

MUSIC EDUCATORS' PERCEPTIONS OF THE IMPORTANCE, IMPLEMENTATION,  
AND BARRIERS OF MUSIC THEORY AND AURAL SKILLS INSTRUCTION IN PUBLIC  
MIDDLE AND HIGH SCHOOL MUSIC PROGRAMS

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### **Abstract**

Music theory and aural skills provide knowledge and application of music that can benefit a student's performance (Gates, 2001; Hendricks, 2010). Nonetheless, there may be a discrepancy between educators who state that they teach these subjects and students who do not feel prepared by their school programs to study these courses in college (Hufft, 2013; Johnson, 2014).

Educators have identified barriers with implementing theoretical and aural skills instruction, but this does not necessarily provide a reason for this discrepancy (Callahan, 2015; Shanefield, 2010; Taylor, 2018). The purpose of this quantitative study was to examine the frequency of music educators' actual implementation, perceived barriers, and perceived importance of teaching music theory and aural skills. These results helped determine if a discrepancy between music educators' perceptions of the benefits of these subjects and those educators' reported implementation of these topics in their classrooms exists and if so, why this discrepancy may be occurring. Participants in this study were public middle and high school music educators (n=102) who completed an online survey regarding their beliefs on various aspects of theoretical and aural skills instruction. Results showed that educators perceived these subjects as important and taught them frequently, showing no discrepancy. Additionally, they perceived a lack of student enjoyment as a frequent barrier to teaching music theory and aural skills, which was somewhat associated with their implementation of the subjects.

*Keywords:* music theory, aural skills, importance, implementation, barriers

### **Music Educators' Perceptions of the Importance, Implementation, and Barriers of Music Theory and Aural Skills Instruction in Public Middle and High School Music Programs**

Music students with an understanding of music theory and a foundation of aural skills possess beneficial knowledge and ability that can aid their performance of music (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). While learning these concepts does not directly improve performance ability, music theory and aural skills provide students with a better understanding of how music functions which can be beneficial for performance, composition, and listening (Bonner, 2012; Margolis, 2019; Payne, 2005; Servias, 2010). An understanding of theoretical topics such as harmonic progressions, scales, form, and phrase structure can provide young musicians with a contextual understanding of how a piece of music functions (Callahan, 2015; Johnson, 2014; Margolis, 2018). Likewise, developing aural skills allows students to hear theoretical concepts in action and understand how to put them into practice (Gates, 2001; Servias, 2010). Regarding musical performance, being able to identify theoretical concepts improves beginning students' musical literacy and eventually can help them make informed decisions in various performance situations (Harris, 2006; Hendricks, 2010). Similarly, developing strong aural skills provides musicians with quick and practical applications of music theory knowledge in a performance environment (Gates, 2001; Potts, 2009; Spaulding, 2015). This shows that music theory and aural skills knowledge can benefit students in school music programs and specifically may facilitate development as a performing musician (Gates, 2001; Harris, 2006; Hendricks, 2010; Potts, 2009; Spaulding, 2015).

Perhaps surprisingly, students usually do not learn music theory and aural skills until undergraduate music programs (Livingston & Ackmann, 2004). Notably, most undergraduate music majors state that they feel unprepared by their high school programs for their collegiate

music theory courses (Hufft, 2013). While the reason for this lack of instruction is not known, there are certain challenges with implementing these topics (Callahan, 2014; Shanefield, 2010; Taylor, 2018). These barriers could be instructional time constraints, lack of training on how to teach music theory and aural skills, or fear of disinterest among students (Callahan, 2014; Shanefield, 2010; Taylor, 2018). In contrast, literature exists which praises the benefits of music theory and aural skills for young performing musicians (Bonner, 2012; Callahan, 2015; Gates, 2001; Hendricks, 2010; Margolis, 2018; Musco, 2009; Spieker, 2016). Additionally, students have shown a need to learn these topics for future music studies, or a desire to do so (Hufft, 2013; Kelly & Veronee, 2019). Furthermore, literature exists regarding approaches to explicitly teach music theory and aural skills which consider time constraints, lack of experience, and changing classroom environments (Harris, 2006; Jones et al., 2013; Potts, 2009; Quaglia, 2005; Servias, 2010; Spieker, 2016). Given that students feel that they are not receiving enough instruction on these subjects, this reveals a discrepancy between music educators' perceptions of the benefits of teaching theory and aural skills and those educators' actual implementation of these topics in their classrooms (Hufft, 2013; Johnson, 2014).

### **Review of Related Literature**

#### **Music Theory**

The research available to music educators on the possible benefits of music theory instruction supports a perception that these topics are beneficial (Bonner, 2012; Harris, 2006; Hendricks, 2010; Margolis, 2018). Research shows the benefits of teaching basic music theory to students through topics such as scales, intervals, chords, and rhythm identification (Hendricks, 2010). A few, but certainly not all the possible benefits from learning this material are the ability to identify key signatures, rhythms, and chords in various contexts (Hendricks, 2010). In this

study, Hendricks (2010) compared strictly performance-based instruction with a separate approach including music theory in a performance environment. Her conclusions from student surveys and a performance adjudication completed by a blind judge with no knowledge of the research study showed that music theory-based instruction was more beneficial for improving students' performance of repertoire (Hendricks, 2010). Similarly, Harris (2006) showed that a theory-focused approach to learning music often helps improve younger students' music literacy, displayed through an increased ability to read pitches and rhythms in a variety of contexts.

In addition to the possible benefits of music theory instruction, Johnson (2014) showed in her survey regarding what music theory topics music educators teach in their classrooms that basic concepts such as key signatures, meter, intervals, chords, and scales were frequently taught in music classrooms. It should be noted that this study did not primarily examine how many educators teach theoretical topics, but rather which concepts educators focused on in their classroom (Johnson, 2014). Data in Johnson's (2014) study was mainly presented through means of Likert-type items for various music theory topics, which on its own does not indicate an accurate frequency of music educators that teach theoretical concepts. This theoretical knowledge provides a means of learning to read and perform music and further demonstrates the use that basic music theory knowledge can have in the classroom (Harris, 2006; Hendricks, 2010; Johnson, 2014).

After students have a strong grasp of basic music theory, moving to more complex theoretical topics that build upon previous music theory concepts can be beneficial for providing a further understanding of how music functions in different contexts (Bonner, 2012; Callahan, 2015; Servias, 2010; Spieker, 2016). Callahan (2015) suggested that the inclusion of more complex theoretical topics such as harmonic progression, form, and phrase structure which build

upon basic music theory knowledge of scales, intervals, chords, and rhythm identification could be beneficial for students' musical development. Spieker's (2016) argument about how to apply theoretical concepts that are commonly taught in advanced placement music theory courses into performance-based classrooms supported the inclusion of these topics. He indicated that the benefits of this comprehensive understanding for students could be a better awareness of the function of music being performed, increased confidence, and informed expressivity (Spieker, 2016). Bonner (2012) supported these findings in her research on the impact of music theory for pitch discrimination, where she indicated that theoretical instruction significantly increases pitch discrimination. A more complex approach that builds on previous theoretical knowledge may only be suitable for older students, but the contextual understanding provided about the music they are performing may answer some performance-based questions students have regarding form, phrasing, and tuning (Bonner, 2012; Servias, 2010). With this approach, the inclusion of more complex theoretical concepts which build on previous knowledge can lead to direct benefits for students in performance-based classrooms, especially when considering the skills required in these settings (Bonner, 2012; Callahan, 2015; Servias, 2010; Spieker, 2016).

In addition to the benefits music theory can have on performance, research shows that theoretical instruction can promote lifelong music-making among students (Payne, 2005; Servias, 2010). The contextual understanding of music that theoretical instruction provides teaches students how to make their own informed musical decisions in performance rather than simply being told how to perform (Payne, 2005; Servias, 2010). In his study examining a curriculum that incorporated music theory topics into keyboard instruction for students, Servias (2010) showed that the music theory topics studied provided students with a contextual understanding of the music they were performing. He suggested that this led to students being

more informed musicians who could make musical decisions on their own (Servias, 2010). This finding supported a belief by Payne (2005) in her practitioner article that music theory knowledge could lead to students being capable of making their own musical decisions, which in turn would help promote students to continue to make music throughout their lives. These examples show that not only can music theory instruction be beneficial for improving performance but that it also can create more informed musicians capable of making musical decisions, which could promote lifelong musicianship among students (Payne, 2005; Servias, 2010).

