions that applied to each. I also wanted the final interview to serve as a place to triangulate the data that had been collected before to make sure I was interpreting the participants’ answers and actions in a way that coincided with what they intended. Again, transcription happened in the same way: recordings were uploaded from my iPad to my computer and I transcribed each interview word-for-word into Microsoft Word. I did this in the order that I completed the interviews: Laura first, Amy second, Alex third, and Ella fourth.

Time Line

This study took place between September 2017 and April of 2018. All data collection was completed by April of 2018. Analysis and write-up continued through April until the end of the school year as needed.

Data Analysis
Coding process.

**Data compilation.** I began by compiling all of the data collected on each participant (interview recordings, interview transcripts, in-person observation recordings, participant-submitted recordings, and notes on each recording). This compilation of data, all digital in nature, was stored on a USB flash drive (what I called the “master storage device”). All data was also saved in many other locations (internal hard drive, other USB flash drives, and on cloud storage applications). The master storage device contained a folder for each participant and the aforementioned data was deposited in each folder according to which participant it had been collected from. This master storage device is what Merriam and Tisdell (2016) refer to as the “case study database,” which, “is the data of the study organized so the researcher can locate specific data during intensive analysis” (p. 233).

**Within-case analysis.** As this project included multiple case studies, I used a two-stage analysis structure: within-case analysis and cross-case analysis (Merriam & Tisdell, 2016, p. 234). I first analyzed the data “within-case,” meaning all data collected from each individual participant was first analyzed within itself. Connections were made between the interviews and the lesson recordings for that particular participant.

**First interview codes and categories.** I used two strategies to find codes and categories within the first interview with each participant. In my first pass through of the interview responses, I attempted to find broad, overarching categories that emerged. The following categories emerged from each initial interview: teacher education preparation, reflection on teaching methodologies, philosophy, and interaction with colleagues. Each participant spoke, in their own way, to each of these themes. These themes were captured by taking each interview transcript and highlighting each code with a certain color. Teacher education preparation was
green; reflection on teaching methodologies was yellow; philosophy was blue; interaction with colleagues was purple. I chose this broad sweep of the data first in order to try and naturally find codes that may emerge as well as to re-familiarize myself with the responses of each participant as this coding process happened after each interview had been completed.

My second pass through of the data was done with a finer comb. I inserted line numbers into each interview transcript document and then created a separate document to note more specific codes and possible categories. This separate document also had line numbers that corresponded to the line numbers of the interview transcript document. For example, the transcript might have a reference to teacher education on line 37, so on the separate document, on line 37, I would write out that code. I chose this approach because I felt like it would be visually the easiest to reference; one could hold the documents side-by-side and easily connect the codes and categories to the interview transcript.

*Recording analysis.* I took notes on what was seen in each lesson recording, whether it was one that was done in-person or one that was participant-submitted. The primary item of interest in viewing these recordings was the teaching techniques used by the participants to teach aural skills. These teaching strategies were compiled into a separate document with a short description of the process the teacher went through.

*Second interview codes and categories.* Analysis of the second interviews with each participant played out in much the same way as the first one. A broader analysis using a color-coding system was the first step to getting into the data. The second pass through of the interviews was the same as when analyzing the first interview: a separate document was created that listed codes and categories that corresponded to the line numbers of the interview transcripts.
Cross-case analysis. Once codes and categories had been established for each within-case analysis, “cross-case” analysis began. Codes and categories were compared and contrasted between each of the four participants in this study.

First interview codes and categories. A document was created that listed each code and then each participant response that addressed that code. The reasoning for grouping responses according to code in one document was to compare and contrast responses and to further check the codes that I had assigned to them.

Recording analysis. Descriptions of the teaching techniques used by each participant was compiled and listed out in one document. They were grouped according to similarity. For example, multiple teachers used a “call and echo” process with their students and that would have been grouped together under the heading, “Call and Echo.”

Second interview codes and categories. Similar to how the first interview was cross-analyzed, a document was created that had participant responses that addressed whatever code or category.

The outline.

Chapter titles. Once all data had been collected and coded, I began the process of outlining the thesis. While collecting data, I had envisioned each chapter would reflect a different participant. Each chapter would delve into that participant, their profile, philosophy, and the aural teaching techniques they used. I believed that this would be the most effective way to tell the stories of each participant. Keeping this in mind, I then attempted to experiment with other options of how to present the data.

The second way I had tried to present the data was by allowing the research questions to drive each chapter. For example, one chapter might be: "How do beginning band teachers
incorporate aural skills into their teaching?” Another would be: "How do beginning band teachers describe their preparation, implementation, and assessment of aural skills?" And the third would be: "How do teachers of beginning band balance the teaching of aural skills with other requirements?” Although the research questions have driven this project, I felt that this approach did not divide the study in a readable, cohesive way. However, this did help me to find a third way in which the data could be presented.

From my own experience as a music teacher, and when speaking to my other musical colleagues, I have found that music teachers are often very receptive to trying new things in their classrooms. However, they want to know why it’s necessary to implement something different, when they are supposed to implement it, and then, of course, how to actually do it. In an effort to make this study accessible to music teachers, I have chosen to title each chapter accordingly: "Chapter V: Why do we teach aural skills?"; "Chapter VI: When do we teach aural skills?"; "Chapter VII: How do we teach aural skills?"

**Chapter sub-headings.** In order to ensure that these overarching questions were being answered appropriately, I combed through the spreadsheets I had compiled of interview responses and pulled out ones that I believed addressed these questions, whether directly or indirectly. There is a sub-heading for each participant in Chapters IV and V, which gives them an opportunity to have their voice heard on each topic. One of the primary goals for this study was to show a range of how teachers teach aural skills and I felt that this side-by-side approach on the questions of “Why?” and “When?” was the best way to see this diversity come across. For “Chapter VI: How do we teach aural skills?” I also chose lesson recordings, either from in-person observations or from ones that were participant-submitted, that exemplified a range of aural teaching techniques. There was some overlap of techniques used, so to reflect the subtle
Trustworthiness

**Internal validity.** This study utilized several strategies that worked together to support the trustworthiness of the research at hand. Internal validity, which “deals with the question of how research findings match reality,” was addressed using three different strategies: (a) triangulation; (b) member checks; and (c) researcher’s position (Merriam & Tisdell, 2016, p. 242). A triangulation process was carried out through “the use of multiple methods” and “multiple sources of data” (p. 244). Multiple methods was especially critical in this study. As Merriam and Tisdell (2016) say as an example of using multiple methods, “what someone tells you in an interview can be checked against what you observe on site” (p. 245). This was the primary use of multiple methods in this study. Triangulating multiple sources of data occurred throughout the study. Interview transcripts and observation field notes were generated, which helped to code and then compare across the data sources. Member checks were also used with all of the participants, especially in the second interview, where clarifying questions could be asked based on first interview answers and what was seen in observations. Merriam and Tisdell (2016) say that member checks is a process which includes taking “preliminary analysis back to some of the participants” and then checking to see if they “recognize their experience in your interpretation or suggest some fine-tuning to better capture their perspectives” (p. 246). Third, the researcher’s position, which Merriam and Tisdell (2016) describe as “how the researcher affects and is affected by the research process” (p. 249), was also taken into consideration when analyzing the data. As I can relate to the participants as a band teacher of beginners myself, I have my own experiences that I bring to the conversation.
External validity. “External validity is concerned with the extent to which the findings of one study can be applied to other situations” (Merriam & Tisdell, 2016, p. 253). One strategy was used to promote external validity in this study: thick description, which is a “highly descriptive, detailed presentation of the setting and in particular, the findings of the study” (p. 257). This study aimed to provide rich descriptions of the research settings, the participants, and the techniques seen in observations, in order to provide the reader with a holistic view of the teaching environments observed.

Summary

This study attempts to portray how teachers of beginning band integrate aural skills into their classroom. As the research does support, to an extent, the increased musical achievement of students when taught aurally first before being introduced to traditional musical notation, this study investigated how master teachers use such an approach in their own teaching. This study followed four teachers of beginning band during the first academic semester of school. Their own philosophies were taken into consideration when analyzing the data collected. Through a multi-faceted approach, this study aims to provide a holistic view on the idea of teaching aural skills in a beginning band setting.

Chapter III has laid out the design and methodology for the following study. This comparative case study includes four teacher participants. Multiple sources of data emerged from the study and the data was analyzed using both a within-case method and a cross-case method. Several strategies were put into place to increase the trustworthiness of the data collected and analyzed in the study. Chapter IV presents the findings that speak directly to the teacher participants’ music education teaching philosophies and their thoughts and opinions specifically on teaching aural skills in the band classroom.
CHAPTER IV

Why do we teach aural skills?

