Studying Jazz In The Concert Band Setting And Its Effects On Perceptions Of Jazz Performance

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STUDYING JAZZ IN THE CONCERT BAND SETTING AND ITS EFFECTS ON PERCEPTIONS OF JAZZ PERFORMANCE

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Dedication

This dissertation is dedicated to my beautiful wife, Wendy, and our amazing daughters, Ella and Molly. It is their constant support and sacrifice that have allowed for this study.
Acknowledgements

I am eternally grateful for those who have shaped me as a person and educator. I cannot thank my parents, James and Nancy Westberry, enough for instilling the value of setting goals and working diligently to achieve those goals. For shaping my philosophy of education and taking the never-ending job of mentor, I greatly appreciate the time and talents of Dr. Cliff Leaman, Dr. Leslie Hicken, Dale Hair, and Joe Laorenza. Thank you to Jenny Collins and Dr. Gretchen Bowles for allowing me to work with their students during this study. Finally, I am very much indebted to David Carter who not only let me work with his students, but also served as my advisor and best friend.
Abstract

The purpose of the present Action Research study was to describe a class of southern, suburban, high school band student-participants’ perceptions of a jazz performance of an arrangement by the researcher that is a Duke Ellington adaptation of Tchaikovsky’s *The Nutcracker Suite*. Student-participants’ perceptions were gathered using a modified Fennema-Sherman Attitude Scale in the form of a pre-test and a post-test to determine any changes in attitudes towards jazz performance. Data were analyzed and reflected upon with the collaborating band director and administrators at Cane Bay High School and an action plan was designed to improve student-participants’ attitudes toward jazz performance and in particular to enable young women to understand their potential in the field of jazz and to consider careers in jazz performance and/or education.
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Chapter I – Research Overview

Introduction

The goal of this dissertation in practice study was to determine changes in perception of jazz through the study of an arrangement of Duke Ellington’s *The Nutcracker Suite*. As a band director for 16 years, the researcher has much experience teaching middle school bands, high school bands, college bands, and adult community bands. Recently, the researcher accepted the position of Coordinator of Fine Arts in a large public school district. With the years of experience as a teacher and with the new role as coordinator working with a team of teachers, the researcher is in a position where he can lead an effective action research study on this topic.

For this study, the researcher collaborated with a local high school band director with many years of experience teaching and performing jazz. While being very experienced teaching the genre, his only experience teaching the subject is through the medium of a “jazz ensemble” meeting outside the regular school day as opposed to being taught to all of the students during class when they are assembled as a “concert band.” This study exposed both the teacher and his students enrolled in his concert band class to jazz literature in a format as close as possible to the original intent of the composer. Personal biases and perceptions were studied in an attempt to produce an effective tool to teach an unfamiliar genre. Further, this study explored the low rate of women who hold positions as high school or college director of bands.
Problem Statement

Leopold (2008) states, “in most of America's secondary schools, participation in big ensembles -- whether concert band or chorus -- remains the principal way that school programs involve students in music” (para. 2). Many instrumental music education students are taught the proper band program should be built with the concert band at the center, or heart, of the band program.

![Diagram of a concert band-centered band program.](image)

Figure 1.1 A model of a concert band-centered band program.

All instrumentalists should be members of the concert band that meets during the school day on a regular basis. Due to the concert band being inclusive of all wind and percussion instruments and meeting on a regular basis during the school day, it is used as
the primary vehicle for music education with all other ensembles dependent upon it for the development of knowledge and skills.

This has been the accepted model for band programs for generations as the concert band provides an opportunity for most wind and percussion instruments to study technique and classical literature. Marching bands do not typically play music as rigorous as the concert band due to the added responsibilities of marching and the marching band does not feature all of the instruments found in a concert band. For these reasons, rigor through marching band literature falls short of expectations. On the matter of selecting literature for marching band, Gerry Miller (2014), the director of bands and Fine Arts Department chairman at Wakeland High School in Frisco, Texas, stated:

Next, we consider the musical performance level of the ensemble coming out of spring semester. We usually aim to have a marching show arrangement that is approximately two grade levels below where our top concert ensemble performs. Thus, we consider what the students are able to achieve in a calm environment while seated and then set the marching show two levels lower than that... As a general matter, we have taken the view that marching band is not a place to seek advancement in musicianship; rather, it is an opportunity to showcase the fundamental skills and musicianship that we have worked to develop in concert band from November to June. (para. 4)

Chamber groups usually range in size from two to five performers and provide an excellent vehicle for music education as they require study of musical elements and performance techniques in a smaller ensemble. In this format, communication with the other members of the group is more important than in a concert band due to the lack of a
conductor and a variety of genres are available at various difficulty levels. Tony Garmoe (Blaufuss, 2015) stated:

Chamber music is important for students because it forces them to take more responsibility for musical decisions, and any time we can get students to do that, it provides a deeper connectivity and a deeper level of music making. I always felt it was important to help students understand how much they could affect the music that was being made. (para. 14)

Though chamber music serves as a wonderful vehicle for instruction, chamber ensembles create a challenge for organization as many chamber ensembles can be created from one band. For example, a concert band can be divided into groups such as, but not limited to: flute quartets, clarinet quartets, saxophone quartets, woodwind quintets, brass quintets, and percussion ensembles. The challenge for a teacher is addressing the needs of each ensemble and supervising all ensembles at the same time during class. For some teachers, this is a difficult situation. Usually, these groups rehearse outside of school hours.

The jazz band is a larger chamber ensemble typically consisting of 15-20 performers. Significant differences between jazz bands and concert bands include:

1. Ensemble instrumentation is very different. A traditional jazz band consists of a rhythm section (drum set, double bass, guitar, vibes, and piano), a brass section (4 to 5 trumpets and 4 to 5 trombones), and a reed section (primarily saxophones - 2 altos, 2 tenors, and a baritone). A concert band percussion section usually does not include a drum set. Instead, it incorporates a “concert” snare and bass drum, timpani, mallet instruments (bells, xylophone, vibraphone, marimba), cymbals,
and any number of “auxilliary” instruments (i.e. wind chimes, maracas, triangles, etc.). The brass section of a concert band not only includes trumpets and trombones, but also includes French horns, euphoniums, and tubas. Whereas a jazz band may feature a clarinet or a flute with the saxophones, a concert band will have an entire section of flutes, clarinets (including a bass clarinet), oboes, and bassoons.

2. A concert band functions in the “classical music” tradition where musicians read music and perform the music as written. Jazz ensembles not only perform written music, but also rely on sections of improvisation.

The approach where the concert band is the primary ensemble as well as the one where students spend most of their time comes with benefits such as:

1. Regular meetings with an ensemble where most wind and percussion instruments have an important part.

2. The ability to address a large number of students in an organized fashion (in the experience of the researcher, between 20 and 85 students in a class).

The concert band also comes with challenges. It is not always the best ensemble to teach all genres of music. For example, if one wanted to teach jazz, the teacher would need to find an arrangement of a jazz tune that would accommodate all of the instruments in a concert band. In search for an appropriate selection, the teacher would probably refer to a music distributor such as J.W. Pepper after choosing a specific title or composer. While searching, one will find most of the arrangements are medleys, pieces that feature more than one tune. Very few of the pieces resemble the original compositions because of modifications to rhythms, voicing of chords, and other musical
qualities to accommodate the musical abilities of students. If the educational goal is to
expose students to the musical style of a particular composer, these arrangements often
do not illustrate this purpose.

One of the goals of this study was to produce an adaptation of an Ellington
arrangement for concert band that is as close to the original as possible. Parts were
created for instruments in a concert band, but not a jazz band. Ranges of some of the
instruments were carefully modified to make the music accessible to student musicians.
With these considerations, the researcher produced a piece that allowed students to listen
to and study Ellington’s music to gain a better understanding of the genius of one of
America’s greatest composers.

**Purpose Statement**

The purpose of this study was to create a high-quality arrangement of Duke
Ellington’s adaptation of Tchaikovsky’s *The Nutcracker* Suite and, through the study and
performance of the piece, examine the relationship between studying jazz in a concert
band setting and its effect on the student-participants’ perceptions at Cane Bay High
School of the jazz idiom and performance.

One of the great challenges of incorporating jazz in the concert band setting is
obtaining high-quality music for study. There are several arrangements of jazz tunes
and medleys of tunes for concert band. Most are “watered down” versions for very
young bands with chord voicings and simplified rhythms that do not have the “sound”
intended by the composer. To solve this problem, the researcher created arrangements
and provided a band director with high-quality jazz compositions that were used
in the traditional concert band classroom and addressed the following two goals:
1. Feature an accomplished American composer.

2. Feature a composition that contained musical material familiar with the general population in order to create interest in a relatively unfamiliar genre.

With these two goals in mind, Duke Ellington’s and Billy Strayhorn’s adaptation of Tchaikovsky’s *Nutcracker Suite* served as the composition arranged for this study.

According to Mott (2010):

Edward Kennedy “Duke” Ellington (1899-1974) had an unbeatable career as one of the most inventive composers of jazz AND of all American composers in the 20th century. By his death in 1974, he had amassed over three thousand original and arranged compositions that include thoroughly composed pieces for orchestra, program music, tone poems, “jungle music,” spiritual music, and big band. In addition to being a composer, he was a remarkable bandleader, pianist, and arranger for over fifty years. It has been said that Ellington wrote his music based on the ‘emotional spirit of the race’ and he always wrote for the best qualities of his orchestra, never an instrument. (p. 1)

Concerning *The Nutcracker*:

The origin of the *Nutcracker*, a classic Christmas Story, is a fairy tale ballet in two acts centered on a family’s Christmas Eve celebration. Alexandre Dumas Père’s adaptation of the story by E.T.A. Hoffmann was set to music by Tchaikovsky and originally choreographed by Marius Petipa. It was commissioned by the director of Moscow’s Imperial Theatres, Ivan Vsevolozhsky, in 1891, and premiered a week before Christmas 1892. Since premiering in western countries in the 1940s, this ballet has become perhaps the most popular to be performed around Christmas time.
The story centers on a young girl’s Christmas Eve and her awakening to the wider world and romantic love. The composer made a selection of eight of the more popular pieces before the ballet’s December 1892 premiere, forming what is currently known as the *Nutcracker Suite*, Op. 71a, as is heard in Moscow Ballet productions. The suite became instantly popular; however, the complete ballet did not achieve its great popularity as a Christmas performance event until almost 100 years later. (*History of the Nutcracker*).

The combining of the traditional *Nutcracker* with the style of Ellington produced an entirely new piece. Ratliff (2001) wrote:

> In Duke Ellington and Billy Strayhorn's reworking of Tchaikovsky's “Nutcracker Suite” from 1960, the jazz composers didn't lean on Tchaikovsky for anything beyond the strength of a melody. Not that it was easy. Strayhorn called the process agonizing; they didn't want to cast japes at European music or stain their own body of work. But the piece sounds anything but agonized. (para. 1)

**Rationale for the Study**

Other than possibly playing in a jazz ensemble during undergraduate studies, many instrumental music educators have minimal training in jazz performance. Though not the focus of many educators’ musical training, the jazz ensemble offers challenges and inspiration that would benefit their music students.

Following the model of the concert band serving as the primary vehicle for instrumental music education, it typically meets regularly during the school day leaving the jazz ensemble to meet after school. Effectively bringing jazz into a concert band class, a teacher could have all of their students study jazz, not just the small group of
students in a jazz ensemble and not just those students who play “jazz” instruments. “Symphonic” arrangements comprised mostly of medleys of popular tunes are not desirable. Pieces that are as close to the original jazz charts as possible are more ideal. Given that this concept is very foreign to what is traditionally taught and the challenge to find music for this purpose, teaching jazz in the concert band setting may be questioned.

Having more of a constructivist view, jazz is an excellent vehicle for students to explore music theory, experience the different performance expectations of a “new” genre, and experiment with their own “compositions” through improvisation. The key component is selecting the best piece to bridge the gap between the known and unknown to encourage growth in an unfamiliar area.

Conceptual Framework

This study explored the possible effects of studying jazz in a concert band setting. The researcher arranged Duke Ellington’s *The Nutcracker Suite* for concert band instrumentation in an attempt to create a work that resembled the original as much as possible. A modified Fennema-Sherman Scale was used to measure confidence, usefulness, jazz as a male domain, and teacher perception scale.

Methodology

For this dissertation in practice study, action research was used as the methodological approach. This method is appealing for the following reasons put forth by Mertler (2014):

- Action research deals with your problems, not someone else’s.
• Action research is very timely; it can start now-or whenever you are ready-and provides immediate results.

• Action research provides educators with opportunities to better understand, and therefore improve, their educational practices.

• Action research can also promote the building of stronger relationships among colleagues with whom we work.

• Action research provides educators with alternative ways of viewing and approaching educational questions and problems with new ways of examining our own educational practices.

Participant Selection and Research Sites

For this study, collaboration with the Cane Bay High School band director and his band program was utilized. The band director at CBH is currently working on a doctoral degree in jazz pedagogy. The jazz idiom being his forte makes him very different from most school band programs where the director’s primary training is mostly in the classical idiom.
Serving 1,838 students, 26% of Cane Bay High School’s population is freshmen, 27% are sophomores, 26% are juniors, and 21% are seniors. The special education population is relatively small with 12% of the student body identified as special education and only 2% of the student body having 504 plans. By race, 62% of the student body is identified as white, 26% are African American, 10% are Hispanic, and one percent or fewer are Asian, Indian, or Pacific Islander. Students requiring free or reduced lunch comprises just over half the population with 40% receiving a free lunch and 12% paying a reduced fee.

Figure 1.2 Cane Bay High School’s student body by grade level.
Figure 1.3 Cane Bay High School’s special education student body.

Figure 1.4 Cane Bay High School’s student body by race.
The researcher and the band director taught selected movements of *The Nutcracker Suite* by Duke Ellington and Billy Strayhorn with instruction taking place in the concert band class during the school day. The purposes for co-teaching were:

1. Allowing the researcher to take part in the instruction in order to monitor student behavior and gauge the reception of instruction.

2. Allowing the school’s band director to take part in the instruction in order to more thoroughly learn the music and provide feedback on the appropriateness of the music and the formatting of the arrangement.

**Research Question**

The question guiding this quantitative action research study is: What are high school-level music students’ perceptions of Duke Ellington’s *The Nutcracker Suite* in terms of their confidence levels to perform jazz, their perceptions of the usefulness of
jazz performance skills, the perceptions of jazz as a male domain, and their perceptions of their teacher’s attitude?

Sources of Data

This research project relied primarily on data provided by students participating in the concert band of Cane Bay High School who completed the modified Fennema-Sherman Attitude Scale as a pre-test and post-test.

Research Findings

Males and females overwhelmingly rejected the idea that jazz is a male domain. While an increase in female confidence occurred over the course of the study, males indicated a more positive perspective in the subcategories of “confidence,” “usefulness of jazz,” and “perception of teacher’s attitude.” Students argued that instrumentation assignments in middle school and the lack of female models in the position of band director and in the world of jazz are the major contributors to these results.

Dissertation Overview

Chapter Two provides a background and rationale for including jazz in the concert band classroom and the events and practices that have lead to today’s state of music education where women are underrepresented in the fields of band director positions and jazz. Several lengthy quotes are included from experts to make the case. This was done to prevent losing the power of their words through synthesis.
Chapter Three opens with an overview of the literature review before discussing the rationale for action research, describing the research site and participants, and dissecting the Fennema-Sherman Attitude Test that was used for a pre-test and post-test.

Chapter Four presents an overview of the Problem of Practice, Purpose Statement, Research Question, and Methodology. In describing the results, the attitude scale is divided by subcategory with a brief analysis of each statement. An interpretation of the results closes the chapter.

Chapter Five summarizes the study, discusses the use of rating scales, and puts forth an action plan. Suggestions for future research are provided as well as a rationale to alter the music curriculum of colleges and universities in order to effect change in high schools.

**Conclusion**

The goal of creating a high quality jazz arrangement for concert band by a prominent American composer was obtained. The collaborating band director was impressed by the piece and all students indicated that they enjoyed the work and wanted to study more movements in the future. Additionally, there were indications that the study was successful in increasing females’ confidence in jazz performance.

While males and females overwhelmingly rejected the idea that jazz is a male domain, males provided a more positive response in the subcategories of “confidence,” “usefulness of jazz,” and “perception of teacher’s attitude.” Females’ less-positive responses are due to two major issues:
1. The continuing trend of females to choose or be assigned to “non-jazz” instruments such as flute, clarinet, and oboe when they enroll in beginning band courses in middle school. This one decision determines performing opportunities for many years to follow.

2. The lack of prominent females in the world of jazz and in band director positions. As gendered perspectives had already been established for the high school musicians, the researcher recommends the following changes for Cane Bay Middle School’s beginning band classes in order to affect positive change:

1. At the beginning of the school year, when basics of music literacy are taught and students are introduced to instruments, students will also watch videos that feature accomplished females performing on traditional “male” instruments in classical and jazz settings. Artists will include Vi Redd (saxophone), Lauren Meccia (saxophone), Melissa Aldana (saxophone), Amy Dickson (saxophone), Alison Balsom (trumpet), Tine Thing Helseth (trumpet), Ingrid Jenson (trumpet), Bria Skonberg (trumpet), Susan Slaughter (trumpet), Maite Hontele (trumpet), Melba Liston (trombone), Annie Whitehead (trombone), Linda Small (trombone), Audrey Morrison (trombone), Rebecca Cheriah (trombone), Abbie Conant (trombone), Carol Jantsch (tuba), Velvet Brown (tuba), Avital Handler (tuba), Terri Lyne Carrington (percussion), Cindy Blackman Santana (percussion), and Senri Kawaguchi (percussion).

