AN EXPLORATION OF INSTRUMENT SELECTION CHOICES AMONGST BEGINNER SIXTH-GRADE BAND STUDENTS IN ATLANTA, GEORGIA: A QUANTITATIVE STUDY

by

JOHN WILLIAM CONNER

(Under the Direction of Rebecca Atkins)

ABSTRACT

In the Atlanta Public School System, band is seldom offered at the elementary level. As a result, most students experience the band for the first time in 6th grade during middle-school (Schatt, 2017). Students are tasked with selecting an instrument from the brass, woodwind, or percussion families, with their instrument choice having lasting effects on the band program and overall music and educational experiences. Research suggests that a student's instrument choice comes from influential factors from their daily lives.

The purpose of this quantitative descriptive study was to identify the influence on musical instrument choices made by sixth grade beginning band students in the Atlanta Public School System and to identify the tendencies and rationale that occurred amongst their choices in order to assist band directors in building stronger foundations of band programs in Atlanta Public School system. A survey comprised of eleven Likert scaled questions and open-ended questions were utilized to collect data regarding gender, ethnicity, whether they were on free and reduced lunch and why they chose that instrument.

The findings in the study indicated that the instrument choices 6th grade band students in Atlanta Public Schools are influenced by several factors from the sound of the instrument to the influence of family members and friends. Additional influences include cost, availability, aesthetic features and affordability.

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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

ATHENS, GEORGIA

August 2019

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DEDICATION

This dissertation is dedicated to my father, LeRoy Conner, brother, LeRoy Erran Conner, and most of all my mother, Janice Conner. Throughout this journey my mother has been paramount in guiding me and providing me with unwavering encouragement. My mother continues to be a beacon of inspiration in all that I aspire to achieve. Thank you so much.

I also want to dedicate this dissertation to my wife Angela. She has been there every step of the way to ensure I remained steadfast in reaching the end. Thank you, Angela, for your love, encouragement, support, and prayers in helping me achieve this milestone. I love you.

ACKNOWLEDGEMENTS

I would like to acknowledge the individuals who have been overwhelmingly influential in the completion of this degree. Your support has helped me to grow as a scholar, an educator, and as a person.

This process was initially set in motion by my mother Dr. Janice Conner and my undergraduate college professor Dr. Beryl Mitchell. Dr. Mitchell once stated, “If you plan on being alive in the next 10 years, then why not be alive with a doctorate?” Her reasoning ignited an inextinguishable fire that will continue to burn in me for the rest of my life.

Next, I want to acknowledge Dr. Mary Leglar. Thank you for the support and guidance you have given me over the years while at the University of Georgia. Also, I am incredibly grateful for the knowledge given to me by committee Dr. Roy Kennedy and Dr. Stephen Valdez. My advisor and committee chair Dr. Rebecca Atkins has been especially instrumental in helping me to reach this monumental point in my life. Thank you, Dr. Atkins, for not letting up on me. Thank you for pushing me well beyond my limitations to show me how much I can truly achieve. Thank you!

I also want to acknowledge my close friends James T. Jennings, Jr., Dr. Ransford M. Hyman and Lieutenant Lebron D. Smith for pushing me to persevere. I also want to thank my editor, Ben Cook and his team as well as my statistician Dr. Latonya Moultrie.

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CHAPTER 1: Introduction

Introduction

Each year, band directors guide prospective students through the process of selecting an instrument. Many factors influence a student's attitude toward musical instrument choice including parental and peer influences, cost, availability, perceived degree of playing difficulty, teacher influence, and appearance (Johnson & Stewart, 2005; Wrape, Dittloff, & Callahan, 2016). Band directors are responsible for efficiently introducing and guiding students to instruments that will enhance their experience, making it educational and enjoyable. Therefore, matching students to suitable band instruments is a vital step paramount to a student's lasting involvement with music, which can also impact the success of an entire band program (Evans & McPherson, 2015).

Background of the Problem

Instrumental choice in music education in the Atlanta Public Schools (APS) System is tied closely to the mission set forth by the Fine and Performing Arts Department. The system's mission consists of a balanced program divided into three distinct components: students will receive a world-class fine arts education, enrichment experiences in the Atlanta arts community, and several opportunities for learning to ensure a lifetime of involvement and enjoyment within the arts. The mission of APS is a re-enforcement of the overarching mission set by the National Association for Music Education (NAfME), to advance music education by encouraging the student and to allow for the making of music by all (MENC, 2011). For those interested in instrumental music at the middle school level, the beginning of a world-class fine arts education and multiple enrichment experiences in instrumental music begins with the selection of the musical instrument. In many cases, the affordability of the instrument may be a determining

factor of instrument choice based on a family's socioeconomic status, school's Title I status, or financial equity within the school system itself. The socioeconomic status of the school's surrounding community is an indicator of affordability and availability of musical instruments in the home and educational institutions. According to the American Psychological Association (2018), Socioeconomic Status (SES) is the social standing or class of an individual or group often measured by a combination of education, income, and occupation. Schools determine the SES of a surrounding community by examining the number of students who are on free or reduced lunch programs; therefore, families having higher SES have higher income, thus, exercising more liberties in terms of budgeting, decision-making, and miscellaneous purchases. Families with lower SES will essentially have less income and financial freedom (Sykes, 2011). A student may choose a musical instrument based on the price and what their family can afford, implying that the middle-to-low income families of schools inadvertently affect the prevalence of musical instruments.

According to the U.S. Department of Education (2015), Title I, Part A of the Elementary and Secondary Education Act of 1965 (ESEA) provides financial assistance to local educational agencies and institutions with high numbers and percentages of students from low-income families to ensure that all children meet challenging state academic standards. Atlanta Public Schools is a system in which 100 percent of the schools is designated as Title I.

Equity is the quality of being fair or impartial. In music education equity extends to equal opportunity to participate in music classes, musical experiences, resources, funding and utilizing qualified instructors. The Coleman Report of 1966 (Downey & Condron, 2016) found that there were few qualified music specialists representing the minorities of families of low socioeconomic backgrounds. McPherson, Osborne, Barrett, Davidson & Faulkner (2015)

reported that educationally disadvantaged students lacked the presence of an instrumental music program, equal access to a variety of courses, and the presence of a full-time music specialist. Sciarra & Hunter (2015) measured equity by accounting for available resources and teacher qualifications in band programs, finding inequities of resources but not teacher qualifications.