Each participant was asked two questions to help in understanding their music teaching philosophy as related to this study. The first question they were asked, was: “Can you describe your music teaching philosophy?” The second question was: “Why is it important to teach aural skills?” In this chapter, each participant is examined individually. First, their overall music education teaching philosophy is discussed, followed up by their thoughts and opinions on teaching aural skills in the beginning band classroom.

Amy

Philosophy. “They're so excited to make a sound on the instrument. They want to do more playing than talking about what it looks like on the page” (Amy, Interview 1). I felt that this quote in particular exemplified Amy’s approach in her classroom. The word, “practical,” came to mind when I interviewed and observed Amy. She knows what works, she knows what does not work, and she has adjusted accordingly to meet the needs of her students. Amy teaches in a rural school district in upstate New York. She told me that although parents and guardians in the district are great about respecting teachers as experts in their field, generally, there is not a lot of support at home when it comes to practicing. She knows that in reality, a lot of her students’ playing each week occurs in the classroom with her. She is intensely efficient and I even picked up on this trait in her interviews. She is succinct and to the point. Out of all of the participants in this study, Amy sees her students the least amount of time, in the smallest teaching space, in the most economically disadvantaged area. Yet despite the list of things that run against her and her program, Amy enrolls 67% of the fourth grade class at Participant School A in band, her district has maintained a reputation for quality music instruction for many years, and she is only
assigned to this particular building two days a week. How does she find the time to balance quantity and quality? Focusing on aural skills helps her to be efficient.

Amy cites her junior student teaching experience at Ithaca College as being the main influencer of her teaching style. She says that she has “always taught sound-before-symbol” because “that is the process that I was taught at Ithaca… and I feel it works” (Amy, Interview 1). She has peppered in other ways of teaching beginners but has found that making aural skill training the focal point tends to deliver the best results. Amy speaks very frankly about the time constraints and reality of her teaching situation. She has learned over the years to work very efficiently. Speaking about her fourth grade beginners, she said, “I only see them once a week. And they’re in such large lesson groups.” When asked about how teaching aural skills may or may not affect concert preparation, she said, “I’ve taken away that first concert for fourth grade… Only the fourth graders that have mastered… enough material” join the fifth graders for one piece on the concert, “so I’m not pushing the kids to read.” Consequently, she says, “it has made my students sound better.” When I pushed for a little more information about this, Amy became very passionate about her reasoning: “I felt like we rushed. That it was just, ‘Okay, we have to learn this note and this note and this note because this is what’s in the piece that we’re doing for the concert.’… This way, the kids work at their own pace, they join us on the concert for one song, and they think it’s amazing” (Amy, Interview 1).

In addition to speaking frankly about her teaching situation, Amy also considers her role as an elementary band teacher in a very practical way. When asked about what she wants her students to leave her knowing, she said, “By the time they leave fifth grade with me, I want them to have a working understanding of their instrument and the capabilities of their instrument. How to produce correct tone. What a correct tone sounds like on their instrument if they’re not able to
do it at that point. And I just want them to have the desire to continue in some sort of musical aspect” (Amy, Interview 1).

**Aural Skills.** Development of a characteristic tone is Amy's number one priority. Amy believes that sound production is the most basic, fundamental aural skill that a student must master. If nothing else, a student needs to be able to produce a correct tone or at the very least, know what a correct tone sounds like on their instrument. If a student cannot produce a characteristic tone on their instrument, it is unreasonable to expect them to produce correct pitches and rhythms. How can pitch and rhythm be identified if tone, the most fundamental building block of sound, is not established first? Amy had brought up the importance of producing a correct tone several times in her first interview with me, so I decided to bring it up again in her second interview to obtain some clarification. “I feel like the second you put the book or any kind of notation in front of a child, they flip their focus onto the page. And suddenly they're only thinking about the fingering or what the note is. Not like, how does this note sound?” (Amy, Interview 2).

Amy reflected on changes she made this year; she has always led with aural skills, but I got the sense that she really made them the heart of her teaching this year. She shared with me that she saw enormous gains in her students compared to years prior. When talking about what she saw this year, she said,

It makes everything easier down the road... Taking that time this year to make sure that they're doing the fingerings and the finger moving and the listening before putting notes in front of them has made an enormous difference. I have ten flutes this year and every single one of them can play band pieces instead of freak out over how many fingers have to move for these notes. (Amy, Interview 2)
Amy found a way to connect the executive skills to the aural aspect of music. By keeping notation out of the equation for just a little longer, she observed her students excelling in ways she had not experienced before.

**Laura**

**Philosophy.** For myself, as someone who teaches band only, and considering the other participants I have observed, all purely band teachers, I cannot help but notice how Laura's personality, her mannerisms, the words she chooses to use, are different from the others I have observed. She speaks a lot about “whole child” teaching and learning and the importance of the very early years of music instruction, well before band even starts. I am sure that the other participants see the value of these aspects of teaching as well, and that idea even came up in some of their interviews, but Laura sees these things through a different lens. Every day, she is on the floor, in the general music classroom, teaching students as young as three years old. Then for part of her day, she teaches small group band lessons and large rehearsals.

I see their participation in band and their performance on their instrument as really an extension of their own inward musical ability and skills and expression... I'm not really approaching their learning as specific only to that instrument... I'm seeing them as a child that... needs to work on listening, speaking, reading, writing... all those skills that encompass being a musician... The instrument is just the avenue of expression... I'm aiming to teach their musicianship. (Laura, Interview 1)

Laura teaches in a private N-12 school in upstate New York. This is her second year in this position (before she had exclusively taught general music in another district) and she shared with me that while she is still figuring out exactly what she wants to see in her band, she is glad to be teaching students from a young age, still, as a general music teacher. She truly sees a child's
music education as continuous; there is not really “general music” and then “band,” it’s all just “music.” By being the early general music teacher for these students, she is able to instill fundamental building blocks when it comes to developing musicianship. These building blocks are in place so that by the time she has these students in band, she can jump-start their musical experience when they get to her there. That is, however, down the road, as this is Laura’s second year. She is definitely excited to see what a truly holistic, continuous musical education would result in for her students. “I like my position, getting to work with the younger kids, giving them those aural foundations that they can later use in band, or in chorus, or whatever they choose to do” (Laura, Interview 1).

**Aural Skills.** The first time I spoke with Laura, she was quick to point out that she always had a knack for figuring things out by ear, even when she was first learning her instrument. “I could tell stories about... connecting sound to notation... or figuring out things on my instruments that the band teachers were like, ‘Wait, you learned that by ear?’... I had lots of those experiences, like, ‘Why are you doing that?’” Laura has always taken an aural-focused approach as a musician and that transferred very easily to her work as a music teacher. “Aural skills are... the big foundation of whether or not the students will be successful on their instrument” (Laura, Interview 1).

Laura finds creative ways to differentiate instruction in her aural-skills focused band curriculum. When speaking about the method book she uses with her students, *Jump Right In* (Grunow & Gordon, 1989), she says,

I love that it differentiates with the tunes... one student might want to play the melody, someone might want to play the bass line, you have one kid who’s just like, ‘Get me the heck off of the melody and bass line, I want to play the hard part, number six.’ You
know, you can scaffold for those kids and give them something that suits them. (Laura, Interview 1)

Going further along this strain, Laura also supplements with *Solo Book 1A* of the *Jump Right In: Instrumental Series* (Grunow & Gordon, 1989).

I think the book with all the tunes in it is also really important, because I believe, again, going back to that aural skills piece that the more tunes the kids are going to be able to play, the more successful they will be, the better their audiation. (Laura, Interview 1)

It is important to note, too, that Laura is not only heavily influenced by Gordon's Music Learning Theory, but she is also a member of the New York chapter of the Gordon Institute for Music Learning. She believes that musicianship and audiation go hand-in-hand. She noted that *Music Learning Theory* was a big part of her training at Eastman when she was there. She did say that her instruction “aligns with MLT goals” (Laura, Interview 1) and this will become more evident later on when a closer look is given to each participants' teaching techniques.

**Alex**

**Philosophy.** Alex has taught in different parts of the country and knows that the one commonality among these different parts of the country is that, “Fourth grade is a young age to start... you need to be very patient” (Alex, Interview 1). Alex teaches in a quaint little town in upstate New York. He was very thoughtful about his response when I asked him to give me a summary of his music teaching philosophy. He was careful to bring in the needs of the particular community he works in now, which, of course, greatly influences his style.