2. A mentor program will be implemented where female high school band members will visit the middle school on Wednesdays after school to assist with instruction and provide role models for the middle school female students.
3. During the course of the year, middle school band students will watch videos of professional female conductors in performance. Conductors will include Marin Alsop, Gisèle Ben-Dor, Odaline de la Martinez, Sian Edwards, JoAnn Falletta, and Jane Glover.

4. Through the annual Berkeley County Band Clinic and Berkeley County Concert Performance Assessment, women will be featured as conductors, judges, and clinicians. These positions will include educators such as Margaret Underwood (Western Carolina University), Lorrie Crochet (Winthrop University), Edna Grace (Stratford High School), and Susan Alexander (retired, Travelers Rest High School).

Through the measures listed above, middle school students will be able to learn about females in the field of music who are successful in positions typically occupied by males. They will also gain a support system from older female musicians at the high school. The number of female students who elect to play “male” instruments and the retention rate will be measured annually to determine the efficacy of these changes in the program.
Chapter II – Literature Review

Introduction

One struggle that persists with teaching instrumental music is programming music for instruction. As a middle school and high school instrumental music teacher, the curriculum is the music chosen for study in the classroom. The standards for music only dictate that “a varied repertoire of music” (National Standards for Music Education) be performed; it does not state specifically what genres should be included. Presenting high-quality literature that is composed well, provides material to teach the concepts needed, and both relates and inspires students should be a constant goal. Typically, all of the music studied tends to be “classical” in nature and of the Western-European tradition.

The desire to research and explore additional musical genres such as jazz led to resources such as the Journal of Research in Music Education and Applications of Research in Music Education. These resources did not, however, produce any inspiring research on non-traditional band music. Reflecting on his own educational experiences, the researcher found the experience that really opened a new interest in music was performing in the jazz band at Furman University in South Carolina. These ensembles provided music that was tremendously enjoyable to play. It was full of great melodies, interesting harmonies, and technical challenges. Though it was always presented as a “secondary” form of music to the more “classical” literature studied in the concert band, the researcher wanted to find out if jazz could also connect with his students.
A few sources helped to make the decision to break with tradition and explore this genre. Taylor (1986) stated: 

Jazz is America’s classical music…As an important musical language, it has developed steadily from a single expression of the consciousness of black people into a national music that expresses American ideals and attitudes to Americans and to people from other cultures around the world…As a classical music, jazz has served as a model for other kinds of music; its influence is international in scope. It is studied, analyzed, documented, and imitated in India, Thailand, Finland, Sweden, Denmark, Holland, France, Belgium, Great Britain, Cuba, and Japan. It is even studied and performed in Russia, Poland, Hungary, and other Iron Curtain countries. (para. 2)

He goes on to write:

Americans of African descent, in producing music which expressed themselves, not only developed a new musical vocabulary, they created a classical music – an authentic American music which articulated uniquely American feelings and thoughts, which eventually came to transcend ethnic boundaries. (para.4)

Jerry Tolson (2001) added to this discussion:

The history of jazz from its roots in New Orleans to the golden age of Dixieland in the 1920’s and swing music of the 1930’s to the free style jazz of the 1960’s and the rock and fusion of the 1970’s has been a microcosm of the musical and sociological history of the United States in the 20th century. To understand jazz is to understand the history of 20th century American culture. Given the influence of jazz on much of the artistic and popular music and culture of the 20th century, it is
appropriate to address the inclusion of the study of jazz as a part of the formal
music curriculum. (para. 2)

The curator of American Music at the Smithsonian, John Edward Hasse, when
discussing jazz stated, “In my judgment, it’s a fundamental part of who we are as
Americans. Young people in Germany are surely educated about Bach and Beethoven,
and young people in the United States should surely know about Louis Armstrong and
Duke Ellington” (Randall, 2008, para.1). Given those endorsements, one may believe
that jazz has a strong position in the curriculum of secondary band programs. In reality,
it does not.

As stated earlier, the primary ensemble for musical instruction, traditionally, is the
concert band that typically promotes the study of the classical music tradition. The
inclusion of jazz music in school educational curriculum and in the concert band setting,
however, can have very positive effects. Chuck Owen, president of the International
Association for Jazz Education stated:

Jazz fosters all the skills that you’d get from working in any instrumental or vocal
ensemble. But one thing that makes it unique is that it’s so strongly based around
improvisation, and that teaches kids the value of individual creativity. It also
encourages them to explore their instruments in a way that they might not do if
they were just sitting there reading a piece of music. (Randall, 2008, para.7)

The National Association for Music Education also provides some direction on
this matter. Featured on their website is an article by Nick Webb titled, “Why Teach
Jazz” that highlights quotes from three prominent jazz educators. Dr. Willie Hill, former
president of Music Educators National Conference and International Association of Jazz Educators stated (Webb, 2008):

Many of our music educators have come to realize that an education in jazz can develop stronger musicianship; build a student’s self-confidence; increase self-esteem; promote teamwork; enhance individual responsibility; develop keen listening skills along with good rhythm, feel, and intonation. When students are enrolled in jazz ensembles or combos, they have an opportunity to engage themselves in a musical experience that goes beyond their concert and marching bands, and orchestra classes (beyond the Western European or Classical traditions). (para. 4)

This is followed by Jamey Aebersold who offered (Webb, 2008):

Teaching young musicians how to improvise and play jazz gives them independence and promotes self worth. Jazz teaches the importance of mastering scales, chords, articulation, and theory. It also stirs up one’s imagination and opens channels of creativity. And it often allows them to continue playing music long after the classroom has disappeared. (para. 5)

Finally, Kimberly McCord, Associate Professor and Coordinator of Undergraduate Music Education at Illinois St. University, provided (Webb, 2008):

Jazz is our American music and deserves a place at the core of our music curriculum. It is freeing and should be something students experience as part of their music education. Improvisation is to me the highest form of musical
expression. When someone can communicate feelings musically they not only have a command of their instrument but also a command of their feelings. (para. 6)

The benefits of teaching jazz are reinforced by a study that investigated brain activity during improvisation, a key component of jazz. Two scientists found that activity in the dorsolateral prefrontal cortex slows down while activity in the medial prefrontal cortex increased. The former suggests lowered inhibitions while the latter is associated with self-expression and individuality (Darrell, 2008). One of the scientists, Charles J. Limb, M.D., assistant professor in the Department of Otolaryngology-Head and Neck Surgery at the Johns Hopkins School of Medicine, stated, “What we think is happening is when you’re telling your own musical story, you’re shutting down impulses that might impede the flow of novel ideas” (para. 15). He went on to say, “Without this type of creativity, humans wouldn’t have advanced as a species. It’s an integral part of who we are” (para. 16).

Limb’s conclusion reinforces John Dewey’s views on arts education. In 1940, Dewey read his speech, “Art as our Heritage,” on the radio. This speech contained not only the question from Jaworski’s title, “How can a finished citizen be made in an artless town?”, but also included the following (Jaworski, 2010):

It is by creation of the intangibles of science and philosophy, and especially by those of the arts, that countries and communities have won immortality for themselves after material wealth has crumbled into dust. What has been true of other peoples will be true of our own. Creation, not acquisition, is the measure of
a nation’s rank; it is the only road to an enduring place in the admiring memory of mankind. (para. 5)

The goal of creating an adaptation of an Ellington arrangement leads to another problem. What are the “rules” to arranging for a concert band? The intention is to maintain the original sound Duke Ellington had in mind, but in transferring to a new medium, care must be taken. While there are many books and articles on the subject, Franck Erickson (1983) offers the following pithy tips:

**Transposition**

- When a treble clef instrument plays its written C, the note of its name is sounded.
- When the key name of the instrument is in flats, add the same number of sharps to the concert key signature.
- When the key name of the instrument is in sharps, add the same number of flats to the concert key signature.

**Woodwinds**

- The extreme registers are easier to play in louder passages.
- The extreme registers are better approached by small intervals.
- Large intervals are easier articulated than slurred.
- Restrict the notes on which a player enters to those lying within the suggested limited ranges.
- Avoid intricate, tongued passages in the low register.

**The Woodwind Section**

- The bass line should not be doubled above its original pitch.
- The melody usually can be doubled an octave lower.
• The largest intervals should occur between the lowest voices.
• Avoid large gaps.
• Chords should be voiced as completely as possible in each section.
• Omit the piccolo in slower passages.

The Brass Section

• Notes from low B-flat down should be doubled in the upper octave.
• Notes from middle line D on up should be doubled in the lower octave.
• Trumpets and horns usually should be voiced in closed position.
• Open voicings for the trombones are rich and sonorous.
• Chord roots and 5ths are more safely doubled than 3rds and 7ths.
• When the chord 3rd or 7th of a major chord is in the bass, it should not be doubled in the upper voice.
• When a section is divided into two parts, 3rds, 5ths, and 6ths are better intervals than 2nds, 4ths, and 7ths.

Notation of Percussion

• In individual percussion parts, write no more than two parts on each staff and write each instrument on a separate line (or space).

The Full Band

• Melody in the woodwinds can be supported by harmony in the brass, but melody in the brass cannot be supported by harmony in the woodwinds.
• When the chord 4th resolves to the 3rd, the 3rd should not be present in other voices.
Polyphonic Music

- Emphasizes entrances and restatements of the subject, a prime consideration in the scoring of fugal passages.
- Moving lines can contrast other voices, but more sustained chordal parts of the ensemble should blend.

The Mechanics of Scoring and Copying Parts

- It is better to have too many rehearsal letters (and numbers) than too few.

Another curious aspect of instrumental music and jazz is the relatively low participation rate of women in education and performance. This point is puzzling as, in the experience of the researcher, a very high percentage of middle school and high school bands are comprised of females. For two years, 2012-2014, females accounted for more than 70 percent of the band students taught by the researcher. This experience is not unusual. Kenneth Elpus, a researcher from the University of Maryland, has documented a trend of more girls participating in high school music groups than boys (Jacobs, 2014). Elpus studied transcripts from 10 nationally representative high schools beginning with the class of 1982 and ending with the class of 2009 (Jacobs, 2014). His findings include:

- The ratio of females to males enrolled in chorus remained stable at approximately 70 percent female to 30 percent male (Jacobs 2014).
- “Females outnumber males among band students in every cohort except for the class of 2009” (Jacobs 2014).
- The ratio of females to males varied in orchestra, however, the average estimate is 63.67 percent female to 36.33 percent male (Jacobs, 2014).
At the beginning of the United States, music was considered a feminine accomplishment. “It is significant that the first conservatory in the United States was a seminary for women, the Music Vale Academy, founded in 1835” (Women in Music, 2015). This view, however, changed by the early part of the twentieth century during the time of the major band movement in high schools. At this point, men dominated instrumental music education positions. Delzell (1994) stated:

The first significant pool of instrumental music teachers in the schools came from several sources, including military bands following World War I, and it stands to reason that this connection with military bands and “bandmasters” has been one of the variables influencing the gender-role stereotyping of high school band positions. (p. 80)

The trend of high school band director positions being held by men continues today. In 2001, the Music Educators National Conference (now the National Association for Music Educators) found that male high school band directors outnumber women in that field by a ratio of three to one (Harris, 2002).

Not only have men dominated the position of band director at the high school level, but they have also dominated at the college level. In 1976, Renton (1980) found the second highest proportion of men in college music positions was found in the director of bands position where 95 percent of positions were held by men. This is second only to the field of jazz where men held 96 percent of all positions (Delzell, 1994). This has changed little as Gould (2003) reported in 2003 that little more than 5 percent of college band directors were women and Hartley and Jagow (2007) reported in 2007 that female band directors make up only about 10 percent of the college band director population.
Thinking about the field of jazz, Barnett (2009) wondered where and how women fit in. Her conclusion was:

The short answer, of course, is at the microphone. Many of the best jazz singers have been, and still are, women - from Billie Holliday and Ella Fitzgerald, to the British singing star Claire Martin, and American standup comic and scat maestro Lea DeLaria. (para. 3)

Female jazz instrumentalists are a much rarer breed. All-woman ensembles proliferated on both sides of the Atlantic during the second world war, but most of them disappeared shortly after. A number of women instrumentalists have risen to the highest levels - among them the American pianists, composers and band leaders Mary Lou Williams, Carla Bley, and Toshiko Akiyoshi and, more recently, Maria Schneider, and percussionist Terri Lyne Carrington. (para. 4)

But many remain best known for their collaborations with more famous men - Williams, for instance, wrote arrangements for Benny Goodman and Duke Ellington, and Lil Hardin Armstrong is more often referred to as Louis Armstrong's second wife than as a composer and bandleader in her own right. In the early days of jazz, scorn was poured on the very possibility of women as instrumentalists. In February 1938, for instance, an editorial appeared in the American jazz magazine Down Beat under the headline Why Women Musicians Are Inferior. "The woman musician never was born," it read, "capable of sending anyone further than the nearest exit." (para. 5)
Willard Jenkins (2014) agreed and added to the conversation:

Casual observation of the audience for jazz reveals that it is predominantly male, which also reflects the average jazz band personnel, though there is an emergent corps of women on the bandstand. The most hopeful element of that shift is in the increased ranks of female instrumentalists. The vocal ranks of jazz have pretty much always been female-dominated, dating back to the old days of the “girl singer” and the all-male big band; meanwhile the ranks of jazz instrumentalists has always been overwhelmingly male. Shifting hats for a moment from the journalist-observer to the curator-producer concerned with audience development to justify the presenting work, one wonders aloud whether consumers witnessing more women on the bandstand might ever translate to an increase in women in the jazz audience. (para. 5)

One possible reason for the lack of women in jazz is purely logistics. Toshiko Akiyoshi stated, "During the big band years, most musicians did one-nighters. Duke Ellington used to travel by bus. Having a woman could be inconvenient - they only had one bathroom, and then they'd need a separate dressing room for the woman at the venue. So the band leader might shy away from having a woman player" (Barnett, para. 7). This may be cause for so few women in the performance medium, but what, historically, has kept women from teaching? Delzell (1994) offers two compelling explanations.

The first explanation is solely concerned with the role and importance of marching bands in American culture. In the beginning of the 20th century, there was a strong connection between bands and the Reserve Officers’ Training Corps (ROTC).
Bands were needed for “pass in reviews” of military cadets. For this purpose, ROTC provided all-male bands with military advisors and academic advisors (Delzell, 1994). In the 1950s, training in marching band techniques was very important. In his 1954 treatise on the use of wind instruments in bands, Frederick Fennell (1954) stated:

The public appearances of school and college marching bands are the services by which the general public best knows and judges the value of institutional music. It is not surprising, therefore, that the first ‘requirement’ for the training of a college or high school band director in the eyes of the public and those who administrate its schools is his proficiency in the art of marching band. (p. 48)

Given this information, Delzell (1994) explains:

Female instrumental music education students from these schools were disadvantaged during the decades of all-male marching bands because that experience was not available to them. Thus, a female applicant from that type of university did not bring the same credentials to a high school band position as a male applicant from the same university who had participated in marching band. (p.80)

In 1972, the passage of Title IX of the Higher Education Act required marching bands to accept female members. Universities began to change their policies soon after to open membership to women.

The second explanation offered by Delzell (1994) relates to instrument gender associations. Citing a study by Fortney, Boyle, and DeCarbo (1993), she provides the following statistics:

- 70.7 percent of females chose flute or clarinet.
• 10 percent of females chose saxophone.
• 5.4 percent of females chose percussion.
• 10.5 percent of females chose an instrument from the brass family.
• 50.3 percent of males chose a brass instrument.
• 18.1 percent of males chose saxophone.
• 17.6 percent of males chose percussion.