Many band directors guide students toward musical instruments that are suitable for their physical characteristics (Colwell, Hewitt & Fonder, 2017). Students should possess specific physical attributes to be successful in learning selected musical instruments (Pizer, 1978). For example, students who possess harsh overbites or underbites should avoid such brass instruments as trumpet and horn, where jaw alignment is often critical in being successful in performing (Reveli, 1952). Also, students with finger disabilities should avoid flutes and clarinets, as finger dexterity is essential to press several keys in flute and clarinet performance. Some students might choose, for example, trumpet or baritone, where the physical requirements of performing on those musical instruments are different from flute and clarinet. Alternatively, asthmatic students might be advised to play a string or percussion instruments instead of brass or woodwind instruments.

Peers and family members are known to have an impact on instrument selection. Carlson (2001) found that peers and family influenced instrument choice and reported the most frequent response of instrument choice influence was that from family members who previously played the instrument. Carlson (2001) also noted that peer influence percentages were lower than that of family influence regarding instrument choice.

Parental influence has been found to have an influence regarding instrument choice (Barnes, DeFreitas & Grego, 2016; Ben-Tovim & Boyd, 1995). Parents gauge physical readiness and music readiness of children to determine the proper starting age for instrumental music

instruction. Barnes, DeFreitas & Grego (2016) and Ben-Tovim & Boyd, (1995) both encouraged parents to help children learn the musical instruments to which they are best suited. The authors purported that a student's biological age is secondary in vitality to both physical and musical readiness regarding the appropriate time to start instrumental music instruction.

Statement of the Problem

In the Atlanta Public School System, band is seldom offered at the elementary level. As a result, most students experience band for the first time in 6th grade during middle-school (Schatt, 2017). Students are tasked with selecting an instrument, which may have lasting effects on the band program and their overall music and educational experiences. Because band directors are responsible for navigating instrument selection through music educational programs, it is important for band directors to understand factors leading to instrument choice to better build a stronger foundation of band programs throughout the school system.

Purpose of the Study

The purpose of this quantitative descriptive study was to identify the influence of musical instrument choices made by sixth grade beginning band students in the Atlanta Public School System and to identify the tendencies and rationale that occurred amongst their choices in order to assist band directors in building stronger foundations of band programs in Atlanta Public school system.

Research Questions and Hypotheses

This study was guided by one main research question:

RQ1: What factors contribute to the instrument choices made by sixth grade beginning band students?

Overview of Methodology

A quantitative descriptive research design was used in this study. Leedy and Ormond (2010) stated that survey research involves acquiring information about one or more groups of people – focusing on their characteristics, opinions, attitudes, or previous experiences, by asking questions and tabulating their answers in a quantitative manner. Therefore, a descriptive research design was the most appropriate methodological design used to identify the tendencies and rationale amongst instrument choice and to establish associations between variables (Title I, equity, parental influence, band director influence, and peer and family influence). Because this study was examining 6th-grade band students in the Atlanta Public School System, descriptive research design was best suited as it aimed at collecting data for larger sample sizes that were representative of the population (Creswell & Creswell, 2017).

A survey was used to collect information regarding gender, ethnicity, free and reduced lunch status, instrument played and why they chose that instrument. Additionally, I asked questions to determine the influences of that choice.

Significance of the Study

This study may allow band directors, sixth-grade beginning band students, and parents of band students to gain a broader understanding of a student's rationale for selecting a particular instrument. Choosing the most appropriate instrument helps students gain an optimal instrumental music experience and may foster a real growth in music education as a whole. Furthermore, by understanding student instrument selection, a discussion can be fostered that examines these music programs and how student instrument selection can affect the strength of the foundation of band programs in sixth-grade middle school milieus.

CHAPTER 2: Literature Review

Understanding basic concepts related to students' instrumentation selections are key in this study. A review of literature was gathered from scholarly articles, books, and educational journals related to motivation, societal influences, motivation in instrument choices and socioeconomic status. This literary investigation will enhance the researcher's ability to understand the decision-making process by band students.

Socioeconomic Status

Socioeconomic status has often been identified as a determinant of equity within a school setting. White (1982) highlighted that SES was assessed by a variety of combinations of variables creating obscurity in research findings. Most researchers used SES and social class interchangeably without clarification when referencing the social class or economic characteristics of a student (Ensminger & Fothergill, 2003). Some researchers defined SES as an individual's or family's rank of hierarchy according to access or control over valued commodities such as wealth, power and social status (Mueller & Parcel, 1981). Duncan, Featherman, & Duncan (1972) speculated that the core nature of SES incorporates parental income, parental education, and parental occupation.

Measuring SES is an important core process in many educational settings; therefore, it is essential to understand the influences SES plays in terms of academic success and performance. Von Stumm et al (2015) identified how many educational institutions measured SES due to SES being associated with IQ growth. Von Stumm et al (2015) found that both high and low SES students differed by six IQ points by the age of two years, and by the age of 16 years had almost tripled. These findings highlighted that the measurement of SES within an educational setting was important, allowing both administrators and educators to understand how other variables

such as income, parental education, parental occupation, race/ethnicity, neighborhood characteristics, and current grade levels affect this important status.

Understanding the relationship between parental income and parental education is essential when exploring measures of SES. Parental income as an SES measure reflects the potential for social and economic resources that are available to the student, whereas parental education acts as an indicator of a parent's income due to income and education being highly correlated in the United States (Rindermann & Baumeister, 2015). Parental occupation is also evaluated on the basis of the education and income required to have a particular profession (Hauser, 1994). Measurable tools such as Duncan's Socioeconomic Index (1961) report the correlation between occupations and the social and economic status of a household, in addition to the prestige and culture of a given socioeconomic paradigm. Home resources are a less common indicator of SES (Coleman, 1988; Duncan & Brooks-Gunn, 1997; Entwisle & Anstone, 1994). Researchers profess the vitality of household possessions such as books, computers, a study room, and access to educational services after school and during summer as indicators of SES (McLoyd, 1998; Eccles, Lord, & Midgley, 1991; Entwisle & Astone, 1994).

Racial and ethnic backgrounds, grade levels, and school locations have always been a crucial factor of equity in academia in the United States. In 1896, the Supreme Court sanctioned the legal separation of races with its ruling in *H.A. Plessy v. J.H. Ferguson (1896).* Operating under the notion of *separate but equal*, the court ruling held that separate facilities did not violate the U.S. Constitution's Fourteenth Amendment, thereby validating segregation within the schools (Abeles & Custodero, 2010).

Strides towards equality were made in 1954 with the Supreme Court ruling in the case known as *Brown v. Board of Education.* The Court's ruling of *separate educational facilities was*

inherently unequal countered the legal basis for racial segregation in schools, refuting the *H. A. Plessy v. J. H. Ferguson* decision (1896) (Abeles & Custodero, 2010).