### **Aural Skills**

Along with music theory, research shows that aural skills instruction can have benefits for students in performance-based music classrooms, though the research available is somewhat limited compared to music theory (Bernhard, 2014; Gates, 2001; Potts, 2009; Servias, 2010; Spaulding, 2015). The most relevant benefit of aural skills is the role they serve in performance-based music classrooms to improve individual performance abilities (Gates, 2001). In her study on the impact of aural skills instruction for private lesson students, Gates (2001) showed that focusing on skills such as identifying chords, forms, and phrases led to improved intonation and expressivity among her students' performances. Servias's (2010) findings supported these benefits, as his examination revealed that students were both more confident and informed when performing due to aural skills instruction.

Aural skills also provide a unique benefit of having students learn music by ear (Musco, 2009). As Musco (2009) indicated in her study on the impact of learning melodies by ear, playing music by rote and melodic dictation both increase musicians' sense and awareness of music, especially when changing keys. Similarly, Bernhard (2014) showed in his study on the



effects of melodic ear-playing that learning melodies by rote significantly improved students' ability to sight-read music. This finding is also supported by Spaulding (2015), who indicated a positive relationship between aural skills development and sight-reading ability among high school orchestra students. Potts' (2009) findings were similar, as her examination of a curriculum that incorporated aural skills showed that this instruction improved students' abilities to sight-read music. The approaches described in this research show that aural skills instruction can be useful to accomplish some goals of performance-based music educators such as improved intonation, expressivity, ability to play by ear, and sight-reading (Bernhard, 2014; Gates, 2001; Potts, 2009; Servias, 2010; Spaulding, 2015).

### **Students' Perceptions**

Music theory and aural skills instruction appear to be beneficial, but some students who desire to study music in college have also shown a need to receive instruction in these subjects to better prepare them for their academic futures (Hufft, 2013). In his thesis analyzing freshman music theory courses in the California State University system, Hufft (2013) indicated that approximately 81% students who planned on majoring in music did not feel prepared by their high school programs for their first music theory and ear training courses in college (Hufft, 2013). Hufft (2013) also showed that students arrive at the university with different levels of basic music theory knowledge, and it is difficult to accommodate these individual needs given the large size of the theory classes. The findings of this thesis continued to suggest that high schools and universities need to create more dialogue on the expectations of first-year music students, but the main finding was that the inconsistency of high school music theory instruction can cause problems later in a student's education (Hufft, 2013). This study demonstrated how certain groups of students have shown a need to receive music theory and aural skills instruction

to better prepare them for their future, which they are possibly not receiving in their high school music programs (Hufft, 2013). While the percentage of students who go on to study music in college is small and this issue may seem negligible, the benefits music theory and aural skills instruction provide extends beyond students planning to study music in college, and therefore show a possible need and benefit for further instruction of music theory and aural skills (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Hufft, 2013; Musco, 2009).

Not only do students planning to study music in college need prior music theory and aural skills instruction, but previous research has shown that other music students may want to learn about these topics as well (Hufft, 2013; Kelly & Veronee, 2019). In a survey administered by Kelly and Veronee (2019) which examined high school students' level of interest in nontraditional music courses, the researchers indicated that 84% of students would enroll in music theory courses if offered. Additionally, the researchers showed that not only did students express a desire to learn about these topics, but that a majority of them also perceived the importance of this type of instruction (Kelly & Veronee, 2019). It should be noted that the participants in this study were all students attending a summer music camp where musical interest would presumably be higher than average and students would be more likely to take additional music courses (Kelly & Veronee, 2019). Notably, this study showed that some high-performing music students have shown an interest in learning about music theory and aural skills, which may not be provided for them in their school music programs (Hufft, 2013; Kelly & Veronee, 2019).

Thus far music theory and aural skills instruction have shown benefits for student learning and improvement in performance-based music classrooms (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). Furthermore, high-performing music

students may show an interest in learning about music theory and aural skills (Kelly & Veronee, 2019). Nevertheless, as Hufft (2013) revealed from his research, students who go on to study music in college largely do not feel their high school programs prepared them to take collegiate music theory or aural skills courses. While the possible cause for this issue is still unclear, educators have identified several barriers which may prevent them from providing music theory and aural skills instruction in their classrooms (Callahan, 2015; Shanefield, 2010; Taylor, 2018). In his study regarding educators' challenges with implementing these subjects, Callahan (2015) revealed insight into this discrepancy between music educators' actual implementation of these topics in their classrooms and students feeling unprepared to study these topics. He indicated that educators do not receive enough instruction in how to explicitly teach music theory and aural skills, which leads to them struggling to do so in their own classroom (Callahan, 2015). Additionally, Callahan (2015) showed that the struggle music educators face with implementing theoretical and aural skills instruction often outweighs any benefits they perceive these topics possess.

### **Barriers**

Barriers to implementing music theory and aural skills instruction may include a shortage of instructional time, a lack of training in how to explicitly teach these subjects, and a worry that students will not enjoy learning about these topics (Callahan, 2015; Shanefield, 2010; Taylor, 2018). A concern about a lack of instructional time is supported by Callahan (2015) where he indicated that educators perceive teaching these topics to be time-consuming and therefore not possible given time constraints. Additionally, two researchers indicated that educators feel uncomfortable with explicitly teaching these subjects because they were never taught how to do so (Callahan, 2015; Shanefield, 2010). Through his collection of narrative data from music

theory teachers, Shanefield (2010) showed that some music educators felt that they did not have enough training to effectively teach music theory in their classrooms. Shanefield (2010) went on to suggest that this barrier may reveal issues with collegiate music theory and aural skills courses or with pre-service teacher programs. It should be noted, however, that Shanfield's (2010) study focused on detailed interviews with a smaller group of music educators which may not have generalizable findings, nor did this study examine the priorities of undergraduate music education preparation programs. Furthermore, Taylor (2018) suggested a fear that her students may not be interested in music theory in her narrative article on the perceived dislikes of music theory instruction. This is a practitioner article, however, and it is not clear what educators' actual perceptions of their students' level of interest in music theory are (Taylor, 2018). It is not clear however what the frequency of educators who perceive each barrier is, making it difficult to determine the prevalence of each barrier. These perceived challenges may explain why some educators choose not to explicitly teach music theory and aural skills, which leads to a need for solutions to each barrier (Callahan, 2015).

Music theory and aural skills instruction can be beneficial for students in performance-based classrooms when considering the skills necessary in these settings (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). Music theory knowledge can provide a better contextual understanding of music, while aural skills provide a relevant and applicable approach to theoretical knowledge that is directly beneficial to music performance (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). Some educators even provide evidence of the theoretical concepts that they teach in their classroom, though they generally focus on basic topics (Johnson, 2014). While this literature shows the topics that some educators teach and the importance they place on this instruction, it does not specify the amount

of music educators who explicitly teach these subjects and feel that music theory and aural skills instruction are important. Additionally, there appears to be a discrepancy between educators who state that they teach music theory and aural skills and students who state that they do not feel prepared to study these courses in college (Hufft, 2013; Johnson, 2014). The possible cause of this issue is still unclear, but educators have identified barriers with implementing music theory and aural skills instruction such as time constraints, a lack of training on how to explicitly teach these subjects, and a worry that students will not enjoy learning these topics (Callahan, 2015; Shanefield, 2010; Taylor, 2018). It is not clear however what the frequency of educators who perceive each barrier is, making it difficult to determine the prevalence of each barrier.