Delzell (1994) then explains:

The percentage of girls choosing flute and clarinet is particularly striking. By virtue of the instrument chosen, these students will not have jazz ensemble or drum corps experience unless they perform on secondary instruments. Consider the high school principal who reviews the resumes of two applicants, one of whom (a male) plays trombone and has performance experiences in concert band, marching band, orchestra, jazz ensemble, and summer drum corps, and the other (a female) who plays oboe and has orchestra and concert band experience, but no jazz or marching experience. In such a case, the female applicant does not present as strong an application in regard to broad performance experiences, unless she has accounted for these voids in some other way. (p. 81)

A goal of this dissertation in practice study was to create a piece of music for concert band that would provide a means for band directors to teach jazz performance and history in their concert band classes. By providing a vehicle to study jazz performance and history, might this piece also help to create a more level playing field for students playing non-traditional jazz instruments?
List of Terms

**Aleatoric** (adjective) - Relating to or denoting music or other forms of art involving elements of random choice (sometimes using statistical or computer techniques) during their composition, production, or performance. (https://en.oxforddictionaries.com/definition/aleatory)

**Arrangement** (noun) - A musical composition arranged for performance with instruments or voices differing from those originally specified. (https://en.oxforddictionaries.com/definition/arrangement)

**Avant-garde** (adjective) - New and experimental ideas and methods in art, music, or literature. (https://en.oxforddictionaries.com/definition/avant-garde)

**Bebop** (noun) - A type of jazz originating in the 1940s and characterized by complex harmony and rhythms. It is associated particularly with Charlie Parker, Thelonious Monk, and Dizzy Gillespie. (https://en.oxforddictionaries.com/definition/bebop)

**Brass** (noun) - Brass wind instruments (including trumpet, horn, and trombone) forming a band or a section of an orchestra. (https://en.oxforddictionaries.com/definition brass)

**Chord** (noun) - A group of (typically three or more) notes sounded together, as a basis of harmony. (https://en.oxforddictionaries.com/definition/chord)

**Classical** (adjective) - Serious music following long-established principles rather than a folk, jazz, or popular tradition. (more specifically) Music written in the European tradition during a period lasting approximately from 1750 to 1830, when forms such as the symphony, concerto, and sonata were standardized. (https://en.oxforddictionaries.com/definition/classical_music)
Composer (noun) - A person who writes music, especially as a professional occupation.
(https://en.oxforddictionaries.com/definition/composer)

Concert Band (noun) - a band that is made capable of playing symphonic music by the addition of instruments (as the string bass and harp) not adapted to marching — called also *symphony band*. (https://www.merriam-webster.com/dictionary/concert%20band)

Dixieland (noun) - A kind of jazz with a strong two-beat rhythm and collective improvisation, which originated in New Orleans in the early 20th century.
(https://en.oxforddictionaries.com/definition/dixieland)

Double (verb) - Lower in pitch by an octave.
(https://en.oxforddictionaries.com/definition/double)

Ellington (noun) - (1899–1974), American jazz pianist, composer, and bandleader; born Edward Kennedy Ellington. Coming to fame in the early 1930s, Ellington wrote over 900 compositions and was one of the first popular musicians to write extended pieces.
(https://en.oxforddictionaries.com/definition/ellington,_duke)

Harmony (noun) - The combination of simultaneously sounded musical notes to produce a pleasing effect. (https://en.oxforddictionaries.com/definition/harmony)

Improvise (verb) - to compose, recite, play, or sing extemporaneously.
(https://www.merriam-webster.com/dictionary/improvising)

Instrumentation (noun) - the arrangement or composition of music for instruments, especially for a band or orchestra.
(https://www.merriamwebster.com/dictionary/instrumentation)
Jazz (noun) - American music developed especially from ragtime and blues and characterized by propulsive syncopated rhythms, polyphonic ensemble playing, varying degrees of improvisation, and often deliberate distortions of pitch and timbre.

(https://www.merriam-webster.com/dictionary/jazz)

Jazz Band (noun) - a band specializing in jazz, and consisting typically of trumpet, trombone, clarinet, saxophone, piano, double bass, and percussion.

(http://www.dictionary.com/browse/jazz-band?s=t)

Key signature (noun) - (in notation) the group of sharps or flats placed after the clef to indicate the tonality of the music following. (http://www.dictionary.com/browse/key-signature?s=t)

Melody (noun) the succession of single tones in musical compositions, as distinguished from harmony and rhythm. (http://www.dictionary.com/browse/melody?s=ts)

Orchestration (noun) - to compose or arrange (music) for performance by an orchestra. (http://www.dictionary.com/browse/orchestration?s=t)

Percussion (noun) - a musical instrument, as the drum, cymbal, triangle, xylophone, or piano, that is struck to produce a sound, as distinguished from string or wind instruments. (http://www.dictionary.com/browse/percussion-instrument?s=t)

Polyphonic (adjective) - having two or more voices or parts, each with an independent melody, but all harmonizing; contrapuntal

(http://www.dictionary.com/browse/polyphonic?s=t)
Swing (noun) Also called Big Band music, swing music. A style of jazz, popular especially in the 1930s and often arranged for a large dance band, marked by a smoother beat and more flowing phrasing than Dixieland and having less complex harmonies and rhythms than modern jazz. (http://www.dictionary.com/browse/swing-music?s=t)

Symphonic (adjective) - of, for, pertaining to, or having the character of a symphony or symphony orchestra. (http://www.dictionary.com/browse/symphonic?s=t)

Transpose (verb) - to reproduce in a different key, by raising or lowering in pitch. (http://www.dictionary.com/browse/transpose?s=t)

Voicing (noun) - the arrangement of musical notes to form a chord. (http://www.thefreedictionary.com/voicing)

Western music (noun) - European Classical music, a genre of art music produced or rooted in the traditions of Western liturgical and secular music from the 10th century onward. The canonical common practice period was from 1550 to 1900, although the style continues to be performed and developed to this day. (http://encyclopedia.thefreedictionary.com/western+music)

Wind Band (noun) - A band of wind instruments or a collective term for the wind instruments of an orchestra. (http://www.thefreedictionary.com/wind+band)

Woodwind (noun) - A wind instrument in which sound is produced by the vibration of reeds on the mouthpiece, as a bassoon, clarinet, oboe, or saxophone, or by the passing of air across the mouthpiece, as a flute. (http://www.thefreedictionary.com/woodwind)
Chapter III - Methodology

Introduction

Some of the benefits of teaching jazz are illuminated by a study that investigated brain activity during improvisation, a key component of jazz. While activity in the dorsolateral prefrontal cortex slows down, activity in the medial prefrontal cortex increases. The former suggests lowered inhibitions while the latter is associated with self-expression and individuality (Darrell, 2008). One of the scientists who discovered this phenomenon, Charles J. Limb, M.D., assistant professor in the Department of Otolaryngology-Head and Neck Surgery at the Johns Hopkins School of Medicine, stated, “What we think is happening is when you’re telling your own musical story, you’re shutting down impulses that might impede the flow of novel ideas” (para. 15). He went on to say, “Without this type of creativity, humans wouldn’t have advanced as a species. It’s an integral part of who we are” (para. 16).

Despite such research, the band program at Cane Bay High School still functions in the traditional manner where the concert band serves as the primary ensemble for music education. A jazz ensemble typically does not contain large sections for instruments such as flute, oboe, bassoon, and clarinet. Likewise, a marching band does not feature these instruments either. The concert band, in contrast, is inclusive of most wind and percussion instruments. This suits it well for the job of teaching general technique to all. Due to limited access to jazz music arranged for this group, however, it is difficult to teach jazz using this ensemble. Music in the tradition of the classical
Western-European era reigns supreme in this class, which greatly limits the study of American jazz.

**Overview of Review of Literature**

In 1940, John Dewey read his speech, “Art as our Heritage,” on the radio. One of the more powerful lines illustrates the importance that Dewey placed in the arts (Jaworski, 2010):

> It is by creation of the intangibles of science and philosophy, and especially by those of the arts, that countries and communities have won immortality for themselves after material wealth has crumbled into dust. What has been true of other peoples will be true of our own. Creation, not acquisition, is the measure of a nation’s rank; it is the only road to an enduring place in the admiring memory of mankind. (para. 5)

Clearly, in Dewey’s mind, the teaching of the arts was a very important characteristic of society. One can find instruction in the arts in most public schools, usually in the form of visual art classes and music courses that include band. With the concert band acting as the primary vehicle for instrumental instruction, the study of jazz would greatly augment the typical Western-European-inspired “classical” music that students perform.

The curator of American Music at the Smithsonian, John Edward Hasse, when discussing jazz stated, “In my judgment, it’s a fundamental part of who we are as Americans. Young people in Germany are surely educated about Bach and Beethoven, and young people in the United States should surely know about Louis Armstrong and
Duke Ellington” (Randall, 2008, para.1). Chuck Owen, president of the International Association for Jazz Education added:

Jazz fosters all the skills that you’d get from working in any instrumental or vocal ensemble. But one thing that makes it unique is that it’s so strongly based around improvisation, and that teaches kids the value of individual creativity. It also encourages them to explore their instruments in a way that they might not do if they were just sitting there reading a piece of music. (Randall, 2008, para.7)

The National Association for Music Education also provides some direction on this matter. Featured on their website is an article by Nick Webb titled, “Why Teach Jazz” that highlights quotes from three prominent jazz educators. Dr. Willie Hill, former president of Music Educators National Conference and International Association of Jazz Educators stated (Webb, 2008):

Many of our music educators have come to realize that an education in jazz can develop stronger musicianship; build a student’s self-confidence; increase self-esteem; promote teamwork; enhance individual responsibility; develop keen listening skills along with good rhythm, feel, and intonation. When students are enrolled in jazz ensembles or combos, they have an opportunity to engage themselves in a musical experience that goes beyond their concert and marching bands, and orchestra classes (beyond the Western European or Classical traditions). (para. 4)

These endorsements provide the catalyst to explore the possibilities of adding jazz literature to the curriculum of concert bands.
Purpose Statement

The purpose of this study is to create a high-quality arrangement of Duke Ellington’s adaptation of Tchaikovsky’s *The Nutcracker* Suite and, through the study and performance of the piece, examine the relationship between studying jazz in a concert band setting and its effect on the student-participants’ perceptions at Cane Bay High School of the jazz idiom and performance.

Research Question

The question guiding this quantitative action research study is: What are high school-level music students’ perceptions of Duke Ellington’s *The Nutcracker Suite* in terms of their confidence levels to perform jazz, their perceptions of the usefulness of jazz performance skills, the perceptions of jazz as a male domain, and their perceptions of their teacher’s attitude?

Problem of Practice

Cane Bay High School’s band program operates with the concert band at the center of the program just as Leopold (2008) describes, “In most of America's secondary schools, participation in big ensembles -- whether concert band or chorus -- remains the principal way that school programs involve students in music” (para. 2). Most wind and percussion instrumentalists are members of this group that meets every day during the school day. Due to the concert band being inclusive of all wind and percussion instruments and meeting on a regular basis, the concert band is used as the primary vehicle for music education. Typically, this ensemble focuses on general technique and the study of Western European-inspired classical music rather than jazz. This results in
many students not being exposed to jazz, a uniquely American art form. Furthermore, it is rare for women to hold positions as jazz instrumentalists or high school and college band directors. This action research study describes the perceptions of student-participants who participated in the preparation and performance of an arrangement by the researcher of a Duke Ellington adaptation of Tchaikovsky’s *The Nutcracker Suite*. In particular, perceptions of female and male participants were compared and analyzed to determine the effects of studying jazz in a concert band setting at Cane Bay High School.

**Participant Selection and Research Sites**

For this study, Cane Bay High School, a high school band program that is supervised by the researcher, will be utilized. Collaborating with the band director, this action research provided opportunities to team-teach and create a foundation to build a Professional Learning Community. Serving 1,838 students, 26% of Cane Bay High School’s population is freshmen, 27% are sophomores, 26% are juniors, and 21% are seniors. The special education population is relatively small with 12% of the student body identified as special education and only 2% of the student body having 504 plans. By race, 62% of the student body is identified as white, 26% are African American, 10% are Hispanic, and one percent or fewer are Asian, Indian, or Pacific Islander. Students requiring free or reduced lunch comprises just over half the population with 40% receiving a free lunch and 12% paying a reduced fee.

**Research Design**

Action research was used for this quantitative study for the following reasons put forth by Mertler (2014):
• Action research deals with your problems, not someone else’s.
• Action research is very timely and provides immediate results.
• Action research provides educators with opportunities to better understand, and therefore improve, their educational practices.
• Action research can promote the building of stronger relationships among colleagues with whom we work.
• Action research provides educators with alternative ways of viewing and approaching educational questions and problems with new ways of examining educational practices.

In order to be directly involved with the study, action research was chosen rather than traditional research.

As Mertler (2014) details, action research is planned and uses a cyclical method that requires reflection throughout. The four specific stages of action research are:

1. The planning stage
2. The acting stage
3. The developing stage
4. The reflecting stage

“Within this framework…action research is a recursive, cyclical process that typically does not proceed in a linear fashion. Teacher-researchers engaged in action research often find themselves repeating some of the steps several times or perhaps doing them in a different order” (Mertler, 2014, p.16). Working collaboratively with the band director of Cane Bay High School, the researcher rehearsed and performed Movement I,
“Overture,” and Movement IV, “Sugar Rum Cherry,” of the researcher’s arrangement of Duke Ellington’s adaptation of Tchaikovsky’s *The Nutcracker Suite*. This allowed the researcher to reflect with the collaborating band director on a number of issues including the rigor of the selected music, the presentation and methods used to teach proper style, and the physical layout of the notated music for each part.

In addition to developing a high-quality piece of literature for education, the study aimed to quantify perceptions of jazz performance in terms of confidence. For this study, the researcher adapted the *Fennema-Sherman Mathematics Attitudes Scales: Instruments Designed to Measure Attitudes toward the Learning of Mathematics by Females and Males*. According to Doepken, Lawsky, and Padwa (2004):

> In an effort to study students' attitudes towards math, Elizabeth Fennema and Julia A. Sherman constructed the following attitude scale in the early 1970's. The scale consists of four subscales: a confidence scale, a usefulness scale, a scale that measures mathematics as a male domain and a teacher perception scale. Each of these scales consists of 12 items. Six of them measure a positive attitude and six measure a negative attitude. This scale could give a teacher and an individual student useful information about that particular student's attitude(s) towards math. (p. 1)

This tool has been modified for use in science and was easily modified and useful to the subject of jazz. The scale is divided into subscales as follows:

- The following statements measure student-participants’ confidence in the area of jazz performance:
  
  1. I am sure that I can learn to play jazz and improvise.
4. I don't think I can perform jazz.

8. Jazz performance is hard for me.

12. I am sure of myself when I play jazz.

19. I'm not the type to do well in jazz.

23. Jazz has been my worst subject.

25. I think I could handle more difficult jazz literature.

32. Most subjects I can handle OK, but I just can't do a good job with jazz performance.

33. I can get good grades in jazz.

37. I know I can do well in jazz.

41. I am sure I could do advanced work in jazz.

43. I'm no good in jazz.

• The following statements measure students-participants’ perception of the usefulness of jazz performance:

3. Knowing jazz performance practices will help me earn a living.

5. Jazz will not be important to me in my life's work.

10. I'll need jazz performance skills for my future work.

13. I don't expect to perform much jazz when I get out of school.

17. Jazz is a worthwhile, necessary subject.

21. Studying jazz is a waste of time.

27. I will use jazz performance skills in many ways as an adult.

29. I see jazz as something I won't use very often when I get out of high school.
34. I'll need a good understanding of jazz for my future work.
39. Doing well in jazz is not important for my future.
42. Jazz is not important for my life.
44. I study jazz because I know how useful it is.

- The following statements measure students-participants’ perception of jazz performance being a male domain:

  6. Males are not naturally better than females in the field of jazz.
  9. It is hard to believe that females can achieve high levels in the field of jazz performance.
  11. When a woman has to perform jazz music, she should ask a man for help.
  15. Females and males are equal in the field of jazz performance.
  18. I would have more faith in the jazz performance of a male versus a female.
  24. Women who enjoy studying jazz are a little strange.
  28. Females are as good as males in jazz performance.
  31. Females are smart enough to do well in the field of jazz performance.
  36. I would expect a woman jazz musician to be a forceful type of person.
  38. Studying jazz performance is good for both males and females.
  46. I would trust a female just as much as I would trust a male to perform jazz.
• The following statements measure students-participants’ perception of their teacher’s attitude concerning jazz performance:

2. My teachers have been interested in my progress in jazz performance.
7. Getting a teacher to take me seriously as a jazz musician is a problem.
14. I would talk to my music teachers about a career that uses jazz.
16. It's hard to get music teachers to respect me.
20. My teachers have encouraged me to study more jazz.
22. I have a hard time getting teachers to talk seriously with me about jazz.
26. My teachers think studying jazz will be a waste of time for me.
30. I feel that music teachers ignore me when I try to talk about something serious.
35. My teachers want me to take all the jazz instruction I can.
40. My teachers would not take me more seriously if I told them I was interested in a career in jazz.
45. Music teachers have made me feel I have the ability to go on in jazz.
47. My teachers think I'm the kind of person who could do well in jazz.

The modified scale was used to create a questionnaire through Google Forms and was administered to and completed by student-participants on the first day of the study prior to receiving music. For each question, student-participants responded using a Likert scale where, 1 = “Strongly Agree” and 5 = “Strongly Disagree.”
After the study and performance of the selected movements of Ellington’s *The Nutcracker Suite*, the student-participants completed the survey for a second time. For the purpose of analysis, questions were grouped by subcategory and examined to determine any differences between the pre-test and the post-test. The results were shared with the collaborating band director and used to determine if changes to the curriculum may produce a more inclusive environment for females.

**Conclusion**

The concise nature of data provided by quantitative methods is more efficient to obtain and helps to paint a clear picture of the results. The Fennema-Sherman Scale provided several statements in each of the subsets of confidence, perceptions of usefulness, perceptions of jazz as a male domain, and perceptions of teachers’ attitudes. With the subsets being mixed in with each other, the survey provided a built-in system to triangulate data. Further, administering the scale as a Google Form provided an easy-to-understand and easy-to-use tool for students.

The collaborating band director at Cane Bay High School is currently pursuing a Ph.D. in jazz pedagogy. His insights into the performance practices of the genre led to deep conversations concerning teaching techniques such as the use of Aebersold patterns to work on technique and style simultaneously and the interpretation of articulation markings such as staccato and marcato. Overall, the band director was pleased with the arrangements, but did make suggestions to clarify fills and kicks in the drum set part.
In the experience of the researcher, the world of instrumental musicians is very accepting of those who are “different.” There are trends of instrument selections, but not as entrenched as the studies report. The flute remains a “feminine” instrument, but the numbers of boys and girls that play clarinet, saxophone, oboe, bassoon, trumpet, horn, trombone, euphonium, and percussion has been equal. The tuba is still considered “masculine” due to its size, but many girls become quite accomplished on the instrument.