The umbrella for all of it, when students first enter the program, is for me to create a good relationship with the student. To create a personal teacher-student relationship where they feel safe, to put themselves out there, try something new, to be encouraging and
understanding of the multitude of backgrounds that these students are coming from. And to also engage them in music making in a way that helps to create some sort of aesthetic experience for them. Even if it's playing long tones or playing Hot Cross Buns, so that when they leave... they have to have a success experience at the end, you have to save time for this. (Alex, Interview 1)

We also had a deep conversation about “having fun” in band. Alex wants his students to have fun, but not in the sense that band is just a fun little thing you try and don't work at. He wants them to feel encouraged, motivated, and know that they are in a safe place where they can make mistakes and try again. He even admitted, “Even as an adult, if it’s not fun for me to go to rehearsal, I don’t want to go.” He pointed out that some teachers like to say band is “rewarding.” To that, he says, “No fourth grader or fifth grader understands rewarding and some of the parents don't.” Instead, Alex believes that, “At the heart of it, you have to enjoy it” (Alex, Interview 1).

**Aural Skills.** Alex sang a lot as a child right up through college. Both of his parents were music teachers. While Alex says his father was a huge influence on his life as a band director, his mother sang to him constantly. It was a part of who he was growing up and naturally it has found its way into his teaching. “I guess I just felt it was fundamental.” He said that familiarizing himself with solfege in college was a bit of a learning curve, but today he uses it all the time with his students, which, he says, is great because it transfers so well to his students’ general music experience. Alex focuses a lot on imitation and modeling for his students. “We are an aural language, imitation is how they will learn” (Alex, Interview 1).

Going beyond imitation now, in the past few years, Alex has started to branch out into improvisation with his students. This stemmed from his own personal interest in improvisation. He was quick to point out that he was completely classically trained and this interest in
improvisation is a new musical adventure for him. He has brought this newfound interest to his students. He said,

They’re really engaging it, a lot of them really click. And the other thing I notice is that, some of the students who you never thought would have a voice, like they're average, they're ok, they're kind of reading notes, we go around, we say take four measures, everybody takes four measures, we start going around in a loop, and they have musical phrases in their improvisation. A beginning, middle, and end, and I’m just like, ‘Wow, I never knew that was in you.’ So it's been revealing and I can’t go back. (Alex, Interview 1)

Alex has discovered that there are many different ways that students can express themselves through music. He also got his students collaborating with a New Orleans-style jazz group in the area he is now a part of. Through this ensemble, he has not only grown as a musician, but has grown along with his students. “I’m sharing that with my kids, my students, and bringing them into that fold” (Alex, Interview 1).

Ella

**Philosophy.** This is Ella's 27th year as a band teacher. Though Ella has certainly figured out, to an extent, what does and does not work throughout her teaching career, she is open to growth and change. “It’s been a long, long process. I figure by the time I retire, I might have it. I might begin to be able to say, ‘I’m starting to figure it out.’” Currently, Ella is the elementary band director at two schools in upstate New York and also does some of the lessons at one of the middle schools in this town. Ella is all about setting students up right from day one.

Because I get them at the beginning level, one of my huge jobs is to set them up correctly with their executive skills. We work on them all year. So wherever they go after me, their
hands and their bodies and their mouths, their faces, and their air is on the right track. Obviously we tweak it for years. But there are some basic things that need to be in place and I take that very, very seriously right from day one. (Ella, Interview 1)

Ella also aims to create independent musicians.

The second thing is that I hope to sort of show them what their capabilities are for problem-solving when it comes to figuring out tunes by ear. So, and in general that is because it is so much more motivating than your basic, what I like to call ‘drill-and-kill’ approach to teaching. Which is, let’s work on line 10, now let’s error-eradicate for the next half hour. And it’s much more fun to say, to develop a vocabulary within which they can work to figure out whatever tunes they might want to figure out. (Ella, Interview 1).

Just as important as the aforementioned bits, Ella wants students to love the process of learning. This is very evident in her classroom. She has created a classroom environment that encourages mistakes and risk-taking. Hardly ever, if ever, does she give them the answer. She has created a culture that encourages and nurtures the learning process.

**Aural Skills.** Ella grew up in a musical household. “Everybody in my family is a troubadour.” She even mentioned that her grandfather sold ukuleles door-to-door in New York City. She said she was completely immersed in music, even in the womb. Ella notes that music, Isn’t a language strictly, but the order we learn it, mirrors that. So there is a syntax, there are sounds that happen typically in any given tune vocabulary and harmonic vocabulary… If the aural skills are in place in the way that we need them, then the possibility to read with comprehension becomes a reality. (Ella, Interview 1).

Ella had brought up the point that sometimes students that have prior musical experiences in which notation was introduced very early to them, are the ones that struggle the most at first.
This is not true for all, but there are just a few cases as such. I brought this up in her second interview, referencing the work of Haston (2010) in which he found that, although not significantly so, students that started with an aural curriculum first before visual, ended up being stronger musicians not only when it came to playing by ear, but they also became better readers later on.

If you're used to singing and you know what the context for that note is in the scale, then you'll self-correct it. Whereas kids who are just letter naming and not audiating, don't. So while they both get the right fingerings, one is better at correcting than the other. It's true for rhythmic sensibilities as well. The kids who feel and can move in time. Everyone has to be reminded to do it. Because as soon as your eye clicks in and you're concerned with all the executive skills, identifying what the note is, the rhythm is the last piece that they process. (Ella, Interview 2)

True to her willingness to grow as a teacher and musician, Ella admits that she has not always taught with such a strong focus on the aural aspect first. There was modified notation in front of her students early on, "tune charts." But looking back on it, she said, "I don’t like to teach notation and the instrument at the same time. It’s too many things all at once. I like for them to be proficient on it. As soon as you introduce the eye, the ear shuts down. So I like to have as little as possible." About eleven years ago, Ella took a masters level course at Eastman and got really inside Music Learning Theory. Though she always incorporated aural skills into her teaching, this was a true turning point for her. "I felt so strongly about it that I said, 'You know what? I can't do this other stuff for one more day. I'm not doing it for one more day. And I’m not waiting for my colleagues to jump on board... The old guard isn't going to gripe at me anymore"" (Ella, Interview 1).
Connections to Past Literature

The literature supports many of the ideas participants brought up in their interviews. Common themes that emerged among participant answers were as follows: (a) teaching with a focus on aural skills first is an efficient way to start beginners; (b) asking students to learn the mechanics and executive skills on instruments concurrently with learning how to read, is unreasonable to expect from a student; (c) music is similar to a language and should be taught in the way that emerging reading behaviors are taught for any other language; (d) students are more likely to find quicker success and therefore motivation to keep trying if they are able to play tunes by ear early on in their education; (e) developing musicianship in students is a priority and aural skills plays a huge role in musicianship; and (f) students that learn aurally first tend to read music more effectively in the long run.

Amy had brought up how teaching by ear is an efficient way to start beginners. Persellin (1992) supports her claim when he found that younger students had a more challenging time with recalling rhythms when they were only presented visually. Students were more likely to succeed when multiple modes were utilized (visual, aural, kinesthetic). Liperote (2004) also provides some support when she found that audiation training in third grade recorder classes contributed to the success of beginning band students the next year. With those early aural foundations, they moved quicker than their peers not taught with such a focus in third grade.

Both Alex and Ella spoke to how music is similar to a language. As Gordon (2001) says, “music… has a syntax but not a grammar and thus is not a precise language” (p. 3). However, Gordon’s Music Learning Theory consists of sequences that mirror emerging reading behaviors: listen, speak, read, and write. Music Learning Theory provides a framework for such an approach.
Ella had noted in her interview that she often found some students that had been taught with more of an initial focus on notation rather than an aural focus, have a harder time developing their aural skills later. Similarly, McKnight (1975) had found that students that were taught aurally first did better later on with developing sightreading skills and auditory-visual discrimination skills compared to their peers taught visually. Haston (2010) also supports this claim with his finding that students who had first been taught with an aural/modeling approach first ended up excelling with note-reading compared to those that had been taught with a visual approach.

Bernhard (2004) and Bernhard (2006) are able to shed some light on the participants’ belief that students perform better in the long run if they are taught aurally first. While Bernhard (2004) was able to show that students taught with an aural focus were able to play by ear and sightread more effectively than their peers taught purely out of the method book, in Bernhard’s (2006) follow-up study, he found that five months later, the visual group was starting to outperform the aural group. However, all students had returned to a purely method book-oriented curriculum. A longitudinal study on the long-term effects of an aural versus visual music curriculum could further explain the participants’ perceptions that their students perform better when they have an aurally-focused foundation.