### **Need for the Study**

Given that there may be a discrepancy between educators who state that they value and teach music theory and aural skills and students who state that they do not feel prepared to study these courses in college, more research is required to understand why this issue may be occurring (Hufft, 2013; Johnson, 2014). Although researchers have studied the benefits of music theory instruction, theory topics that may be taught by educators, and barriers that educators may perceive to teaching theory in their classrooms, the prevalence of each of these components in the music teacher population remains unclear (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Johnson, 2014; Musco, 2009; Shanefield, 2010; Taylor, 2018). More research must be done on the number of music educators who believe music theory and aural skills instruction are important, the amount that explicitly teach each topic, and which barriers are most commonly perceived by educators. This knowledge could help determine if a discrepancy exists between educators' perceived importance of music theory and aural skills instruction and their

actual implementation of these subjects, and if there is a connection between educators' perception of importance, actual implementation, and perceived barriers.

### **Purpose of the Study**

The purpose of this quantitative study was to examine the frequency of music educators' actual implementation, perceived barriers, and perceived importance of teaching music theory and aural skills. Specific research questions included:

1. What is the frequency of music educators who teach music theory and aural skills, who perceive these subjects as important to teach, and who perceive barriers to teaching these subjects?
2. Is there a discrepancy between the number of music educators who believe music theory and aural skills instruction are important, and the number of those who explicitly teach these subjects?
3. Is there an association between the number of educators who explicitly teach music theory and aural skills, and the number of those who perceive barriers with teaching these topics?

## **Methodology**

### **Participants**

Participants were selected through a voluntary response sample of middle and high school music educators who are members of the North Carolina Music Educators Association (NCMEA), and Florida Music Educators Association (FMEA). NCMEA and FMEA are the largest organizations for music educators in their respective states, and are comprised of K-12, collegiate, and higher education music educators. These participants were contacted via the

Research Chairs at NCMEA and FMEA, who specified the process for distributing research surveys to each member body.

Data were collected from this sample through participants' completion of online surveys (see Appendix A). Participants remained anonymous throughout this process and the only demographic information that was collected was categorical data that aided the data analysis process. In this research study, I acted as the sole researcher by designing the survey from the general findings of research literature but without using items from any previous surveys. Additionally, I acted as the sole correspondent with NCMEA and FMEA by delivering the survey to the Research Chairs, and I also completed all data analysis.

### **Procedures**

The timeline of this study began with the methodology for this research and the survey being submitted to the Institutional Review Boards (IRB) at the University of Florida in the late summer for approval to conduct the research as described. Upon approval by the IRB and the presiding professors for this study, the survey was submitted to the Research Chair at NCMEA to be dispersed to the member body in the early fall. Data collection took place for three weeks while members completed the online survey through Qualtrics. Following the initial email sent by NCMEA's Research Chair, a reminder email was sent after two weeks notifying the member body that they had one more week to complete the survey. Upon completion of the three weeks, the survey was closed for further submissions. The submissions from NCMEA's member body did not meet the desired response rate of 300 responses, therefore the same process took place with FMEA following the data collection period with NCMEA. The survey ran for two weeks with a reminder email sent by FMEA's Research Chair after the first week. After this second

data collection period ended, the submissions were gathered and used for data analysis in the mid fall.

The survey opened with a consent statement containing information about the criterion for the survey, its purpose, the role of the participant, and details about the survey. Additionally, this statement included information regarding participant safety, benefits of participating, a notice of anonymity, and a final consent statement which participants must agree to continue with the survey. Demographic information was collected to analyze trends among certain demographics and perceptions on music theory and aural skills. Demographic questions surveyed how many years of experience participants had teaching music, what grade level they taught, their teaching role, and what level of education they had in music theory and aural skills. The Likert-type statements used focused on the benefits of teaching music theory and aural skills, how often educators explicitly teach these topics, and what they believe are the main barriers to implementing instruction of these subjects.

Intentional measures were taken to ensure this survey was valid upon administering it for research. To promote construct validity, when developing the survey only material that is relevant to research questions and is founded in the topics of the related literature reviewed was used throughout the survey. Additionally, to promote content validity the material covered in the survey comprehensively examined the majority of topics related to both the research question and relevant literature. Furthermore, this survey was reviewed by two experts in the field of music education for appropriateness and completeness. In this manner, validity was ensured with this survey through careful consideration of the material being used throughout.



**Data Analysis**

To determine the frequency of music educators' actual implementation, perceived barriers, and importance of teaching music theory and aural skills, descriptive statistics were used. Means and standard deviations helped provide a general overview of the data collected from this study, and specifically determine the sample percentages of educators' beliefs and implementation of music theory and aural skills. Means and standard deviations were analyzed for educators' perceptions of the importance of music theory and aural skills instruction, their actual implementation of each subject, and which barriers they perceive. Each item in every section was examined, and notable findings such as relatively high or low means were reported along with their standard deviations.

To determine if a connection existed between educators' belief of the importance of music theory and aural skills instruction and their explicit teaching of these subjects, Spearman's rho for ordinal data was used to analyze questions four (How important is M.T. instruction to you?) and eight (How often do you teach M.T. in your classroom?), and between questions six (How important is A.S. instruction to you?) and 11 (How often do you teach A.S. in your classroom?) in two separate tests. The correlation coefficient was reported for each test to help determine if a significant association exists between educators' beliefs about the importance of music theory and aural skills instruction and their explicit teaching of these subjects.

To help determine if a connection existed between the number of educators who explicitly teach music theory and aural skills and the number of those who perceive barriers with teaching these topics, Spearman's rho for ordinal data was calculated between question eight (How often do you teach M.T. in your classroom?) and the most common barriers determined by lowest mean confidence, and the same for question 11 (How often do you teach A.S. in your

classroom?). To limit the number of inferential tests used, only the question with the lowest mean from questions 14 (confidence in M.T. teaching ability), 17 (confidence in time for M.T. instruction), and 19 (confidence in student enjoyment of M.T.) was used with question eight, and only the question with the lowest mean from questions 15 (confidence in A.S. teaching ability), 18 (confidence in time for A.S. instruction), and 20 (confidence in student enjoyment of A.S.) was used with question 11. The correlation coefficient was reported for each test to help determine if a significant correlation exists between the number of educators who explicitly teach music theory and aural skills and the number of those who perceive barriers with teaching these topics.

To determine if a significant difference existed between educators' perceptions of the three main barriers in this survey: lack of teaching confidence, lack of instructional time, and perceived lack of student enjoyment, a repeated measures ANOVA was used to analyze questions 14 (confidence in M.T. teaching ability), 17 (confidence in time for M.T. instruction), and 19 (confidence in student enjoyment of M.T.), and questions 15 (confidence in A.S. teaching ability), 18 (confidence in time for A.S. instruction), and 20 (confidence in student enjoyment of A.S.) in two separate tests. The null hypothesis in this test was  $H_0: M_1=M_2=M_3$ , while the alternative hypothesis was  $H_A: M_1 \neq M_2 \neq M_3$ , where  $M_1$ ,  $M_2$ , and  $M_3$  were the means of questions 14, 17, and 19, and 15, 18, and 20 respectively. If a statistical significance existed, then it was concluded that a significant difference between educators' perceptions of lack of teaching confidence, lack of instructional time, and perceived lack of student enjoyment may exist. Additionally, if a statistical significance existed, post-hoc tests were analyzed using the Tukey-Kramer procedure to determine between which pairs of barriers participants' perceptions significantly differed.

## Results

A total of 102 middle and high school public music educators completed this survey over the data collection period, with 29 (28%) of them being part of NCMEA and 73 (72%) of them being part of FMEA. The total population (i.e., the total number of public middle and high school music educators who were members of NCMEA or FMEA) was not known, and therefore a response rate could not be determined. Of the total participants, the mean number of years they have taught music in public schools is 14.9 years ( $SD=10.9$  years).

Of the teaching levels surveyed, 47% of the participants taught middle school, 37% taught high school, and 16% taught both. Considering each teaching level separately, 54% of the participants taught middle school and 46% taught high school, a relatively equal distribution across participants.

Of the teaching roles surveyed, 56% of participants stated that they only had one teaching role while 44% stated that they had more than one teaching role. Considering each role separately, 36% of participants taught band, 20% taught choral music, 13% of the participants taught general music, 12% taught music theory, 10% taught orchestra, 4% taught music appreciation, 3% taught modern band, and 2% taught digital music. These results revealed that 56% of participants taught band or choral music, the clear top teaching roles of participants.