Nonetheless, issues are found in the professional musical world, both in education and performance. Gavin (2001) stated:

The jazz world is one of the last cultural frontiers of old-fashioned macho, and in it, homophobia runs rampant. Since interviewing that pianist, I’ve met a multitude of jazz figures who pride themselves on soulfulness and sensitivity, yet are as sensitive as rednecks on the subject of homosexuality—especially its presence in jazz, which is not inconsiderable. Many of the same musicians who would flatten anyone who called them or a friend of theirs a “nigger” haven’t hesitated to tag somebody a “faggot,” if that person threatened their standards of masculinity. (para. 2)

This look into the professional world is intriguing as, mentioned before, the researcher has not personally experienced this environment. At the high school level, band directors, generally speaking, do a very good job of treating students equally regardless of differences including gender. For this reason, the researcher does not expect to see much change in perceptions of jazz as a male domain. However, some changes are expected in perceptions of confidence, usefulness, and teacher attitude.
Chapter IV – Findings and Interpretation of Results

Introduction

Utilizing an action research methodology, the researcher examined the effects of studying jazz in a concert band setting in order to understand the impact on student-participants’ perceptions of confidence performing jazz, the usefulness of jazz performance skills, jazz as a male domain, and teachers’ attitudes towards jazz. This chapter will provide an overview of the problem of practice, purpose statement, research question, and methodology, a discussion of the findings, an interpretation of the results of the study, and a conclusion.

Problem of Practice

Cane Bay High School’s band program operates with the concert band at the center of the program just as Leopold (2008) describes, “In most of America’s secondary schools, participation in big ensembles – whether concert band or chorus – remains the principal way that school programs involve students in music” (para. 2). Most wind and percussion instrumentalists are members of this group that meets every day during the school day. Due to the concert band being inclusive of all wind and percussion instruments and meeting on a regular basis, the concert band is used as the primary vehicle for music education. Typically, this ensemble focuses on general technique and the study of Western European-inspired classical music rather than jazz. This results in many students not being exposed to the uniquely American art form of jazz. Also, it is
rare for women to hold positions as jazz instrumentalists or high school and college band directors. This action research described the perceptions of student-participants who participated in the preparation and performance of an arrangement by the researcher of a Duke Ellington adaptation of Tchaikovsky’s *The Nutcracker Suite*. In particular, perceptions of female and male participants were compared and analyzed to determine the effects of studying jazz in a concert band setting at Cane Bay High School.

**Purpose Statement**

The purpose of this study is to create a high-quality arrangement of Duke Ellington’s adaptation of Tchaikovsky’s *The Nutcracker Suite* and, through the study and performance of the piece, examine the relationship between studying jazz in a concert band setting and its effect on the student-participants’ perceptions at Cane Bay High School of the jazz idiom and performance.

**Research Question**

The question guiding this quantitative action research study is: What are high school-level music students’ perceptions of Duke Ellington’s *The Nutcracker Suite* in terms of their confidence levels to perform jazz, their perceptions of the usefulness of jazz performance skills, the perceptions of jazz as a male domain, and their perceptions of their teacher’s attitude?
Methodology

For this dissertation in practice study, action research was used as the methodological approach. This study focused not only on developing a high-quality piece of jazz literature for study, but also on the effects it may have on students’ perception of jazz. To measure the effects, the researcher utilized a modified Fennema-Sherman Attitude Scale in order to quantify changes in perceptions of confidence performing jazz, the usefulness of jazz performance skills, jazz as a male domain, and teachers’ attitudes towards jazz.

Elizabeth Fennema and Julia Sherman developed their attitude scale in the 1970’s. It consists of four subscales: a confidence scale, a usefulness scale, a scale to measure math as a male domain, and a teacher perception scale. Originally created for math, the tool has been modified for science and was easily modified and useful for the subject of jazz.

Using a Likert scale to respond to prompts where 1 = “Strongly Agree” and 5 = “Strongly Disagree,” student-participants completed the scale before being introduced to the music and again, after the performance. Twelve statements address each of the following: confidence while performing jazz, usefulness of jazz performance skills, and teacher’s attitudes towards jazz. Ten statements address the subject of jazz as a male domain. For the purpose of analysis, questions were grouped by subcategories and examined to determine any differences between the pre-test and the post-test. The results were shared with the collaborating band director and used to determine if changes to the curriculum may produce a more inclusive environment for females.
Findings of the Study

Data Collection Sources

Relying on descriptive statistics, this action research study depended on the results of a pre-test and post-test of the Fennema-Sherman Attitude Scale. The Fennema-Sherman Scale provided several questions in each of the subcategories of confidence, perceptions of usefulness, perceptions of jazz as a male domain, and perceptions of teachers’ attitudes. With the subcategories being mixed in with each other, the survey provided a built-in system to triangulate data. Administering the scale as a Google form provided an easy-to-understand and easy-to-use tool for students.

The Cane Bay High School Band is comprised of 22 female students and 23 male students. Female instrumentation is: flute (18%), oboe (4%), bassoon (4%), clarinet (23%), bass clarinet (9%), contra clarinet (5%), alto saxophone (9%), trumpet (14%), and horn (14%).

Table 4.1 A comparison of female instrumentation between the 1993 study by Fortney, Boyle, and DeCarbo and the 2016 Cane Bay High School Band.

<table>
<thead>
<tr>
<th>Fortney, Boyle, and DeCarbo (1993)</th>
<th>Cane Bay Band (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 70.7 percent of females chose flute or clarinet.</td>
<td>• 55 percent of females chose flute or clarinet</td>
</tr>
<tr>
<td>• 10 percent of females chose saxophone.</td>
<td>• 9 percent of females chose saxophone</td>
</tr>
<tr>
<td>• 10.5 percent of females chose an instrument from the brass family.</td>
<td>• 28 percent of females chose an instrument from the brass family</td>
</tr>
<tr>
<td>• 5.4 percent of females chose percussion.</td>
<td>• percussionists did not participate in study</td>
</tr>
</tbody>
</table>
Compared to Fortney, Boyle, and Decarbo’s study in 1993, a smaller percentage of females in the 2016 Cane Bay High School Band perform on traditionally “feminine” instruments (flute and clarinet) and more females perform on traditionally “masculine” instruments (saxophones and brass).

Male instrumentation for the Cane Bay High School band is: oboe (4%), clarinet (4%), alto saxophone (13%), tenor saxophone (9%), baritone saxophone (9%), trumpet (18%), horn (4%), trombone (13%), euphonium (9%), and tuba (17%).

Table 4.2 A comparison of male instrumentation between the 1993 study by Fortney, Boyle, and DeCarbo and the 2016 Cane Bay High School Band.

<table>
<thead>
<tr>
<th>Fortney, Boyle, and DeCarbo (1993)</th>
<th>Cane Bay Band (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 50.3 percent of males chose a brass instrument.</td>
<td>• 61 percent of males chose a brass instrument</td>
</tr>
<tr>
<td>• 18.1 percent of males chose saxophone.</td>
<td>• 31 percent of males chose saxophone</td>
</tr>
<tr>
<td>• 17.6 percent of males chose percussion.</td>
<td>• percussionists did not participate in study</td>
</tr>
</tbody>
</table>

Compared to Fortney, Boyle, and Decarbo’s study in 1993, more males in the 2016 Cane Bay High School Band perform on traditionally “masculine” instruments (saxophones and brass).

For the purpose of analysis, the results from the pre-test and post-test were separated into the four subcategories of confidence while performing jazz, usefulness of jazz performance skills, jazz as a male domain, and perception of teacher’s attitude.
Subcategory: Confidence

1. I am sure that I can learn to play jazz and improvise.

![Figure 4.1 Pre-test and Post-test means for statement #1.](image)

For this statement, a response of “1” (strongly agree) or “2” (agree) would indicate a higher level of confidence playing jazz and improvising. 17 of 22 (77%) females indicated that they agreed or strongly agreed before studying *The Nutcracker Suite*. 19 (86%) indicated that they agreed or strongly agreed after the study. Males were more confident. 21 of 23 (91%) males indicated that they agreed or strongly agreed before the study and 22 (96%) agreed or strongly agreed after the study.

Overall, confidence improved for both females and males. Both groups recorded a median and mode of “1” for the pre-test and post-test. The median for males moved from 1.35 to 1.22, showing an increase in confidence of .13 points. Females moved from 1.68 to 1.41, an increase in confidence of .27 points.
4. I don't think I can perform jazz.

For this statement, a response of “4” (disagree) or “5” (strongly disagree) would indicate a higher level of confidence when performing jazz. Before studying *The Nutcracker Suite*, 10 (45%) females indicated that they disagreed or strongly disagreed. This number rose to 13 (59%) after the study. For males, 20 (87%) indicated that they disagreed or strongly disagreed before the study. This number remained the same after the study.

Females demonstrated an increase in confidence with a pre-test mean of 3.41 moving to the post-test mean of 3.82, a difference of .41 points. Males demonstrated a slight decrease in confidence. Starting with a pre-test mean of 4.35, the group moved .05 points to a 4.3.
8. Jazz performance is hard for me.

![Bar chart showing pre-test and post-test means for statement #8.](image)

Figure 4.3 Pre-test and Post-test means for statement #8.

Like statement #4, a response of “4” (disagree) or “5” (strongly disagree) would indicate a higher level of confidence in the area of jazz performance. Before the study, only 3 (14%) females indicated that they disagreed or strongly disagreed. This number rose to 7 (32%) after the study. Males also indicated an increase of confidence as 9 (39%) selected “disagree” or “strongly disagree” before the study compared to 12 (52%) after the study.

Examining the mean, females shifted .4 points moving from 2.55 to 2.95. Males provided a slightly larger shift of .44, the largest positive shift for males in the subcategory of “confidence,” moving from 2.95 to 3.39.
12. I am sure of myself when I perform jazz.

![Bar graph showing pre-test and post-test means for statement #12]

For this statement, a response of “1” (strongly agree) or “2” (agree) would indicate a higher level of confidence when performing jazz. This statement showed an increase for both females and males. 5 (23%) females selected “agree” or “strongly agree” before the study. This number rose to 8 (36%) after the study. Men increased from 11 (48%) who chose “agree” or “strongly agree” before the study to 15 (65%) after the study.

This response proved to be the largest positive shift for females in this subcategory of “confidence.” The pre-test mean of 3.45 shifted .54 points to 2.91. Males shifted .3 points, starting at 2.65 and ending at 2.35.
19. I am not the type to do well in jazz.

![Bar chart showing pre-test and post-test means for statement #19.]

A higher level of confidence in jazz performance is indicated by a “4” (disagree) or “5” (strongly disagree) for this statement. Females gained confidence with 8 (36%) selecting “disagree” or “strongly disagree” before the study and 10 (45%) doing so after the study. This increase is reflected in the mean scores. Starting at 3 on the pre-test, females shifted to 3.27 on the post-test.

Males showed a decrease in confidence through the study. 17 (74%) disagreed or strongly disagreed before the study. Only 13 (57%) chose the same response after the study. This decrease in confidence is also revealed in the mean, the largest negative shift for males in this subcategory. Starting at 3.83 on the pre-test, this number declined .22 points to 3.61 on the post-test.
23. Jazz has been my worst subject.

Figure 4.6 Pre-test and Post-test means for statement #23.

Again, a higher level of confidence in jazz performance is indicated by a “4” (disagree) or “5” (strongly disagree) for this statement. Females showed a decrease of confidence with a total of 13 (59%) who disagreed or strongly disagreed before the study and only 9 (41%) who did so after the study. This response proved to be the largest negative shift for females in the subcategory of “confidence.” Starting with a mean of 3.73 on the pre-test, the mean of 3.5 on the post-test produced a shift of .23 points.

Men also showed a decrease in confidence with 19 (83%) indicating a rating of “disagree” or “strongly disagree” before the study and 18 doing so afterwards. This response produced a pre-test mean of 4.22 that declined .09 points to 4.13 on the post-test.
25. I think I could handle more difficult jazz literature.

For this statement, a response of “1” (strongly agree) or “2” (agree) would indicate a higher level of confidence when performing jazz. Females showed a small increase in confidence with 7 students (32%) responding with “agree” or “strongly agree” prior to the study and 8 (36%) responding the same after the study. Interestingly, the mean showed a different shift moving .05 points from a 2.86 on the pre-test to a 2.91 on the post-test.

Male students demonstrated an increase in confidence. 13 (57%) responded with “agree” or “strongly agree” before the study and 15 (65%) provided the same response after the study. The mean agreed with this shift as males started with a 2.39 on the pre-test. This score declined by .07 points to 2.32 on the post-test.

Figure 4.7 Pre-test and Post-test means for statement #25.
32. Most subjects I can handle OK, but I just can't do a good job with jazz performance.

Figure 4.8 Pre-test and Post-test means for statement #32.

A higher level of confidence in jazz performance is indicated by a “4” (disagree) or “5” (strongly disagree) for this statement. Females indicated an increase in confidence. Before the study, 7 (32%) responded with “disagree” or “strongly disagree.” This number rose to 8 (36%) after the study. This small change is not observed in the mean. The score of 3.14 remained unchanged between the pre-test and post-test.

Males showed an increase in confidence. Before the study, 16 (70%) responded “disagree” or “strongly disagree.” 18 (78%) provided the same response after the study. This response provided the second-highest positive shift for males in the subcategory of “confidence.” Starting with a mean of 3.83 on the pre-test, a shift of .26 was observed with a post-test mean of 4.09.
33. I can get good grades in jazz.

Figure 4.9 Pre-test and Post-test means for statement #33.

For this statement, a response of “1” (strongly agree) or “2” (agree) would indicate a higher level of confidence when performing jazz. Females demonstrated an increase in confidence. Prior to the study, 15 (68%) agreed or strongly agreed with the statement. This number rose to 16 (73%) after the study. This shift represents a change of .13 points in the mean moving from an average response of 1.95 on the pre-test to an average response of 1.82 on the post-test.

The combined number for males who agreed or strongly agreed remained the same at 16 (70%). There was a small change within this category, however. Between the pre-test and post-test, 3 fewer males responded “agree” and 3 more males responded “strongly agree.” This small shift is reflected in the mean scores that indicated a small increase in confidence. Starting with a mean of 2.13, males indicated an increase in confidence by shifting .04 points to 2.09 on the post-test.
37. I know I can do well in jazz.

![Bar chart showing pre-test and post-test means for statement #37.

For this statement, a response of “1” (strongly agree) or “2” (agree) would indicate a higher level of confidence when performing jazz. Females showed a small decrease in confidence. 16 (73%) responded with “agree” or “strongly agree” before the study. This number dropped to 15 (68%) after the study. This is reflected with a very small change in the mean. The pre-test mean of 1.90 rose .01 points to 1.91 on the post-test.

Males showed an increase in confidence. Before the study, 17 (74%) responded “agree” or “strongly agree.” After the study, though one less responded “strongly agree,” a total of 19 (83%) responded “agree” or “strongly agree.” The mean demonstrated this shift as well. Starting with a pre-test mean of 1.78, males shifted .08 points to 1.70 on the post-test.
41. I am sure I could do advanced work in jazz.

![Bar chart showing pre-test and post-test means for statement #41 for males and females. The chart indicates a decrease in confidence for both groups after the study.](image)

**Figure 4.11 Pre-test and Post-test means for statement #41.**

For this statement, a response of “1” (strongly agree) or “2” (agree) would indicate a higher level of confidence when performing jazz. Both females and males demonstrated a decrease in confidence for this statement. Prior to the study, 8 (36%) females and 17 (74%) males responded “agree” or “strongly agree.” This number fell to 7 (32%) for females and 14 (61%) for males after the study.

This response proved to be the second-highest negative shift for both groups in the subcategory of “confidence.” Females shifted .09 points beginning with a mean of 2.86 and ending with a mean of 2.95. Males had a greater shift of .13 points beginning with a mean of 2.13 and ending with a mean of 2.26.
43. I'm no good in jazz.

