A Survey of Current School Orchestra Directors' Incorporation of Alternative Styles in the 6-12 String Curriculum

Haley Fye
University of Central Florida

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A SURVEY OF CURRENT SCHOOL ORCHESTRA DIRECTORS’ INCORPORATION OF ALTERNATIVE STYLES IN THE 6-12 STRING CURRICULUM

by

HALEY NICOLE FYE
B.A., Rollins College, 2021

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in Music in the Department of Music in the College of Arts and Humanities at the University of Central Florida Orlando, FL

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This study collected a representative sample of current grade 6-12 school orchestra directors’ incorporation of alternative styles in the curriculum. It examined directors’ repertoire selection process and their potential influence on student engagement, motivation, and retention, with a specific interest in alternative styles. Alternative styles in string education that are included in this study are contemporary pop, folk, bluegrass, rock, Irish fiddle, jazz, and world music. Participants were recruited in the study through two private Facebook groups for school orchestra directors (School Orchestra and String Teachers, and Orchestra Teachers) and two communities on Reddit pertaining to music teaching (r/MusicEd and r/MusicTeachers). This thesis explored the development of Western European art music for string instruments, how it became the dominant category of music in school orchestra curricula in the turn of the twentieth century, and particular challenges directors face when including alternative styles in the 6-12 string curriculum. This study analyzed District and State Music Performance Assessment (MPA) criteria and the Next Generation Sunshine State Standards (NGSSS) for the Arts in the state of Florida to see if there was evidence of the Western European art music canon in Florida’s string curriculum at the 6-12 grade level. The music list accepted for MPA heavily skewed towards Western European art music, especially for higher ensemble classes: AF, AS, BF, and BS. A breakdown of these ensemble classifications is outlined further in this thesis. Despite this, most participants reported incorporating alternative styles in their respective programs, with some expressing reservations regarding difficulty of alternative styles of music and discomfort on the part of the director. Participants reported typical levels of enthusiasm from students when directors included alternative styles of music. Some reported specific factors that affect student
enthusiasm, such as the arranger of the piece and their involvement in repertoire selection. This study includes a repertoire list of alternative styles of music recommended by its participants.
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CHAPTER ONE: INTRODUCTION

The purpose of this study was to gain insight from school orchestra directors regarding the factors that influence their process for selecting repertoire, with a specific interest in their incorporation of alternative styles in their string program, or lack thereof. The repertoire that directors choose is the curriculum for ensemble-based music classes. Therefore, directors are completely in control of what students learn throughout the schoolyear. In the context of string orchestra at the 6-12 grade level, there are certain techniques that many directors teach to students that follow a similar progression, including instrument hold, bow hold, finger dexterity, posture, etc. Much of the aforementioned technique taught in school orchestras is by directors with classical training, one that heavily features Western European art music, which will be discussed more in-depth later on. To outline a brief history of the development of string literature will give needed context for how Western European art music became the dominating type of music in school string curricula. In Western Europe, instrumental music started gaining popularity during the Renaissance around 1450. At this point, music just started to be written down and transmitted through such means. Music literacy thus became a highly valued skill among musicians and appreciators of music.\(^1\) The viol, or viola da gamba, was a fretted bowed string instrument that was built in three voice ranges and sizes, bass, tenor, and treble. The viol was first developed in Spain, then later adopted by Italian musicians, subsequently becoming the leading bowed string instrument of the sixteenth century.\(^2\) The violin developed shortly after and came with some unique differences. The violin is a fretless bowed string instrument and tuned in

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fifths, as opposed to mostly fourths with a major third seen in the viol. Instruments from the violin family such as the viola and violoncello would eventually replace viols in ensemble settings due to the brighter tone of the updated instruments. During the Renaissance, much of the repertoire written for and played by string musicians was to accompany dances. However, with the invention of the violin, string instruments were afforded more opportunities to play in unaccompanied settings, as the music composed in later time periods would go on to reflect. Specific instrumental genres would be explored and gain universal characteristics across national boundaries. These genres include the concerto, sonata, sinfonia (which inspired the creation of the symphony), and string quartet, introduced in the mid-eighteenth century. The mid-eighteenth century introduced the orchestra, a large ensemble consisting of string, wind, brass, and percussion instruments. The symphony originated from the Italian sinfonia, or opera overture; it expanded musical content across four movements as the genre became standardized. The works of notable composers of these genres such as Beethoven, Bach, Mozart, Dvorak, and Tchaikovsky among plenty of others would become established in the canon of Western European art music, studied, and passed down for generations to come. The pedagogy necessary to achieve the technical ability to master these works and the study of these works started to become ever-present in school string programs once music education became part of the public-school curriculum.

Providing this brief historical outline will be beneficial in adding context to my string education and the overall purpose of this study. When I first enrolled in my elementary strings

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class, I was not too familiar with the Masterworks under Wester European art music; I remember listening to more rock, metal, and pop music during my early life. I started learning viola at ten years of age after playing violin in the weekly strings class during the previous year. I recall our string teacher arranging “I Gotta Feeling” by the Black Eyed Peas for our small, yet eager ensemble. This was my first experience learning and playing a pop tune in a string ensemble or orchestral setting. I remember our eyes lighting up when all of the parts finally aligned, and we were proud to show our parents and teachers that we were learning as musicians. I would go on to stay enrolled in orchestra throughout middle and high school, performing in the most advanced auditioned ensembles.

As I advanced in orchestra level and skill level, I noticed Western European art music was programmed much more frequently, including arrangements of Dvorak’s Symphony No. 9 (From the New World), Tchaikovsky’s Symphony No. 2 (Little Russian), Verdi’s Overture to Nabucco, and Mussorgsky’s Night on Bald Mountain. In our high school orchestra, we also performed arrangements of folk songs, such as Percy Grainger’s Irish Tune from County Derry, and I had the opportunity to perform chamber quartet arrangements of Christmas tunes by the Trans-Siberian Orchestra. At the time, performing these arrangements were formative experiences for me as a musician because I felt like I could relate to each piece more, since relatively speaking, they were not written that long ago. I especially loved the rock genre as an adolescent, and performing arrangements of the Trans-Siberian Orchestra showed me that I could also conjoin my passion for orchestra and rock ‘n’ roll. In my free time, I also remember finding sheet music featuring video game tracks through the internet. I only grew more of an
appreciation for stringed instruments as I navigated translating piano scores to something I could play on the viola.

All of this to say, while I discovered some of my favorite pieces from the Western European art music genre through performing in my school’s orchestra, rarely were alternative styles of music as prevalent in the classroom, since I also took the initiative to find scores to video game music outside the school environment. For the remainder of this chapter, I give a brief overview of topics related to incorporating alternative styles in the string classroom. These subtopics are discussed more in-depth in the literature review section of the thesis.

**Justification for String Education**

Perhaps one of the most unacknowledged aspects of string teaching is the need to advocate for these programs in schools. Because the arts in general are often up for termination each year in many school districts, developing a community of advocates is crucial for maintaining and growing school music programs. As an aspiring school orchestra director and a former student of such programs, the topic of advocacy was always one that loomed over me. As previously stated, school music programs are often on the chopping block, with many administrators citing the steep cost as the reasoning for their termination. I am of the position that out of all the large ensemble-based performing arts classes, orchestra is more heavily affected in this regard than band and choir. In her article in the *American String Teacher*, Turner outlines a few challenges string teachers have faced in the past and still continue to face today, including an insufficient string teacher preparation curriculum at the collegiate level, a larger student enrollment with the same amount of teachers as past enrollment numbers, a need for
better publicity to recruit students, and a lack of effective techniques for teaching large ensembles.\textsuperscript{4} In addition, marching band is a core component for school sports teams, which are a large source of revenue, and choir programs do not have class sets of instruments and equipment that needs to be maintained on a consistent basis, as seen in orchestra programs. Therefore, orchestra programs are less common in public schools than other major performing arts such as band and choir.

The incorporation of alternative styles in a school string program also affects the advocacy of these programs. The inclusion of alternative styles in the string curriculum, and by extension concert repertoire, can be a powerful recruitment tool for students who may not have initially expressed interest in joining their schools’ orchestra program. If prospective students can see their current or future school’s orchestra program playing an array of styles, students from a multitude of musical and cultural backgrounds may gain interest in joining the program because they see themselves or their community represented in the ensembles. Additionally, as previously mentioned, because of the underrepresentation of alternative styles of music accepted under the Florida Orchestra Association’s Concert Music List to participate in District and State MPA, directors may feel discouraged from teaching students these styles if they are ultimately unable to receive an official rating for these selections by the Florida Orchestra Association. Since most ensemble-based music classes primarily use performance assessment to document student progress and not formative assessments typically seen in mathematics or English Language Arts, students enrolled in an orchestra program class must engage in a physical

activity to practice concepts introduced and reinforced during classroom instruction. As an example, orchestra students cannot learn how to play a one-octave major scale with a bow through lecture and memorization of facts. Students must practice physically using the bow and placing their fingers in a specific pattern by actively moving their bodies and participating in classroom activities after observing their teacher, peers, and themselves. Because of the physical nature of playing an instrument and the teamwork necessary in performing as an ensemble, summative assessments for ensemble-based music classes are typically the performances themselves. Public school ensemble-based music classes at the 6-12 grade level in the state of Florida can register to perform in District Music Performance Assessment (MPA) under certain guidelines. Directors must program three selections for each ensemble to perform, two of which must be selections from the Florida Orchestra Association (FOA) Music Concert List, which heavily features a bias towards Western European art music. Directors may perceive it would be an ineffective use of their limited time to study styles of music that cannot be adjudicated at MPA, at least ones that are taught in an authentic context, explained further in the thesis. However, despite this, I use the approach of string education advocacy to argue for the incorporation of alternative styles in the 6-12 string curriculum to widen the scope of school string study to a more globalized perspective and to give students the opportunity to hear their own voices in their ensembles and to listen to the voices of others unlike them.