Part of the first research question asked what music educators' perceived importance of teaching music theory and aural skills was. Questions four and six asked participants to rate on a scale of one to ten how important teaching music theory and aural skills respectively were in their classrooms. The results of these questions showed that educators rated the importance of music theory instruction as 8.03 ( $SD=1.62$ ), while they rated the importance of aural skills as 8.32 ( $SD=1.93$ ). Likert-type statements were used to survey educators' perceived importance of

skills related to music theory and aural skills instruction separately. The full results from these questions can be seen in Table 1 below:

**Table 1**

*Importance of Music Theory & Aural Skills Topics*

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
Teaching M.T. concepts that lead to improved <b>music literacy</b> is important to me.	0%	0%	1%	4%	7%	27%	61%
Teaching M.T. concepts that lead to <b>improved music performance</b> is important to me.	0%	0%	1%	1%	11%	25%	62%
Teaching A.S. concepts that lead to improved <b>musical performance</b> is important to me.	1%	1%	0%	5%	14%	21%	57%
Teaching A.S. concepts that lead to improved <b>sight-singing or sight-reading ability</b> is important to me.	1%	1%	1%	5%	13%	26%	52%
Teaching A.S. concepts that lead to an <b>improved ability to play music by ear</b> is important to me.	2%	6%	4%	19%	27%	25%	17%
<b>n = 102</b>							

These results showed that over 95% of educators agreed that spending time specifically teaching music theory concepts that lead to improved music literacy or performance ability were important to them. Similarly, over 91% of educators agreed that spending time specifically teaching aural skills concepts that lead to improved music performance or sight-reading ability was important to them. Lastly, 69% of educators agreed that spending time specifically teaching aural skills concepts that lead to an improved ability to play music by ear was important to them.

The next part of the first research question focused on how frequently participants taught music theory and aural skills in their classrooms. Questions eight and 11 asked participants how often they teach music theory and aural skills respectively in their classrooms. The results of

these questions showed that 40% of educators teach music theory a couple of times per week and 32% teach it every class period, the two highest proportions of answers selected. Similarly, 36% of educators teach aural skills every class period and 25% teach it a couple of times per week, the two highest proportions of answers selected for aural skills. The full results from questions eight and 11 can be seen in Table 2 below:

**Table 2***Daily Implementation of Music Theory & Aural Skills*

	Never	Once Per Month	Couple of Times per Month	Every Other Week	Once Per Week	Couple Times Per Week	Every Class Period
How often do you teach <b>music theory</b> in your classroom?	0%	2%	8%	0%	17%	40%	32%
How often do you teach <b>aural skills</b> in your classroom? <b>n = 102</b>	2%	7%	12%	4%	14%	25%	36%

Questions nine and 12 focused on when participants teach music theory or aural skills, how much of their class period do they spend doing so. The results of these questions showed that when educators teach music theory 45% of them spend a brief portion (1-25%) of their class period teaching it, and 44% of them spend some (26-50%) of their class period teaching it, the two highest proportions of answers selected. Similarly, when educators teach aural skills 54% of them spend a brief portion (1-25%) of their class period teaching it, and 31% teach spend some (26-50%) of their class period teaching it, the two highest proportions of answers selected for aural skills. The full results from questions nine and 12 can be seen in Table 3 below:

**Table 3***Class Period Implementation of Music Theory & Aural Skills*

	<b>Never (0%)</b>	<b>Brief Portion (1- 25%)</b>	<b>Some (26- 50%)</b>	<b>Most (51- 75%)</b>	<b>Almost All (76-100%)</b>
Amount of class period spent teaching <b>music theory</b> (when the subject is taught)	0%	45%	44%	8%	2%
Amount of class period spent teaching <b>aural skills</b> (when the subject is taught) <b>n = 102</b>	2%	54%	31%	10%	4%

Likert-type statements were used to survey educators' perceived implementation of skills related to music theory and aural skills instruction separately. The results from these questions can be seen in Table 4 below.

**Table 4**

*Implementation of Music Theory & Aural Skills Topics*

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Disagree</b>	<b>Neutral</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
When I teach M.T., I specifically teach concepts that directly relate to the <b>music my class is studying or performing</b> .	1%	2%	2%	4%	13%	30%	48%
When I teach M.T., I specifically teach concepts that relate to <b>music literacy and musical understanding</b> .	0%	0%	1%	4%	15%	35%	45%
When I teach A.S., I specifically teach concepts that relate to the <b>music my class is studying or performing</b> .	2%	2%	1%	4%	18%	32%	40%
When I teach A.S., I specifically teach concepts that relate to <b>sight-singing or sight-reading</b> .	1%	6%	1%	8%	19%	26%	38%
When I teach A.S., I specifically teach concepts that relate to <b>playing music by ear</b> . <b>n = 102</b>	4%	5%	13%	24%	20%	30%	14%

These results showed that when participants teach music theory over 91% agreed that they teach concepts that directly relate to the music their class is studying or performing or that relate to music literacy and musical understanding. Similarly, when educators teach aural skills approximately 83% agreed that they teach concepts that directly relate to the music their class is studying or performing or that relate to sight-reading ability. Only 64% stated that they teach aural skills concepts that relate to playing music by ear, however.

The final part of the first research question focused on what proportion of music educators perceive various barriers with teaching music theory and aural skills. Questions 14, 15, and 16 surveyed participants' perceptions of their ability to teach music theory and aural skills in their classroom. Participants rated their confidence in their ability to teach music theory and aural skills rated on a scale of one (not confident at all) to ten (very confident) in questions 14 and 15. The results of these questions showed that educators rated their confidence in their ability to teach music theory as 9.18 (SD=1.25), while they rated their confidence in their ability to teach aural skills as 8.64 (SD=1.45). Likert-type statements were used to survey educators' perceptions of statements specifically related to their ability to teach music theory and aural skills in question 16. The full results from these questions can be seen in Table 5 below:

**Table 5**

*Perceptions of Teaching Preparedness*

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Disagree</b>	<b>Neutral</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
My collegiate coursework adequately prepared me to teach <b>music theory</b> .	1%	7%	2%	2%	19%	31%	37%
My collegiate coursework adequately prepared me to teach <b>aural skills</b> .	2%	6%	2%	7%	20%	32%	30%
<b>n = 102</b>							

These results showed that 87% of music educators agreed that their collegiate coursework adequately prepared them to teach music theory. Similarly, 82% of music educators agreed that their collegiate coursework adequately prepared them to teach aural skills.

Questions 17 and 18 surveyed participants' perceptions of any time constraints they face when teaching music theory and aural skills in their classroom. Participants rated the amount of instructional time they have to allot to music theory and aural skills instruction on a scale of one (no time at all) to ten (plenty of time) in questions 17 and 18. The results of these questions showed that educators rated the amount of time they have to teach music theory as 6.07 (SD=2.51), while they rated the amount of time they have to teach aural skills as 8.64 (SD=2.61).

Questions 19 and 20 surveyed participants' perceptions of students' enjoyment with learning music theory and aural skills in the classroom. Participants rated their confidence in their students' enjoyment of learning music theory and aural skills instruction on a scale of one (not confident at all) to ten (very confident) in questions 19 and 20. The results of these questions showed that educators' confidence in their students' enjoyment of learning music theory was 5.45 (SD=2.06), while they rated their confidence in their students' enjoyment of learning aural skills as 5.39 (SD=2.14).