A higher level of confidence in jazz performance is indicated by a “4” (disagree) or “5” (strongly disagree) for this statement. Both females and males showed an increase in confidence. Before the study, 9 (41%) females and 15 (65%) males responded “disagree” or “strongly disagree.” After the study, these numbers increased to 10 (45%) females and 18 (78%) males. Overall, the mean for females increased .36 from the pre-test mean of 3.23 to the post-test mean 3.59. Males shifted much less moving only .04 points from 3.87 on the pre-test to 3.91 on the post-test.
### Table 4.3 Measures of Central Tendency for the subcategory, “Confidence in Performing Jazz.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Male Pre-test</th>
<th>Male Post-test</th>
<th>Female Pre-test</th>
<th>Female Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>Mdn</td>
<td>Mode</td>
<td>M</td>
</tr>
<tr>
<td>1. I am sure that I can learn to play jazz and improvise.</td>
<td>1.35</td>
<td>1</td>
<td>1</td>
<td>1.22</td>
</tr>
<tr>
<td>4. I don't think I can perform jazz.</td>
<td>4.35</td>
<td>5</td>
<td>5</td>
<td>4.30</td>
</tr>
<tr>
<td>8. Jazz performance is hard for me.</td>
<td>2.95</td>
<td>3</td>
<td>4</td>
<td>3.39</td>
</tr>
<tr>
<td>12. I am sure of myself when I perform jazz.</td>
<td>2.65</td>
<td>3</td>
<td>2</td>
<td>2.35</td>
</tr>
<tr>
<td>19. I am not the type to do well in jazz.</td>
<td>3.83</td>
<td>4</td>
<td>4</td>
<td>3.61</td>
</tr>
<tr>
<td>23. Jazz has been my worst subject.</td>
<td>4.22</td>
<td>5</td>
<td>5</td>
<td>4.13</td>
</tr>
<tr>
<td>25. I think I could handle more difficult jazz literature.</td>
<td>2.39</td>
<td>2</td>
<td>2</td>
<td>2.32</td>
</tr>
<tr>
<td>32. Most subjects I can handle OK, but I just can't do a good job with jazz performance.</td>
<td>3.83</td>
<td>4</td>
<td>4 &amp; 5</td>
<td>4.09</td>
</tr>
<tr>
<td>33. I can get good grades in jazz.</td>
<td>2.13</td>
<td>2</td>
<td>1</td>
<td>2.09</td>
</tr>
<tr>
<td>37. I know I can do well in jazz.</td>
<td>1.78</td>
<td>1</td>
<td>1</td>
<td>1.70</td>
</tr>
<tr>
<td>41. I am sure I could do advanced work in jazz.</td>
<td>2.13</td>
<td>2</td>
<td>2</td>
<td>2.26</td>
</tr>
<tr>
<td>43. I'm no good in jazz.</td>
<td>3.87</td>
<td>4</td>
<td>4</td>
<td>3.91</td>
</tr>
</tbody>
</table>

Note: M = Mean, Mdn = Median, Mode
Table 4.4 Responses sorted by change of mean scores for the subcategory, “Confidence in Performing Jazz.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increase in Confidence</strong></td>
<td>Pre-test Mean</td>
<td>Difference</td>
</tr>
<tr>
<td>8. Jazz performance is hard for me.</td>
<td>2.95</td>
<td>0.44</td>
</tr>
<tr>
<td>12. I am sure of myself when I perform jazz.</td>
<td>2.65</td>
<td>0.30</td>
</tr>
<tr>
<td>32. Most subjects I can handle OK, but I just can't do a good job with jazz performance.</td>
<td>3.83</td>
<td>0.26</td>
</tr>
<tr>
<td>1. I am sure that I can learn to play jazz and improvise.</td>
<td>1.35</td>
<td>0.13</td>
</tr>
<tr>
<td>37. I know I can do well in jazz.</td>
<td>1.78</td>
<td>0.08</td>
</tr>
<tr>
<td>25. I think I could handle more difficult jazz literature.</td>
<td>2.39</td>
<td>0.07</td>
</tr>
<tr>
<td>33. I can get good grades in jazz.</td>
<td>2.13</td>
<td>0.04</td>
</tr>
<tr>
<td>43. I'm no good in jazz.</td>
<td>3.87</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Decrease in Confidence</strong></td>
<td>Pre-test Mean</td>
<td>Difference</td>
</tr>
<tr>
<td>19. I am not the type to do well in jazz.</td>
<td>3.83</td>
<td>0.22</td>
</tr>
<tr>
<td>41. I am sure I could do advanced work in jazz.</td>
<td>2.13</td>
<td>0.13</td>
</tr>
<tr>
<td>23. Jazz has been my worst subject.</td>
<td>4.22</td>
<td>0.09</td>
</tr>
<tr>
<td>4. I don't think I can perform jazz.</td>
<td>4.35</td>
<td>0.05</td>
</tr>
</tbody>
</table>
Summary for subset “confidence in performing jazz”

Of the twelve statements that comprised the subcategory of “confidence while performing jazz,” females showed an increase of confidence in seven (an average shift of .34 points), no change in one, and a decrease in four (an average shift of .095 points). Males showed an increase in eight (an average shift of .17 points) and a decrease in four (an average shift of .12 points). Interestingly, males demonstrated a higher level of confidence than females for every statement except one (#33).

Subcategory: Usefulness

3. Knowing jazz performance practices will help me earn a living.

![Figure 4.13 Pre-test and Post-test means for statement #3.](image)

A response of “1” (strongly agree) or “2” (agree) to this statement would indicate a perception of usefulness for jazz performance skills. While the combined number of females who responded “agree” or “strongly agree” remained the same between the pre-
test and post-test, there was a shift from “strongly agree” to “agree.” At the same time, four females shifted from “disagree” and “strongly disagree” to “neutral.” Overall, the number who agree with the statement remained at 13 or 59%. There was an increase in the perception of usefulness as the mean of 2.45 on the pre-test shifted .14 points to 2.13 on the post-test.

Thirteen (57%) males responded “agree” or “strongly agree” before and after the study. One person moved from “neutral” to “strongly disagree.” This translated to a decrease in the perception of usefulness of .09 points. The pre-test mean equaled 2.39 and shifted to 2.48 on the post-test.

5. Jazz will not be important to me in my life's work.

![Figure 4.14 Pre-test and Post-test means for statement #5.](image)

In order to indicate that jazz performance skills are important, student-participants would need to respond with a “4” (disagree) or “5” (strongly disagree) to this statement.
Females found more usefulness for jazz after the study than before. Only 5 (23%) responded “disagree” or “strongly disagree” before the study compared to 9 (41%) after the study. This resulted in the second-highest increase in this subcategory for females. The pre-test mean of 2.77 shifted .23 points to a mean of 3 on the post-test.

Males indicated a small decrease in usefulness. Though 13 (57%) responded “disagree” or “strongly disagree” before the study compared to 14 (61%) after the study, the mean shifted .03 points towards agreeing with the statement. The mean of 3.6 on the pre-test moved to 3.57 on the post-test.

10. I will need jazz performance skills for my future work.

![Figure 4.15 Pre-test and Post-test means for statement #10.](image-url)

For this statement, a response of “1” (strongly agree) or “2” (agree) indicates a perception of usefulness of jazz performance skills. Females found jazz to be more useful after the study than before. Four (18%) females responded “agree” or “strongly
agree” before the study and 6 (27%) did so afterwards. This produced the largest positive shift in perception of usefulness for females. The pre-test mean of 3.64 shifted .32 points to 3.32 on the post-test.

For males, the response to this statement indicates jazz to be less useful after the study. The pre-test showed 8 (35%) agreed or strongly agreed compared to only 5 (22%) on the post-test. The mean of 3.04 on the pre-test shifted .22 points to 3.26 on the post-test.

13. I don't expect to perform much jazz when I get out of school.

![Figure 4.16 Pre-test and Post-test means for statement #13.](image)

In order to indicate that jazz performance skills are important, student-participants would need to respond with a “4” (disagree) or “5” (strongly disagree) to this statement. Females’ responses changed little between the pre-test and post-test with 5 (23%) disagreeing or strongly disagreeing on both. The mean indicates a small increase in the
perception of usefulness. The pre-test mean of 2.45 shifted .09 points to 2.54 for the post-test.

Males showed very little change as well. Nine (39%) responded “disagree” or “strongly disagree” both before and after the study. Here, the mean indicates a small decrease in the perception of usefulness. The pre-test mean of 3.04 shifted .04 points to a mean of 3 on the post-test.

17. Jazz is a worthwhile, necessary subject.

![Figure 4.17 Pre-test and Post-test means for statement #17.](image)

For this statement, a response of “1” (strongly agree) or “2” (agree) indicates a perception of usefulness of jazz performance skills. Females found jazz to be less useful after the study than before. On the pre-test, 17 (77%) responded “agree” or “strongly agree.” Only 13 (59%) did so on the post-test. The mean shifted .18 points from 1.82 on the pre-test to 2 on the post-test.
Males responded in a similar fashion as 18 (78%) agreed or strongly agreed before the study and only 15 (65%) did so after the study. The mean shifted .09 points from 3.09 on the pre-test to 3 on the post-test.

21. Studying jazz is a waste of time.

![Bar chart showing pre-test and post-test means for statement #21.](image)

**Figure 4.18** Pre-test and Post-test means for statement #21.

In order to indicate that jazz performance skills are important, student-participants would need to respond with a “4” (disagree) or “5” (strongly disagree) to this statement. Perceptions changed very little to this response throughout the study. For females, 21 (95%) disagreed or strongly disagreed on both the pre-test and post-test. For males, 20 (90%) disagreed or strongly disagreed before the study. 21 (91%) did so after the study.

The mean for each group indicates a decrease in the perception of usefulness for females and males. The pre-test mean of 4.77 for females shifted .04 points to 4.73 on
the post-test. The pre-test mean of 4.52 for males shifted .18 points to 4.34 on the post-test.

27. I will use jazz performance skills in many ways as an adult.

For this statement, a response of “1” (strongly agree) or “2” (agree) indicates a perception of usefulness of jazz performance skills. Both females and males reported a decrease in the usefulness of jazz performance skills between the pre-test and the post-test. For females, 9 (41%) agreed or disagreed on the pre-test. This number declined to 6 (27%) on the post-test. This represents the largest negative shift for females in this subcategory. The pre-test mean of 2.91 shifted .27 points to 3.18 on the post-test.

For males, 12 (52%) responded “agree” or “strongly agree” on the pre-test as compared to only 9 (39%) on the post-test. The pre-test mean of 2.52 shifted .35 points
to 2.87 on the post-test. Like females, the responses to this statement produced the largest negative shift for males in this subcategory.

29. I see jazz as something I won't use very often when I get out of high school.

![Figure 4.20 Pre-test and Post-test means for statement #29.](image)

In order to indicate that jazz performance skills are important, student-participants would need to respond with a “4” (disagree) or “5” (strongly disagree) to this statement. Females dropped from 9 (41%) to 8 (36%) who responded “disagree” or “strongly disagree.” The mean, however, indicates an increase in the perception of the usefulness of jazz. The pre-test mean of 2.77 shifted .18 points to 2.95 on the post-test. Males dropped from 12 (52%) to 9 (39%) who responded “disagree” or “strongly disagree.” This translates to a decrease in the perception of the usefulness of jazz. The pre-test mean of 3.09 shifted .09 points to a mean of 3 on the post-test.
34. I will need a good understanding of jazz for my future work.

For this statement, a response of “1” (strongly agree) or “2” (agree) indicates a perception of usefulness of jazz performance skills. Females moved very little from the pre-test to the post-test. On both, 5 (23%) agreed or strongly agreed. The pre-test mean of 3.73 shifted .18 points to 3.55 on the post-test. This indicates an increase in the perception of usefulness.

For this statement, males demonstrated the largest increase in the perception of usefulness. On the pre-test, 9 (39%) agreed or strongly agreed. This number rose to 11 (48%) on the post-test. This translates to a shift of .18 points between the pre-test mean of 3.09 and the post-test mean of 2.91.
39. Doing well in jazz is not important for my future.

In order to indicate that jazz performance skills are important, student-participants would need to respond with a “4” (disagree) or “5” (strongly disagree) to this statement. While there was a big shift between “agree” and “strongly agree” between the pre-test and post-test for females, the composite number remained the same at 9 (41%). This statement, however, produced the second-largest negative growth for females in the subcategory of “usefulness.” The pre-test mean of 3.14 shifted .19 points to 2.95 on the post-test.

For males, this statement also produced the second-largest negative growth for this subcategory. On the pre-test, 11 (48%) disagreed or strongly disagreed whereas, on the post-test, 12 (52%) disagreed or strongly disagreed. The mean, however, shifted .34 points from the pre-test mean of 3.43 and the post-test mean of 3.09.
42. Jazz is not important for my life.

Figure 4.23 Pre-test and Post-test means for statement #42.

In order to indicate that jazz performance skills are important, student-participants would need to respond with a “4” (disagree) or “5” (strongly disagree) to this statement. Responses to this statement indicate that the perception of usefulness of jazz performance skills increased during the study. For females, 10 (45%) disagreed or strongly disagreed on the pre-test compared to 9 (41%) who did so on the post-test. Likewise, 13 (57%) males disagreed or strongly disagreed on the pre-test compared to 12 (52%) who did so on the post-test. The mean shifted .09 points for both groups. For females, the pre-test mean of 3.18 moved to 3.27 on the post-test. For males, the pre-test mean of 3.61 moved to 3.7 on the post-test.
44. I study jazz because I know how useful it is.

![Bar chart showing pre-test and post-test means for statement #44.](image)

For this statement, a response of “1” (strongly agree) or “2” (agree) indicates a perception of usefulness of jazz performance skills. Again, little change occurred for females and males. For females, 7 (32%) agreed or strongly agreed on both the pre-test and post-test. The number remained the same for males at 11 (48%). This produced an increase in the perception of usefulness for both groups of .09 points. For females, the pre-test mean of 2.82 moved to 2.73 on the post-test. For males, the pre-test mean of 2.61 moved to 2.52.
Table 4.5 Measures of Central Tendency for the subcategory, “Usefulness of Jazz Performance Practices.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Male Pre-test</th>
<th>Male Post-test</th>
<th>Female Pre-test</th>
<th>Female Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>Mdn</td>
<td>Mode</td>
<td>M</td>
</tr>
<tr>
<td>3. Knowing jazz performance practices will help me earn a living.</td>
<td>2.39</td>
<td>2</td>
<td>3</td>
<td>2.48</td>
</tr>
<tr>
<td>5. Jazz will not be important to me in my life’s work.</td>
<td>3.6</td>
<td>4</td>
<td>4</td>
<td>3.57</td>
</tr>
<tr>
<td>10. I will need jazz performance skills for my future work.</td>
<td>3.04</td>
<td>3</td>
<td>3</td>
<td>3.26</td>
</tr>
<tr>
<td>13. I don’t expect to perform much jazz when I get out of school.</td>
<td>3.04</td>
<td>3</td>
<td>3 &amp; 4</td>
<td>3</td>
</tr>
<tr>
<td>17. Jazz is a worthwhile, necessary subject.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2.09</td>
</tr>
<tr>
<td>21. Studying jazz is a waste of time.</td>
<td>4.52</td>
<td>5</td>
<td>5</td>
<td>4.34</td>
</tr>
<tr>
<td>27. I will use jazz performance skills in many ways as an adult.</td>
<td>2.52</td>
<td>2</td>
<td>2</td>
<td>2.87</td>
</tr>
<tr>
<td>29. I see jazz as something I won’t use very often when I get out of high school.</td>
<td>3.09</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>34. I will need a good understanding of jazz for my future work.</td>
<td>3.09</td>
<td>3</td>
<td>2 &amp; 4</td>
<td>2.91</td>
</tr>
<tr>
<td>39. Doing well in jazz is not important for my future.</td>
<td>3.43</td>
<td>3</td>
<td>3</td>
<td>3.09</td>
</tr>
<tr>
<td>42. Jazz is not important for my life.</td>
<td>3.61</td>
<td>4</td>
<td>5</td>
<td>3.7</td>
</tr>
<tr>
<td>44. I study jazz because I know how useful it is.</td>
<td>2.61</td>
<td>3</td>
<td>1 &amp; 4</td>
<td>2.52</td>
</tr>
</tbody>
</table>
Table 4.6 Responses sorted by change of mean scores for the subcategory, “Usefulness of Jazz Performance Practices.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Males</th>
<th>Females</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increase in Usefulness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. I will need a good understanding of jazz for my future work.</td>
<td>3.09 0.18</td>
<td>2.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. Jazz is not important for my life.</td>
<td>3.61 0.09</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. I study jazz because I know how useful it is.</td>
<td>2.61 0.09</td>
<td>2.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decrease in Usefulness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I will use jazz performance skills in many ways as an adult.</td>
<td>2.52 0.35</td>
<td>2.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. Doing well in jazz is not important for my future.</td>
<td>3.43 0.34</td>
<td>3.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increase in Usefulness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I will need jazz performance skills for my future work.</td>
<td>3.04 0.22</td>
<td>3.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Studying jazz is a waste of time.</td>
<td>4.52 0.18</td>
<td>4.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Knowing jazz performance practices will help me earn a living.</td>
<td>2.39 0.09</td>
<td>2.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Jazz is a worthwhile, necessary subject.</td>
<td>2 0.09</td>
<td>2.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I see jazz as something I won’t use very often when I get out of high school.</td>
<td>3.09 0.09</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I don’t expect to perform much jazz when I get out of school.</td>
<td>3.04 0.04</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Jazz will not be important to me in my life’s work.</td>
<td>3.6 0.03</td>
<td>3.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decrease in Usefulness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I will use jazz performance skills in many ways as an adult.</td>
<td>2.91 0.27</td>
<td>3.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. Doing well in jazz is not important for my future.</td>
<td>3.14 0.19</td>
<td>2.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Jazz is a worthwhile, necessary subject.</td>
<td>1.82 0.18</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Studying jazz is a waste of time.</td>
<td>4.77 0.04</td>
<td>4.73</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary of subset “usefulness of jazz performance practices”

Overall, this subcategory provided conflicting information between females and males. Females indicated an increase in the perception of usefulness of jazz for eight statements (an average shift of .17 points) and a decrease for four statements (an average shift of .17 points). Males indicated an increase in the perception of usefulness of jazz for only three statements (an average shift of .12 points) and a decrease for nine statements (an average shift of .16 points). Overall, males indicated a higher perception of the usefulness of jazz than females on nine of the twelve statements.