The United States Department of Education (1996) reported that even after accounting for family SES, there appeared to be a number of distinct differences between urban, rural, and suburban schools. Furthermore, reports from the National Assessment of Educational Progress highlighted that the achievement of students in affluent suburban schools was significantly and consistently higher than that of students from "disadvantaged" urban schools (United States Department of Education, 2000). As a result, recent studies demonstrated that minority students trailed behind their white counterparts in academic achievement (United States Department of Education, 2000). Although numerous causalities suggested lower academic achievement in minorities, researchers continued to highlight three main factors: low-income households or in single-parent families; deficiency in parental education; and the attendance of under-funded schools; all of which are components of SES and linked to academic achievement (National Commission on Children, 1991). Researchers have linked socioeconomic status to education by including their racial and ethnic background, grade level, and school/neighborhood location (Voight et al, 2015; Brooks-Gunn & Duncan, 1997; Bronfenbrenner & Morris, 1998; Eccles, Lord, & Midgley, 1991; Lerner 1991). School SES is primarily measured by the proportion of students utilizing the free or reduced lunch programs. Neighbourhood SES is usually measured by the proportion of neighborhood/county residents at least 20 years old who have not completed high school (Brooks-Gunn, Denner, & Klebanov, 1995).

Socioeconomic Status in Education

Several researchers have concluded that there are direct correlations between socioeconomic status (SES) and education. McPherson et al (2015) defined socioeconomic status

as the economic condition of individuals based on their income, occupation, and educational attainment. Socioeconomic status serves as a criterion to measure the economic condition of individuals. From a historical perspective, Bornstein and Bradley (2003) purported a similar position by affirming that SES is the relative position of persons, families, or groups were stratified social systems where some societal values (e.g., occupational prestige, education) were not uniformly distributed.

Socioeconomic status is among the most widely used contextual variable in education research. Progressively, researchers explore educational processes in relation to a socioeconomic background (Guo et al, 2015; Bornstein & Bradley, 2003; Brooks-Gunn & Duncan, 1997; Coleman, 1988; McLoyd, 1998). Benner, Boyle & Sadler (2016) examined literature exploring the relation between SES and academic achievement. The findings demonstrated that the relationship varied significantly with numerous factors including SES and academic achievement measures. One such factor is a societal change in the United States, specifically in parental education and family structure. Research has revealed that young students who were considered low SES were more easily influenced by the school's involvement, whereas high SES students were more influenced by their parent's involvement (Benner, Boyle & Sadler, 2016). Students considered low SES were influenced by the school's involvement in areas such as academic socialization. With students whose parents were included in the middle to upper SES levels, they appeared to be more receptive in following their parents' levels of academic socialization and did not rely on the school to promote this important milestone. Previous studies have highlighted how children in the year 2000 were living with better-educated parents as opposed to children in 1980. Other factors like ethnicity (McLoyd & Hallman, 2018), neighborhood characteristics (Bhargava & Witherspoon, 2015), and students' grade level (Chiu & Chow, 2015) have been

found to influence the relationship between SES and academic achievement.

Because a student's socioeconomic status has been identified as a major predictor of academic achievement (Dietrichson et al, 2017), many interventions for students classified as low SES have been developed. Previous research has explored the link between SES and academic achievement, demonstrating how interventions such as tutoring (Dietrichson et al, 2017), cooperative learning (Johnson & Johnson, 2014), and feedback and progress monitoring affect achievement (McMaster et al, 2017). Tutoring allows students to spend quality time in a one-on-one environment in order to better increase their skills in a particular area. Cooperative learning has also been a successful intervention where smaller groups of students work together, all with differing levels of ability, in order to problem solve and improve understandings of a subject (Desai &Kulkarni, 2016). It is important to note that these interventions are used in education today and have demonstrated an increased learning ability amongst students in middle school environments (Jeanneret, & DeGraffenreid, 2018).

Socioeconomic Status in Atlanta Public Schools

The educational opportunity gap in Atlanta continues to be exacerbated by pronounced socioeconomic disparities in under-resourced communities. The Annie E. Casey Foundation released a report, *Changing the Odds: The Race for Results in Atlanta*, which highlighted the city's north and south divide. This divide is often synonymous with racial or ethnic backgrounds, determining the prospects for success in life. The report also explored how race and community of residence created persistent barriers, resulting in sharp differences in the educational and economic opportunities available to Atlanta residents of colour, and to children and families on the city's north and south sides (Casey, 2015).

Socioeconomic Status and Equity in Music Education

Fitzpatrick (2006) asserted that research in the educational field of music directly addressing the urban context had been lacking until the past decade. Research regarding the specific context of urban instrumental music education concludes an understanding that this context may have been impacted by socioeconomic issues (Albert, 2006; Brandstrom, 1995; Corenblum & Marshall, 1998; Klinedinst, 1991; McCarthy, 1980).

Bates (2012) defined social class as the stratification of groups of people according to financial resources, cultural practices, and social networks as a complex issue. Disparity outside of a school environment leads to achievement gaps within the school environment. The author highlighted that more affluent students, because of class-related advantages, consistently outperformed students living in poverty. Bates (2012) believed that school music passed on an array of added expenses that contributed to unequal access and achievement. Children from lower-income homes were more likely to receive lower placement and fewer opportunities to demonstrate their talents than students from privileged circumstances and communities. Bates' (2012) study on music equality for school children found that by not stating specific interventions, opportunities and access to music remained unequal. Therefore, Students in poverty were not able to participate in school music as successfully as their affluent counterparts.

DeLorenzo (2012) pointed out that research within music education had demonstrated how SES had a significant impact on the number of students who participated in public school ensembles. Similarly, Albert (2006) stated that SES was a significant predictor of retention in instrumental music. Students with higher SES tended to participate in instrumental programs longer than those with lower SES. Within the State of Texas, Bailey (2016) focused on music student achievement and socioeconomic status. Results revealed that currently there was an

underrepresentation of low SES music students in the State of Texas, as over half of the state's all-state ensemble was from a high SES community.

Previous research had focused on state-level SES but understanding the different communities where the schools are located is also important. Costa-Giomi & Chappell (2007) studied an urban band program and found that even within the same district, schools with a larger proportion of disadvantaged students had fewer financial resources and less adequate facilities than those with higher proportions of advantaged students. Furthermore, when Costa-Giomi & Chappell (2007) compared characteristics of band programs in schools with differing SES, they noted differences in the number of students taking private lessons, parental involvement, fundraising opportunities, and availability of financial aid for students. They stressed that the primary concern was not whether students had equal access to music programs, but whether they had equally good programs. Palmer (2018) has since disagreed with equal access to strong music programs, as she has reported that a plethora of studies have since demonstrated strong visibility of social justice in terms of students being exposed to music education. Ethnic minorities, women, members of the LGBT community, and individuals with disabilities are simply being marginalized musically by not being provided with strong music programs.