The rest of this section pinpoints specific skills students can learn through enrolling in school orchestra programs. Brenda Brenner is current the co-chair of the orchestral conducting department and an associate professor of music education at the Jacobs School of Music at Indiana University. She also is on the Board of Directors of The Midwest Clinic. In her article on
the rationales of string study in schools, she identified skills children develop particularly in string orchestra ensembles, including breaking down large tasks into smaller ones, completing tasks, flexible and creative problem-solving skills, group cooperation, and product presentation.\(^5\) Brenner also acknowledges the challenge of securing and retaining a highly-skilled string musician as a factor in the renewal of string programs. Not only must the string educator be able to teach the advanced skills they have fortified throughout their undergraduate studio coursework, but they must also have a comprehensive physical understanding of string playing fundamentals and how to teach those concepts to young students. The more versatile and technically proficient a school’s string orchestra is in the classroom, the better off the program will be. In their article on music listening habits and music behaviors in middle and high school musicians, Williams, Geringer, and Brittin emphasize the importance of school music directors finding out how students engage with music outside the classroom. They argue if directors are aware of the methods students use to find new music, such as the internet, apps, and recommendations from family and friends, educators “may be allowed to successfully converse with students about music” and help students “broaden their listening repertoire, and perhaps even define musical aspect.”\(^6\) Directors will be better equipped in advocating for their profession when they understand their students and show them how they can apply their in-class music education to their music appreciation outside the school setting. After researching rationales for starting and retaining string programs in schools, I came across resources regarding incorporating alternative styles in the ensemble. Much of this research included background


\(^6\) Matthew L. Williams, John M. Geringer, and Ruth V. Brittin, “Music Listening Habits and Music Behaviors of Middle and High School Musicians,” *Update: Applications of Research in Music Education* 37, no. 2 (2019): 44.
information and literature about a style of teaching that even highly-experienced orchestra directors can have difficulty implementing in their classroom: rote learning.

Rote Learning

One significant aspect of alternative styles of music for strings is the way in which it is transmitted to students: aurally. This aural tradition is also sometimes referred to as rote learning, especially in an educational context. Rote learning, unlike note learning, is the act of teaching a piece of music without the guidance of the printed sheet. Ashley Danyew defines rote learning as the process by which “children are taught through imitation, listening, and active experience before being asked to read music notation.”

In my experience, the string teachers I had heavily utilized note learning in their instruction. While note learning is a pedagogically valid method to teach string students, there are unique benefits students may be able to receive through methods of rote learning. In their Master’s thesis on the effects of rote and note teaching in high school choral performance, Cremata outlines the differing conclusions of various studies regarding the effectiveness of rote teaching. One opposing argument for rote teaching is the resulting overreliance on memory, leading to a “lesser understanding of the music being prepared” and a lack of development of other necessary musical skills. However, Cremata also highlights some studies who found tremendous benefits from incorporating rote teaching, including an earlier development of musical aptitude and a heightened sense of musical expression and freedom.

Cremata found that these teachers who observed these benefits in students implemented vocal

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techniques in instrumental music classrooms, emphasizing the importance of connecting heard melodies from students’ instruments to their own voices.

The practice of implementing vocal strategies in an instrumental ensemble did not occur to me until I enrolled in the Mike Block String Camp (MBSC) during the summer of 2022, one summer ago at the time this thesis was being written. MBSC is a week-long summer camp for alternative styles of music for string instruments. The featured styles at this camp are bluegrass, Irish fiddle, jazz, pop, and contemporary original compositions. Every tune was acquired through informal learning practices typically seen in these styles. Characteristics of informal learning practices will be further explained in the literature review section of this paper. MBSC participants acquired tunes through repetitive listening, observing, singing, and copying with our instruments. This experience was the first time I experienced rote teaching and learning as a student. Alyssa Grey, assistant professor of instrumental music education and director of wind studies at Berry College, has published articles in multiple music education journals covering topics such as improving aural skills in music theory classes, starting a jazz band from scratch, digital music projects in the classroom, and rote learning in secondary instrumental music classrooms. She argues advocates of rote learning “have recommended that singing, movement, developing aural skills, teaching expressiveness, and creativity may provide students with enhanced contextual knowledge and experiences to better learn to read notation.”9 Rote learning in the beginning orchestra classroom allows students to focus on tone production, intonation, and their musical ear.

As an orchestra student in primary and secondary school, my instruction began immediately by reading notes. My early string teachers heavily prioritized musical literacy. While I find value in learning to read sheet music, I believe rote instruction is often overlooked in large ensemble settings, especially for beginning students. Many school orchestra programs follow a uniform string curriculum for students regardless of instrument, *Essential Elements for Strings* being a popular method book in the Orange County Public Schools’ string curriculum. Given the differences between each instrument in a string orchestra, and differing expertise in each instrument among directors, it is convenient to utilize a method book with a consistent rate of progression regardless of instrument. However, the popularization of method books and other instructional texts during the 1800s consequently pushed learning-by-note to the forefront of K-12 string pedagogy, allowing teachers without musical experience to teach music classes to students.\(^\text{10}\) Rote instruction in the string classroom forces students to listen to intervals and helps to develop their musical ear.

As I later discuss in the findings portion of the study, it is also common for string educators to teach by rote in the beginning stages of the curriculum. The Suzuki method, commonly a method used in private string study, applies characteristics of language acquisition to learning music, called the mother-tongue approach.\(^\text{11}\) Aspects of the mother-tongue approach relevant to rote learning include listening, repetition, and imitation. Some string teachers use principles of the Suzuki method with students who are brand new to stringed instruments to help develop their tonalization, or their tone production. In addition to implementing principles of the

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\(^{10}\) Grey, “Rote Instruction,” 60.

\(^{11}\) “Every Child Can Learn,” About the Suzuki Method, Suzuki Association of the Americas, accessed March 9\(^\text{th}\), 2023, [https://suzukiassociation.org/about/suzuki-method/](https://suzukiassociation.org/about/suzuki-method/)
Suzuki method, string teachers typically introduce note-reading to their students once they become more comfortable with holding the instrument and able to produce a clear tone.

It is of my belief that string teachers should be well-versed in teaching by rote and note reading because much of the school string orchestra repertoire is composed with specific technical concepts at the forefront, such as low second finger, slurs, road maps, etc. In addition, through my own observations and teaching, I conclude that an over-emphasis on note learning can lead to students struggling with developing skills related to performing as an ensemble. If students are too absorbed into reading the notes on their page, aspects of their ensemble etiquette dwindle, such as allowing the melody to come forward in the texture, balancing and blending as an ensemble, moving and leading as a section, etc. Again, it must be noted that I have only come to this conclusion through my own observations and teaching. My experience at MBSC has also shown me that rote learning is a powerful pedagogical tool. Students of all ages and skill levels were enrolled at the camp. Observing the younger string students and bands playing their tunes with such confidence gave me a new perspective that anyone, regardless of ability, can learn by ear. These students had the liberty of creating their own arrangement of their selected tune, giving each student their own voice throughout rehearsals and in the final performance.

However, despite what I have seen through my past observations, in this study, I found that many of the directors avoid rote learning altogether and immediately start students with note-reading. A limited exposure to teaching styles can give students a narrower scope of the instrument they chose to study. As students receive rote instruction and engage in imitative playing lead by the teacher, students’ curiosity and creativity may be piqued in the form of composition, arranging, and improvisation.
Creativity in the String Classroom

David R. Krathwohl was an educational psychologist and director of the Bureau of Educational Research at Michigan State University before he passed in 2016. He wrote an overview to the revision of Bloom’s Taxonomy. It was designed at the outset as a means to classify learning objectives and assessments, which eventually became adopted in K-12 education. The original Taxonomy consisted of tiered categories, starting in a lower cognitive domain then escalating to tasks requiring a higher one: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. The Taxonomy was revised to the following categories: Remember, Understand, Apply, Analyze, Evaluate, and Create.12 Notably, Create replaced Evaluate at the top of the Taxonomy, therefore it was deemed to require the most high-order thinking out of the other categories in the Taxonomy. Establishing a space for students to engage in exploratory creation in the music classroom allows students to apply concepts to demonstrate an understanding of what they have learned. Students are able to see, hear, and experience concepts in an authentic experience.