Laura brought up how she is trying to develop her students’ musicianship and focuses on aural skills heavily in order to accomplish this. Musicianship can be defined in many ways, but it would be safe to say that musicianship is comprised of both internal and external musical abilities (i.e. executive skills, tonal awareness, creativity). Musicianship involves deep understanding of many musical skills. Sloboda (1984) says that sightreading is a way of checking the musical perception and understanding of a student because it engages cognitive
processes. In Mishra’s (2014) meta-analysis of the factors that relate to sight-reading accuracy, the high correlation of improvisation and ear training to sight-reading accuracy led her to infer that perhaps, Cues in the notation and aural cues from the performance may interact with music knowledge during sight-reading, resulting in sophisticated guessing. Aural skills may make the performer more self- and musically aware, allowing the performer to quickly form expectations and predictions during sight-reading while also adjusting performance quality quickly. (p. 461)

This is very similar to what Ella had brought up in her second interview; if students are internalizing and understanding what they are reading and hearing, a skill largely developed through aural skills, it will help them to fill in the gaps when sightreading.

**Summary**

Chapter IV has presented the teacher participants’ music education teaching philosophies and their thoughts and opinions on teaching aural skills in the beginning band classroom. Chapter V will address the participants’ ideas on when aural skills and notation should be introduced to young band students.
Chapter V

When do we teach aural skills and notation?

To help understand when the participants teach aural skills and then eventually when they teach notation, they were asked: “Can you describe your thoughts on teaching students aural skills in band?” and “At what point is notation introduced to students in your classroom?” These questions also naturally led to conversations about when aural skills are infused into their lessons and band rehearsals. These conversations were the most varied than any other topic that came up in the interviews. Participant answers fell along a spectrum of time regarding when notation is introduced, although all participants said they teach aurally even when students are reading from notation. The following includes a summary of each participant’s thoughts on when aural skills are introduced to their student.

Amy

Amy prefers to start purely aurally first. She does a lot of call-and-echo exercises with her students. She begins with rhythm call-and-echo exercises, and then infuses tonal pattern call-and-echo exercises. She introduces notation gradually. “I sneak it in. They do... the first three notes, then we start looking at it in the book... So, early on, but then I take it away again to add the new notes. And then back to reading the notation” (Amy, Interview 1). The aural always precedes the visual. However, Amy continues to infuse each lesson with a little bit of aural-specific training. It may not always be at the forefront of her teaching, but it is always there.

Although there is no firm benchmark on when she wants students to be reading comfortably from notation, from my observations, I got the sense that Amy was very particular about them being able to identify notes and rhythms on the staff in fourth grade. That said, her students are able to read at a foundational level from their method book, and they are also
comfortable with the processes she uses to get them to learn tunes by ear. Amy aims for a balanced approach between playing by ear and playing from notation. Aural always precedes the visual, but getting her students to read from notation is definitely a priority for her.

Amy does not let the impending arrival of a concert get in the way of her approach. “The fourth graders join us for just one piece. And it's only the fourth graders that have mastered... enough material, so I'm not pushing the kids to read. Which has... made my students sound better” (Amy, Interview 1). Amy has become very resourceful at finding ways to make the most of the time she has with her students. Again, she knows what works, and she knows what does not work, and she's not afraid to change things if it benefits the students.

Laura

As the general music teacher for younger students at her school and the beginning band teacher, Laura really has the opportunity to create a foundation for her band students before they even start a band instrument. She said, “For Kindergarteners, for instance, I'm showing them notation, but I'm not asking them to be independent with it” (Laura, Interview 1). For first and second graders, she's “building... some reading abilities and modeling and... extending their skills, specifically through, mostly rhythms, but also talking about the staff” (Laura, Interview 1). As this is Laura's second year in this position, she has not quite seen her foundations in the lower grades ripple up to beginning band, but she is optimistic that it will make all the difference in the world.

Laura says that she usually presents everything aurally first. Again, aural precedes the visual. Similar to Amy, she’ll have students look at notation that was just sung, to see if they can build those connections on their own between the aural and the visual. It is not uncommon for Laura to teach a purely aural-based lesson to her students, especially in the beginning weeks.
This works particularly well with her fourth grade band, which still meets from the beginning of the year, even though they are still working on proper instrument set-up and posture. She leaves learning the individual intricacies of learning a particular band instrument to their weekly pull-out lesson groups; band rehearsals are a perfect time to build aural skills together. Regardless of whether or not students know the specific notes on their instrument, they can still sing with solfege together and build their comfort with what they are hearing.

I asked Laura to reflect on her concert last year and what that looked like. In my experience, teachers often feel pressured to make a concert look a certain way, so I was interested in how she approached her concert:

I got up and explained how we learn music, and then said, ‘We’re going to play our first piece that we played on instruments. It’s called Major Duple. First we're going to sing the melody for you and then we're going to sing the bassline, and then we’re going to play what we sang.’ So each song in their first concert sort of had that format. We’re going to sing the parts, and then we’re going to show you how we play them. And there was no notation. (Laura, Interview 1)

At Laura’s second concert, at the end of the year, her students were reading from notation, but also doing some tunes by ear. She said that both concerts had been well-received and again, she was able to carry on her aural-based curriculum without worrying about getting her concert to look a certain way.

Alex

Alex had a very emphatic response when I asked him at what point he introduces students to notation. “Second lesson... I really do” (Alex, Interview 1). He believes that, especially at such a young age, students need something concrete that they can do at home, something that they can
see. Although again, he always starts with aural training before moving into the book in any given lesson, he moves very quickly into the book.

    I do a lot of voice training. I do solfege. I do a lot of teaching. If I know there's a hard thing coming up in that lesson group, I don't even open the book, I just do it, and I start playing that pattern. (Alex, Interview 1)

Alex likes to have a good balance of aural and visual. He says he does aural training in every lesson, about 5-7 minutes, and then he moves to the book.

    Alex prefers to use the “open-house” approach at concerts.

    I say, ‘This is what we're doing in the band room.’ I don't like to just show up and play three songs, and bow, and then leave. I like to engage the audience and say, ‘We’re doing more here.’ (Alex, Interview 1)

Similar to Laura's approach, Alex uses the concert as a way to teach families about the importance of his process. Students might not be able to read long, standard band pieces by the end of the year, but they have obtained strong foundations in aural skills and notation-reading skills, which will help them to excel later in their musical education.

**Ella**

    If she could, Ella would push off teaching notation until the second year of instruction. However, based on what students are expected to be able to do by the time they get to middle school, she knows she needs to introduce notation sooner so that her students are prepared for that transition. She says that her benchmark to introduce notation to students is “a calendar-reference rather than a readiness-reference” (Ella, Interview 1). Eventually, Ella does start to infuse reading from notation into her lessons. “I will sing to them and read to them while they follow notation with their finger” (Ella, Interview 1). Notation is never introduced to her students
without some sort of aural context. As was seen with the other participants, and as Ella says it best: “The aural has to precede everything else” (Ella, Interview 1).

Ella shared with me several times that often she feels pressured to get students reading notation earlier than she feels is appropriate. Ella cited the importance of following emerging reading behaviors and that the aural must precede the visual. There are a few changes she feels would really allow such an approach to flourish. Starting students in fourth grade, instead of fifth, would be one of those changes. With that in place, she would teach purely aural for the first year, before any notation is introduced. She envisions a robust aural experience that includes improvisation and composition. Notation would be introduced at some point in their second year when they have a deeper aural understanding.

There are no music stands at Ella’s first concert of the year, which takes place towards the end of January. Her students know several tunes, which they have learned in their lessons. They have learned the bass lines and harmony parts to these tunes. The students make their own arrangements of the tunes together. “We decide who’s going to get the melody, who’s going to do the bass line, which harmony parts.” (Ella, Interview 1). The second concert, which takes place in May, includes three beginning band charts and a jazz head chart. Still, the jazz tune is largely by ear, but students are, at this point, reading from notation.

**Connections to Past Literature**

The following themes emerged in the participant interviews: (a) notation should be introduced during the second lesson; (b) notation should be introduced during the second year of instruction; (c) aural skills should be infused into every lesson; (d) aural skills must precede notation; and (e) more time would mean more depth of knowledge in aural skills.
Alex introduces notation to his students quicker than any other participant in this study. Several studies support his approach. Bernhard (2004) laid out a process for learning tunes, which culminated in reading them from notation. While Bernhard (2004) did lead students through a learning process that began with aural teaching techniques, students were quickly assessed on their ability to read from notation. Alex often follows a similar process when teaching his students. Kendall (1988) found that introducing notation early on alongside aural skill training, did not impede the aural skill development of beginning band students.