McAnally (2013) has also discussed how economic realities have created a climate in which general music programs are frequently reduced, diluted, or eliminated. Some children are experiencing poverty of opportunity, but not the poverty of potential. Mixon (2005) agreed with other researchers who conceded that quality musical programs are not inherited, but they are made. Instrumental music programs should be made for the benefit of deserving children in them—the often-forgotten children in urban schools. Taebel and Coker (1980) reported that the

problem with low SES pupils seemed to be that they failed to learn at about the same rate as others, but that they started so much further back than others.

According to Abeles and Custodero (2010), the Music Educators National Conference (MENC) formed during the first part of the 20th Century. MENC became a significant source of support for music teachers. Additionally, the conference supported the efforts of the federal government to improve the quality of music education. The Music Educators National Conference recommended that school districts implement comprehensive musical education programs at all levels of school based on the Music School Program Description and Standards (1986). The organization emphasized guidelines recommended by the College Board that included the arts.

The National Center for Education Statistics (NCES) data indicated that approximately 90 per cent of public elementary schools (grade six and under) and secondary school (grades seven and higher) offered music instruction as of the 1999-2000 school year. Disaggregated data demonstrated that elementary music instruction was offered in 96% of city schools, 92% of rural schools, 91% of schools with more than 50% minority enrollment, and 88% of schools with 75% of low-income students. Nevertheless, this data does not reflect the inequities of low-income high minority schools.

Mixon (2005) affirmed that instrumental music had been an integral component of comprehensive music instruction and *The Child's Bill of Rights* accounted for this by affirming that every child should receive extensive opportunities to play at least one instrument. The author contended that parental involvement was critical to student success in urban schools regardless of their socioeconomic status; however, the study noted that the success of implementing a strong music program depended on other factors, such as the availability of space and time to

practice music, the appropriation of funding, the facilitation of qualified teachers, especially those focused on instrumental music.

To gain a broader perspective of how racial minorities were affected by fewer educational resources, Young (2002) reported that in 2001, Latinos and African Americans accounted for 52 percent of students found within the 500 largest school districts in the United States' schools with the highest percent of minority enrollment were those with the fewest resources. He surmised that musicians might attempt to enact culturally responsive teaching. More recently, Palmer (2018) has suggested that minorities were still continuously being exposed to educational inequities, especially when it came to strong music programs and music endeavors.

Social Injustice and Music Inequality

In October 2006, the first International Symposium on Music, Education, Equity, and Social Justice Conference was held at the Teachers College, Columbia University. The conference brought together international educators to discuss issues of educational equality and social justice. Vaugeois (2007) stated that on the matter of social justice and equality, all forms of oppression that students faced in their daily lives presented challenges through different classroom environments and teaching strategies.

Baxter (2007) led a collaborative research course called *multiculturalism* and concluded that the ideals of equality and social justice had gradually shifted. She stressed that teaching music through the lens of social justice had become teaching social justice through the lens of music. Lind and McKoy (2016) contend that music educators can be intentional in communicating with students their value as individuals. They stressed the idea that music is an

extraordinary medium for social justice, thereby in employing social justice pedagogy for music education; instructors could help them express their ideas and stories.

Allsup and Shieh (2012) discussed the importance of highlighting a strong awareness of the inequalities that surround students when teaching social justice. The authors concluded that there had been anything but familiarity as a music education community that students who attended schools of low socioeconomic status had less access to the arts. Hence, social injustice is a social act and is considered work that is inclusive and generous.

Another focus in their position on social injustice education could be approached in the way a student thinks about their own creativity. They assert that the American Association of Creative Musicians (AACM) developed a pedagogical practice that insisted on the individual agency of musicians to create their own sound. The AACM, with its insistence on the No Neutrality of the Musical Act, was able to leverage the teaching of improvisation toward the development of a political agency.

DeLorenzo (2012) also corroborated how teaching for social injustice involved an awareness of inequalities and the courage to face situations that denied children access to music. She concluded that there were no simplistic solutions for the logistical difficulties that poor students faced in music participation. Establishing equity in music events beyond the school environment requires creative thinking and monetary assistance.

Atlanta Public Schools Equity Audit Report

Speculation arose from stakeholders, community constituents and parents regarding the equity among the schools in the Atlanta Public School System. In 2014 an equity audit was conducted to determine the equivalency of the Atlanta Public School (APS) System. The purpose of the report was to convey information about the state of the APS System at the region, cluster

and school levels using indicators such as community characteristics, financial data and the characteristics of schools (Fortner, C., Faust-Berryman, A., Keehn, G., 2014). All data from the audit report was compiled from the 2012-2013 school year.

The Atlanta Public School System is comprised of six regions: North, South, East, West, Alternative, and Charter. These six regions are further divided into eleven clusters: Alternative, Carver, Charter, Douglass, Grady, Jackson, Mays, North Atlanta, South Atlanta, as depicted in Figure 1. Results revealed substantial variation in a number of student, personnel, and community characteristics across schools. Additionally, an analysis across schools in the district provided information on the degree of variability that existed on the included equity indicators. These degrees of variability indicated differences in teacher quality, academic programming, financial resources, student academic achievement, and classroom instruction.