A brief outline of my experiences with musical creativity in the string classroom offers additional context. In my elementary string classes, while I enjoyed learning the violin and viola, I felt limited to playing what was printed in front of me. I always sought out new sheet music, but it never occurred to me that I could create my own musical ideas. If I had ever been presented with the opportunity to “just play what I felt,” I would have felt lost and self-conscious, and perhaps my spontaneous compositions would have sounded rudimentary, even for

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a beginning student. As I continued further in my orchestral studies in sixth through eighth grade, I became more comfortable with viola technique. I started to experiment with shifting, vibrato, and composition in my seventh-grade year. The compositions were merely sketches of melodies I randomly played while warming up before class and did not want to forget. In retrospect, I realize that this is considered improvisation, but I did not have the language to give this form of creating a name. I wrote these improvisations down out of my pure enjoyment; they were not graded assignments that were required of the students. Many of these brief melodies were akin to the tonalities and techniques of the Classical tradition I had been learning in the program. One melody featured trills and minor arpeggios, and one was simply the first tetrachord of F major played in ascending and descending order, with a prolonged G implying the V chord, a few rudimentary examples of what I was learning in mu studies. My creative endeavors in music were mainly pursued outside the classroom. I would show my creations to my director who would express praise and enthusiasm. 

During the next school year, I would go on to write my own songs and lyrics. I envisioned these songs to fall under the alternative metal or pop punk genre, expressing their lyrical content. These were two genres I mainly listened to and identified with at the time. I would sketch out a general melodic shape for each song, and even attempted to compose an accompaniment to play on my viola while I sang simultaneously. I would come later to discover other string players like me who specialized in alternative styles of music that were able to sing and play their instrument at the same time while attending MBSC. However, at the time, I was not exposed to this practice or the genres that were featured in it. I lacked the coordination and theoretical knowledge required to accompany my own songs without the guidance of a mentor to
become successful in this endeavor. Nonetheless, the exploratory nature of music motivated me to continue expanding my creative horizons. Finding sheet music from genres or styles that interested me outside the classroom inspired me to stay enrolled in orchestra to continue learning new techniques, allowing me to expand my musical vocabulary. Ever since then, I have dabbled in musical creation such as composition, arranging, and improvisation. However, in my senior year of high school while enrolled in AP Music Theory, I was assigned a project to create a graded composition project; it was a viola and cello duet inspired by the soundtrack of *The Legend of Zelda*.

As I started studying music at the collegiate level and meeting people of different musical disciplines, I started gaining an interest in learning jazz strings. After expressing this interest to my studio professor, I was discouraged from pursuing the jazz style with the justification that it would severely hinder my developing classical technique. It was at this moment that I personally experienced the Western European classical canon for the first time. I had never been discouraged from pursuing a musical endeavor before, nor was I attempting to stop my classical studies altogether. Suffice it to say, I continued my classical studies throughout my undergraduate studies and continued throughout my graduate studies. Through some personal recommendations and a further interest in jazz violin and viola, including artists such as Zach Brock of *Snarky Puppy* and Stéphane Grappelli, I became aware of MBSC in Vero Beach, Florida. It was not until my enrollment in MBSC during my graduate studies that I was finally able to be exposed to alternative styles of string music with full encouragement and support of the faculty and attendees. Prior to my enrollment in MBSC, I had a rough idea of what improvisation was or how it could be used in an orchestral setting. I have only been a passive
observer of improvisation through attending my school’s jazz ensemble concerts and local chamber group performances. I had never before observed instances of musical improvisation in a school setting outside of the jazz, but at MBSC, I was exposed to other improvisational styles, such as bluegrass and Indian Carnatic music, classical music originating from Southern India. Like many other classically-trained string players, I was initially petrified by the endless possibilities when it became my turn in the spotlight. Many of the alternative styles discussed in this thesis, if taught and performed in an authentic manner, incorporate improvisation to some capacity. James Mick, associate professor of music education, published a study on middle school and high school students’ preferences for specific alternative styles of music. In his study, Mick argues teaching alternative styles of music may help students learn musical skills that foster creativity and a diverse skillet of performance techniques on a broader scope, including improvisation, composition, and arranging:

By incorporating alternative string styles in the curriculum, string educators can create opportunities to teach diverse performance skills important in all string playing. Additionally, teaching subject matter such as improvisation, composition, arranging, and stylistic sensitivity may be easier and more accessible to students through the use of alternative string styles.\(^\text{13}\)

As students and educators become more familiar with alternative styles in the classroom, students will be exposed to the different types of improvisational languages within each style, and the pedagogical gap between Western European art music genres and alternative styles can be bridged. Through my investigation further into incorporating alternative styles in the string classroom, some authors highlighted an ethical dilemma that must be discussed when educators

teach and program pieces from unfamiliar genres, and one I had not considered prior to my initial research: authenticity.

Authenticity

Exposing, teaching, and performing pieces or tunes from alternative styles in an authentic manner may cause string educators to have reservations incorporating such genres into their ensembles. According to Jeff Torchon, styles of music from a given culture have preestablished cultural norms that are determined by cultural and historical practices, including how the music is learned or its context. Teachers and students acknowledging and respecting the culture of the music that is studied in school ensembles comes from predisposes them to be more accepting and appreciative, instead of appropriative of cultures unfamiliar to their own. In her article *The Role of Authenticity in Culturally-Informed Music Education*, Lisa Koops states some strategies directors can use in their own programs that contribute to authentic teaching of alternative styles of music:

- Close listening and study of performance practice enhances aesthetic dimensions.
- Examining more context-oriented expressive details deepens student understanding of the role of music in others’ lives. Using indigenous instruments, original languages, and involving cultural bearers in instruction benefits student involvement. Connecting the story of a piece of music to students’ own experiences and encouraging students to create new music in the style of music being studied help facilitate meaningful experiences for students.

Authentic teaching of music that is culturally unfamiliar to directors affords students a more comprehensive education through a global perspective. Students with differing cultural

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15 Lisa Huisman Koops, “‘Can’t We Just Change the Words?’ The Role of Authenticity in Culturally Informed Music Education,” *Music Educators Journal* 97, no. 1 (September 2010): 27.
backgrounds will feel seen, heard, and understood, which thus leads to a healthier school community. Because music of alternative styles is taught and performed without the use of sheet music, classically-trained string teachers have difficulty teaching these tunes authentically to their students. Whyatt suggests students learning fiddle tunes out of a book, outside of the genre’s authentic setting, gives students a limited idea of how the tune should sound and an inauthentic performance experience. By learning tunes originally transmitted aurally through reading transcriptions, she states students are “doing little more than improving their note reading skills.”

As a gift one year, I received a book of songs by Taylor Swift and Metallica transcribed for viola. At the time, I was shocked and excited to play some of my favorite songs on my instrument. However, in retrospect, by the nature of their respective genres and my ability to read sheet music from note-learning, I was not authentically recreating the music of Taylor Swift or Metallica. Besides the fact I was familiar with studio recordings of certain songs, I did not have a clear picture of how each arrangement sounded because I only had the transcribed melody, which had to conform to the idiomatic constraints of the viola. Instead, if I had learned each song from rote-learning, I would have gained the practical skills to learn music by ear and better emulate the genres that encompass Taylor Swift and Metallica while developing my intonation for my classical studies.

Reading about creating culturally-authentic experiences in the string orchestra classroom forced me to reflect on my own education that I received. If my school’s ensemble performed a piece of music from an “alternative style”, it was always an arrangement of a tune wherein students received sheet music and learned the piece under a classical perspective, under the

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direction of the educator. An experience I immediately think of associated with this phenomenon is when my school orchestra performed Tim McCarrick’s arrangement of “Kashmir” by Led Zeppelin for string orchestra. While there is not a guitar solo section akin to those typically heard in 1970s rock ‘n roll, in the original recording, the vocal line assumes the improvisatory role as the track progresses, while the harmonic and rhythmic material stay mostly unchanged. In the string orchestra arrangement, the piece goes through the main verses and choruses a few times with all parts ending together on the rhythmic ostinato without mimicking any of the improvisatory vocal inflections. Logistically speaking, it makes sense why the arranger restructured “Kashmir” chose not to include the improvisatory section. String orchestras are typically large ensembles, and having each individual student improvise over the chord changes would starkly increase the duration of the song, deeming it impossible to program on school performances. However, the alternative, having sections improvise together at the same time, while decreasing the duration of the performance, would disturb the form and melodic content of the original track. This dilemma then begs the question: if a school orchestra performs this arrangement of “Kashmir”, is it an authentic performance if it excludes the improvisatory section? I explored research regarding authenticity further in the literature review chapter of this thesis.