Subcategory: Jazz as a male domain

6. Males are not naturally better than females in the field of jazz.

![Figure 4.25 Pre-test and Post-test means for statement #6.](image)

For this statement, an answer of “disagree” or “strongly disagree” indicates the belief that jazz is a male domain. Only one female (5%) strongly disagreed with this
statement before the study. This number grew to 5 females (23%) who disagreed or strongly disagreed after the study. However, four more chose “strongly agree” on the post-test than the pre-test. The mean shifted .18 with the pre-test mean equaling 1.82 and the post-test mean equaling 2. This shift indicates that more females believe that jazz is a male domain after the study than before.

Males shifted in the opposite direction, but not to the same degree. Four (17%) disagreed or strongly disagreed with this statement before the study compared to five males (22%) after the study. The mean shifted only .04 points. The pre-test mean of 2.17 shifted to 2.13 on the post-test.

9. It is hard to believe that females can achieve high levels in the field of jazz performance.
For this statement, a response of “agree” or “strongly agree” would indicate the perception that jazz is a male domain. For both females and males, not a single student agreed or strongly agreed with this statement before the study. After the study, one female (4%) and one male (4%) strongly agreed with this statement suggesting that they believe that jazz is a male domain. The shift in means reflects this response. For females, the mean shifted .14 points, starting at 4.73 on the pre-test and moving to 4.59 on the post-test. For males, the pre-test mean of 4.78 shifted .17 points to 4.61 on the post-test. This shift indicates an increase in the perception that jazz is a male domain.

11. When a woman has to perform jazz music, she should ask a man for help.

Figure 4.27 Pre-test and Post-test means for statement #11.

For this statement, a response of “agree” or “strongly agree” would indicate a perception of jazz being a male domain. Only one female (5%) strongly agreed on both
the pre-test and the post-test. The mean of 4.73 for the pre-test moved .12 points to 4.61 indicating a move towards jazz being a male domain.

One male (4%) strongly agreed on the pre-test. No males selected “strongly agree” on the post-test, but two males (9%) selected “agree.” Most noticeably is that 21 males (91%) disagreed or strongly disagreed on the pre-test. This number fell to just 17 (74%) on the post-test. This change is reflected in the mean where this statement produced the largest shift towards jazz being a male domain. The mean of 4.52 on the pre-test shifted .3 points to 4.22 on the post-test.

15. Females and males are equal in the field of jazz performance.

![Figure 4.28 Pre-test and Post-test means for statement #15.](image)

For this statement, a response of “disagree” or “strongly disagree” would indicate a perception that jazz is a male domain. Not a single female disagreed or strongly
disagreed on the pre-test or post-test. The mean of 1 on the pre-test shifted .18 points to 1.18 on the post-test indicating a move towards jazz being a male domain.

Very little change was seen in the responses from males. One male (4%) strongly disagreed on the pre-test. This remained on the post-test, but one male selected “disagree.” The mean of 1.52 shifted only .02 points to 1.5 on the post-test. This represents the smallest shift in males’ perception of jazz being a male domain decreasing.

18. I would have more faith in the jazz performance of a man than a woman.

![Figure 4.29 Pre-test and Post-test means for statement #18.](image)

For this statement, a response of “agree” or “strongly agree” would indicate a perception that jazz is a male domain. On the pre-test, only one female (5%) agreed. On the post-test, two females (9%) strongly agreed. With the pre-test mean of 4.36 and the post-test mean of 4.18, the mean shifted .18 points towards jazz being a male domain.
The number for males remained constant with two males (9%) agreeing on the pre-test and post-test. With the pre-test mean of 4.09 and the post-test mean of 4.22, the mean shifted .13 towards jazz not being a male domain.

24. Women who enjoy studying jazz are a little strange.

Figure 4.30 Pre-test and Post-test means for statement #24.

For this statement, a response of “agree” or strongly agree” would indicate a perception of jazz as a male domain. Responses remained constant for females with none agreeing or strongly agreeing on the pre-test or post-test. With a pre-test mean of 4.91 and a post-test mean of 4.77, however, the mean shifted .14 points towards jazz being a male domain.

One male (4%) agreed with this statement on the pre-test. This number increased to two (9%) on the post-test. The mean, however, shifted .26 points towards jazz not being a male domain as the pre-test mean of 4.3 moved to 4.56 on the post-test.
28. Females are as good as males in jazz performance.

<table>
<thead>
<tr>
<th></th>
<th>PreTest</th>
<th>PostTest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>1.05</td>
<td>1.14</td>
</tr>
<tr>
<td>Males</td>
<td>1.52</td>
<td>1.61</td>
</tr>
</tbody>
</table>

Figure 4.31 Pre-test and Post-test means for statement #28.

For this statement, a response of “disagree” or “strongly disagree” would indicate a perception that jazz is a male domain. There was little movement among females with none disagreeing or strongly disagreeing on the pre-test or post-test. With the pre-test mean of 1.05 moving to 1.14 on the post-test, there was a shift of .09 towards jazz being a male domain.

There was a small change for males. Only one male (4%) strongly agreed on the pre-test. Two males (9%) did so on the post-test. This produced a similar shift in mean as the female response. With a pre-test mean of 1.52 and a post-test mean of 1.61, there was a shift towards jazz being a male domain by .09 points.
31. Females are smart enough to do well in the field of jazz performance.

For this statement, a response of “disagree” or “strongly disagree” would indicate a perception that jazz is a male domain. Like the last statement, there was very little movement among females with none disagreeing or strongly disagreeing on the pre-test or post-test. A shift of .09 in the mean towards jazz being a male domain occurred as the pre-test mean of 1.05 moved to 1.14 for the post-test.

Again, there was a little movement for males. Two males (9%) strongly disagreed on the pre-test. This number fell to only one (4%) on the post-test, but one more male disagreed on the post-test than on the pre-test. This did not produce any change in the mean as both the pre-test and post-test mean equaled 1.52.

Figure 4.32 Pre-test and Post-test means for statement #31.
36. I would expect a woman jazz musician to be a forceful type of person.

   Upon review, the researcher decided to disregard this statement. Attempting to modify this from the original Fennema-Sherman scale, the significance is lost in translation.

38. Studying jazz is just as good for women as men.

   Figure 4.33 Pre-test and Post-test means for statement #38.

   For this statement, a response of “disagree” or “strongly disagree” would indicate a perception of jazz being a male domain. There was little movement for females as none disagreed or strongly disagreed on the pre-test or the post-test. A pre-test mean of 1 moving to a post-test mean of 1.09 produced a .09 shift towards jazz being a male domain.

   There was a small change for males. Two males (9%) disagreed or strongly disagreed on the pre-test. This increased to three (13%) on the post-test. With a pre-test
mean of 1.57 moving to a post-test mean of 1.52, there was a shift of .05 towards jazz not being a male domain.

46. I would trust a female just as much as I would trust a male to perform jazz.

![Bar Chart]

Figure 4.34 Pre-test and Post-test means for statement #46.

For this statement, a response of “disagree” or “strongly disagree” would indicate a perception of jazz being a male domain. There was very little movement for females as none disagreed or strongly disagreed on the pre-test or the post-test. There was a shift of .04 towards jazz being a male domain with a pre-test mean of 1.14 moving to a post-test mean 1.18.

There was a bigger change for males. One male (4%) strongly disagreed on the pre-test. This increased to two (9%) who disagreed or strongly disagreed on the post-test. A pre-test mean of 1.48 moving to a post-test mean of 1.65 produced a shift of .17 points toward jazz being a male domain.
Table 4.7 Measures of Central Tendency for the subcategory, “Jazz as a Male Domain.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Male Pre-test</th>
<th>Male Post-test</th>
<th>Female Pre-test</th>
<th>Female Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Males are not naturally better than females in the field of jazz.</td>
<td>2.17 2 1</td>
<td>2.13 2 1</td>
<td>1.82 1.5 1</td>
<td>2 1 1</td>
</tr>
<tr>
<td>9. It is hard to believe that females can achieve high levels in the field of jazz performance.</td>
<td>4.78 5 5</td>
<td>4.61 5 5</td>
<td>4.73 5 5</td>
<td>4.59 5 5</td>
</tr>
<tr>
<td>11. When a woman has to perform jazz, she should ask a man for help.</td>
<td>4.52 5 5</td>
<td>4.22 5 5</td>
<td>4.73 5 5</td>
<td>4.61 5 5</td>
</tr>
<tr>
<td>15. Females and males are equal in the field of jazz.</td>
<td>1.52 1 1</td>
<td>1.50 1 1</td>
<td>1 1 1</td>
<td>1.18 1 1</td>
</tr>
<tr>
<td>18. I would have more faith in the jazz performance of a man than a woman.</td>
<td>4.09 4.5 5</td>
<td>4.22 5 5</td>
<td>4.36 5 5</td>
<td>4.18 5 5</td>
</tr>
<tr>
<td>24. Women who enjoy studying jazz are a little strange.</td>
<td>4.30 5 5</td>
<td>4.56 5 5</td>
<td>4.91 5 5</td>
<td>4.77 5 5</td>
</tr>
<tr>
<td>28. Females are as good as males in jazz performance.</td>
<td>1.52 1 1</td>
<td>1.61 1 1</td>
<td>1.05 1 1</td>
<td>1.14 1 1</td>
</tr>
<tr>
<td>31. Females are smart enough to do well in the field of jazz performance.</td>
<td>1.52 1 1</td>
<td>1.52 1 1</td>
<td>1.05 1 1</td>
<td>1.14 1 1</td>
</tr>
<tr>
<td>38. Studying jazz is just as good for females as males.</td>
<td>1.57 1 1</td>
<td>1.52 1 1</td>
<td>1 1 1</td>
<td>1.09 1 1</td>
</tr>
<tr>
<td>46. I would trust a female just as much as I would trust a male to perform jazz.</td>
<td>1.48 1 1</td>
<td>1.65 1 1</td>
<td>1.14 1 1</td>
<td>1.18 1 1</td>
</tr>
</tbody>
</table>
Table 4.8 Responses sorted by change of mean scores for the subcategory, “Jazz as a Male Domain.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Males</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Females</th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test Mean</td>
<td>Difference</td>
<td>Post-test Mean</td>
<td></td>
<td>Pre-test Mean</td>
<td>Difference</td>
<td>Post-test Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increase in Jazz as a Male Domain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. When a woman has to perform jazz, she should ask a man for help.</td>
<td>4.52</td>
<td>0.3</td>
<td>4.22</td>
<td></td>
<td>1.82</td>
<td>0.18</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. It is hard to believe that females can achieve high levels in the field of jazz performance.</td>
<td>4.78</td>
<td>0.17</td>
<td>4.61</td>
<td></td>
<td>4.36</td>
<td>0.18</td>
<td>4.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. I would trust a female just as much as I would trust a male to perform jazz.</td>
<td>1.48</td>
<td>0.17</td>
<td>1.65</td>
<td></td>
<td>1.05</td>
<td>0.09</td>
<td>1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Females are as good as males in jazz performance.</td>
<td>1.52</td>
<td>0.09</td>
<td>1.61</td>
<td></td>
<td>1.52</td>
<td>0.0</td>
<td>1.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No Change in Jazz as a Male Domain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Females are smart enough to do well in the field of jazz performance.</td>
<td>1.52</td>
<td>0</td>
<td>1.52</td>
<td></td>
<td>1.05</td>
<td>0.09</td>
<td>1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Decrease in Jazz as a Male Domain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Women who enjoy studying jazz are a little strange.</td>
<td>4.3</td>
<td>0.26</td>
<td>4.56</td>
<td></td>
<td>4.91</td>
<td>0.14</td>
<td>4.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. When a woman has to perform jazz, she should ask a man for help.</td>
<td>4.09</td>
<td>0.13</td>
<td>4.22</td>
<td></td>
<td>4.73</td>
<td>0.12</td>
<td>4.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Females are as good as males in jazz performance.</td>
<td>1.57</td>
<td>0.05</td>
<td>1.52</td>
<td></td>
<td>1.05</td>
<td>0.09</td>
<td>1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. Studying jazz is just as good for females as males.</td>
<td>1.52</td>
<td>0.02</td>
<td>1.5</td>
<td></td>
<td>1.14</td>
<td>0.04</td>
<td>1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Males are not naturally better than females in the field of jazz.</td>
<td>2.17</td>
<td>0.04</td>
<td>2.13</td>
<td></td>
<td>1</td>
<td>0.09</td>
<td>1.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Females and males are equal in the field of jazz.</td>
<td>1.52</td>
<td>0.02</td>
<td>1.5</td>
<td></td>
<td>1.14</td>
<td>0.04</td>
<td>1.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary of subset “jazz as a male domain”

This subcategory proved to be the most polarizing with responses from both males and females being consistently recorded near “1” or “5.” Surprisingly, females’ perception of jazz as a male domain increased throughout the study. While every female in class would reject jazz as a male domain, responses to every statement indicated an increase in the perception as jazz being a male domain by an average of .13 points.

For males, four statements indicated a move (an average shift of .18) towards jazz being a male domain, one statement produced no change in mean, and five statements indicated a move (an average shift of .10) towards jazz not being a male domain. While neither gender accepted the notion that jazz is a male domain, males provided scores closer to this idea on nine of the ten statements.

Subcategory: Perception of teacher’s attitude

2. My teachers have been interested in my progress in jazz performance.

![Figure 4.35 Pre-test and Post-test means for statement #2.](image-url)
For this statement, a response of “agree” or “strongly agree” would indicate a positive perception of the teacher’s attitude. Females indicated an improvement through the study. Nine females (41%) responded with “agree” or “strongly agree” on the pre-test. This increased to eleven (50%) on the post-test. Males also indicated a more positive perception through the study. Thirteen males (57%) responded “agree” or “strongly agree” on the pre-test. Fifteen males (65%) provided the same response on the post-test.

Females produced a pre-test mean of 2.68. This mean shifted .13 points to 2.55 on the post-test. Males produced a pre-test mean of 2.35 that moved to 2.17 for the post-test. This shift of .18 points was the biggest positive change in perception of teachers’ attitude for males.

7. Getting a teacher to take me seriously as a jazz musician is a problem.

Figure 4.36 Pre-test and Post-test means for statement #7.
For this statement, a response of “disagree” or “strongly disagree” would indicate a positive perception of the teacher’s attitude. Females indicated a more positive response through the study. Fourteen females (64%) responded with a “disagree” or “strongly disagree” on the pre-test. This number increased to eighteen (82%) on the post-test. This resulted in a shift of .04 points from a pre-test mean of 4.05 to a post-test mean of 4.09.

On the contrary, males indicated an opposite reaction. Nineteen males (83%) responded “disagree” or “strongly disagree” on the pre-test. This number fell to fifteen (65%) on the post-test. This decline in perception of teacher’s attitude is also demonstrated in the movement of the mean. The pre-test mean of 4.13 shifted .22 points to a post-test mean of 3.91.

14. I would talk to my music teachers about a career that uses jazz.
For this statement, a response of “agree” or “strongly agree” would indicate a positive perception of the teacher’s attitude. On the pre-test, twelve females (55%) responded “agree” or “strongly agree.” Though two more responded “strongly agree” on the post-test, three fewer responded “agree” for a total of only eleven (50%) to respond positively on the post-test. Overall, the perception of teachers’ attitude improved as the pre-test mean of 2.5 shifted .14 points to 2.36 on the post-test.

The change in the perception of males is more noticeable. The pre-test produced eighteen males (78%) who responded “agree” or “disagree” compared to only fifteen males (65%) who did so on the post-test. This resulted in a pre-test mean of 2.08 and a post-test mean of 2.34. This shift of .26 points indicates a declining perception of teachers’ attitudes.

16. It's hard to get music teachers to respect me.

Figure 4.38 Pre-test and Post-test means for statement #16.
For this statement, a response of “disagree” or “strongly disagree” would indicate a positive perception of the teacher’s attitude. Females showed a decrease throughout the study. Eighteen females (82%) responded “disagree” or “strongly disagree” on the pre-test. This number increased to seventeen (77%) on the post-test. This resulted in a .04 point shift of the mean from 4.36 on the pre-test to 4.32 on the post-test.

Males moved in the same direction, but by a larger interval. Twenty males (87%) responded “disagree” or “strongly disagree” on the pre-test. This number decreased to seventeen (74%) on the post-test. Starting with a pre-test mean of 4.3 and ending with a post-test mean 4.04, the shift of .26 points is tied with #14 as the statement that produced the greatest negative movement for males in this subcategory.

20. My teachers have encouraged me to study more jazz.

Figure 4.39 Pre-test and Post-test means for statement #20.
For this statement, a response of “agree” or “strongly agree” would indicate a positive perception of the teacher’s attitude. Females showed an increase throughout the study. Fourteen females (64%) responded “agree” or “strongly agree” on the pre-test. This number increased to sixteen (73%) on the post-test. Starting with a pre-test mean of 2 and ending with a post-test mean of 1.86, a shift of .14 points demonstrates an improved perception of teachers’ attitudes.

Again, the males went in the opposite direction. Twenty males (87%) responded “agree” or “strongly agree” on the pre-test. This number declined to sixteen (70%) on the post-test. Moving from a pre-test mean of 1.74 to a post-test mean of 1.91, a shift of .17 points indicates a decline in the perception of teachers’ attitudes.