To determine if there was a significant difference between participants' perceptions of the impact of each barrier, a Repeated Measures ANOVA test was used to analyze participants' responses to questions about a lack of preparation, time constraints, and a fear of students' lack of enjoyment of music theory and aural skills instruction separately. The mean responses for questions 14, 17, and 19 were analyzed in different groups to determine if a difference occurred for music theory instruction, and mean responses for questions 15, 18, and 20 were analyzed for aural skills. The null hypothesis for this test was that there was no difference between the means

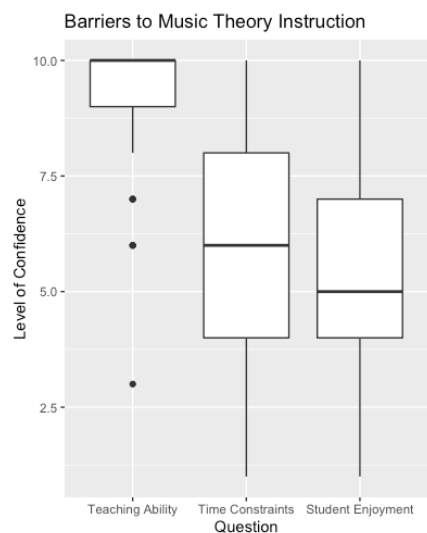


of questions 14, 17, and 20 as well as between questions 15, 18, and 20 ( $H_0: M_1=M_2=M_3$ ). The alternative hypothesis for this test was that there was some difference between the means of questions 14, 17, and 20 as well as between questions 15, 18, and 20 ( $H_a: M_1 \neq M_2 \neq M_3$ ). The significance level for the test was set at  $\alpha=0.05$ ,  $p$ -values above this level will fail to reject the null hypothesis while  $p$ -values below this level will reject the null hypothesis.

From these tests, it was concluded that there was a significant difference between participants' responses to questions 14, 17, and 19 ( $p < 0.001$ ). From this, it was concluded that there appeared to be a significant difference between participants' perceptions of each barrier with implementing music theory instruction. This difference can be seen in Figure 1 below:

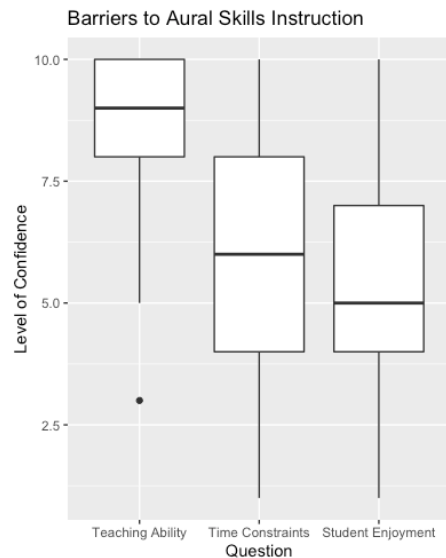
**Figure 1**

*Perceptions of Barriers to Music Theory Instruction*



Additionally, it was concluded that there was a significant difference between participants' responses to questions 15, 18, and 20 ( $p < 0.001$ ). From this, it was determined that there appeared to be a significant difference between educators' perceptions of each barrier with implementing aural skills instruction. This difference can be seen in Figure 2 below:

**Figure 2**

*Perceptions of Barriers to Aural Skills Instruction*

Since a statistically significant difference existed between the perceptions of each barrier, post-hoc tests were run to determine between which barriers for both music theory and aural skills a significant difference existed. For both music theory and aural skills, there was evidence of a statistical difference between the mean perception of teaching ability and time constraints as a barrier ( $p < 0.001$ ), as well as between teaching ability and student enjoyment ( $p < 0.001$ ). Additionally, for both music theory and aural skills there was no evidence of a statistical difference between the mean perception of time constraints and student enjoyment as a barrier (music theory:  $p = 0.108$ , aural skills:  $p = 0.252$ ). From these post-hoc tests, it was determined for both music theory and aural skills that a significant difference existed between the perception of teaching ability and time constraints as a barrier, and between teaching ability and student enjoyment.

The second research question focused on if there was a discrepancy between the number of music educators who believe music theory and aural skills instruction are important, and the number of those who explicitly teach these subjects. To answer this question, Spearman's

correlation was used to test the association between educators' perceptions of the importance of music theory and aural skills instruction in questions four and six respectively, compared to their reported implementation of music theory and aural skill instruction in questions eight and 11 respectively. From these tests, it was concluded that there was a weak correlation between participants responses to questions four and eight, but that the correlation was significantly different from no correlation existing at all ( $p = 0.021$ ,  $r = 0.254$ ). From this result, it appeared that there was a weak connection between educators' perceived importance of music theory instruction and their actual implementation of the subject. Additionally, it was concluded that there was a weak to moderate correlation between participants responses to questions six and 11 ( $p = 0.005$ ,  $r = 0.306$ ). From this result, it appeared that there was a weak to moderate connection between educators' perceived importance of aural skills instruction and their actual implementation of the subject.

The third research question focused on if there was a connection between the frequency of educators' instruction of music theory and aural skills and the frequency of those who perceive barriers with teaching these topics. To answer this question, Spearman's correlation coefficient was determined for participants' implementation of music theory and aural skills instruction in questions eight and 11 respectively. This was compared to participants' perception of the barrier with the lowest mean, in this case, perception of student enjoyment in questions 19 and 20 for music theory and aural skills respectively. From these tests, it was determined that there was a moderate correlation between questions eight and 19 ( $p = 0.005$ ,  $r = 0.306$ ), and that the correlation was statistically significant from no correlation existing at all. It was also concluded that there was a moderate correlation between questions 11 and 20 ( $p < 0.001$ ,  $r = 0.361$ ). These tests revealed that there was a correlation between participants' increased

confidence that their students enjoy learning about music theory and aural skills, and their increased teaching of these subjects.

### **Discussion**

The results of this study provided insight into music educators' perceptions of the importance of music theory and aural skill instruction, their actual implementation of these topics, and what barriers they may perceive to teaching these subjects. Regarding educators' perceived importance of teaching these subjects, perceptions of the importance of both music theory and aural skills were relatively high among participants. There was little variation between the two subjects with aural skills scoring slightly higher than music theory but also having a more even spread. Additionally, music educators mainly agreed that teaching music theory was important to them for improving their students' music literacy and performance ability. Similarly, educators agreed that teaching aural skills was important to them for improving their students' performance ability and ability to sight-read music. In each case, the two most common responses among participants were "Strongly Agree" and "Agree", the two highest answers possible, which showed educators' perceived high level of importance in teaching these subjects. The one topic educators did not feel as strongly about was the importance of teaching aural skills to improve students' ability to play music by ear. There was a notable decrease in the number of educators who strongly agreed with this statement and there was a much more even distribution across the top four responses. Participants still mainly agreed with this statement as opposed to being neutral or disagreeing, but it is worth noting the decrease in agreement. This study did not cover whether this decrease was due to participants believing that learning to play music by ear is not important, or if they did not believe teaching aural skills would accomplish this task.

These results appeared to support the findings of previous literature that educators mainly believe that teaching music theory and aural skills is important (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). This support was relatively high which contributed to previous findings by providing quantitative evidence of educators' perceived importance or lack thereof (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). Furthermore, these findings provided insight into what skills may be important to educators when they teach music theory and aural skills. The music theory and aural skills topics that educators teach had previously only been examined briefly, and never through a sample of music educators who may teach no music theory or aural skills in their classroom (Johnson, 2014). These results add to the discussion of educators' perceptions of the importance of teaching music theory and aural skills, and generally support previous findings.

After examining what frequency of music educators may perceive music theory and aural skills as important, it is necessary to understand how these same educators may or may not be implementing these subjects in their classroom. Participants' responses to questions regarding their implementation of music theory and aural skills revealed relatively high implementation of these subjects on a daily basis. Responses regarding music theory instruction showed that participants mainly teach both music theory and aural skills a couple of times per week or every class period. It is notable that a slightly higher frequency of participants stated that they teach aural skills more frequently than they teach music theory. The reason for this was not examined in this study, but nonetheless the slight disparity between implementation levels appears to be notable. It is also possible that the wording of the measurement instrument lent participants to believe that any instruction involving ear training or listening activities constituted teaching aural

skills instead of the explicit teaching of the subject, which would result in higher levels of implementation.