Summary

Throughout this thesis, I examined current string education literature and postulated some potential explanations as to why educators may feel apprehensive to include alternative styles in the string curriculum. Some factors included the need for educators to justify string education’s
place in the public-school curriculum, teaching alternative styles through rote instruction, introducing improvisation to string students, and creating authentic learning and performance experiences that avoids bastardizing the studied genre. The purpose of this study was to collect a representative sample of current school orchestra directors’ anecdotal experiences teaching alternative styles in their classroom, and if their selection of repertoire influenced student engagement, motivation, and retention within the program.
CHAPTER TWO: LITERATURE REVIEW

In this section of the thesis, I analyzed literature from the aforementioned topics in the introduction chapter more in-depth, viewing each topic through a plethora of lenses. Again, it is crucial to note that at the secondary level, the music curriculum is decided by directors in what repertoire they choose for their students. If directors are reluctant implementing alternative styles of music in the classroom, they will likely not introduce them to students at all, let alone in an authentic manner, as characterized previously. The director’s ability to choose quality literature whether of alternative styles or Western European art music plays a significant role in what students learn throughout the year. In the literature review section of the thesis, I examined the topics of string education advocacy, rote learning, creativity in the string classroom, and replicating authentic performance and learning experiences for students.

Justification for String Education Through Repertoire

One limitation I must immediately address in this section pertaining to the topic of advocacy in string education is my limited knowledge of the wellbeing of string programs in states outside of Florida. I also am unfamiliar with each individual state’s school orchestra association and their respective regulations for participating in district or state festivals. I am most familiar with those based in Florida, because I attended school from grades K-12 and have also completed my student teaching in Florida. However, I am confident these general trends analyzed below can be seen in states outside of Florida. In Dave Simons’s article *The Great String Revival*, he states “over the past several decades, the number of public school districts offering instruction for violin, viola, and cello has plummeted, from as high as 80 percent in
1960 to less than 19 percent today.” To reiterate from the previous chapter, Simons also echoes that notion that school string programs fall victim to being cut from public-school curricula often across the United States. Termination of these programs is not without just cause, however. String programs not only cost a large amount of money to start from the ground up, but also the cost to maintain these programs year after year proves the difficulty in funding them. On the transcript of their podcast titled *The Orchestra Teacher Podcast*, Charles Laux and David Metrio discuss the importance of using a variety of data to measure student growth throughout the year through informal and formal assessments. Directors may find it challenging to quantify student growth, specifically what and how to measure, which exposes another barrier that can present itself when advocating for string education in the public schools. Laux and Metrio offer a plethora of techniques and instruments to collect student data, such as Google Forms, Google Sheets, Essential Elements Interactive, and SmartMusic. Directors can then use data they deem necessary to measure student growth as evidence to administrators to demonstrate student achievement in their classroom. However, despite these difficulties, Robert Gillespie argues that, instead, national content standards eliminate the mysticism surrounded by music education to those unfamiliar with its pedagogy and provide administrators, parents, and “those in power in our communities” a concrete set of guidelines each string program should abide by.

School orchestra directors are then able to show their ensembles’ achievement of the established content standards by participating in their respective state’s music performance.

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assessment, simply abbreviated to MPA in the state of Florida. To participate in MPA, the FOA establishes a certain repertoire that is curated in a list that directors can select from to register each year, typically referred to as Concert MPA. Orchestra directors at the 6-12 grade level can register their ensemble to participate in Concert MPA at the district level. Ensembles can be invited to perform at the state level if they are at the high school level and if they meet the qualifications. According to the FOA Handbook, high school orchestras are eligible to perform in State Concert MPA if they received an overall Superior rating at their respective District Concert MPA and are accepted on a first-registered basis. For students, directors, schools, and districts, it is a mark of pride for their music ensemble to qualify for State Concert MPA.

After thoroughly scanning the FOA Concert Music List spreadsheet for the 2022-2023 academic year, the selections of repertoire are overwhelmingly representative of Western European Art music, including school arrangements of masterworks. Ensemble levels are grouped by ability, with A being the most advanced level, and E being the least advanced. They are also classified with either an F or S after their ability level, denoting full orchestra and string orchestra, respectively. Some examples at the most advanced class, AF, include all Beethoven symphonies except Symphony No. 9, Elgar’s Enigma Variations, and Rimsky-Korsakov’s Scheherazade. In the AS class, Britten’s Simple Symphony, Dvorak’s Serenade for Strings, and Grieg’s Holberg Suite were some representatives of the difficulty and genres featured. The ensemble class continued this pattern: BF, BS, CF, CS, DF, DS, and ES. From the BF class downward, the repertoire list included more arrangements of works by Western European art

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music composers, such as Strauss’s *The Blue Danube* arranged by McCashin in class DS, the first movement of Mozart’s *Eine Kleine Nachtmusik* arranged by Isaac in the CF class, and Saint-Saëns’s *Carnival of the Animals* arranged by Parker in the BS class. It must be noted that for classes AF, AS, and BF, there are no arrangements of traditional folk songs listed as an option for Concert MPA repertoire, only for classes BS and lower. Some listings of arrangements of traditional folk songs include *Ani Ma’Amin* arranged by Leavitt in the BS class, *Irish Jig and Aire* arranged by Snoek in the CS class, and *My Horses Ain’t Hungry* arranged by Conley in the DS class. The ensembles class CS had significantly more listed traditional folk song arrangements that are accepted to be performed at Concert MPA with a total of thirty-two. However, the FOA Concert Music List contained an overwhelming majority of pieces composed by or were arrangements of Western European art music.

According to the FOA Handbook, updated as of January 2023, directors must program a total of three pieces to participate in Concert MPA, two of which are required to be from the Concert MPA Music List.\(^{21}\) Under Section VII, the fourth bullet point under subsection B states “solo concerto, Broadway show tunes, pop tunes, movie themes, and television themes are not acceptable for an event of this type and will be recorded as a disqualification, although comments will still be given.”\(^{22}\) In the context of string education advocacy and incorporating alternative styles in the string classroom, regulations legislated by each state’s school orchestra association, like Florida, may have restrictive guidelines for what is acceptable repertoire permitted in the performance assessment. Since most music programs including string orchestra

\(^{21}\) Florida Orchestra Association, “Florida Orchestra Association Handbook.”

\(^{22}\) Florida Orchestra Association, “Florida Orchestra Association Handbook.”
do not have typical standardized testing as do core content areas, these high-stakes performances are utilized to provide school music programs with an official and measurable assessment. In addition to the data collected showcasing student growth in their program, directors can present their MPA scores as evidence of achievement to administrators, parents, and school board members as tools for string education advocacy. To tie this analysis back to the topic of alternative styles in the 6-12 string curriculum, because of the lack of such selections on the FOA Concert Music List, directors may feel discouraged teaching or programming music of alternative styles, or they may perceive it as a low priority. It is understandable that orchestra teachers would direct their ensembles under the parameters established by the district and state assessment guidelines. However, in Edinger’s study on the methodology and practices of alternative styles in string education, she states a compelling rationale for implementing these styles in the context of string education advocacy: “The traditional curriculum of only using Western art music is setting the stage for students to lose sight of the rationale for a musical education, the practice, enjoyment, and holistic betterment of the individual and community through music.”23 The underrepresentation of alternative styles of music observed in the FOA Concert Music List to perform in Concert MPA actively opposes a key factor in music education advocacy as a whole: the betterment of the individual and community. If a school’s music program does not reflect the community in which it resides, students may have difficulty in engaging in active musical participation and creation outside the classroom. However, with those

guidelines, we must consider another governing body teachers must abide by: the content standards for music curricula.

In the state of Florida, as of 2014, the Next Generation Sunshine State Standards (NGSSS) for the Arts is the most current documentation of state standards pertaining to arts education. The following table of benchmarks support the incorporation of alternative styles of music in the 6-12 string curriculum by allowing students to develop their aural skills, compositional and arranging skills, and overall ability to perform a variety of genres and their unique stylistic features. Some of the specific skills that students are achieving through these standards are ones such as developing listening strategies, improvising rhythmic and melodic phrases, singing and playing melodies by ear, classifying stylistic features of various genres, etc. Incorporating alternative styles of music into a 6-12 string curriculum would allow students to meet these standards that are supposed to be covered in schools. Developing students’ aural skills through teaching by rote earlier in their education could help students develop listening strategies for unfamiliar works, especially with music that uses differing tonalities than those commonly used in the West. A student’s ability to hear, understand, and audiate a musical idea before they play it can help students learn how to improvise simple phrases, and sing or play melodies by ear, which then can allow students to tap into their creative minds through composing and arranging. Anecdotally speaking, my personal orchestra directors did not do many activities that achieved any of these standards during classroom instruction. The only class I took that specifically helped me develop my aural skills was Advanced Placement Music Theory during my final year of high school. However, during my orchestra period, no time was
spent learning by ear, composing, arranging melodies, or purposefully developing listening strategies, which restricted me from obtaining a broader string education.