22. I have a hard time getting teachers to talk seriously with me about jazz.

Figure 4.40 Pre-test and Post-test means for statement #22.
For this statement, a response of “disagree” or “strongly disagree” would indicate a positive perception of the teacher’s attitude. Sixteen females (73%) responded “disagree” or “strongly disagree” on the pre-test. This number increased to seventeen (77%) on the post-test. This resulted in a pre-test mean of 4.14 moving to a post-test mean of 4.23. The shift of .09 indicates an improved perception of teacher’s attitudes.

Eighteen males (78%) responded “disagree” or “strongly disagree” on the pre-test. This number decreased to seventeen (74%) on the post-test. Despite this change, the mean did not shift. Both the pre-test and post-test produced a mean of 4.04.

26. My teachers think studying jazz will be a waste of time for me.

![Figure 4.41 Pre-test and Post-test means for statement #26.](image)

For this statement, a response of “disagree” or “strongly disagree” would indicate a positive perception of the teacher’s attitude. Females remained constant with seventeen (77%) responding “disagree” or “strongly disagree” on the pre-test and post-test. The
mean, however, shows a small decline in their perception of their teachers’ attitudes. The pre-test mean of 4.27 shifted .09 to 4.18 on the post-test.

Males demonstrated a greater decline in their perception of their teachers’ attitudes. Twenty males responded “disagree” or “strongly disagree” on the pre-test. This number increased to twenty-one (91%) on the post-test. The mean shifted .16 points starting with a pre-test mean of 4.68 and ending with a post-test mean of 4.52.

30. I feel that music teachers ignore me when I try to talk about something serious.

Figure 4.42 Pre-test and Post-test means for statement #30.

For this statement, a response of “disagree” or “strongly disagree” would indicate a positive perception of the teacher’s attitude. Sixteen females (73%) responded “strongly disagree” on the pre-test. This number increased eighteen (82%) who disagreed or strongly disagreed on the post-test. Overall, the mean shifted .18 points.
from the pre-test mean of 4.18 to the post-test mean of 4.36, indicating an improvement in the perception of teachers’ attitudes.

While there was a shift between “disagree” and “strongly disagree” the composite number remained at eighteen (78%) on the pre-test and post-test for males. Overall, the mean shifted .13 points from the pre-test mean of 4.13 to the post-test mean of 4, indicating a decline in the perception of teachers’ attitudes.

35. My teachers want me to take all the jazz instruction I can.

![Figure 4.43 Pre-test and Post-test means for statement #35.](image)

For this statement, a response of “agree” or “strongly agree” would indicate a positive perception of the teacher’s attitude. Females showed an improved perception of teachers’ attitudes throughout the study. Eight females (36%) responded “agree” or “strongly agree” on the pre-test. This number increased to ten (45%) on the post-test. The mean shifted .19 points from the pre-test mean of 2.64 to the post-test mean of 2.45.
For males, the responses remained exactly the same on the pre-test and post-test. Thirteen males (57%) responded “agree” or “strongly agree” on the pre-test and post-test. This lack of change is also reflected in the mean that did not move. Males’ responses on both the pre-test and post-test produced a mean of 2.39.

40. My teachers would not take me seriously if I told them I was interested in a career in jazz.

![Figure 4.44 Pre-test and Post-test means for statement #40.](image)

For this statement, a response of “disagree” or “strongly disagree” would indicate a positive perception of the teacher’s attitude. Females showed no change with sixteen (73%) responding “disagree” or “strongly disagree” on the pre-test and post-test. The mean, however, changed .05 points from the pre-test mean of 4.23 to the post-test mean of 4.18 indicating a small decline in the perception of teachers’ attitudes.
Males showed little change. Nineteen responded “disagree” or “strongly disagree” on the pre-test and post-test. Indicating an improved perception of teachers’ attitudes, the mean shifted .09 points from the pre-test mean of 4.30 to the post-test mean of 4.39.

45. Music teachers have made me feel I have the ability to go on in jazz.

![Figure 4.45 Pre-test and Post-test means for statement #45.]

For this statement, a response of “agree” or “strongly agree” would indicate a positive perception of the teacher’s attitude. Females showed an increase going from fourteen (64%) who responded “agree” or “strongly agree” on the pre-test to fifteen (68%) who did so on the post-test. A more significant indicator may be that nine (41%) strongly agreed on the pre-test. This number grew to fourteen (64%) on the post-test. The mean shifted .27 points from the pre-test mean of 2.04 to the post-test mean of 1.77. This represents the second-largest positive shift for females in this subcategory.
Males showed a small decrease throughout the study. Seventeen (74%) agreed or strongly agreed on the pre-test. This number decreased to sixteen (70%) on the post-test. This resulted in a shift of .04 from the pre-test mean of 2.09 to the post-test mean of 2.13.

47. My teachers think I'm the kind of person who could do well in jazz.

![Figure 4.46 Pre-test and Post-test means for statement #47.](image)

For this statement, a response of “agree” or “strongly agree” would indicate a positive perception of the teacher’s attitude. Females showed an increase throughout the study. Ten (46%) agreed or strongly agreed on the pre-test compared to thirteen (59%) on the post-test. This produced a shift in the mean of .37 from the pre-test mean of 2.55 to the post-test mean of 2.18. This is the largest positive shift for females in this subcategory.

Males also showed an increase throughout the study, but not as much as females. Fourteen (61%) agreed or strongly agreed on the pre-test compared to sixteen (70%) who
did so on the post-test. This move translates to a shift in the mean of .08 from the pre-test mean of 2.17 to the post-test mean of 2.09.

Table 4.9 Measures of Central Tendency for the subcategory, “Perception of Teachers’ Attitudes.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Male Pre-test</th>
<th>Female Pre-test</th>
<th>Male Post-test</th>
<th>Female Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. My teachers have been interested in my progress in jazz performance.</td>
<td>2.35 2 1</td>
<td>2.68 3 3</td>
<td>2.17 2 1</td>
<td>2.55 2.5 3</td>
</tr>
<tr>
<td>7. Getting a teacher to take me seriously as a jazz musician is a problem.</td>
<td>4.13 4 5</td>
<td>4.05 4 5</td>
<td>3.91 4 5</td>
<td>4.09 4 5</td>
</tr>
<tr>
<td>14. I would talk to my music teachers about a career that uses jazz.</td>
<td>2.08 2 2</td>
<td>2.50 2 1 &amp; 2</td>
<td>2.34 2 2</td>
<td>2.36 2.5 1</td>
</tr>
<tr>
<td>16. It’s hard to get music teachers to respect me.</td>
<td>4.30 5 5</td>
<td>4.36 5 5</td>
<td>4.04 4 5</td>
<td>4.32 5 5</td>
</tr>
<tr>
<td>20. My teachers have encouraged me to study more jazz.</td>
<td>1.74 2 1</td>
<td>1.86 2 1</td>
<td>1.91 1 1</td>
<td>2 2 1</td>
</tr>
<tr>
<td>22. I have had a hard time getting teachers to talk seriously with me about jazz.</td>
<td>4.04 4 4 &amp; 5</td>
<td>4.14 4 5</td>
<td>4.04 4 4</td>
<td>4.23 5 5</td>
</tr>
<tr>
<td>26. My teachers think studying jazz will be a waste of time for me.</td>
<td>4.68 5 5</td>
<td>4.27 5 5</td>
<td>4.52 5 5</td>
<td>4.18 5 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>30. I feel that music teachers ignore me when I talk about something serious.</td>
<td>4.13</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>35. My teachers want me to take all the jazz instruction I can.</td>
<td>2.39</td>
<td>2</td>
<td>2</td>
<td>2.39</td>
</tr>
<tr>
<td>40. My teachers would not take me seriously if I told them I was interested in a career in jazz.</td>
<td>4.30</td>
<td>5</td>
<td>5</td>
<td>4.39</td>
</tr>
<tr>
<td>45. Music teachers have made me feel I have the ability to go on in jazz.</td>
<td>2.09</td>
<td>2</td>
<td>2</td>
<td>2.13</td>
</tr>
<tr>
<td>47. My teachers think I'm the kind of person who could do well in jazz.</td>
<td>2.17</td>
<td>2</td>
<td>1, 2, &amp; 3</td>
<td>2.09</td>
</tr>
</tbody>
</table>
Table 4.10 Responses sorted by change of mean scores for the subcategory, “Perception of Teachers’ Attitudes.”

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improved Perception of teachers’ attitude</strong></td>
<td><strong>Improved Perception of teachers’ attitude</strong></td>
</tr>
<tr>
<td>2. My teachers have been interested in my progress in jazz performance.</td>
<td>47. My teachers think I’m the kind of person who could do well in jazz.</td>
</tr>
<tr>
<td>4.3</td>
<td>2.55</td>
</tr>
<tr>
<td>4.39</td>
<td>.37</td>
</tr>
<tr>
<td>40. My teachers would not take me seriously if I told them I was interested in a career in jazz.</td>
<td>45. Music teachers have made me feel I have the ability to go on in jazz.</td>
</tr>
<tr>
<td>2.35</td>
<td>2.04</td>
</tr>
<tr>
<td>0.18</td>
<td>.27</td>
</tr>
<tr>
<td>2.17</td>
<td>1.77</td>
</tr>
<tr>
<td>47. My teachers think I’m the kind of person who could do well in jazz.</td>
<td>35. My teachers want me to take all the jazz instruction I can.</td>
</tr>
<tr>
<td>2.17</td>
<td>2.64</td>
</tr>
<tr>
<td>.08</td>
<td>0.19</td>
</tr>
<tr>
<td>2.09</td>
<td>2.45</td>
</tr>
<tr>
<td><strong>No Change in Perception of teachers’ attitude</strong></td>
<td><strong>Declined Perception of teachers’ attitude</strong></td>
</tr>
<tr>
<td>22. I have had a hard time getting teachers to talk seriously with me about jazz.</td>
<td>4.18</td>
</tr>
<tr>
<td>4.04</td>
<td>0.18</td>
</tr>
<tr>
<td>4.04</td>
<td>4.36</td>
</tr>
<tr>
<td>35. My teachers want me to take all the jazz instruction I can.</td>
<td>14. I would talk to my music teachers about a career that uses jazz.</td>
</tr>
<tr>
<td>2.39</td>
<td>2.5</td>
</tr>
<tr>
<td>0</td>
<td>0.14</td>
</tr>
<tr>
<td>2.39</td>
<td>2.36</td>
</tr>
<tr>
<td><strong>Declined Perception of teachers’ attitude</strong></td>
<td><strong>Declined Perception of teachers’ attitude</strong></td>
</tr>
<tr>
<td>14. I would talk to my music teachers about a career that uses jazz.</td>
<td>20. My teachers have encouraged me to study more jazz.</td>
</tr>
<tr>
<td>2.08</td>
<td>2.68</td>
</tr>
<tr>
<td>0.26</td>
<td>0.13</td>
</tr>
<tr>
<td>2.34</td>
<td>2.55</td>
</tr>
<tr>
<td>26. My teachers think studying jazz will be a waste of time for me.</td>
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</tr>
<tr>
<td>4.68</td>
<td>4.27</td>
</tr>
<tr>
<td>0.16</td>
<td>0.09</td>
</tr>
<tr>
<td>4.52</td>
<td>4.18</td>
</tr>
<tr>
<td>40. My teachers would not take me seriously if I told them I was interested in a career in jazz.</td>
<td>16. It’s hard to get music teachers to respect me.</td>
</tr>
<tr>
<td>4.13</td>
<td>4.36</td>
</tr>
<tr>
<td>0.13</td>
<td>0.04</td>
</tr>
<tr>
<td>4</td>
<td>4.32</td>
</tr>
<tr>
<td>30. I feel that music teachers ignore me when I talk about something serious.</td>
<td>45. Music teachers have made me feel I have the ability to go on in jazz.</td>
</tr>
<tr>
<td>4.13</td>
<td>2.09</td>
</tr>
<tr>
<td>0.13</td>
<td>.04</td>
</tr>
<tr>
<td>4</td>
<td>2.13</td>
</tr>
</tbody>
</table>
Summary of subset “Perception of teacher’s attitude”

Of the twelve statements, females showed an increase in positive teacher attitude for nine (an average shift of .17 points) and a decrease in three (an average shift of .06). Males demonstrated very different results. Males showed an increase for only three (an average shift of .12) of the twelve statements. There was no change for two statements, but males responded with a decrease in teacher attitude for seven (an average shift of .18 points) of the twelve statements. Overall, males indicated a more positive perception of teacher attitudes for seven of the statements and females indicated a more positive perception of teacher attitudes for five of the statements.

Interpretation of Results of the Study

Voluntary Participation

This Action Research Study required student-participants to study and perform the researcher’s arrangement of Duke Ellington’s adaptation of Tchaikovsky’s The Nutcracker Suite. While the chosen literature was presented as part of the class curriculum for all to study, students were allowed to choose if they wanted to complete the Fennema-Sherman Attitude Scale that was modified for the study. Students who preferred to abstain from completing the survey were not penalized by any method. Of the 46 students in class, 45 completed the pre-test and post-test for a participation rate of 98%.
**Confidentiality**

This study poses a very low risk for identification. Student-participants are only identified by their gender and primary instrument. Most sections are large enough to make identifying an individual impossible. Collected data, however, will be stored in the researcher’s Google Drive.

Identifying information will remain confidential at all times. The results of this study will be published in a dissertation and potentially shared with interested parties. No identifying information will be provided at any time.

**Reflection**

The researcher presented all of the above information to the collaborating band director and the student-participants. Covering one subcategory at a time, we started with “confidence.”

Of the twelve statements that comprised the subcategory of “confidence while performing jazz,” females showed an increase of confidence in seven, no change in one, and a decrease in four. Males showed an increase in eight and a decrease in four. Interestingly, males demonstrated a higher level of confidence than females for every statement. Encouraged by the increase in confidence while performing jazz, the researcher found it interesting that males indicated a higher level of confidence on the pre-test and post-test for eleven of the twelve statements. Wanting feedback from the student-participants, the researcher asked why they thought this was the case.

A female French horn (a brass instrument not typically found in a jazz ensemble) player responded that their experience with jazz, while enjoying the study of the
Ellington, was still very limited. Compared to the other students (mostly males playing the traditional jazz instruments), they were still unsure of their abilities. Another female French horn player added that most of the females in the room did not play “jazz instruments.” Again, their experience was limited.

A female bassoonist then explained that teenage females are easily influenced by what they see. For example, they tend to copy whatever they see in magazines and on television. There are no female jazz instrumentalists they can model. The only female jazz musicians they have seen have all been vocalists. The researcher found this point to be very strong. This exact situation is discussed in the literature review in Chapter Two, but it is not something that was discussed with the student-participants.

Overall, the subcategory of “usefulness of jazz performance skills” provided conflicting results between females and males. Females indicated an increase in the usefulness of jazz on eight of the twelve statements and a decrease on four of the twelve. Males indicated an increase in the usefulness of jazz on only three of twelve questions and a decline in nine. Despite the movement in opposite directions, males demonstrated a greater value for the usefulness of jazz on nine of the twelve statements.

After asking the student-participants for input on these results, the researcher received one answer from a female flutist and then the class agreed. The student argued that this is closely related to the subcategory of “confidence.” Young females do not have a model of a female jazz musician. In their mind, it is not a possibility so why would they find jazz performance practices useful?

The subcategory of “jazz as a male domain” received the strongest responses. Generally speaking, both males and females rejected the idea of jazz as a male domain.
Of the ten statements, females did not change on seven. For six of these seven, not a single female perceived jazz as a male domain. Examining the means, however, females demonstrated a small shift towards jazz being a male domain on nine of the ten statements. Males’ perception of jazz as a male domain increased for four of the statements, did not change for one statement, and decreased for five statements.

As females disagreed so much with the idea of jazz as a male domain, it created what seemed to be an inconsistent response when compared to the other three subcategories where males responded with a more positive perspective. A female oboist put forth that the answer was not necessarily inconsistent. She received many nods of agreement when she said that, personally, she did not feel strong in the genre of jazz, but that did not mean that females, in general, could not be strong jazz musicians.

Of the twelve statements in the subcategory of “perception of teacher attitude,” females showed an increase in positive teacher attitude for nine and a decrease in three. Males demonstrated different results. Males showed an increase for only three of the twelve statements. There was no change for two statements, but males responded with a decrease in teacher attitude for seven of the twelve statements.

Responding to this information, a male saxophonist stated that he felt that it still boiled down to instrumentation. Though everyone studied the Ellington, the vast majority of non-jazz instruments are played by females who feel that they still would not do well in jazz because their instrument is not featured in the genre. A male euphonium player added that the majority of jazz teachers are male. In our district, the leaders in jazz education are all male. In our state, the same holds true. There are no models for young female students to emulate.
The responses of the student-participants after being presented with the results of their surveys support Delzell’s (1994) position. The selection or assignment of an instrument in the sixth-grade beginning band class for these students, a decision that decided if they would play a “jazz” instrument or a “non-jazz” instrument, directly affected their playing opportunities for years to come. These opportunities, or the lack thereof, influenced educational experiences and their levels of confidence, perceptions of usefulness, and their perception of their teacher. Is it possible to change these results simply by changing the assignment of instruments in the beginning band class?