When educators do teach music theory or aural skills in their classroom, the amount of time in a class period that they spend teaching these subjects appears to be generally uniform. Participants stated that when they teach these subjects, they most commonly teach music theory or aural skills a brief portion of their class period (1-25%), or they teach these subjects some of their class period (26-50%). This showed that while educators may appear to teach music theory and aural skills quite frequently in their classrooms, they do not spend a majority of their class period on these subjects. This result is not surprising, as most participants' main teaching role was not music theory, and therefore it would not be expected that they would spend most of their class period teaching these subjects.

When asked what topics participants focus on when they teach music theory or aural skills in their classroom, participants' strong focus on certain topics supported their previously examined perceived importance of these same topics. Participants mainly agreed that when they teach music theory, they focus on concepts that will improve their students' music literacy and performance ability. Similarly, educators agreed that when they teach aural skills, they mainly teach concepts that will improve their students' performance ability and ability to sight-read music. Again, educators did not focus on teaching aural skills to improve their students' ability to play music by ear as much as they did other topics. Again, this study did not cover whether this decrease was due to participants believing that learning to play music by ear is not important or not.

These results showed that it appears that educators' perceived importance of teaching music theory and aural skills is supported by their frequent implementation of these subjects in

their classroom. Participants showed that they appear to believe teaching music theory and aural skills are important, and that they mostly teach these subjects at least once every week if not more. These results helped determine how often music educators may be implementing these subjects in their classroom, which had not been previously examined. When discussing a possible discrepancy between educators' perceived importance of teaching music theory and aural skills and their actual implementation of these subjects, no discrepancy appeared to exist.

It is possible that some teachers who believe that music theory or aural skills are important are nonetheless still not teaching these subjects. This study only examined how often educators say that they teach music theory and aural skills, not how often they actually do so or what the quality of their teaching is, both of which could impact student learning. To determine how often educators are truly teaching music theory and aural skills, teaching observations would be necessary rather than relying on how often educators say they teach these topics. If college students truly do not feel prepared by their high school programs to study music theory and aural skills in college as Hufft (2013) stated, then it is possible that educators are teaching these subjects frequently, but other factors are limiting student learning. Additionally, it is possible that student learning is not being specifically measured through formal assessment, which could show the issue Hufft (2013) explained as well. The possible presence of other factors shows that it is not possible to attribute this discrepancy entirely on the quantity of instructional time educators are devoting to music theory and aural skills instruction.

After examining educators' perceived high level of importance in teaching music theory and aural skills, their frequent implementation of these subjects, it is necessary to examine educators' perceptions of barriers to teaching these subjects. The first barrier examined was educators' level of confidence in their ability to teach music theory and aural skills. Participants

displayed high levels of confidence in their ability to teach both music theory and aural skills, with aural skills confidence being slightly lower. When asked if their collegiate coursework prepared them to teach music theory or aural skills, participants strongly agreed with these statements. It should be noted, however, that adequate preparation from collegiate coursework does not necessarily mean that participants were prepared to pedagogically teach these subjects. It is still possible that there may be a discrepancy between the teaching of music theory and aural skills, and the learning of these subjects. From these results, however, it appears that music educators do not perceive a lack of teaching ability as a barrier to teaching music theory and aural skills. This contradicts the findings by Shanefield (2010), but it should be noted that his study focused on detailed interviews with a smaller group of educators while this study focused on broader findings from a larger group of participants. The findings of this study do not suggest that educators definitively do not perceive a lack of teaching ability as a barrier to teaching music theory and aural skills, but rather these results add to the discussion of possible barriers educators may or may not face when teaching these subjects.

The second barrier examined was the amount of time that educators have to teach music theory and aural skills in their classroom. Participants responded with mixed perceptions of the amount of time they have to allot to music theory and aural skills instruction. Educators showed only moderate amounts of time to allot to music theory instruction, but amounts of time varied widely. Additionally, educators showed moderately high amounts of time to allot to aural skills instruction, but these amounts of time also varied widely. Nonetheless, there was a notable difference between educators' confidence in their ability to teach music theory and aural skills which was relatively high, and the amount of time they have to allot teaching these subjects which was lower.



These results supported those of Callahan (2015) who also found time constraints to be a prevalent barrier to teaching music theory and aural skills, but this study extended these findings by providing quantitative data on the frequency of music educators who may perceive time constraints as a barrier to implementing the subjects. It is notable that participants' confidence in the amount of time they could allot to music theory and aural skills instruction differed. This study did not examine why this may be but the high percentage of participants who teach a performing ensemble such as band, orchestra, or choir could suggest that it is easier to implement aural skills in a shorter amount of time in a performing class, making educators more confident in the amount of time they have to do so. Further research would be required to further understand this phenomenon, however, and conclusions cannot be drawn about this discrepancy in this study. Nonetheless, these results appear to provide insight into educators' possible perception of time constraints as a barrier to implementing music theory or aural skills instruction.

Given that time constraints may be a barrier prevalently perceived by educators, there are various approaches available to explicitly teach music theory and aural skills in the classroom which address this barrier (Harris, 2006; Jones et al., 2013; Margolis, 2019; Potts, 2009; Spieker, 2016). In general, the goal of these approaches is to incorporate theoretical and aural skills topics into music already being rehearsed and offer short, effective exercises which balance the importance of learning these topics with the other performance demands educators may have (Harris, 2006; Jones et al., 2013; Margolis, 2019; Potts, 2009; Spieker, 2016). Approaches like these provide educators with a simple, yet effective way to begin incorporating theoretical and aural skills into their classroom without diverting much instructional time (Harris, 2006; Jones et al., 2013; Margolis, 2019; Potts, 2009; Spieker, 2016).

The final barrier examined was educators' confidence that their students enjoy learning about music theory and aural skills. Participants responded with moderate confidence that their students enjoy learning about these subjects. This moderate belief that students enjoy learning about music theory or aural skills was the lowest confidence displayed of any of the barriers examined in this study and supports the claims by Taylor (2018) that students may not enjoy learning about music theory or aural skills. The reason for this low confidence was not examined in this study, so it cannot be determined if students are uninterested with the content of music theory and aural skills instruction itself, how it is being administered, or if they are even uninterested at all. Teacher-centered instruction of content with worksheets, for example, could cause students to be more uninterested with learning these subjects as opposed to if authentic activities were used. Examining how educators are teaching music theory and aural skills could provide more context to this possible issue of students not enjoying learning these subjects. It would also be useful to see if students as a whole are actually uninterested in learning about music theory or aural skills, or if this is just a perception that educators have about their students. Kelly and Veronee (2019) suggested that students are interested in learning about these topics, but the participants of their study were gifted and potentially affluent students attending a summer music camp. Further research would be required to determine if typical music students' level of interest in learning about music theory or aural skills differs from their educators' perceptions of their enjoyment learning these topics. Nonetheless, it appears that a moderate frequency of educators are only somewhat confident that their students enjoy learning about music theory and aural skills.

There are recommendations from literature to address the barrier of students' disinterest with implementing music theory or aural skills instruction (Kelly & Veronee, 2019). Notably,

educators could conduct student opinion surveys similar to Kelly and Veronee's (2019) to determine if their students would enjoy learning about music theory and aural skills, to address the fear that students may not enjoy learning about these topics suggested by Taylor (2018). With this approach, music educators can address the perceived barriers of a lack of student interest that they face when implementing music theory and aural skills instruction into their classrooms (Kelly & Veronee, 2019).

It appears that educators' confidence in their ability to teach music theory and aural skills may differ from the amount of time they have to allot to teaching these subjects or their confidence that their students enjoy learning about these topics. Results from inferential tests showed that educators' perceptions of barriers to teaching music theory and aural skills both differed significantly. From this, it was concluded that participants' perceptions of each barrier are not equal to each other for both music theory and aural skills instruction. Additional findings showed that there were significant differences between the perceptions of teaching ability and time constraints as a barrier, as well as between teaching ability and student enjoyment for both music theory and aural skills. There was no significant difference between the perception of time constraints or student enjoyment as a barrier for either music theory or aural skills, though in both cases confidence in student enjoyment had slightly lower mean than that for time constraints. It should be noted that this study did not cover every possible barrier to implementing music theory and aural skills instruction possible, and more research would be required to determine what may impact music educators' ability to teach these subjects in their classroom. Nonetheless, in conjunction with the results of what frequency of educators perceive each barrier, these results show that educators' perceptions of each barrier do not appear to be

equal and therefore may not have the same level of impact on instruction of music theory or aural skills.