Table 1: Grade 6-12 NGSSS for the Arts Benchmarks

<table>
<thead>
<tr>
<th>Benchmark Code</th>
<th>Benchmark</th>
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<tbody>
<tr>
<td>MU.68.C.1.1</td>
<td>Develop strategies for listening to unfamiliar works.</td>
</tr>
<tr>
<td>MU.68.S.1.1</td>
<td>Improvise rhythmic and melodic phrases to accompany familiar songs and/or standard harmonic progressions.</td>
</tr>
<tr>
<td>MU.68.S.1.4</td>
<td>Sing or play melodies by ear with support from the teacher and/or peers.</td>
</tr>
<tr>
<td>MU.68.S.1.6</td>
<td>Compose a melody, with or without lyrics, over a standard harmonic progression.</td>
</tr>
<tr>
<td>MU.68.H.1.1</td>
<td>Describe the functions of music from various cultures and time periods.</td>
</tr>
<tr>
<td>MU.68.H.1.3</td>
<td>Describe how American music has been influenced by other cultures.</td>
</tr>
<tr>
<td>MU.68.H.1.4</td>
<td>Classify authentic stylistic features in music originating from various cultures.</td>
</tr>
<tr>
<td>MU.912.C.1.1</td>
<td>Apply listening strategies to promote appreciation and understanding of unfamiliar musical works.</td>
</tr>
<tr>
<td>MU.912.S.1.1</td>
<td>Improvise rhythmic and melodic phrases over harmonic progressions.</td>
</tr>
<tr>
<td>MU.912.S.1.3</td>
<td>Arrange a musical work by manipulating two or more aspects of the composition.</td>
</tr>
<tr>
<td>MU.912.S.1.4</td>
<td>Perform and notate, independently and accurately, melodies by ear.</td>
</tr>
<tr>
<td>MU.912.S.3.1</td>
<td>Synthesize a broad range of musical skills by performing a varied repertoire with expression, appropriate stylistic interpretation, technical accuracy, and kinesthetic energy.</td>
</tr>
<tr>
<td>MU.912.O.2.1</td>
<td>Transfer accepted composition conventions and performance practices of a specific style to a contrasting style of music.</td>
</tr>
<tr>
<td>MU.912.H.1.4</td>
<td>Analyze how Western music has been influenced by historical and current world cultures.</td>
</tr>
<tr>
<td>MU.912.H.1.5</td>
<td>Analyze music within cultures to gain understanding of authentic performance practices.</td>
</tr>
</tbody>
</table>


**Rote Learning**

As highlighted in my analysis of the NGSSS for the Arts, some key standards across most of the categories entailed rote learning in some capacity. Rote learning can entail musical processes such as listening, observing, singing, transcribing, and mimicking. As much of the
literature and some of my responses in my study suggest, many teachers will initially start
begining string students by creating sound with their instrument without the added task of
having to read sheet music. Grey advocates for using the voice as a vehicle to build musical
memory and an understanding in tonality, even in instrumental ensembles: “Once students have
engaged in extensive singing activities, teachers can ask students to perform the same music on
instruments by rote, transferring a familiar melody to a new skill.”

When students can create a melody with their own voice, they have a clear understanding of what they should be listening for. Students can then expand their newfound knowledge by adding a layer of difficulty to the task — recreating the melody with their instrument.

Cynthia Richards and Jerry Jaccard discuss developing violin students’ ears alongside their technical mastery in their article on applying principles of the Kodály method in string education. They observed not only within their own musical training, but North American students in general, “do not acquire…aural musicianship skills until long after they [students] have become proficient on their instruments and are in college music courses.”

One possible explanation for this phenomenon is the heightened emphasis on sight in classical studies, particularly string studies. As previously mentioned, classical string students often learn music by reading music, diverting their attention away from their intonation and tone production. Because string instruments are both keyless and fretless, Richards and Jaccard state that string musicians must develop pure intonation and an educated ear, a unique aspect of orchestral string playing.

Both Richards and Jaccard developed a string curriculum as an extension of the

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Kodály singing method and have implemented their curriculum in school programs during and after school across the United States. They employ two learning processes in their curriculum inspired by the Kodály method: *sound to sight*, then *sight to sound*. Sound to sight is more akin to the Suzuki method, wherein students learn songs without reading, allowing them to focus more on their technique. Richards’ and Jaccard’s method takes this similarity and adds the singing element of the Kodály method, with the students’ concurrent enrollment in regular singing musicianship classes to continually develop their musical ear.\(^{27}\) Though Richards and Jaccard both report successful results of their curriculum, the logistics of concurrently enrolling young students in singing musicianship classes and violin classes may be difficult for some schools to do, especially in the public sector. There may not be enough time allotted in the school day or enough money in the annual budget to enroll students in two specialized group music classes. In spite of the unique characteristics of Richards’ and Jaccard’s take on the Kodály method, orchestra directors can incorporate aspects of rote learning into their rehearsal strategies. As reported by participants of this study, some directors start instruction each year through methods of rote learning, such as mimicking the teacher, listening, and singing their notes, similar to principles outlined in the Suzuki method.

*Creativity in the String Classroom*

After students and teachers become familiar with concepts under the umbrella of rote learning, students can now use their developed ear as a stepping point in participating in creative endeavors. Unfortunately, in most secondary music performance ensembles, improvisation is

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\(^{27}\) Richards and Jaccard, “Violins and Voices,” 8-9.
often an overlooked musical skill students could learn endlessly from. Improvisation is the art of spontaneous composition in the context of performance, representing the musical thoughts of the performer. Improvisation is often a means of communicating musical ideas to the audience and to members within the ensemble, much like spoken language. It is often neglected to even be discussed or taught in 6-12 string ensembles. Norgaard and Taylor’s study on eclectic styles and improvisation in string orchestra performances found that programs’ large ensemble settings make directors feel reluctant to include improvisation in the 6-12 curriculum. By the very nature of improvisation, it is understandable that it would be difficult to implement it into the curriculum given the typical size of a school orchestra. Norgaard and Taylor also call for teacher education programs to place more emphasis on improvisation; “Teacher education programs in higher education may need to place a stronger emphasis on integrating pedagogy for improvisation into their curricula in order to address this disconnect between improvisation in national standards and actual performance.” In my string study throughout my life, I have not received instruction or special training regarding improvisation. In retrospect, I thought this was peculiar because of the prevalence of melodic embellishment in instrumental music from the Baroque period and virtuosos improvising cadenzas in concerti from the Classical and Romantic periods. Perhaps string players have come to idolize those embellishments or cadenzas of iconic musicians to a point that they became validated through repeated teachings, and therefore standardized and immortalized into the Western European canon. Though this theory may be true, directors need to remember where those techniques stemmed from: the art of improvisation,

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the ability to create a musical idea with an instrument within a specific harmonic and rhythmic context.

Authenticity

For all kinds of music, Western European art music and alternative styles of music alike, discourse around authenticity is ever-present. Undergraduate music students are taught that styles of string music throughout history have different characteristics depending on what was popular at the time. For Western European art music, the Baroque era featured embellishments that were improvisatory in nature and light articulation. Classical era string music ends phrases with a calm cadence, as if sighing, seen in much of Mozart’s instrumental works. Romantic era string music has great dynamic contrast, sustained pitches and vibrato, and fuller orchestration. These specific characteristics are used to identify pieces of music and their respective time periods and point to each time period’s authenticity. Alternative styles of music still have this same discourse surrounding authenticity; certain genres have particular characteristics that distinguish them from each other, such as performance practice, how tunes are taught, the improvisational language used, etc. The pressure to create an authentic learning and performance experience for students can be a deterrent for directors to become reluctant in implementing music of alternative styles in their string curriculum. There are endless arrangements of alternative styles tunes for a string ensemble. However, string educators who have studied different alternative styles create a unique problem, because the arranged tunes are just simply being taught to students using the same pedagogical techniques as learning a piece of Western European art music. To teach students alternative styles of music outside their pedagogical framework is to deprive students of
learning music through a variety of pedagogical strategies and of cultural practices pertaining to
the arts that differ from their own. Informal learning is the type of musical transmission that is
traditional to learning alternative styles of music. In Green’s study on popular music education in
the classroom, she outlines five characteristics of informal learning practices that differ from the
formal practices often seen in orchestra classrooms. These characteristics include students
choosing music that is familiar to them, learning through listening to recordings and learning by
ear, group learning in combination with self-taught students, an assimilation of skills and
knowledge without the structure of a curriculum or syllabus, and an integration of listening,
performing, improvising, and composing with an emphasis on creativity.\textsuperscript{30} Green argues that
because of how popular music is authentically created, through the aforementioned informal
learning practices by mostly untrained musicians, it is difficult to integrate the style into a
formally-structured education system, and often results in a simulacrum of popular music in the
classroom.\textsuperscript{31} This sentiment is later reflected in the findings section of this thesis. Perhaps this
finding contributes to the reluctance directors feel when integrating alternative styles into their
curriculum. To counteract this hesitation, also expressed in the findings section, directors may
program arrangements of alternative styles of music and use formal teaching strategies to
introduce themselves and students to these styles in the context of string playing. Sometimes,
directors use a combination of formal and informal strategies once they become more
comfortable with authentically teaching alternative styles, or what Oare calls a \textit{creolized method}
of instruction, a combination of formal and informal instructional methods to teach alternative

\textsuperscript{30} Lucy Green, “Popular Music Education in and for Itself, and for ‘Other’ Music: Current Research in the
\textsuperscript{31} Green, “Popular Music Education,” 107.
styles of music. While not completely authentic to alternative styles of music, directors often use a creolized method of instruction to bridge the gap between their classical tradition of musical study to the informal learning strategies characteristic of alternative styles. In his study of The Chelsea House Orchestra, a nontraditional high school Celtic string ensemble in Michigan, he explains how students typically learn Celtic folk music:

Celtic music is traditionally transmitted through immersion. Beginning folk musicians engage in the music through listening, watching, and imitating the music making of the surrounding community. This is a different model from that found in a typical school string class in which the majority of information is passed through teacher direction, notation, and drill.