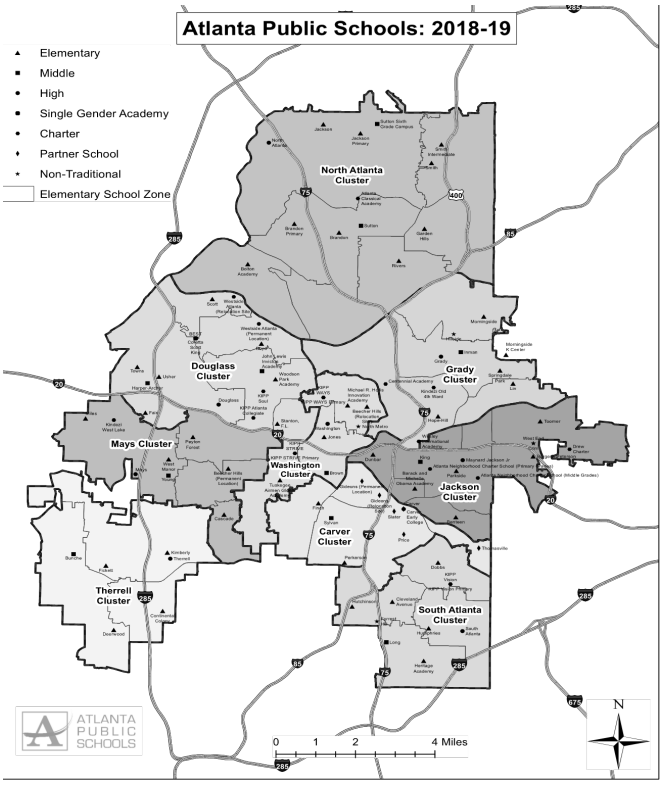

Figure 1. Atlanta Public Schools School Zones and Boundary Maps

Atlanta's public-school system has an active enrollment of 54,956 students in a total of 103 school locations: 50 elementary schools (three of which operate on a year-round calendar), 15 middle schools, 21 high schools, 4 single-gender academies and 13 charter schools. The school system also operates two alternative schools for middle/or high school students, two community schools, and an adult learning center (https://ballotpedia.org/Atlanta_Public_Schools,_Georgia, 2015).

According to Molly Bloom's study, "Inequities Abound in Atlanta Public Schools" Georgia State University researchers found disparities within the regions and schools from an analysis of the equity audit. The South region's highest percentage of households earned less than $25,000 a year whereas the North region had an average household earning of more than $100,000 a year. In regard to spending, the Grady and North Atlanta clusters spend less per student than the APS average. Grady County's demographics include a median family income of $35,159, with 25.9 per cent of the population living below the poverty line (https://www.gradycountyga.gov/, 2018). In comparison, the Carver, Jackson and Washington clusters spend more per student than average. Jackson's demographics are similar to that of Grady with 23 per cent of the population living below the poverty line, compared to that of 15.1 per cent of the population living below the poverty line (http://www.jacksoncountygov.com/, 2010; http://washingtoncountyga.gov/, 2010). Researchers reported that students in the North region had the most experienced teachers whereas the South region had the most inexperienced teachers.

Bloom (2014) asserted that the Equity Audit Report did not indicate the rationale behind the disparities or how APS should rectify them. The report also did not establish funding sources such as outside donations or federal funding for the various regions. However, the report

reflected the belief held by Atlanta parents that students from better-off communities and families received more resources than those from poorer families. It is clear from the research that many factors influence student instrument choice and those factors can have positive or negative effects on enjoyment and retention. However, very little research on instrumental choice has been conducted in the past few years, especially in Title I areas. Therefore, the purpose of this quantitative descriptive study was to identify the influences of musical instrument choices made by sixth grade beginning band students in the Atlanta Public School System. These findings can aid in the building of stronger foundations where music teachers have the ability to understand how changes to recruiting measures may positively impact their programs in school environments.

Instrument Gender Stereotypes

Many scholars have explored how attitudes of gender appropriateness have influenced instrument selection. Historically, Abeles and Porter (1978) investigated musical instrument gender associations among adults and children. In their initial study, Abeles and Porter (1978) asked adults to identify musical instrument preferences for their children. The responses were classified according to the amount of sex stereotyping that appeared among the responses of the test subjects. Abeles and Porter (1978) determined that the adults displayed the strongest sex-stereotyping regarding flute and clarinet with females and trumpet with males. At the completion of their study, Abeles and Porter (1978) surveyed college students in order to identify sex-stereotyping perceptions of musical instruments. Of the test subjects, some identified as music majors whereas others identified as non-music majors. Abeles and Porter (1978) concluded that violin and flute selections were characterized as feminine musical instruments, whereas drum, trombone, and trumpet were identified as masculine instruments. During their third study, the

authors also investigated sex-stereotyping of musical instruments by elementary school children. This study differentiated from their previous studies in that their third study utilized listening examples for the children, whereas questionnaires were given to the adults and college students. The students were asked to provide preferences for recorded musical instrument timbres. Abeles and Porter (1978) concluded that student musical instrument preference types were inconsistent within each grade level but appeared to stabilize as the students aged. The authors also concluded that sex-stereotyping was not prevalent amongst young children but appeared to increase with age. Ultimately, sex-stereotyping of musical instruments is a learned behaviour and not innate.

Elliot and Yoder-White (1997) discussed that strong masculine-feminine generalizations of certain musical instruments occur in students beginning in third grade. Others (Bernier & Stafford, 1972; Abeles & Porter, 1978) stated that sex stereotyping of musical instruments began at earlier ages. Kelly (1997) suggested that understanding how students classify music, musicians, and musical instruments according to gender, either consciously or subconsciously, can be vital in comprehending the rationales why students choose to learn to play selected musical instruments. From a more recent standpoint, Wrape et al (2016) discussed how gender stereotypes were still strong throughout educational institutions when it came to instrument selection, especially with middle school students. The authors completed a descriptive study that focused on instrument selection and found that instrument gender stereotypes posed a persisting problem for music educators.

To understand how this information is reflective in today's research, Abeles et al (2014) explored how musicians crossed musical instrument gender stereotypes in regard to computer-mediated communication. The authors examined responses to blog postings and YouTube videos to better understand adolescents' attitudes towards musical instrument selection. They found that

although current students crossed the stereotypical barrier of instrument selection regarding gender, these results may have occurred because students were able to identify the musician's gender through the musicians' physical appearance, and the music genre and sound. Delzell and Leppla (1992) examined the gender associations of musical instruments and tendencies of musical style preferences. Delzell and Leppla (1992) asked college music majors and non-music majors to identify gender associations of musical instruments. Delzell and Leppla (1992) later concluded that while sex-stereotyping of musical instruments still existed, it was not as strong as it once was. The gender associations of musical instruments appeared to have diminished over time. Delzell and Leppla (1992) inferred that the growing awareness of sex-stereotyping of musical instruments led to music teachers and textbook manufacturers displaying various outlooks of musical instruments to students.

Fortney, Boyle, and DeCarbo (1993) performed a study to investigate gender associations of musical instruments among middle school instrumental music students. Fortney, Boyle, and DeCarbo (1993) concluded that the sex-stereotyping of musical instruments indeed existed amongst the students. From students who were enrolled in music programs, females were more likely to select instruments such as the flute or clarinet than males, whereas males were more likely to select instruments such as the saxophone or trumpet over females (Fortney, Boyle, and DeCarbo, 1993). The researchers also configured that statistical significance existed regarding gender associations of musical instruments between males and females. The reluctance of males to play flute provided statistical significance that it is perceived as a feminine musical instrument. Furthermore, girls were least likely to play the tuba, a musical instrument mostly perceived as masculine (Delzell & Lappla, 1992).