Thus far educators' perceived importance of music theory instruction, their implementation of these subjects, and their perception of various barriers have been examined through the results of this study. Music educators may perceive the importance of teaching music theory and aural skills and also may agree that teaching these topics are important to them. Additionally, it appears that a high frequency of educators may teach music theory or aural skills on a semi-daily or daily level, and that when they do, they may focus on the topics they stated were important to them. Educators also appear to perceive barriers to implementing music theory and aural skills instruction at significantly different levels with more common perceptions of a lack of student enjoyment and time allotment than an ability to teach these subjects.

These results supported previous findings that educators may believe music theory and aural skills instruction are important (Bernhard, 2014; Callahan, 2015; Gates, 2001; Hendricks, 2010; Musco, 2009). Additionally, they did not appear to provide evidence that educators are not teaching music theory or aural skills at a high frequency. This did not provide support to Huff's (2013) suggestion that college students are not prepared to study these subjects because of a lack of preparation by their high school programs, if only considering the amount of time spent teaching and not the quality of instruction. If educators feel confident in teaching music theory and aural skills and say they are doing it frequently, but students still do not feel prepared, examining what else could be causing this discrepancy is worth further research. It is also possible that the wording of the measurement instrument lent participants to believe that any instruction they did involving theoretical topics or listening activities constituted the explicit teaching of music theory or aural skills, which would result in higher levels of implementation.

Furthermore, these results supported the findings by Callahan (2015) and Taylor (2018) who respectively suggested that educators struggle with time allotment to music theory and aural skills instruction, and that students may not enjoy learning about these subjects. These results did not support the findings by Shanefield (2010), however, as participants of his study appeared to show less confidence in their ability to teach music theory and aural skills than the participants of this study did. More research would be required to understand each facet of this research question, but nonetheless these results provided substantial insight into the frequency of educators who perceive the importance of music theory instruction, their implementation of these subjects, and their perception of various barriers.

The next section of the study focused on if there was an association between the strength of educators' perceptions of the importance of music theory and aural skills instruction and their implementation of these topics. Results from inferential tests showed that it appeared that there was a weak positive connection between educators' perceived importance of music theory instruction and their reported implementation of the subject. Additionally, it appeared that there was a weak to moderate positive connection between educators' perceived importance of aural skills instruction and their reported implementation of the subject. These results show that as educators perceive music theory and aural skills instruction as important, they may teach it more, though notably neither connection was that strong.

This does not provide evidence that a lack of instruction could be the cause for students being unprepared to study music theory and aural skills in college (Hufft, 2013). If the association between educators' perceived importance and their implementation of these subjects was not present or was inversely associated, then this would provide greater evidence of a discrepancy between educators' perceived importance and their actual implementation. This does

not negate the fact that students may indeed feel unprepared to study these topics or that this issue could be possibly due to another factor related to instruction, but neither of those possibilities were covered in this study.

The final research question focused on if there was a connection between educators' instruction of music theory and aural skills and their perception of barriers with teaching these topics. This question was addressed using participants' reported implementation of music theory and aural skills compared to their perception of the barrier with the lowest mean, which for both music theory and aural skills was confidence in student enjoyment learning each subject. Inferential tests revealed that there was a moderate connection between educators' belief in their students' enjoyment of music theory or aural skills and their decision to teach these subjects, and that the connection was significantly different from no connection existing at all. From this it was concluded that as educators' confidence that their students enjoy learning about music theory and aural skills increased, they may teach these topics more frequently. These results do not suggest that there could not be another barrier to teaching music theory or aural skills not examined in this study that has a stronger connection with educators' implementation of music theory or aural skills. More than likely a combination of barriers factors into an educator's decision whether or not to teach music theory or aural skills, not a single barrier. Nonetheless, for the purposes of this study it appears as educators' confidence that their students do enjoy learning about these subjects increases, they may also teach these topics more frequently.

### **Limitations**

Before drawing conclusions regarding the results of this study and making recommendations for future research, the limitations of this study must be addressed to provide context to the findings presented. Notably, the sample size of this survey was rather small

especially when looking at the population of public middle and high school music educators from NCMEA and FMEA. In addition to the small sample size, data was collected through a voluntary response sample, not a more valid sampling procedure for statistical analysis. For both of these reasons, the results presented in this study should not be extended to the population of public middle and high school music educators as whole, as some findings from this sample may not be representative of the entire population.

The wording of some items in the measurement instrument also may not have provided definitive findings regarding some topics in this study. Notably, surveying participants' implementation of music theory and aural skills was difficult to determine how often educators actually teach these topics. The term "teaching" which was used throughout the survey left room for interpretation of what actually constituted teaching music theory and aural skills, and this ambiguity could have caused participants to interpret this term differently. Some participants may have thought that any mention of music theory or aural skills in their classroom constituted teaching these topics, and therefore they may have reported higher levels of implementation. Similarly, this study only examined how often educators said they taught music theory or aural skills. Their actual teaching was not observed to determine how often they are actually teaching these topics. Educators' implementation of music theory and aural skills spanned all three research questions, and therefore it is important to not infer findings related to this topic as definitive throughout the entire study.

In general, the findings of this study should not be considered absolute. Any findings of this study which are divergent from previous literature require the examination of methodologies to understand how different studies were constructed. This study focused on broader findings across multiple topics which may not be the case for other studies. The findings of this study

provided more context into educators' instruction of music theory and aural skills which could benefit future research and knowledge on the topic as a whole, and these results should be viewed as potentially useful information not definitive findings.

### **Conclusion & Recommendations for Future Research**

The results of this study displayed educators' perceived importance of music theory and aural skills instruction, their implementation of these topics, and possible barriers they perceive with teaching each topic. Findings suggested that music educators generally view music theory and aural skills as important and that they teach them on a regular basis. Aural skills were taught somewhat more frequently than music theory, but this study did not examine why this may be. Since demographics were skewed towards participants who teach a performing ensemble such as band, strings, or choir this could suggest that it is easier to implement aural skills instruction in a shorter amount of time in a performance class than it would be for music theory, but further research would be required to determine this. Furthermore, educators appeared to perceive barriers to implementing music theory and aural skills instruction at significantly different levels with more common perceptions of a lack of student enjoyment and time allotment than an ability to teach these subjects. This study did not examine whether educators' perceptions of the most frequent barrier, a fear of student disinterest in music theory or aural skills, is founded or not. Further research would be required to determine if typical music students' level of interest in learning about music theory or aural skills differs from their educators' perceptions of students' enjoyment learning these topics.

Results from inferential tests showed that it appears that there was a weak positive correlation between educators' perceived importance of music theory instruction and their reported implementation of the subject. Additionally, it appears that there was a weak to



moderate positive connection between educators' perceived importance of aural skills instruction and their teaching of the subject. These results show that as educators perceive music theory instruction as important, they may teach it more, with a similar conclusion for aural skills though with a slightly stronger connection. This provided no evidence that a lack of instruction could be the cause for students being unprepared to study music theory and aural skills in college (Hufft, 2013), though these results do not show that other factors related to instruction could not explain students' unpreparedness.

Finally, participants' responses were analyzed to determine whether or not a connection exists between educators' perception that their students enjoy learning about music theory or aural skills and their implementation of each subject. Inferential tests revealed that there was a moderate connection between educators' belief that their students enjoy music theory or aural skills and their decision to teach these subjects more. From this it was concluded that it appeared as educators feel more confident that their students enjoy learning about music theory and aural skills, they may teach these topics more frequently. The results of this test do not imply that there could not be another barrier to teaching music theory or aural skills not examined in this study that has a stronger connection with educators' implementation of music theory or aural skills. Further research would be required to determine if other possible barriers have a connection to educators' implementation of music theory or aural skills instruction.