Oare’s explanation of how Celtic folk music is often transmitted mirrors Green’s characteristics of informal learning practices of popular music. Another term that is used to identify the pedagogy of alternative styles is their aural tradition, as opposed to the classical tradition of Western European art music.

There have been instances of string conventions and conferences inviting educators who implemented creolized methods of instruction or outright formal learning strategies to teach fiddle music to their ensembles. Sheronna McMahon, a fiddle player and educator recounted her frustration listening to educators present incorporating fiddling who were not authentic fiddlers at a yearly string convention:

… I would occasionally hear non-fiddling presenters trying to give instructions on teaching fiddle style to students in orchestra classes. Some presenters neglected to mention aural transmission at all, and had simply written out arrangements of fiddle tunes

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33 Oare, “The Chelsea House Orchestra,” 74.
with a few variations. Others inserted a few fiddle-style bowings into traditional etudes in an attempt to tie fiddling to classical music.\textsuperscript{34}

While the intentions of these educators are good overall, dismissing the role of rote learning in alternative styles outside the context of a structured curriculum formal learning strategies eliminates some of the key purposes of incorporating these styles at all: to allow students to express their creativity within the classroom environment and to develop their musical ear and sense. Although McMahon denounced the disregard of its aural tradition, she recommends for directors to use formal learning strategies to introduce themselves and students to alternative styles of music.\textsuperscript{35} If orchestra directors are classically trained, they may be more familiar with formal learning techniques, and therefore introduce students to unfamiliar music through familiar means. This literature review of alternative styles pedagogy gave me perspectives needed to design my study, including participant criteria, brainstorming questions to ask directors, and how to analyze participant responses.

\textsuperscript{35} McMahon, “American Fiddle Music,” 89.
CHAPTER THREE: METHODOLOGY

In designing my research study, instead of solely analyzing the literature and postulating how teachers could incorporate alternative styles in the 6-12 string orchestra classroom, I wished to gain practicing teachers’ perspectives on the matter. I considered what stipulations needed to be included in my participant criteria. My criteria were as follows: participants needed to be full-time, in-person public school educators who teach orchestra at the 6-12 grade level for at least one class period per day, or twice per week if the teacher’s school is on block scheduling. I exclusively sought after public-school educators because it is a sector of teaching I personally wish to enter upon graduation. I also thought I would have more diverse demographics if I opened the study to strictly public-school educators, offering me results that could be generalized more easily. Strictly to cover my bases, I explicitly included that participants needed to have received at least a bachelor’s degree in music from an accredited college or university, official or temporary certification to teach music in each teacher’s respective state, and be at least eighteen years of age at the time of participating in the study. I did not limit participants to a particular regional location or years of teaching experience to obtain as many perspectives as possible. I felt the requirement that participants hold a bachelor’s degree in music from an accredited institution was important to achieve valid questionnaire results because if each teacher had studied music within a collegiate setting, they would have experienced first-hand how the Western European art music canon is perpetuated in institutions of higher education. To me, school orchestra directors without a bachelor’s degree in the field of music would not have had as rigorous study of the Western European art music canon as those who have received a degree in music.
When designing the study instrument, I considered directly interviewing teachers. However, I justified formatting my study as an electronic questionnaire I could send to participants, primarily out of convenience and courtesy for their spare time. I decided on using an electronic questionnaire through Google Forms. I formulated a set of twelve questions with some relevant follow-up questions if necessary. Prior to asking questions relevant to the study, I asked for demographic information, since I opened my pool of participants to abide by the aforementioned set of criteria. Then, I asked questions about their respective program on a general level, including topics such as student placement, student motivation for joining their orchestra program, percentage of student enrollment in private lessons, and the scope and sequence of their beginning string pedagogy. After receiving this necessary background information about each director and their program, I asked questions related to the study topic: their inclusion of alternative styles and their repertoire selection process. Lastly, I asked participants for their personal recommendations for alternative styles pieces of music to curate a repertoire list at the end of this thesis and for any factors I may have not considered during this study. I followed creating the questionnaire with recruiting participants for the study. I created a post for two different private groups on Facebook, School Orchestra and String Teachers and Orchestra Teachers, and two subreddits on Reddit, r/MusicEd and r/MusicTeachers. I acknowledged verifying eligibility in this manner could prove difficult to be entirely foolproof. I imposed some intermediary steps to combat this problem. I had each interested participant send me a private message containing their personal email in order to send them an informed consent form prior to completing the questionnaire. In the questionnaire itself before any of the research questions, I reserved a space for acknowledgement of the informed consent form, along with
each participant’s name and the date of completion, serving as an electronic signature indicating consent. Observing any continuity across responses was one of my main goals of analysis. I exported all of the participants’ responses into a Google Sheet for easier viewing and navigation. As I analyzed responses to each question, I highlighted keywords shared across different participants. As participants submitted completed questionnaires, some identifiable information was collected from them, including their name and email address. Participants were emailed an encrypted copy of their own responses once submitted, and were not permitted access to other participants’ responses. Since I am the sole principal investigator of the study, nobody else besides myself had access to participants’ identifiable information. All identifiable data, including names and email addresses, will be stored on my personal Google account for five years after study closure in accordance with University of Central Florida’s Institutional Review Board’s policy.
Table 2: Study Questionnaire

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<thead>
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<tbody>
<tr>
<td>1.</td>
<td>Where do you teach (city, state)?</td>
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<td></td>
<td>Briefly describe the community in which you teach. Include what class(es) you teach there.</td>
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<td>2.</td>
<td>How do you handle the placement of your beginning and experienced students coming into your</td>
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<td></td>
<td>program?</td>
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<td></td>
<td>If you audition, do you have students re-audition each year?</td>
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<td></td>
<td>What do you test for in your auditions?</td>
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<td>3.</td>
<td>In general, why do you think students join or stay in an orchestra program?</td>
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<td>4.</td>
<td>What can your students in your beginning orchestra expect to learn throughout the year?</td>
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<td>Do you have a specific curriculum?</td>
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<td></td>
<td>What is the scope and sequence of content?</td>
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<td>5.</td>
<td>Once beginning students choose their instruments, do you immediately have students reading</td>
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<td></td>
<td>sheet music, or do you teach by rote?</td>
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<td></td>
<td>When do you introduce reading sheet music?</td>
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<td>6.</td>
<td>What is your sequence of content (repertoire, techniques, etc.) for students as they</td>
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<td></td>
<td>progress into your more advanced ensemble(s)?</td>
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<td>7.</td>
<td>Across all of your ensembles, how do you determine what repertoire to play each quarter?</td>
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<td>Are there things you consider besides the musical ability of your students? If so, what are</td>
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<td></td>
<td>they?</td>
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<td></td>
<td>Is there pressure to program a certain genre/type of repertoire?</td>
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<td></td>
<td>Has your repertoire selection process changed since you started teaching? If so, in what way?</td>
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<tr>
<td>8.</td>
<td>Approximately what percentage of your orchestra students are enrolled in private lessons?</td>
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<td></td>
<td>Does this also influence your repertoire selection process?</td>
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<td>9.</td>
<td>In your ensembles, do you program music from alternative (pop, rock, bluegrass, jazz, Irish,</td>
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<td></td>
<td>folk) genres?</td>
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<td></td>
<td>If yes, which ones and why?</td>
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<td></td>
<td>If not, why not?</td>
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<tr>
<td>10.</td>
<td>If you do, do you find students are enthusiastic when playing these pieces?</td>
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<td></td>
<td>How does it differ from their typical enthusiasm in class?</td>
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<tr>
<td>11.</td>
<td>Are there any selections from these genres you would recommend to include in a repertoire</td>
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<tr>
<td></td>
<td>list?</td>
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<tr>
<td></td>
<td>If so, please list some. Include titles, composers/arrangers, and any other information</td>
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<td></td>
<td>about them.</td>
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<tr>
<td>12.</td>
<td>Is there anything else not covered in this questionnaire that would be helpful in</td>
</tr>
<tr>
<td></td>
<td>completing this research?</td>
</tr>
</tbody>
</table>
CHAPTER FOUR: FINDINGS

As I open the analysis and discussion portion of the thesis, it must be made clear that each of the responses I received from orchestra directors were of their own respective experiences. It is not my intention to interpret these responses as the general objective truth in all of string education. Each of the responses submitted to me by the participants in the study were purely their own experiences, and therefore a mere snapshot of their overall career in teaching. Differing beliefs regarding alternative styles in the string classroom and processes by which directors select repertoire varied across an array of demographics. I also interchanged the terms “director” and "participant” when referring to orchestra directors who completed a questionnaire in my research study. It must be noted when discussing participant responses, I use the term "directors”, but it is not a general statement pertaining to all current orchestra directors. The raw responses will be outlined first, and analysis will follow in the subsequent section.