O'Neill and Boulton (1996) also examined the relationships between gender and musical instrument preference from one hundred and fifty-three elementary school students. The students were required to identify the musical instruments they would like to learn and play versus which instruments should not be learned by girls or boys. O'Neill and Boulton (1996) concluded that girls preferred violin, flute and piano while boys favoured drums, guitar, and trumpet. The researchers further concluded that both genders shared similar views as to which musical instruments should and should not be selected and learned by boys and girls.

Brandenberg (1991) previously studied patterns of sex-stereotyping and gender associations of musical instruments and preferences among students of various grade levels. Students from the second, fourth, sixth and eighth grade were asked to associate musical instrument preferences between girls and boys. The author observed that various patterns of gender associations of musical instruments existed amongst the test subjects. For instance, students associated violin and piano as instruments that girls should play versus drums and trumpets as instruments to be played by boys. Brandenberg (1991) concluded that sex-stereotyping grew exponentially as the student grade levels increased. Brandenberg (1991) further concluded that girls had increased chances to differ from typical sex-stereotyping perceptions according to which gender should play which musical instruments (50.5%) more than boys (16.5%), suggesting that peer influences and social differentiation may be stronger among boys than girls. Brandenberg (1991) indicated that music teachers should be aware of such sex-stereotyping factors and employ appropriate teaching strategies to counteract these tendencies.

Physical characteristics of the sexes also play a part in instrument selection, especially when it comes to stereotypical thought processes. Millican (2017) highlights physical

characteristics such as lip size and shape, the alignment of the jaw, and body build played a role in which students selected their instruments of choice. Much of the research that had been uncovered by the author suggested that band directors played a role in assisting their students when determining appropriate instruments and matching their physical characteristics to ensure that the instrument can be played appropriately.

Many of the studies found that it was essential for music teachers to account for the existence of gender associations towards music instruments by students, highlighting a stronger need for teaching strategies that focus on deleting biases towards musical instruments and allowing students to select instruments that are of interest to themselves, match important physical characteristics, and allow for the need of the music education program.

Instrument Size, Weight and Appearance

The size, weight, and appearance of an instrument is also an important consideration when discussing instrument selection. Steven Paul Katzenmoyer (2003) conducted research that highlighted differing reasons of why students chose particular instruments. Moreover, in addition to surveying students, he also identified what music teachers perceive as the factors that influence student instrument selection. Katzenmoyer (2003) surveyed 1,073 fifth through ninth grade students and concluded that the most frequent factors for one's instrument selection were "parents, other relatives, friends, music, teachers, sound of the instrument, look of the instrument, size of the instrument, availability of the instrument, cost of the instrument, and familiarity of the instrument through television and celebrity status (p.10)".

To support the importance of how an instrument's size, weight, and appearance can play into instrument selection, Kuhn (1962) supported the use of instrumental exploratory opportunities, as students who could touch and handle the musical instruments could decide

which one they wished to learn to play with greater reliability than those who did not have the opportunities. Solomon (1982) suggested that exploration of physical properties of sound and musical instruments, experimentation with musical notation, and conversations with parents were to be used in conjunction with standardized testing in recruiting prospective instrumental music students.

Instrument Timbre

A variety of researchers have studied the *Instrument Timbre Preference Test (ITPT)* (Gordon, 1986; Weaver, 1987; Rideout, 1988; Schmidt & Lewis, 1988; Gordon, 1990; Gordon, 1991; Williams, 1996). In 1986, Gordon created and conducted a two-year study of the validity of the *ITPT.* Gordon (1986) determined that students who started to learn to play an instrument based on the results of the *ITPT* were more likely to continue instruction and achieve success on that instrument than those students who did not take the *ITPT*. Gordon (1986) further determined that the test was highly effective and advocated its use in music education to help match students to appropriate musical instruments. The analyses of Schmidt and Lewis (1988) and Williams (1996) yielded parallel results to the analysis of Gordon (1986) regarding the validity of the test instrument. Gordon (1991) further evaluated his own work by performing analyses of the characteristics of his *ITPT*. Gordon (1991) concluded "the purpose of the *Instrument Timbre Preference Test* is to act as an objective aid to the teacher and parent in helping a student choose an appropriate woodwind or brass instrument to learn to play in beginning instrumental music" (p. 35). Some researchers have analyzed the construction and characteristics of the *ITPT* (Rideout, 1988; Gordon, 1991) and others have analyzed its validity (Gordon, 1986; Schmidt & Lewis, 1988; Williams, 1996).

Rideout (1988) performed a series of studies that described the practical uses of the *ITPT*. Instead of administering the test to prospective instrumental students, Rideout (1988) gave the *ITPT* to students who had recently already begun instrumental music instruction. Rather than investigating the effectiveness of the test in matching students to instruments, Rideout (1988) measured whether the *ITPT* was valid in confirming student decisions regarding musical instrument choice. The author determined that the *ITPT* was valuable in assisting students and parents selecting musical instruments for study.

Cutietta and Foustalieraki (1990) performed a study analyzing student preferences for certain band and non-band instrument timbres as a means of instrumental music participation and instrument selection. Cutietta and Foustalieraki (1990) advocated that a relationship existed between musical instrument preference and success in learning to play a musical instrument, as students who could accurately identify the sound of the instrument they found most pleasing were more likely to be successful playing the instrument than students who could not identify the sound of the musical instrument they found most engaging. The authors explained that the students were chosen from two different countries because both nations differed regarding instrumental music instruction in schools. Organized school bands are more prevalent in the United States and do not exist in school systems in Greece, as an example. Thus, factors regarding previous experience with, and exposure to different musical instrument timbres may have altered the perceptions of students regarding selected timbres and instrument choice.

The most preferred instruments of students from the United States were band instruments such as clarinet and trumpet, while students from Greece preferred non-band instruments such as piano and guitar. Cutietta and Foustalieraki (1990) observed that culture and prior experience

may have been influential in the timbre preference patterns of students, but they did not display any evidence to support their theory.

Parental and Band Teacher Influence

Dale Edward Bazan (2004) completed research relating to the factors influencing student instrument choice and the selection procedures used by directors of beginning bands. Similar to Bayley, Bazan (2004) distributed his surveys to beginning band teachers to see which methods were utilized in assisting in the selection of students' instrument choice. Even though the majority of Bazan's research highlighted the teachers' instrument selection procedures, he spent a fair amount of time investigating the societal influences that altered the students' instrument of choice. As a result of his investigation, Bazan (2004) indicated that the most popular response was "friends", along with "the sound of the instrument" as the second most popular response, and "relatives" as the third most popular response.