The results of this study have implications for informing future research on topics related to educators' and students' involvement with music theory or aural skills instruction in public school music programs. Regarding educators' perception of barriers to implementing music theory and aural skills instruction, more possible barriers should be examined to gain a more complete picture of what factors may impact an educators' decision whether to teach these

subjects or not. Additionally, regarding the most perceived barrier in this study, a lack of student enjoyment, more information is required to determine whether or not students actually dislike learning about these topics, or if this is a misconceived perception that educators have. For educators' implementation of music theory and aural skills, more information is required specifically observing how often educators are teaching these subjects daily and within a class period to understand if or where a lack of instructional time may be impacting the knowledge gained by students. Along the same line, more possible impacts to students' learning of music theory and aural skills should be examined to determine if any other possible factors could be impacting students' knowledge of these subjects. The findings presented in this study provide insightful information regarding the frequency of educators who perceive various music theory and aural skills topics as important. Furthermore, this study provided knowledge regarding educators' implementation of music theory and aural skills and barriers they may perceive with doing so. Music theory and aural skills instruction in public school music programs should continue to be examined to determine if as a profession we can better teach our students the fundamental subjects about music.

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## Appendix A

### Perspectives on Music Theory & Aural Skills

Please read this information carefully before agreeing to participate. Your participation is voluntary, and you can decline to participate, or withdraw consent at any time, with no consequences. This study (IRB202101810) is being carried out by Joshua Kraus, a Graduate Student pursuing a Master of Music in Music Education at the University of Florida. Additionally, he is also a member of the North Carolina Music Educators Association (NCMEA), but this does not pose a conflict of interest for this survey, nor will he be completing it himself. NCMEA is assisting Joshua in contacting their members, but the organization is neither engaged nor sponsoring his research. Joshua can be contacted at [j.kraus@ufl.edu](mailto:j.kraus@ufl.edu), or at (919) 889-1180.

The purpose of this study is to examine music educators' perspectives of the importance of music theory and aural skills instruction and what barriers they perceive with implementing these topics. If you agree to participate in this study, you will be asked to complete an online survey about your beliefs regarding the benefits of specific music theory and aural skills topics as they relate to your occupation, and any challenges you may perceive with implementing these topics in your classroom. Additionally, you will be asked to share basic demographic information regarding your level and type of experience teaching music in public schools to help reveal any trends. This survey should take about 10-15 minutes to complete.

There are no direct benefits to you from participating in this study, and you will not receive any compensation. I may benefit academically if the results of the study are approved for the partial fulfillment of my degree. This study does not carry any risk beyond those encountered in normal daily life. You are free to withdraw your consent and to stop participating in this study at any time without consequence.

Your information will be kept anonymous to the extent possible. There is a minimal risk that the security of any online data may be breached, but since (1) no identifying information will be collected, and (2) the online host uses several layers of encryption and firewalls, it is highly unlikely that a security breach of the online data will result in any adverse consequence for you. If you wish to discuss the information above or any discomforts you may experience, please contact the researcher using the contact information above.

If you have any questions regarding your rights as a research subject, please contact the Institutional Review Board (IRB02) office ((352) 392-0433 or [irb2@ufl.edu](mailto:irb2@ufl.edu)). For questions about the study (IRB202101810) please contact Joshua at the number or email provided above.

**Clicking on the button below to continue to the survey indicates your consent to participate in this research study.**

### Demographic Info

Please read each question and choose the answer the best applies to you.





### Importance of Teaching Aural Skills

Aural Skills/Ear Training Instruction: Learning to identify pitches, intervals, chords, rhythms, and other basic elements of music, solely by hearing.

6. On a scale of 1 to 10, how important to you is **aural skills instruction** in your classroom? (1- Not important at all, 10- Extremely important)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   ☐ 8   ☐ 9   ☐ 10

7. Choose which **aural skills topics** you believe are important to specifically teach in your classroom.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
Spending time specifically teaching aural skills concepts that lead to improved <b>musical performance</b> is important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spending time specifically teaching aural skills concepts that lead to improved <b>sight-singing or sight-reading ability</b> is important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spending time specifically teaching aural skills concepts that lead to an <b>improved ability to play music by ear</b> is important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Implementation of Music Theory & Aural Skills Instruction

#### Teaching Music Theory

8. How often do you teach **music theory** in your classroom?

<input type="radio"/> Never	<input type="radio"/> Once Per Month	<input type="radio"/> Couple Times Per Month	<input type="radio"/> Every Other Week	<input type="radio"/> Once Per Week	<input type="radio"/> Couple Times Per Week	<input type="radio"/> Every Class Period
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9. Please read each statement and choose the one that most aligns with your beliefs.

- When I teach music theory, I spend **almost all** the class period (76%-100%) teaching it.
- When I teach music theory, I spend **most** of the class period (51%-75%) teaching it.
- When I teach music theory, I spend **some** of the class period (26%-50%) teaching it.
- When I teach music theory, I spend **a brief portion** of the class period (1%-25%) teaching it.
- I do not teach **any** music theory (0%) in my classroom.

10. Consider which **music theory topics** you specifically teach in your classroom.

	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
When I teach music theory, I specifically teach concepts that directly relate to the <b>music my class is studying or performing</b> .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I teach music theory, I specifically teach concepts that relate to <b>music literacy and musical understanding</b> .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Teaching Aural Skills

11. How often do you teach **aural skills** in your classroom?

<input type="radio"/> Never	<input type="radio"/> Once Per Month	<input type="radio"/> Couple Times Per Month	<input type="radio"/> Every Other Week	<input type="radio"/> Once Per Week	<input type="radio"/> Couple Times Per Week	<input type="radio"/> Every Class Period
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12. Please read each statement and choose the one that most aligns with your beliefs.

- When I teach aural skills, I spend **almost all** the class period (76%-100%) teaching it.
- When I teach aural skills, I spend **most** of the class period (51%-75%) teaching it.
- When I teach aural skills, I spend **some** of the class period (26%-50%) teaching it.
- When I teach aural skills, I spend **a brief portion** of the class period (1%-25%) teaching it.
- I do not teach **any** aural skills (0%) in my classroom.

13. Consider which **aural skills topics** you specifically teach in your classroom.

[illegible]

## Barriers of Implementing Music Theory & Aural Skills Instruction

## Challenges with Implementing Music Theory & Aural Skills Instruction

## Teacher Preparation to Teach Music Theory & Aural Skills

14. On a scale of 1 to 10, how confident do you feel in your ability to specifically teach **music theory** in your classroom? (1- Not confident at all, 10- Extremely confident)

○ 1   ○ 2   ○ 3   ○ 4   ○ 5   ○ 6   ○ 7   ○ 8   ○ 9   ○ 10

15. On a scale of 1 to 10, how confident do you feel in your ability to specifically teach **aural skills** in your classroom? (1- Not confident at all, 10- Extremely confident)

○ 1   ○ 2   ○ 3   ○ 4   ○ 5   ○ 6   ○ 7   ○ 8   ○ 9   ○ 10

16. For this question, consider if you feel a lack of preparedness to teach **music theory and aural skills**.

[illegible]

**Time Constraints with Teaching Music Theory & Aural Skills**

17. On a scale of 1 to 10, how much instructional time do you feel you have to allot to **music theory instruction**? (1- No time at all, 10- Plenty of time)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   ☐ 8   ☐ 9   ☐ 10

18. On a scale of 1 to 10, how much instructional time do you feel you have to allot to **aural skills instruction**? (1- No time at all, 10- Plenty of time)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   ☐ 8   ☐ 9   ☐ 10

**Students' Enjoyment Learning Music Theory & Aural Skills**

19. On a scale of 1 to 10, how confident do you feel that your students enjoy **music theory instruction**? (1- Not confident at all, 10- Extremely confident)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   ☐ 8   ☐ 9   ☐ 10

20. On a scale of 1 to 10, how confident do you feel that your students enjoy **aural skills instruction**? (1- Not confident at all, 10- Extremely confident)

☐ 1   ☐ 2   ☐ 3   ☐ 4   ☐ 5   ☐ 6   ☐ 7   ☐ 8   ☐ 9   ☐ 10

**End of Survey Statement**

We thank you for your time spent taking this survey.  
Your response has been recorded.