Ella delays introducing notation for as long as possible. Grutzmacher (1987) observed that students that were taught tonal patterns through harmonization and vocalization strategies ended up performing better than their peers that were taught from a standard method book.

Each participant studied infuses aural skills training into every lesson to varying degrees. Alex quickly moves to combining visual and aural strategies; Amy delays introducing notation just a big longer; Laura delays notation even more; and Ella aims to delay notation as long as the calendar will allow. Regardless of when notation is presented to their students, it is done with an aural context. This is where the literature is the most supportive of their approach. Both MacKnight (1975), Bernhard (2004), and Haston (2010) found that using a learning process that used both aural and visual strategies was more effective than a purely visual strategy. Similarly, Azzara (1993) took this type of approach a step forward and integrated an improvisation component. Students with access to that improvisation component outperformed their peers on tests of music reading. Karas (2005) also found that high-aptitude students that had a comprehensive aural and visual approach outperformed their matched high-aptitude peers that had an approach that purely utilized the method book. Persellin (1992) observed that students are able to recall rhythms more effectively when they are presented through multiple modalities (i.e.
visual and aural, or visual and kinesthetic). While Kendall (1988) was not necessarily exploring the effectiveness of aural teaching strategies alongside visual learning strategies, he did not find that one impeded the other.

All teacher participants in this study also begin with aural learning before moving to notation, even if only very briefly. MacKnight (1975), Bernhard (2004), Haston (2010), and Azzara (1993), all use a process in which students learn a concept aurally first before performing it visually. Students in those experimental groups outperformed their peers in the control groups, which had more of a visual focus. Liperote (2004) investigated how an audiation-based recorder curriculum in third grade affected the musical achievement of instrumentalists in fourth grade. Similarly, those students with an audiation-based foundation outperformed their peers that did not participate in such a curriculum.

Each participant also eluded to needing more time to do all of the things they wanted to do. Ella had mentioned if there was more time that could be devoted to the process she sees as the most effective, then students would have an even greater amount of depth of knowledge in aural skills. While the literature that addresses the correlation between varying amounts of time spent on aural skills and their musical achievement is relatively thin, the aforementioned studies do speak to how time spent on aural skills does, in fact, translate into more comfort with music reading (MacKnight, 1975; Grutzmacher, 1987; Azzara, 1993; Bernhard, 2004; Liperote, 2004; Haston, 2010).

Summary

Chapter V has investigated the participants’ thoughts on when aural skills and notation should be addressed in the beginning band music curriculum. While there was some overlap in
their responses, this is the area in which participants varied the most. Chapter VI will look at a selection of aural teaching strategies that participants used in their classrooms.
Chapter VI

How do we teach aural skills?

Two modes of data were included to show how the participants teach aural skills in their beginning bands. Several interview questions helped to answer this question. In addition, researcher observations and participant-submitted recordings were included to show how these teachers taught aural skills to their students. The following are a selection of aural teaching techniques that came up in interviews and were observed in the classroom. Each technique will include examples from teacher participants that utilized such a process.

Developing Tone

Amy.

Peer Feedback. Amy likes for her students to be able to identify what a correct tone is and be able to figure out how to fix it if it’s incorrect. One of the ways that she does this is by using peer feedback. She’ll go around the room and if she finds a troublesome tone a student is producing, she’ll ask the others what they think about the tone. She's looking for descriptors, for example: “The sound is pinched,” or “It sounds too rough.” Then the students will give helpful suggestions, for example: “Keep your chin flat,” or “Corners firm.” She is constantly questioning her students on what kind of technique is needed in order to produce a correct tone. Even if they are not able to produce it right away, she wants them to be able to identify it and know how to fix it, even if they are not physically able to at the moment.

Alex.

Buzzing Analogies. Alex had brought up how he likes to use different analogies for his brass players when they’re buzzing. This exercise develops lots of skills, one of them being correct tone. In his baritone lesson, Alex starts with just the mouthpiece. He instructs them to
produce a nice full, steady block of sound. They do this once. Then he tells them to buzz a siren.

The students buzz a gliss-like pattern up and down a few times. Alex does this along with them.

Next, he tells them to buzz a shooting star. This one consists of a strong “tah” sound at the beginning and a drop in pitch. He brings their attention to one of their learning targets, “I can articulate with a “tah.”” He explains that the shooting star needs that “tah” sound at the beginning. He has them try this again. The last analogy he uses is of a motorcycle. This has the student still making a “tah” sound but then quickly scooping the pitch up.

**Call and Echo**

Amy.

*Scale Degree Echo.* Amy stands at the front of her beginning band. There are about 15 students present at this rehearsal. She tells them that they will echo rhythms. They are starting in Concert Bb. “One, one, one,” she says rhythmically. She cues the band to play. The band plays in the rhythm she modeled on the first scale degree of Concert Bb. She checks to make sure they know which note “one” is on their instrument. Students call out their responses. Satisfied, she has them do the same pattern again since the first time there were a few wrong notes. The students perform much better this time. Amy has them play a different pattern: “One, two, one,” in the same rhythm. She also shows, with her fingers, the scale degree numbers and moves her hand up or down depending on the relationship of that scale degree to the others. She has them play several other patterns using three and five as well.

Amy followed up this recording with an email in which she talked about the process to be able to get to this point. She said that her beginner students are working with scale degrees one through five, while the high school does one through eight. She said initially it was very difficult to get the students to make the connection of scale degree numbers to notes on their instrument.
However, in the recording she submitted of her band, the ensemble was very fluent with one through five and there were minimal errors.

*A Tune by Ear.* One of the recordings that Amy submitted was of a fourth grade clarinet lesson. She starts by saying that she is going to start on “A.” She taps her foot to a steady beat and plays a pattern on the clarinet: “AAAAGGG.” She cues them to echo it back to her. There are a few minor errors when switching to G. She says, “I’m starting on A. What am I switching to?” One student replies, “F.” Amy tells them to listen again. She plays the same pattern and all four students shout out, “G!” They play the pattern all together with good accuracy this time. She goes on to play the next part, “FFFFA.” She asks them what note she started on. One student answers, “F.” They play this pattern together with a few mistakes, particularly when going up to A. She tells them to listen again. She plays the same pattern and then follows-up with singing “FFFF” and then pauses for them to finish by singing, “A.” They play this together. She tells them she is now going to start on “D” with the next pattern. She plays, “DDDDCCF.” There is some confusion as to whether the last note is “F” or “G.” She plays it for them again and then has them echo it back. Some students play “F” and some students play “G” on the last note. She clarifies that it is “F” and she plays it for them one more time. It is much better this time. She plays the next pattern, “EFGAG.” Amy sings it for them using note-names and then plays it again. She tells them to try it with her. They’re able to mostly get through it. She has them do it again. They play it with some minor errors. She goes on to the next pattern, “AAAAGGG.” This is the same pattern they started with. They’re able to echo it back right away. Amy goes immediately on to the next pattern, “FFFFA.” The students also are able to echo this pattern back right away. She goes on to the next one, “DDDDCCF.” The students also remember this one from before and echo it back with minor problems. Amy warns them that this last pattern is
tricky. She plays, “GFGAF.” She asks them what note she started on. One student answers that she started on “G.” Amy sings the pattern on note-names. She then has them play along with her. They’re able to mostly play through it. She asks them, “What song is that?” Eventually a student figures out that it’s “Jolly Old St. Nick.”

Laura.

Solfege Echo. Laura stands at the front of her beginning band with a flute in hand. They are working on call-and-echo patterns. She instructs them to listen. She says that she will be starting on “Do.” She plays a rhythmic pattern on flute using only “Do.” Her students play this pattern back to her on “Do.” After a few attempts at this, she is satisfied with their effort and moves on to a different pattern. She asks them to find “Ti” on their instrument. She asks them to sing and finger the pattern: “Do, Ti, Do.” She plays the pattern first on the flute, then her students echo this back to her. She uses “Do” and “Ti” in a different rhythmic pattern. Students echo her back. She then asks for a student to lead the ensemble in echoing patterns back on “Do” and “Ti.” A few students have the opportunity to do this. Laura always asks the band to solfege the patterns the students play to ensure that they are still thinking of it in solfege.

Alex.