Responses

Participants in the study represented a variety of regional locations. Four of the eleven participants taught in Orlando, Florida, and other directors represented states such as Alaska, Ohio, Utah, North Carolina, Kansas, and Pennsylvania. Most directors reported high levels of diversity in their respective schools and communities. For example, one director stated her community is a historically Black and Native American district.

My next question pertained to student placement and auditions in ensembles. At the middle school level, students who have never played an instrument before are typically placed in the beginning orchestra level. Some of the directors reported generally placing students based on
grade level, with exceptions to be made on a case-by-case basis. One director reported her
district requires students to be enrolled in music at the middle school level. If there are students
who join late, this participant’s policy is for the student to enroll in private lessons over the
summer to prepare for the upcoming academic year. Participants who teach at the high school
level require auditions more often than those at the middle school level, though there were a
couple of high school directors who reported they do not audition students at all. Directors who
did require auditioning test for content such as scales, sight-reading, and technique learned
throughout the year. One director reported incorporating a piece chosen by each student that
showcases their musical abilities as one part of the audition.

When asked about students’ motivations for joining and staying in an orchestra program,
most directors reported students initially join because they thought participation would be “fun”,
and students stay in the program because of the community created through teacher-student
interactions within the orchestra classroom. This response was consistent across participants,
with some noteworthy commentary. Examples include the following:

“It [orchestra] is like a club for smart kids, and you get awarded and applauded for your
efforts. Smart kids might get made fun of by [the] general population, but not in music.”
“Students have been able to see their progress and stay encouraged.”
“Classical music, strings especially, is sort of like a status symbol for parents.”

Before I inquired about directors’ incorporation of alternative styles, I wished to gain
context in what their beginning students were learning throughout the year. Many of the
participants reported using a method book for beginning groups, including Essential Elements
for Strings, All for Strings: Comprehensive String Method, and Measures of Success for String
Orchestra, focusing on starting key signatures (D, G, and C major), varying dynamics,
articulations, tone production, and note reading. Some of the participants introduce repertoire
after students’ first concert of the school year, including one director who stated introducing culturally-diverse repertoire after their winter concert for Lunar New Year. Another director relayed incorporating the Bornoff and Kodály methods, starting off with whole steps and half steps instead of specific key signatures as separate units.

I started introducing questions closer to the topic of alternative styles in the string classroom by first asking if they start teaching beginning students by rote or by note. To my surprise, I received almost an equal distribution of responses. Six out of eleven participants start reading sheet music from the first day of school, whereas the other five teach by rote for a period of time, then introduce learning by note once students become more comfortable on their instruments. One director mentioned they incorporate “lots of singing” in rote instruction.

My next question entailed the scope and sequence of content as students progress from beginning to advanced ensembles. Directors stated a general progression of techniques, such as keys containing a higher number of sharps or flats, shifting, multiple-octave scales, and vibrato typically by students’ third year in a string program. A director reported basing their scope and sequence on the state’s music education association’s repertoire list for festivals at the district and state level. Another director cited using popular tunes as a means to teach a skill or technique.

Participants were asked about their process in selecting repertoire for their ensemble for the year, including the criteria considered and if their process has changed over their teaching career. Two factors most commonly reported were the musical ability of the ensemble and the theme of the upcoming concert performance. A participant highlighted musical ability as the most significant factor in selecting repertoire. Others stated they choose repertoire based on skills
directors want their students to be able to do after learning the piece, instead of basing repertoire based on skills students have already developed. Some directors’ responses suggested the support of programming repertoire of underrepresented composers, such as women and African Americans. However, a notable comment I received from a director read:

“I think it is critical to at least expose every [high school] musician to works from Baroque, Classical, [and] Romantic time periods, etc. When placed in the appropriate historical and cultural context, it can make that content accessible to just about all of the students.”

A sizable number of the participants also consider student input when selecting repertoire for the ensemble, under the guise that students will be more invested in repertoire they helped select.

To gain further context of the student body and overall ensemble ability, I inquired about student enrollment in private lessons outside of school, and if directors considered this group of students in their program when selecting repertoire. Most participants reported a small percentage of students are currently enrolled in private lessons, between five and ten percent. Some outliers included zero percent and twenty-five percent of students. About a third of directors reported student enrollment in private lessons does not affect their repertoire selection process at all. One director noted finding repertoire with a more challenging part for those students enrolled in private lessons, while still within the overall performance ability of the group.

Considering all this essential background information gathered thus far, I asked participants if they incorporate alternative styles into their string programs, including which genres under this umbrella they feature the most, or if they did not, what their reasoning was for doing so. Since this is the main topic of the entire thesis and it contains nuance, I will be
inserting quotes directly from participants. Most directors affirmed they include genres of alternative styles with some qualifiers and expected sentiments about branching out to unfamiliar genres:

“I try my best, but sometimes I think the music will be too hard for them, or it’s outside my comfort zone.”
“It is very important to me that my students play both music they are already familiar with and music they haven’t had access to in the past.”
“[Referring to the bluegrass genre] I just have not had enough familiarity with that specific genre, and it’s not something I see in our community.”
“I choose rock, Irish, and jazz. Those are fun to play, and also teach outside the realm of ‘classical’ music. Kids learn how to read more complex rhythms with rock/pop, swing with jazz, and read in 6/8 time with Irish.”
“I choose culturally relevant folk music from authentic sources to teach content they have to learn anyway.”

Because of my personal experiences in school orchestra ensembles, I immediately followed up by asking if there is an observed difference in student enthusiasm, motivation, and engagement in class. A few directors reported students maintain enthusiasm across all genres explored in the classroom, yet some expressed initial reservation from students, followed by acceptance and appreciation. Two responses indicated student enthusiasm when exposed to alternative styles has more to do with the specific arranger, students’ perceived ability of high achievement, and student involvement in selecting repertoire than the genre itself.

On the topic of specific repertoire recommendations for string teachers to introduce to themselves and their students, most of the participants did not include any selections, mainly due to not having immediate access to their repertoire list. However, I did receive a link to a Google Sheet from a participant containing their program’s repertoire library. Those selections will be included in the repertoire list appendix at the end of this document. Other directors mentioned
the Mark O’Connor Violin Method: A New American School of String Playing to seek out repertoire, particularly of the bluegrass and jazz genres. For rock in the string orchestra, directors cited implementing and programming Trans-Siberian Orchestra arrangements. Another director suggested arranging some tunes to introduce oneself and students to unfamiliar genres. To ensure I considered every facet involved in incorporating alternative styles in the string curriculum, my last question asked participants to include anything I neglected to address throughout the study. A participant cautioned about the availability and accessibility of alternative styles in large school ensembles, especially at the beginner level: “Something to consider is the availability of these genres of music. At lower levels, there is not as much accessibility to extended genres, therefore it’s more difficult to expose the kids to them.”

Discussion

Reading and analyzing these responses was a fascinating and eye-opening process. As someone who has not started my public-school teaching career outside of student teaching, it was enlightening to receive directors’ perspectives who are currently practicing teachers. Though I only had eleven participants in the study, I felt the regional and cultural demographics among participants were quite varied; many directors reported high levels of diversity in their respective schools. Some directors at the high school level reported they do not hold auditions for their program. High school directors who do not hold auditions yearly state they do not want students to feel discouraged from joining their program if they express interest in doing so. Perhaps these high school directors do not have feeder programs to act as a continuous flow of new students in their programs, though this was not explicitly stated.
Out of the directors who do require auditions in their program, one director reported allowing a student to pick a piece to perform for a part of their audition. I thought this was a unique and unusual practice, since I had never been asked to provide my own selected piece, nor have I observed that through my activity in string orchestra teacher online groups. I hypothesize this decision was to increase student motivation and excitement for their audition, which can be a stressful time for students and directors alike. By allowing students to pick a piece of music that interests them as a part of their audition, directors are able to test the students’ current technical abilities and use the audition as an opportunity to get to know the student.