Ross (1990) stated that music teachers should encourage students to make their musical instrument selections independently. In some cases, a student may be influenced by a parent or peer in selecting a specific musical instrument to learn, but the final decision should ultimately be made by the student. Solomon (1983) suggested that parents who determine the musical instrument for their children based on cost and/or availability may be hindering the music education of their children. Boyle, DeCarbo & Jordan (1995) suggested that some music instructors felt that students who based their musical instrument selection choices too heavily on outside influences were more likely to discontinue their instruction than students who selected musical instruments with little or no additional influence.

Jonathan G. Bayley (2004), a Canadian music education professor, conducted research to gauge how music teachers prepared students for selecting an instrument. As a result of his

research, the author discovered that oftentimes music teachers would redirect the students' attention towards certain instruments by manipulating the selection of instruments from which the students could choose. For instance, both saxophone and percussion were excluded primarily because they were considered to be too popular with students. The surveyed music teachers also influenced the students' instrument selections by providing live demonstrations at the schools for certain instruments that fed into their programs.

Many instrumental music teachers guide students toward musical instruments suitable for their physical characteristics. Students should possess certain physical attributes to be successful in learning selected musical instruments (Pizer, 1978). For instance, students who possess harsh overbites or underbites should avoid such brass instruments as trumpet and horn, where jaw alignment is often critical for successful performance (Reveli, 1952). Similarly, students with finger disabilities should avoid flutes and clarinets, as finger dexterity is essential to press several keys in flute and clarinet performance. Some students might choose, for example, trumpet or baritone, where the physical requirements of air usage of performing on those musical instruments are higher than that of the flute and clarinet (Solomon, 1983). Therefore, asthmatic students might be advised to play a string or percussion instrument instead of brass or woodwind instruments. By guiding students towards a more appropriate instrument suitable to their physical characteristics, music teachers can help ensure that their students can be more successful in the learning of musical instruments.

Researchers have found that music teacher guidance in musical instrument choice positively affected participation and continuation in instrumental music (Pizer, 1978; Solomon, 1983; Grieve, 1989; Cannava, 1990; Hardin, 1990; Cannava, 1994; Ben-Tovim & Boyd, 1995). While students should ultimately decide on the instrument they want to play, teacher guidance

towards appropriate musical instruments has been suggested as beneficial (Hardin, 1990; Cannava, 1994; Palmer, 2018). Both parents and teachers should assist the students with these decisions; however, the final choices should be made by the students (Cannava, 1990).

CHAPTER 3: Methodology

Research Methodology and Design

I surveyed sixth-grade beginning band students in the Atlanta Public School System to identify societal influences that influence instrument selection including Title I status, equity, parental influence, band director influence, and peer and family influence. A descriptive research design was best suited as it allowed a better understanding of how these variables affected instrument selection throughout a larger population. The Atlanta Public School System has over 3,785 students in the 6th grade as of March 2015 (Georgia Department of Education, 2018), and a descriptive research design assisted me in building a study that was replicable through a high level of reliability, while also providing results that were representative of the public school system's population.

Materials/Instruments

The survey used in this study ascertained information regarding the participants' gender, ethnicity, traits about their instrument, affordability, and individuals who influenced their choice of instrument. The survey also inquired about what instrument they played and why that instrument was selected. To determine the socioeconomic status of the school they attend, the participants were asked whether or not they received free or reduced lunch.

The first survey created, as seen in Figure 1, was two pages in length and included 10 open-ended questions as well as a five-point Likert scale which included fifteen questions. For example, one question asks, "Describe your experience playing your instrument." Another question asked, "What are the pros and cons of playing the instrument you've chosen to play?"

Instrument Selection Survey

Gender: Male / Female

Ethnicity:_____

Do you currently receive free or reduced lunch? Yes / No

What instrument do you currently play?_____

Do you like your instrument? Yes / No

How long do you plan to stay on this instrument? (circle one)
1.This year only 2. Throughout middle school 3. Throughout high school 4. Throughout College

Why did you select this instrument?
_____

_____

Describe your experience playing your instrument.
_____

_____

What are the pros and cons of playing the instrument you have chosen to play?
Pros:_____

Cons:_____

Did your home contain any musical instruments (flute, piano, etc.) before you started playing your current instrument? Yes/ No

Think back to when you first decided to play your current instrument. Using the following scale (1 –Not at all, 5 – Very much) please indicate if the following factors affected your choice of instrument selection.

1.Weight / Size of the instrument	1	2	3	4	5
2. Liked the sound	1	2	3	4	5
3. Liked the appearance	1	2	3	4	5
4. Available at home	1	2	3	4	5
5. Offered at School	1	2	3	4	5
6. Price of the Instrument	1	2	3	4	5
7. Recommended by friend/family member	1	2	3	4	5

Figure 2: Original Instrument Selection Survey

After receiving feedback and counsel from other band directors and teachers in the profession (over twenty years of experience), they suggested condensing the survey to cater to the perceived cognitive comprehension level of a 6th grader. They stated that due to the attention span of an average 6th grader, the survey should be shorter in length and to the point. Therefore, the vocabulary was simplified for the understanding and comprehension of a 6th grader.

The finalized survey was narrowed down to one page in length. It contained much of the same content from the original survey, but some items were removed that were time-consuming for students. The items that were removed included the questions that asked the participants to describe their experiences of playing their instruments, as well as a question requesting the participants to discuss the pros and cons of the instrument of their choice. This allowed the participants to better concentrate on the Likert scale questions. Again, I gave the revised survey to other band directors and they agreed that this version was more appropriate (see Figure 2).

The Likert scale questions were categorized into 4 subcategories: Aesthetics, Accessibility, External Factors, and Internal Factors. Aesthetics refers to the natural visual and physical traits of the instrument. The Likert scale items for Aesthetics are: 1. Weight/size of the instrument, 2. Liked the Sound, 3. Liked the appearance. Accessibility refers to the availability of the instrument at school, home or its affordability. The Likert scale items for Accessibility are: 4. Available at home, 5. Offered at school, 6. Price of the Instrument. External factors include those sources of influence that were imposed upon the participant. The Likert scale items for External factors are: 7. Recommended by friend/family member, 8. A friend/family member played the same instrument. 11. My band director suggested this instrument for me. Internal factors refer to the participants' personal rationale for selecting their instrument. The Likert scale items for Internal factors are: 9. Associated with my favorite genre of music & artist (e.g. jazz & trumpet), 10. School needed people to play my instrument.

Instrument Selection Survey

Gender: Male / Female

Ethnicity:_____

Do you currently receive free or reduced lunch? Yes / No

What instrument do you currently play?_____

Do you like your instrument? Yes / No

How long do you plan to stay on this instrument? (circle one)
1.This year only 2. Throughout middle school 3. Throughout high school 4. Throughout College

Why did you select this instrument?