Three-Note Echo. Alex stands at the front of the lesson group in his band room. He has his own flute. Alex starts a recording of a rhythmic backing track through his iPad, which plays through the stereo system in the room. He plays a rhythm using “B” on the flute. Students play this back to him. He models a couple of ways to articulate and brings their attention to the correct way to articulate (using a “tooh” syllable). He gives them a couple of other things to think about (keeping air steady, keeping embouchure steady). He tells them now they will go to “A.” Students make this transition well as they continue to echo back patterns to him. Then he
starts to vary the patterns. He plays “B, A, B.” Students are able to echo this back to him with some repetition. He then plays “B, A, G.” Students echo this back. Then he plays, “G, B, A.” Students have some difficulty with this one so he asks what the last note was.

Ella.

**Transferring Tonal Patterns.** Ella sits at the piano in her lesson room while her oboe student sits nearby. She tells her student that she wants to transfer the tonal patterns they just sang into solfege. Ella establishes a key on the piano. She sings, “Do, Mi, Do.” The student echoes her back on solfege. She then sings, “Re, Ti, Re.” The student echoes back on solfege. Ella goes back and forth with her student a few more times, utilizing Ti, Do, Re, Mi, Fa, and So. The student is able to echo her back on pitch with the correct solfege. Ella says now they’re going to transfer that solfege into the key of Bb so they can figure them out on oboe. She establishes the key of Bb (which is different from the key they sang in, because she wanted her student to sing in a more range-appropriate key). Ella sings the same patterns back to her student. Her student plays the tonal patterns back to her on the oboe. Ella then tells her she is going to send her home with some CD tracks that essentially do the same thing, but in the key of Eb. Next, they practice the same process in the key of Eb.

**Improvisation**

Laura.

**Inner Harmony Improvising.** Laura stands at the front of her beginning band. After a brief warm-up exercise, which leads them to a tune they’ve been working on, Mary Ann, she tells them that she hopes their work on this tune today can be more “multi-leveled.” Up until now, the band has been doing the melody and bass line of the tune; she would like them to experiment with adding inner harmony parts to their arrangement. She gives them some examples of using
“Do” and “Ti” in varying rhythms to reflect tonic and dominant in the song. She suggests one could also incorporate “Re” as well and sings an example of this. She tells them that they are “borrowing” syllables from tonic and dominant tonal patterns to create these inner harmony parts. One student says, “Improvising.” Laura affirms that they are indeed improvising. She tells them she will hold up her fingers according to whether it’s tonic or dominant as they go through the tune to help them stay on track. She has some sections play the melody and then everyone else improvises inner parts.

Alex.

**Improvising Hot Cross Buns.** I asked Alex how he gets his students improvising in the first place and how he introduces that concept. Alex starts with Hot Cross Buns. He brings their attention to those three notes and does some call-and-echo patterns on those three notes. He has a backing track playing while all of this is happening. Then he has them make up their own patterns using those three notes. Once he has them doing that, he tells them to experiment with different rhythms. He will prompt them to try and make it sound sleepy, or excited, for example. This gets them thinking about articulations and volume. Eventually, his students are improvising on the pentatonic scale by their second year. Alex starts with a tune they are comfortable with, has them experiment with it, and then they move to more complicated tunes. He always does this with a chord progression behind them to give them some sort of context.

**Aural Identification**

Amy.

**Aural Note-Naming.** Amy starts by saying, “I am going to buzz a rhythm, you are going to echo me.” She plays a few rhythms back and forth and takes this as an opportunity to also fix posture. They’re able to echo back to her. Amy then says, “Let’s try a G first.” She models a G
on the trumpet and she gestures for them to join her. Some play a low C, others are able to play the G on the first try. She brings their attention to this. “What do you need to do to go higher?” she asks. Several students respond that they need tighter lips and faster air. Satisfied with the answer, she has them play F, E, and D, in a similar fashion.

Next, she tells them that they are going to echo back what she plays and that she is starting on an “E.” She allows them to watch her fingers. She plays “EFE.” She cues them in and plays the pattern along with them. She plays another pattern and the students echo it back. She then invites others to make up their own patterns for the group to echo back. She calls on one student to do so. This student says, “G.” Amy counts her off, encouraging her to play a rhythm on "G." The student plays a single "G." The group echoes this back. Amy then specifies, “Somebody do a four-beat pattern.” Another student plays “FEFG.” Amy asks if anyone can say what notes the student played. One student raises their hand, Amy tells them what note the student started on, and they are able to say the notes that were played. She has the rest of the group echo it back on their instruments.

Laura.

*Tonic/Dominant Tonal Pattern Creation.* Laura is directing her beginning band. She is using her warm-up also as a creative exercise. She starts by having them establish what “Do” is in Concert Eb on their instruments. She has them sing “Do, Mi, Do.” She tells them the next pattern is a dominant pattern: “Re, Ti, Re.” The students sing this back. She says the next one is a tonic pattern: “Do, Mi, So.” She then says for the next pattern she wants someone to tell her what kind of pattern it is: “So, Fa, Re.” They sing it first and then one student tells her it’s a dominant pattern. Then she has them sing a tonic pattern that they make up on their own. She gives them a moment to think about this. She gives them some suggestions of syllables that
could be in it. One student sings “Mi, So, Do,” which she points out is the beginning of one of their tunes, Mary Ann. She has them play this pattern all together. Then she has them make up a different tonic pattern. Next, she has them play a dominant pattern that she gives them: “So, Fa, Re, Ti.” Then she has them make up their own dominant pattern.

**Major Tonic Game.** Laura is standing at the front of her beginning band with a flute in hand. Students do not have instruments in their hands. She plays a short melodic line and leads to the tonic pitch to get her students’ ears in the right key. She sings, on the tonic pitch, “Do is our resting tone in major.” She has her band sing this back to her on pitch. She explains that in her “Major Tonic Game,” they are identifying anything that is in the major tonic tonality. She shows them on the board that Do, Mi, and So are part of the major tonic tonality. She has her students solfege these pitches. Now she introduces, “So, Fa, Re, Ti.” She brings their attention to the fact that it starts on So, which they identify as “dominant.” She says if she sings a major tonic tonality, they jump. If she sings a dominant pattern, then they shake their head no and stand still. Everyone stands up and she sings a short melodic line to get their ears in the key they will be using. Laura sings through different patterns in both tonic and dominant. Students do very well with it during the “first round.” She jumps along with them. In the “second round,” she tries to trick them a few times and gets more students “out.” In the “third round,” she speeds things up. Students still do very well identifying tonic and dominant patterns.

**Ella.**

**Transposing with Solfege.** Ella sits in front of her alto saxophone group and near her piano. She has an alto saxophone in hand as well. She has them start by playing Hot Cross Buns in C Major on their instruments. They play through it well, so she has them try the song, Major Duple, in C Major as well. First they sing it in G Major, which is the first key they learned it, on
a neutral syllable, “Doo.” They finger along as they sing. Now she wants them to play it in C Major. There is some confusion as to what note it starts on, so she has them think of it in solfege. They go back to G Major. She tells them they will play it in the key of G Major first and then transpose it to the key of C Major. They play through Major Duple in the key of G Major. Next, she has them sing it in solfege. She reminds them that it starts on Mi. They sing through it on solfege. Then she uses the piano to establish the key of C Major. She asks them, “What note is Mi in the key of C?” The students answer that it starts on E. She confirms for them that the solfege stays the same but the notes that they represent can be different depending on what key they are in. She asks them what Re is in C Major, which they say is “D.” She also has them identify that “B” is “Ti” in this case. She has them solfege and finger through the song in C Major. Then they play through it successfully. One student asks what would happen if they ended on A. She tells them it would be minor then. The student tries it and she plays the appropriate chords so they can hear that change. Ella decides to teach them Minor Duple now. She plays Minor Duple in A Minor and the kids hear the change right away. She asks if they know what minor is. One student describes minor by using feelings (happy, pleasant for major, scary, sorrow for minor). She said that this can be true but not always and that's not what defines minor. She sits at the piano and sings, while accompanying herself, “Major rests on Do.” Then she sings, “Do is home in Major.” She has them sing this back to her. Then she plays in a minor tonality and sings, “Minor rests on La.” She has them sing, “La is home in Minor.” They sing this along with her. She says it's the difference between “Mi, Re, Do,” and “Do, Ti, La.” She says you can think of it as “Do versus La as the home.” She tells them they're going to stay on “C Do” and play “Old Cold Buns,” which is “Hot Cross Buns” in a minor key, which they did earlier in the year. They play through Old Cold Buns. Next, Ella has them sing through Minor
Duple on “Doo.” She has them play through half the song and they do well with this. Then she has them individually play through the second half. They each try and they realize that “Ti” is not “G.” Ella has them sing it on “Doo.” She shows them it's a “G#.” She has them identify that the home is “A” and so they are in “A Minor.”