Regarding student motivation for initially joining and staying enrolled in a string program, some directors equated their program to a distinguished club or status symbol for parents. These responses outlining the beliefs of the directors and parents are rooted in the elitism that is evidently still pervasive in the performance and education of Western European art music. The people echoing these specific responses may not hold these beliefs with ill intent, but reading these responses slightly alarmed me. The goal of this study is not to bring the value of string education down to meet the layman, but to push accessibility in string programs for students and parents that feel they are unattainable. By incorporating alternative styles of music in the 6-12 curriculum, the string classroom may provide an open door for students that otherwise would not have been there if directors were exclusive in their repertoire selection. It should also be noted that many directors also help meet students where they are musically. Some directors may use alternative styles of music as an initial buy-in for students to gain interest in joining orchestra with the hopes students become more open to learn Western European art music. However I can imagine directors with one or two different orchestra classes
may face this challenge much more often; a low number of orchestra classes in a given program results in a greater diversity of ability within each ensemble. Directors are then faced with a dilemma. They can program easier music to assist the beginners in the ensemble with the risk of leaving the advanced students unmotivated, or they can do the opposite. When asked about their repertoire selection process, many teachers stated obvious factors, such as ensemble ability and skills directors wish for their ensembles to gain. However, a unique response that resonated with me was the value of repertoire from different historical periods of string playing. This director argued he could make each piece of music accessible by placing them in their appropriate historical and cultural context, but did not elaborate on how he places them in said contexts. Since works from the Baroque, Classical, and Romantic time periods make up some of the standard repertoire, students should absolutely be exposed to them. However, as evidenced by the overwhelming majority of Western European art music works in the FOA Concert Music List and the formal tradition of the art form, directors may push the teaching and performance of these works more often because of their individual familiarity, creating a cyclic bias in the string education profession as a whole.
CHAPTER FIVE: CONCLUSION

Across music history, art music had been, and arguably still is, perceived as a category of music that prevails above other genres and styles with the highest esteem. Currently, there are strides being made in string education to give space for alternative styles of music, and the responses to this study validate that sentiment. Incorporating alternative styles in the 6-12 string curriculum is no easy task. There are key factors that contribute its difficulty, including the need for string education advocacy and justification through performance assessment scores, the emphasis of rote learning, or the aural tradition of the majority of the styles discussed in this paper, and effective teaching of student creativity in the music classroom. Despite these challenges, mostly all of the directors that participated in the study incorporate these styles in some capacity. Students are being exposed to these genres within the context of string education, albeit mostly under formal training guided by the director.

Throughout this research process of reading literature and gaining directors’ insights, I feel I have more of an educated perspective on the incorporation of alternative styles in the string curriculum. Regardless of whether directors teach and perform them with their unique traditions unlike Western European art music, I feel it is still worthwhile for directors to teach and program arrangements of alternative styles of music. Some of the aforementioned literature expressed a viewpoint in support of programming arrangements of alternative styles of music, as well. As directors have stated in their responses to the questionnaire, students need to be exposed to a multitude of genres and styles to gain a complete picture of what is possible on string instruments, not just those under the umbrella of Western European art music. A music curriculum should reflect students’ various cultural backgrounds, and directors must educate
themselves and their students of each style’s traditions. Arrangements allow unfamiliar alternative styles of music to become accessible to directors, especially to those who are classically trained under the Western European tradition. Appendix A contains a repertoire list recommended by participants of this study that features alternative styles of music for string ensembles. It must be noted that these selections recommended for the repertoire list range from Grade 3 to 5, since most of the participants who contributed to the list are currently high school orchestra directors. Unfortunately, repertoire grading is not standardized on a national level, at least as far as school orchestra is concerned. According to the music publishing company Excelcia, grades 3 to 3.5 have the following classifications: playable by advanced middle school and high school musicians and each instrument is exploring higher positions for all strings. Grades 4 and up are characterized by more specific parameters: repertoire at these levels are playable by high school musicians (presumably with at least a few years of playing experience) and each instrument is exploring from third to fifth positions.  

The repertoire list contains the title, composer and/or arranger, grade, genre, and unique characterizations of each selection.

A larger pool of participants and being able to observe directors’ rehearsals would have given me more comprehensive responses to the study. However, I felt I had representation of differing regional locations for having eleven participants. An area for future research could entail exploring performance assessment adjudicators’ perceptions of their ability to score performances of alternative styles of music. Another area for future research could be analyzing

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the performance assessment criteria and content standards in music across multiple states in the United States of America to compare the string curriculum under different standards.
APPENDIX A
RECOMMENDED ALTERNATIVE STYLES REPERTOIRE LIST FOR STRING ENSEMBLES AT THE 6-12 GRADE LEVEL
<table>
<thead>
<tr>
<th>Title</th>
<th>Composer/Arranger</th>
<th>Grade</th>
<th>Genre</th>
<th>Notes</th>
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<tr>
<td>Baile De Lila</td>
<td>Thomas</td>
<td>3</td>
<td>Folk/World</td>
<td>Latin-American flair. Guitar part</td>
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<tr>
<td>Bossa Rojo</td>
<td>Ligon</td>
<td>3.5</td>
<td>Folk/World</td>
<td>Syncopation</td>
</tr>
<tr>
<td>Appalachian Festival</td>
<td>Thomas</td>
<td>3</td>
<td>Folk/World</td>
<td>Fiddle</td>
</tr>
<tr>
<td>American Folk Song Suite</td>
<td>Jack Jerrett</td>
<td>5</td>
<td>Folk/World</td>
<td>4 movements: Shenandoah, Sourwood Mt, Black is the Color, Turkey in the Straw</td>
</tr>
<tr>
<td>Carrickfergus</td>
<td>Folk/Roszel</td>
<td>3</td>
<td>Folk/World</td>
<td>Piano required</td>
</tr>
<tr>
<td>Point Lookout</td>
<td>Balmages</td>
<td>4.5</td>
<td>Folk/World</td>
<td>Civil War songs</td>
</tr>
<tr>
<td>Brazilian Spice</td>
<td>Morris</td>
<td>4</td>
<td>Folk/World</td>
<td>Solo Violin with improv parts</td>
</tr>
<tr>
<td>Central Coast Special</td>
<td>Calvin Custer</td>
<td>5</td>
<td>Folk/World</td>
<td>Fiddle, double stops with moving notes switching between top and bottom</td>
</tr>
<tr>
<td>Devil Went Down to Georgia</td>
<td>Laura Schuman</td>
<td>3/5</td>
<td>Folk/World</td>
<td>Solo is a 5. Rest is a 3. Drums, guitar, and vocal solo</td>
</tr>
<tr>
<td>Irish Legend</td>
<td>Kerr/Newbold</td>
<td>4</td>
<td>Folk/World</td>
<td>Percussion included</td>
</tr>
<tr>
<td>La Cascara</td>
<td>Woolstenhulme</td>
<td>4</td>
<td>Folk/World</td>
<td>Mixture of Samba, Salsa, Bossa Nova. Percussion</td>
</tr>
<tr>
<td>Melrose Avenue “Danza Arabia”</td>
<td>California Guitar Trio/Gruselle</td>
<td>5</td>
<td>Folk/World</td>
<td>Difficult counting. Mixed meter.</td>
</tr>
<tr>
<td>Pizzicato Blues</td>
<td>Mitchell</td>
<td>4</td>
<td>Jazz</td>
<td>All pizzicato</td>
</tr>
<tr>
<td>Rondo in Blue</td>
<td>Longfield</td>
<td>4</td>
<td>Jazz</td>
<td>Mixed meter (7/8, 4/4)</td>
</tr>
<tr>
<td>Can’t Help Falling in Love</td>
<td>Arranged by Longfield</td>
<td>3</td>
<td>Modern</td>
<td>Percussion included</td>
</tr>
<tr>
<td>Skyfall</td>
<td>Adele/Moore</td>
<td>3</td>
<td>Modern</td>
<td>Percussion included</td>
</tr>
<tr>
<td>When You Believe</td>
<td>Schwartz/Moss</td>
<td>3</td>
<td>Modern</td>
<td>Full Orchestra and Choral. From the film “Prince of Egypt”</td>
</tr>
<tr>
<td>Willy Wonka and the Chocolate Factory</td>
<td>Robert Longfield</td>
<td>3</td>
<td>Modern</td>
<td>Percussion included</td>
</tr>
</tbody>
</table>
APPENDIX B
IRB EXEMPTION DETERMINATION
EXEMPTION DETERMINATION

March 21, 2023

Dear Haley Fye:

On 3/21/2023, the IRB determined the following submission to be human subjects research that is exempt from regulation:

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<th>Type of Review:</th>
<th>Modification / Update</th>
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<tr>
<td>Title:</td>
<td>A Survey of Current School Orchestra Directors’ Incorporation of Alternative Styles in the 6-12 String Curriculum</td>
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<td>Investigator:</td>
<td>Haley Fye</td>
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<td>Documents Reviewed:</td>
<td>• Faculty Advisor Scholarly Review of Research - (Revised 03-15-2023).pdf, Category: Faculty Research Approval; • HRP-254 Fye, Haley, Category: Consent Form; • HRP-255 Fye, Haley, Category: IRB Protocol; • Notification of Modifications, Category: Other;</td>
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This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

If you have any questions, please contact the UCF IRB at 407-623-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kristin Badillo
Designated Reviewer
LIST OF REFERENCES

https://doi.org/10.2979/pme.2010.18.1.45


https://doi.org/10.1177/000313139804800305


https://doi.org/10.1177/0255761406065471


https://www.orchestrateacher.net/assessment-practices-for-the-21st-century-string-educator/


https://doi.org/10.1177/194849921200300105


https://doi.org/10.1177/194849921600700102


https://link.gale.com/apps/doc/A189050862/AONE?u=orla57816&sid=bookmark-AONE&xid=5a6bbfc2


https://doi.org/10.1177/00274321221087742

https://doi.org/10.1177/000313130105100312


https://doi.org/10.1177/8755123318791216