**Conclusions**

The goal of creating a high quality jazz arrangement for concert band by a prominent American composer was obtained. The collaborating band director was impressed by the piece and all students indicated that they enjoyed the work and wanted to study more movements in the future. Additionally, there were indications that the study was successful in increasing females’ confidence in jazz performance.

While males and females overwhelmingly rejected the idea that jazz is a male domain, males provided a more positive response in the subcategories of “confidence,” “usefulness of jazz,” and “perception of teacher’s attitude.” Females’ less-positive responses are due to two major issues:

1. The continuing trend of females to choose or be assigned to “non-jazz” instruments such as flute, clarinet, and oboe when they are enrolled in beginning band courses in middle school. This one decision determines performing opportunities for many years to follow.
2. The lack of prominent females in the world of jazz and in band director positions.

To affect positive change, the researcher recommends that middle school band directors should put forth a greater effort to balance their instrumentation by gender by encouraging females to play traditionally “male” instruments (brass). In order to accomplish this, directors will need to provide examples of successful females performing on traditionally “male” instruments and creating role models for younger student-musicians through mentorship programs with high school band programs.
Chapter V: Summary and Discussion

Introduction

Utilizing an action research methodology, the researcher examined the effects of studying jazz in a concert band setting in order to understand the impact on student-participants’ perceptions of confidence performing jazz, the usefulness of jazz performance skills, jazz as a male domain, and teachers’ attitudes towards jazz. This chapter provides an overview of the research problem, research question, methodology focus of the study, overview of the study, summary of the study, discussion of major points of the study, action plan and implications of the findings, and suggestions for future research.

Problem of Practice

Cane Bay High School’s band program operates with the concert band at the center of the program just as Leopold (2008) describes, “In most of America's secondary schools, participation in big ensembles -- whether concert band or chorus -- remains the principal way that school programs involve students in music” (para. 2). Most wind and percussion instrumentalists are members of this group that meets every day during the school day. Due to the concert band being inclusive of all wind and percussion instruments and meeting on a regular basis, the concert band is used as the primary vehicle for music education. Typically, this ensemble focuses on general technique and
study of Western European-inspired classical music rather than jazz. This results in many students not being exposed to jazz, a uniquely American art form. Furthermore, it is rare for women to hold positions as jazz instrumentalists or high school and college band directors. This action research study will describe the perceptions of student-participants who participate in the preparation and performance of an arrangement by the researcher of a Duke Ellington adaptation of Tchaikovsky’s *The Nutcracker Suite*. In particular, perceptions of female and male participants were compared and analyzed to determine the effects of studying jazz in a concert band setting at Cane Bay High School.

**Research Question**

The question that guided this quantitative action research study was: What are high school-level music students’ perceptions of Duke Ellington’s *The Nutcracker Suite* in terms of their confidence levels to perform jazz, their perceptions of the usefulness of jazz performance skills, the perceptions of jazz as a male domain, and their perceptions of their teacher’s attitude?

**Focus of the Study**

For this study, Cane Bay High School, a high school band program that is supervised by the researcher, was utilized. Collaborating with the band director, this action research provided opportunities to team-teach and create a foundation to build a Professional Learning Community.
Action research was used as the methodological approach. This study focused not only on developing a high-quality piece of jazz literature for study, but also on the effects it had on students’ perception of jazz. To measure the effects, the researcher utilized a modified Fennema-Sherman Attitude Scale in order to quantify changes in perceptions of confidence performing jazz, the usefulness of jazz performance skills, jazz as a male domain, and teachers’ attitudes towards jazz.

Using a Likert scale to respond to prompts where 1 = “Strongly Agree” and 5 = “Strongly Disagree,” student-participants completed the scale before being introduced to the music and again, after the performance. For the purpose of analysis, questions were grouped by subcategories and examined to determine any differences between the pre-test and the post-test. The results were shared with the collaborating band director and used to determine possible changes to the curriculum that could produce a more inclusive environment for females.

**Overview of the Study**

This six-week study began with the administration of a Modified Fennema-Sherman Attitude Scale to gauge students’ perceptions concerning confidence when performing jazz, the usefulness of jazz, jazz as a male domain, and their perception of their teacher’s attitude. Students then rehearsed the first and fourth movements of Duke Ellington’s *The Nutcracker Suite* as arranged for concert band by the researcher.
Rehearsals were lead by the researcher and collaborating band director and held during the regularly scheduled class time during the school day. During rehearsals, issues such as balance and sound of the ensemble, subdivision of the beat to create a “swing” eighth note, articulation to create a proper “swing” style, and improvisation techniques were addressed.

The researcher met with the collaborating band director and discussed pedagogical issues and interpretation before and after rehearsals. After the six-week study, students completed the Modified Fennema-Sherman Attitude Scale again in order to measure changes in any of the four subcategories described above.

After the researcher organized and analyzed the data from the pre-test and post-test, the results were presented to the collaborating band director and his students. Their reactions were noted and included in Chapter Four.

In general, females consistently responded less favorably than males for “confidence” and “usefulness” performing jazz. As the students explained during the reflection, much of this perception is due to the instruments that females chose or were assigned in their beginning band classes in middle school.

Most females studied instruments such as flute, clarinet, and oboe that are not featured prominently in jazz bands or marching bands. This explanation reinforces Delzell’s (1994) argument that performance and educational opportunities are greatly determined by decisions made in the beginning band class. “Female” instruments such as flute and clarinet, due to only being featured in concert bands and orchestras, do not provide the opportunities that “male” instruments do. By virtue of choosing or being assigned a brass or percussion instrument in beginning band, most males gain
performance and educational opportunities that provide advantages when interviewing for jobs.

Given the response from the students at Cane Bay High School, very little has changed since 1994. Studying Ellington’s *The Nutcracker Suite* provided a vehicle to introduce jazz, but unless jazz is a consistent portion of the literature studied in the concert band class, it will have little impact on perceptions. It seems that the first and most crucial step to leveling the field between males and females is to encourage more females to play saxophone and brass instruments so that they will have more opportunities to perform jazz.

There is one issue of concern for the researcher with the assessment tool. Mertler (2014) stated, “Rating scales can be used very effectively to measure students’ attitudes, perceptions, or behaviors” (p. 140). He continued to explain that there is disagreement about using a neutral point on the scale:

By including it, you allow your respondents to indicate that they truly are neutral or have no opinion, if in fact that is the case for them. However, if provided with a neutral option, there is a tendency for people *not* to think much about how they truly feel; they simply select the neutral option, which may not represent their true belief. (p. 140)

This point is a concern in this study as, for the following statements on the survey, the neutral answer gained more responses than any other option on the pre-test, post-test, or both:

2. My teachers have been interested in my progress in jazz performance.

3. Knowing jazz performance practices will help me earn a living.
4. I don't think I can perform jazz.

5. Jazz will not be important to me in my life's work.

8. Jazz performance is hard for me.

10. I'll need jazz performance skills for my future work.

12. I am sure of myself when I play jazz.

23. Jazz has been my worst subject.

25. I think I could handle more difficult jazz literature.

32. Most subjects I can handle OK, but I just can't do a good job with jazz performance.

35. My teachers want me to take all the jazz instruction I can.

42. Jazz is not important for my life.

43. I'm no good in jazz.

44. I study jazz because I know how useful it is.

47. My teachers think I'm the kind of person who could do well in jazz.

Sometimes, this response was selected more by males than females, but for most of these statements, it was females that remained neutral.

Simply using the median or mode from responses provided a number that did not clearly indicate the change of perception between pre-test and post-test. Using the mean produced a number that allowed one to see a general shift, but did not always produce a clear picture. As Mertler (2014) asserted, “This average rating is essentially worthless when we try to interpret its meaning” (p. 170). For these reasons, the researcher also examined the difference in the number of responses for “strongly agree” and
“agree” or “disagree” and “strongly agree.” Focusing in this manner provided a clearer picture of the changing perceptions throughout the study.

**Action Plan: Implications of the Findings**

After reviewing the data obtained from the pre-test and post-test of the Modified Fennema-Sherman Scale and reflecting on the results with the band director and students, two points have emerged:

1. Generally speaking, band directors assign and students select instruments based on gender. Females tend to choose or be assigned to instruments such as flute, clarinet, and oboe, instruments that are not featured prominently in jazz ensembles or marching bands. Males tend to choose or be assigned to brass instruments and saxophone that are featured prominently in jazz ensembles and marching bands. The selection of an instrument at such a young age plays a significant role in the opportunities available to student musicians as they mature. “Male” instruments provide more variety of performance opportunities than “female” instruments thus increasing confidence and perceptions of usefulness. In order to increase female participation in the ranks of high school and college band director positions, current band directors must make a point of encouraging young female students to learn traditionally “male” instruments.

2. The positive influence of female role models is essential to encourage female students to continue into the profession of high school and college band director. In this study, students cited the lack of female professional jazz musicians as a reason for never considering the option of pursuing jazz as a career.
To address the challenges of gendered instrument assignments, action must take place in middle school where students typically have their first encounters with instrumental music education. Recruiting students is not an issue as over half the band students at Cane Bay Middle School are female. Overcoming the perception of “female” and “male” instruments is the major issue. In order to encourage female students to learn “male” instruments, the following action plan will be implemented:

1. At the beginning of the school year, approximately one month is devoted to basic skills such as reading pitches and rhythms while instruments are introduced to students and mouthpiece testing occurs. During this time, students will watch videos that feature accomplished females performing on traditional “male” instruments in classical and jazz settings. Artists will include Vi Redd (saxophone), Lauren Meccia (saxophone), Melissa Aldana (saxophone), Amy Dickson (saxophone), Alison Balsom (trumpet), Tine Thing Helseth (trumpet), Ingrid Jenson (trumpet), Bria Skonberg (trumpet), Susan Slaughter (trumpet), Maite Hontele (trumpet), Melba Liston (trombone), Annie Whitehead (trombone), Linda Small (trombone), Audrey Morrison (trombone), Rebecca Cheriah (trombone), Abbie Conant (trombone), Carol Jantsch (tuba), Velvet Brown (tuba), Avital Handler (tuba), Terri Lyne Carrington (percussion), Cindy Blackman Santana (percussion), and Senri Kawaguchi (percussion).

2. Currently, Wednesday afternoons are reserved for “extra-help” sessions and chamber music at Cane Bay Middle. This day is also a “rest” day from marching band at Cane Bay High School. Beginning in September, a mentor program will be implemented where female high school band members will visit the middle
school on Wednesdays after school to assist with instruction and provide role models for the middle school female students.

3. During the course of the year, middle school band students will watch videos of professional female conductors in performance. Conductors will include Marin Alsop, Gisèle Ben-Dor, Odaline de la Martinez, Sian Edwards, JoAnn Falletta, and Jane Glover.

4. Through the annual Berkeley County Band Clinic and Berkeley County Concert Performance Assessment, women will be featured as conductors, judges, and clinicians. These positions will include educators such as Margaret Underwood (Western Carolina University), Lorrie Crochet (Winthrop University), Edna Grace (Stratford High School), and Susan Alexander (retired, Travelers Rest High School).

Through the measures listed above, middle school students will be able to learn about females in the field of music who are successful in positions typically occupied by males. They will also gain a support system from older female musicians at the high school. The number of female students who elect to play “male” instruments and the retention rate will be measured annually to determine the efficacy of these changes in the program.
Suggestions for Future Research

The music curriculum used for most high school and college band programs is focused on European and European-inspired music. This may be explained by examining who is teaching music. Palmer (2011) points out that 94% of music teacher educators in higher learning are white and that the vast majority of PK-12 public school teachers in the United States and Canada are from white, middle-class backgrounds (p. 2). This is easily explained by examining college and university programs that train music educators. Schools of music in the United States focus primarily on the study of European-inspired music. Auditioning with alternative forms of music such as gospel, mariachi, or jazz are generally unacceptable. Bradley (2007) notes:

Our music education curricula continue to validate and recognize particular (white) bodies, to give passing nods to a token few “others,” and to invalidate many more through omission. The western musical canon predominates our curricula, while we continue to argue whether popular music should have a place in what our students learn, and which styles of popular music are “appropriate.” Musical practices from around the world remain marginalized as curricular add-ons, if acknowledged at all. (p. 134)

Using the college audition as a guide for what to teach, high school band directors focus their studies on European traditions. The cycle fuels itself and continues to limit access to all students. Koza (2009) furthers this argument:
Stringent and restrictive notions of what constitutes musical competence, together with narrow definitions of legitimate musical knowledge, shut out potential teachers from already underrepresented culture groups and are tying the hands of teacher educators at a time when greater diversity, both perspectival and corporeal, is needed in the music teaching pool. (p. 85)

Palmer (2011) suggests broadening the acceptable forms of music to include genres outside the Western-European tradition (p. 19). This will begin to allow more minorities to participate in teacher training programs and may begin to change the curriculum of high school programs.

This change will require students to be more familiar with a greater variety of musical genres, including jazz. Could the inclusion of jazz literature in the concert band classroom help prepare students for these potential new standards? Could the inclusion of jazz literature encourage more minorities to continue their studies in college? These questions are guiding the researcher’s future studies.

**Conclusion**

In an increasingly pluralistic society, there is a need for music teachers to teach in a variety of cultural styles and musical traditions in order to connect with various cultural groups. This requires recognition of music as a socio-cultural activity, rather than merely one that is aesthetic and contemplative. (Palmer, 2011, p. 10) The study of Duke Ellington’s *The Nutcracker Suite* proved effective in increasing the confidence and perception of usefulness of jazz for female student-participants. Despite this increase, males responded more positively on the pre-test and post-test. During the reflection period, students stated that more opportunities to study jazz would be needed in
order for them to feel more confident with jazz performance practices. As many females perform on “non-jazz” instruments, jazz arrangements for concert band could be useful to teach this genre.

In order to address the low participation rate of women in the field of high school and college band director positions, more care needs to be taken with instrument assignments in beginning band classes. As Delzell (1994) asserts, the primary instrument a student studies plays a significant role in determining performing opportunities and influencing career decisions. Encouraging females to play “male” instruments would help level the playing field between genders and would be a first step towards leveling the field at the teaching level, though a longitudinal study will be required to support this hypothesis.
References


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Stable URL: http://www.jstor.org/stable/1214726


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Appendix A

A Modified Fennema-Sherman Attitude Scale for Jazz

Gender: Male □ Female □

Primary Instrument: _________________________________________

1 = strongly agree; 5 = strongly disagree

1. I am sure that I can learn to play jazz and improvise. 1 2 3 4 5
2. My teachers have been interested in my progress in jazz performance. 1 2 3 4 5
3. Knowing jazz performance practices will help me earn a living. 1 2 3 4 5
4. I don't think I can perform jazz. 1 2 3 4 5
5. Jazz will not be important to me in my life's work. 1 2 3 4 5
6. Males are not naturally better than females in the field of jazz. 1 2 3 4 5
7. Getting a teacher to take me seriously as a jazz musician is a problem. 1 2 3 4 5
8. Jazz performance is hard for me. 1 2 3 4 5
9. It is hard to believe that females can achieve high levels in the field of jazz performance. 1 2 3 4 5
10. I'll need jazz performance skills for my future work. 1 2 3 4 5
11. When a woman has to perform jazz music, she should ask a man for help. 1 2 3 4 5
12. I am sure of myself when I play jazz. 1 2 3 4 5
13. I don't expect to perform much jazz when I get out of school. 1 2 3 4 5
14. I would talk to my music teachers about a career that uses jazz. 1 2 3 4 5
15. Females and males are equal in the field of jazz. 1 2 3 4 5
16. It's hard to get music teachers to respect me. 1 2 3 4 5
17. Jazz is a worthwhile, necessary subject. 1 2 3 4 5
18. I would have more faith in the jazz performance of a man than a woman. 1 2 3 4 5
19. I'm not the type to do well in jazz. 1 2 3 4 5
20. My teachers have encouraged me to study more jazz. 1 2 3 4 5
21. Studying jazz is a waste of time. 1 2 3 4 5
22. I have a hard time getting teachers to talk seriously with me about jazz. 1 2 3 4 5
23. Jazz has been my worst subject.
24. Women who enjoy studying jazz are a little strange.
25. I think I could handle more difficult jazz literature.
26. My teachers think studying jazz will be a waste of time for me.
27. I will use jazz performance skills in many ways as an adult.
28. Females are as good as males in jazz performance.
29. I see jazz as something I won't use very often when I get out of high school.
30. I feel that music teachers ignore me when I try to talk about something serious.
31. Females are smart enough to do well in the field of jazz performance.
32. Most subjects I can handle OK, but I just can't do a good job with jazz performance.
33. I can get good grades in jazz.
34. I'll need a good understanding of jazz for my future work.
35. My teachers want me to take all the jazz instruction I can.
36. I would expect a woman jazz musician to be a forceful type of person.
37. I know I can do well in jazz.
38. Studying jazz is just as good for women as for men.
39. Doing well in jazz is not important for my future.
40. My teachers would not take me seriously if I told them I was interested in a career in jazz.
41. I am sure I could do advanced work in jazz.
42. Jazz is not important for my life.
43. I'm no good in jazz.
44. I study jazz because I know how useful it is.
45. Music teachers have made me feel I have the ability to go on in jazz.
46. I would trust a female just as much as I would trust a male to perform jazz.
47. My teachers think I'm the kind of person who could do well in jazz.