**Connections to Past Literature**

While each participant had some unique approaches that they exercised, a number of common teaching strategies emerged, including: (a) solfege; (b) singing; (c) call-and-echo; (d) improvisation; (e) buzzing on brass mouthpieces; (f) background music; (g) tonal center identification; and (h) tonal patterns.

Singing of some sort was seen in each participants' classroom. Whether it was using solfege, scale degrees, or a neutral syllable, singing was used in some capacity to teach many different concepts. Many studies have utilized a singing component that then translated into higher musical achievement than those students that did not sing as a part of a control group (MacKnight, 1975; Grutzmacher, 1987; Azzara, 1993; Bernhard, 2004; Haston, 2010).

The process of call-and-echo was also used in every classroom as well in different ways. This is a form of modeling. Kendall (1988) found that modeling was an effective strategy of teaching as long as it was coupled with other aural activities. Several other studies have included a call-and-echo component and when students were taught with such a technique, they tended to outperform their peers (MacKnight, 1975; Grutzmacher, 1987; Azzara, 1993; Bernhard, 2004; Haston, 2010).

Improvisation played a large role for several of the teachers as well. Karas (2005) found that an improvisatory strategy did help some students when it came to note-reading. Azzara's (1993) study was actually quite similar to what Laura was asking her students to do. He had them
improvising tonic, dominant, and sub-dominant patterns. Laura was observed having her students improvise over tonic and dominant chords. Azzara (1993) found that ultimately, the students taught with such an approach ended up being better sightreaders later on. Azzara (1993) also provided background music for when students were improvising, which is something that several teachers did. For example, Alex would play a “backing track” he made with Garage Band, Laura and Ella would both establish the key they were playing in on the piano and would often accompany their students.

Finally, all teacher participants used tonal patterns in varying capacities. Again, multiple studies used a similar process, teaching students different patterns, learning the solfege, singing them, then playing them on instruments (MacKnight, 1975; Grutzmacher, 1987; Bernhard, 2004; Musco, 2009; Haston, 2010).

**Summary**

Chapter VI included a selection of aural teaching techniques utilized by the teacher participants. Many of the strategies they employed were supported by past scholarly research. Chapter VII will summarize the findings of this study and provide ideas for the implications this study has for teacher practice as well as suggestions for future research. Finally, parting thoughts from the researcher will be shared.
CHAPTER VII

Summary and Conclusions

Purpose Statement

The purpose of this comparative case study was to describe how experienced directors of beginning band teach aural skills.

Research Questions

1) How do beginning band teachers incorporate aural skills into their teaching?

2) How do beginning band teachers describe their preparation, implementation, and assessment of aural skills?

3) How do teachers of beginning band balance the teaching of aural skills with other requirements?

Summary of Results

Teacher participants identified a number of reasons for why they thought it was important to teach aural skills to beginning band students. Some teachers felt that teaching with a focus on aural skills is an efficient way to start beginners. Similarly, some teachers also felt that asking students to learn the mechanics and executive skills on instruments concurrently with learning how to read, is unreasonable to expect from a student. So by stepping back and focusing on developing an aural vocabulary first, these teachers believed that students would have the aural foundations needed in order to succeed on their instruments. One teacher noted how they wanted to develop their students' musicianship and aural skills is a large part of musicianship. Another teacher noted that students are more likely to find quicker success and therefore motivation to keep trying if they are able to play tunes by ear early on in their education. Developing the capacity to learn aurally from day one becomes extremely important in this case. Another teacher
said that music is similar to a language and should be taught in the way that emerging reading behaviors are taught for any other language. This teacher had also observed that students that learn aurally first tend to read music more effectively in the long run.

Teacher participants varied on their responses of how they balance aural skills with other requirements, like when to introduce notation. While one teacher said they introduce notation in the second lesson, another teacher said they would hold off until the second year of instruction before they introduced notation if they could. Regardless, all teacher participants could agree that aural skills should be infused into every lesson in one way or another and that aural skills must precede notation when introducing new concepts. These teacher participants expressed that they believed that students needed an aural context before introducing the written note. One large theme that emerged among teacher participants was that they felt there was a lack of time in their schedule to get to all of the things they wanted to get to. Therefore, these teachers have had to pick and choose what works and what is the most effective and efficient way of teaching a concept.

There was some overlap in aural teaching techniques that the teacher participants utilized in their classrooms. Singing was used in every classroom. Some teachers used solfege, some used scale degree numbers, some used a singular neutral syllable, and sometimes teachers used a process of more than one of those options when teaching a concept. The teachers would sing to their students and they would have them sing back. Call-and-echo was another very common technique utilized. The teacher participants used this technique in many different ways, whether they would play and students would sing it back or play it back, or perhaps it was just a rhythmic pattern on one syllable. A call-and-echo process tended to be a very efficient way of teaching students that then gave them the confidence to lead the class as the “call” while their peers
“echoed.” Improvisation was also seen in a number of instances or was talked about in the interviews. Teachers built students up throughout the year improvising with specific guidelines that became broader as time went on. Several teachers had students buzz on mouthpieces to help build tone. Analogies helped students to visualize what their tone should sound like. Some teachers also used background music when students were playing, whether that was through a backing track that was teacher-made, or the teacher was accompanying them on the piano. Students were given an aural context in which they were playing or improvising over. One teacher played a game with their students that involved identifying tonal centers when certain solfege patterns were sung. All teachers incorporated tonal patterns in their teaching, often through a call-and-echo experience. Teachers had them sing the patterns back, whether on solfege or a neutral syllable, or play them back on their instruments.

**Implications for Teaching Practice**

These teacher participants have been working for years to bring their students effective and efficient teaching strategies when it comes to aural skills. They have changed their practice continuously over the years and are always looking for ways to improve. Teachers looking to experiment with integrating more aural skills training into their beginning band classroom should aim to start small. The top three most observed teaching strategies utilized may be the easiest to start including in the classroom: singing, call-and-echo, and tonal patterns. These three teaching techniques are among the most research-supported techniques when it comes to aural skills training. Every teacher participant utilized these techniques and students responded well to them.

**Suggestions for Further Research**

While carrying out this study, I was able to identify a few areas in which further research would help us in understanding the effectiveness of teaching aural skills in beginning band. One
such area would be to investigate how music mirrors emerging reading behaviors in other languages. While Gordon's Music Learning Theory eludes to this process, a study that compares the cognitive processes associated with learning music and learning a spoken language could provide more support for this observation.

Another area worth exploring would be an expansion upon Haston's (2010) study to compare how students with prior music notation reading experiences either helped or hindered their sightreading progress long-term when they were eventually taught using a more aurally-based curriculum. As one participant had noted, those that started with notation before moving to aural learning tended to have the most trouble down the road when it came to reading and playing by ear.

More research could be done to see how putting off reading from notation for lengthier periods of time, for example, a year or more, affects the development of the beginning band student. While studies that examine putting off notation for smaller amounts of time have give valuable information, it would be interesting to examine a larger span of time.

While Azzara (1993) surely sheds some light on the effectiveness of an improvisation curriculum, more research into improvisation could provide further insight into what this kind of curriculum can provide for a student, besides just improvement in sight-reading.

Finally, while the development of tonal awareness was in the spotlight for much of this study, several teachers touched on the importance of developing tone. This, too, is an aural aspect of playing and more research into effective methods for developing tone in the early stages of band education, could fill a gap in the literature.

Final Thoughts
I would never think to resent my own early musical education in beginning band. I am proud of where it has gotten me and my beginning band teacher is one of the most influential people in my life. While observing these master teachers in their classrooms, watching the ways they teach their students with such a focus on the aural aspect of music, I wonder how such an education would have affected me now as a musician. I believe that many band teachers feel pressured to get their students reading as much as possible as fast as possible. I know that that is often how I feel. However, seeing these teachers do what they do and observing, first-hand, what their students are able to do, as research and observations have shown, aural must precede the visual. As Ella said it best, “I'm not going to let the old guard gripe at me anymore” (Ella, Interview 1). Music is an aural discipline, and that does not stop when we enter the band room.
Appendix A

IRB Approval

To: Erika St Denis
From: Thad Polk
Cc: Colleen Conway
Erika St Denis

Subject: Notice of Exemption for [HUM00135436]

SUBMISSION INFORMATION:
Title: Aural Skills in Beginning Band: A Comparative Case Study
Full Study Title (if applicable): eResearch ID: HUM00135436
Date of this Notification from IRB: 9/13/2017
Date of IRB Exempt Determination: 9/13/2017
UM Federalwide Assurance: FWA00004959 (For the current FWA expiration date, please visit the UM HRPP Webpage)
CHRP IRB Registration Number(s): IRB00000246

IRB EXEMPTION STATUS:
The IRB HSBS has reviewed the study referenced above and determined that, as currently described, it is exempt from ongoing IRB review, per the following federal exemption category:

EXEMPTION #1 of the 45 CFR 46.101(b):
Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
Appendix B

Participant Consent Form

Consent to Participate in a Research Study
AURAL SKILLS IN BEGINNING BAND: A COMPARATIVE CASE STUDY

You are invited to participate in a research study about how teachers of beginning band teach aural skills to first-year players.

If you agree to be part of the research study, you will be asked to:

- Participate in 2 individual interviews with the researcher
- Record no less than 3 lessons that show how you teach aural skills in your classroom
- Be observed by the researcher in your classroom for approximately half of a school day

Benefits of the research

Although there are no direct, concrete benefits of this research to you, during the course of this study, you may find an increased awareness of the way you teach aural skills to your students. In addition, this study may bring to light fellow colleagues that are teaching aural skills to band students in their classrooms.

Risks and discomforts

There are no significant risks or discomforts associated with this study.

Compensation

There is no compensation for this study.

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to continue with an interview, be observed, or submit recordings for any reason.

If you have questions about this research study, you may contact Erika St. Denis at estdenis@umich.edu or Colleen Conway at conwaycm@umich.edu.

The University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences has determined that this study is exempt from IRB oversight.

I agree to participate in the study.

____________________________________   ______________________
Signature                                      Date
Appendix C

Beginning of Year Interview Protocol

Q1: Please state your name for the record.

Q2: Can you describe your own education?
   
   Q2a: Where did you attend grade school?

   Q2b: Where did you attend college or colleges?

   Q2c: What degree or degrees do you hold?

Q3: Are you a member of any teaching organizations? If so, what organizations and what position do you hold?

Q4: Where do you presently teach?

Q5: How long have you been in your current position?

Q6: Can you describe your responsibilities at your current position?

Q7: Approximately how many students do you teach currently?

Q8: Can you talk a little bit about your music teaching philosophy?

Q9: Are you trained or certified in any music teaching methodologies? For example, Gordon Music Learning Theory, Kodály, Dalcroze, Orff, or Suzuki.
   
   Q9a: Can you talk about how training in these methodologies has influenced your teaching?

Q10: Can you describe your thoughts on having students sing in band?

Q11: From your own point of view, can you talk about why you think it is important for students to be singing in band?

Q12: What method books or other resources do you use in your classroom?

Q13: Do you utilize a sound-before-symbol approach when teaching?
Q13a: Have you always utilized a sound-before-symbol approach and if not, can you describe what your previous approach was like and why you have made the change to a sound-before-symbol approach?

Q14: At what point is notation introduced to students?

Q14a: Are there certain benchmarks students have to meet in order to be introduced to notation and if so, can you please describe them?

Q14b: Can you describe the process you take when introducing students to notation?

Q15: Do you find that most students enjoy the sound-before-symbol approach?

Q16: Have you ever encountered a student where the sound-before-symbol approach did not work for a student at all? If so, what did you do to accommodate their needs?

Q17: How does a sound-before-symbol approach affect concert preparation?

Q18: Has there been any push-back from parents about why their student is not reading music earlier in the year?

Q18a: How do you explain the importance of a sound-before-symbol approach to parents?

Q19: How have your colleagues responded to your teaching method?

Q20: Is your administration in support of a sound-before-symbol approach?

Q21: Can you think of a time when a sound-before-symbol approach may have hindered the program in some way?

Q22: Have student learning objectives influenced the timeline of your sound-before-symbol approach?

Q23: Can you think of any recent educational reforms that have negatively impacted your sound-before-symbol approach?
Q24: Can you think of any recent educational reforms that have positively impacted your sound-before-symbol approach?

Q25: Is there anything else you would like to talk about in regards to your philosophy of music education or your sound-before-symbol teaching approach?
Appendix D

End of Year Interview Protocol – Amy

Q1: Think back to a time this year that you felt went really well when teaching aural skills and describe why you thought it went particularly well.

Q2: Think back to a time this year that you felt did not go well when teaching aural skills and describe why you thought it did not particularly go well.

Q3: Were there any students that you felt took very well to learning aurally? Describe that case.

Q4: Were there any students that you felt did not take very well to learning aurally? Describe that case.

Q5: Were there any new aural-teaching techniques you tried this year? Describe how you thought they went.

Q6: Can you describe any adjustments you are thinking of making for the coming school year in regards to teaching aural skills?

Amy Specific Questions

Q7: You went to school that has a power-house music program. I was hoping you could talk a little bit more about your experience at your high school. It doesn’t even need to specifically relate back to aural skills. Just talk about what you were involved in there musically. How do you think that has helped you become the musician you are today?

Q8: We discovered that Kathy Ann Liperote was your lesson teacher at your high school. I’ve referenced several of her pieces of research in my thesis. Could you maybe talk a little bit about your experience with her?
Q9: One theme I noticed came up a lot in your first interview with me, is the idea of being efficient. Your time with these kids is limited. Do you think teaching by rote, taking the time to develop those aural skills, helps you be efficient? How so?

Q10: One thing that you touched on in the first interview was how you want students to make a “correct sound first and know what it’s supposed to sound like.” And I think you were getting at, not necessarily correct pitches, but correct tone. I hadn’t thought about aural skills this way before. I thought of aural skills as having correct rhythm and pitch. But it sounds like correct tone is a huge part of aural skills for you. Why is having a correct tone important at this early stage?
Appendix E

End of Year Interview Protocol – Laura

Q1: Think back to a time this year that you felt went really well when teaching aural skills and describe why you thought it went particularly well.

Q2: Think back to a time this year that you felt did not go well when teaching aural skills and describe why you thought it did not particularly go well.

Q3: Were there any students that you felt took very well to learning aurally? Describe that case.

Q4: Were there any students that you felt did not take very well to learning aurally? Describe that case.

Q5: Were there any new aural-teaching techniques you tried this year? Describe how you thought they went.

Q6: Can you describe any adjustments you are thinking of making for the coming school year in regards to teaching aural skills?

Laura Specific Questions

Q7: I noticed that you use La-based minor, is this common with Gordon? What are the advantages to using this?

Q8: Your students were able to hear and vocalize solfege patterns on their instruments with ease. How seamless is that transfer to instruments?
Appendix F

End of Year Interview Protocol – Alex

Q1: Think back to a time this year that you felt went really well when teaching aural skills and describe why you thought it went particularly well.

Q2: Think back to a time this year that you felt did not go well when teaching aural skills and describe why you thought it did not particularly go well.

Q3: Were there any students that you felt took very well to learning aurally? Describe that case.

Q4: Were there any students that you felt did not take very well to learning aurally? Describe that case.

Q5: Were there any new aural-teaching techniques you tried this year? Describe how you thought they went.

Q6: Can you describe any adjustments you are thinking of making for the coming school year in regards to teaching aural skills?

Alex Specific Questions

Q7: What does being a “traditionalist” mean to you when teaching young students?

Q8: Can you talk a little bit more about your road to getting into improvisation?

Q9: How has integrating improvisation affected your program? Are you noticing certain skill sets that are improved or diminished since you’ve integrated improvisation?

Q10: For someone that might want to introduce improvisation to their students, what would you say are the first few steps, or what goals do you have for them?
Appendix G

End of Year Interview Protocol – Ella

Q1: Think back to a time this year that you felt went really well when teaching aural skills and describe why you thought it went particularly well.

Q2: Think back to a time this year that you felt did not go well when teaching aural skills and describe why you thought it did not particularly go well.

Q3: Were there any students that you felt took very well to learning aurally? Describe that case.

Q4: Were there any students that you felt did not take very well to learning aurally? Describe that case.

Q5: Were there any new aural-teaching techniques you tried this year? Describe how you thought they went.

Q6: Can you describe any adjustments you are thinking of making for the coming school year in regards to teaching aural skills?

Ella Specific Questions

Q7: Do the kids ever get frustrated with memorizing the tunes? How do you address that?

Q8: Talk about parental support. Do you feel like that plays a big role at Participant School D?

Q9: You mentioned that sometimes the students that have prior experience reading notation have the most difficulties transferring to playing tunes by ear. There’s been research that supports this. I was hoping you could talk a little more about what you see from those students.
References