_____

_____

Did your home contain any musical instruments (flute, piano, etc.) before you started playing your current instrument? Yes/ No

Think back to when you first decided to play your current instrument. Using the following scale (1 –Not at all, 5 – Very much) please indicate if the following factors affected your choice of instrument selection.

1.Weight / Size of the instrument	1	2	3	4	5
2. Liked the sound	1	2	3	4	5
3. Liked the appearance	1	2	3	4	5
4. Available at home	1	2	3	4	5
5. Offered at School	1	2	3	4	5
6. Price of the Instrument	1	2	3	4	5
7. Recommended by friend/family member	1	2	3	4	5
8. A friend/family member played the same instrument	1	2	3	4	5
9. Associated with my favorite of genre of music & artist (e.g. jazz & trumpet)	1	2	3	4	5
10. School needed people to play my instrument	1	2	3	4	5
11. My band director suggested this instrument for me	1	2	3	4	5

Figure 3. Instrument Selection Survey Amended.

Site Selection

There were 15 middle schools within the Atlanta Public School System, and 11 participated in the study. The non-participating middle schools were a part of the Atlanta Public School Charter System. These schools were not selected because I wanted the study to reflect sites with similar schedules, policies and procedures. In order to maintain confidentiality, each of

the 11 schools that participated in the study was labelled alphabetically (e.g. School A, School B, etc.). Table 1 provides a breakdown of each school's demographic data.

Table 1. *Site Selection Atlanta Public School System*

School Name	# of 6th Graders	% of Reduced/Free Lunch	# of 6th Grade Band Students
School A	180	99.5%	22
School B	235	99.6%	31
School C	271	99.5%	18
School D	390	32.6%	63
School E	241	99.5%	28
School F	224	99.5%	16
School G	111	99.0%	28
School H	568	40.0%	94
School I	212	99.5%	27
School J	61	99.4%	19
School K	53	99.4%	23

Participants

The Atlanta Public Schools Department for Research and Evaluation and the principals for each school granted approval for the study. The application for permission to proceed with the study was filed with The University of Georgia Institutional Review Board (IRB). The band directors for the participating schools were informed about the study and agreed to participate. Interest fliers were distributed to the participating schools' band directors and the participating 6th graders were contacted by their band director and told the details of the study. In order to participate in this study each participant met the following criteria:

1. Each participant was currently in the sixth-grade.
2. Each participant was currently enrolled as a beginning band student.
3. Each participant was currently attending a school located in the Atlanta Public School System in Atlanta, Georgia.

During the first week of September of 2015, the students received fliers about the study and consent forms for their parents to sign. Two weeks later, the consent forms were collected, and the surveys were administered. The survey procedure met all of the requirements for human subject participation concerning confidentiality and informed consent. All participants volunteered to take part in the study, and they received no compensation for their participation. Students eligible to participate in the study were 6th-grade beginning band students without visual, hearing or cognitive impairments.

The target time of completion for each survey was five minutes, but more time was allotted if necessary. The band directors collected the surveys from the participants and the surveys were collected from all 11 sites.

Data Collection, Processing and Analysis

Prior to providing the survey to each participant, I obtained a permission form from each of the participants' parents/guardians providing them permission to participate in the study. Additionally, I ensured that each participant understood that their participation was voluntary and no personal information was collected when they were completing the survey. The participants who agreed to take the survey provided me with their permission to participate in the study by signing a minor assent form. I provided each participant with the same 1-page survey and no identifiable information was collected.

Data Analysis

Upon the completion of the surveys, the data was compiled and analyzed using the Statistical Package for the Social Sciences (SPSS) Version software. The statistics run on the data included the multinomial logistic regression, MANOVA, and Chi-squared test.

CHAPTER 4: Results

Introduction

The purpose of this quantitative descriptive study was to identify the influence of musical instrument choices made by sixth grade beginning band students in the Atlanta Public School System and to identify the tendencies and rationale that occurred amongst their choices in order to assist band directors in building stronger foundations of band programs. The study used a sample size of 261 participants who were sixth-grade beginning band students in the Atlanta Public School System. The analysis was guided by one main research question which included:

RQ1: What factors contribute to the instrument choices made by sixth grade beginning band students?

The data was collected through survey questionnaires and analyzed using descriptive and inferential statistics. The demographic data were analyzed using descriptive statistics, a Multinomial Logistic Regression, a MANOVA, and Pearson correlations analysis to identify and test the relationships between variables. The findings have been presented using tables and charts as demonstrated throughout the chapter.

Response Rate

The original participant pool numbered 321. Sixty cases were deleted from the dataset due to missing data on the survey. This reduced the final sample size to 261 sixth grade beginning band students (male=*149,* 57 %*)*. The study observed an 81.3% response rate of the survey instrument whereby the survey rate of return was 261 out of 321 participants. According to Hagger et al (2003), the researcher should strive to achieve a response rate of 50, 60, or 75% to make any conclusion from the study. Hence the study obtained statistically viable data to make conclusions and recommendations about the subject under study.

Demographic Information

The study considered specific demographic data of the participating respondents. These statistics were required in order to provide the basis of establishing the characteristics of the target population and also deemed a necessary basis of the study. The demographic information included gender, ethnicity, and free/reduced lunch. Participants also answered questions regarding likes of instrument played, whether an instrument was in the home before playing, plans for playing an instrument, instrument type, and instrument classification.

Gender. The findings indicated 149 participants (57.1%) were male and 112 participants (42.9%) were female with a total 261 participants.

Ethnicity. The results as presented in Table 2 below show the ethnicity of the respondents to the study.

Table 2: *Ethnicity*

	Participants	Percent
African-American	168	64.4
Caucasian	60	23.0
Hispanic	20	7.7
Multiracial	9	3.4
Asian	4	1.5
Total	**261**	**100.0**

The findings as shown in Table 2 indicated that the majority (n = 168, 64.4%) of the respondents were African-American. They were followed by sixty participants who were Caucasian (23%). Twenty of the respondents were of Hispanic ethnicity (7.7%), nine were of multiracial ethnicity (3.4 %) and four identified as Asian (1.5 %).

Free/reduced lunch status. The findings presented in Table 3 highlights the distribution by free/reduced lunch status among the respondents from the study.

Table 3. *Distribution by Free/reduced Lunch Status*

	Participants	Percent
Yes	165	63.2%
No	96	36.8%
Total	**261**	**100.0%**

The results in Table 3 show that the majority 63.2 % of the respondents indicated that they have free/reduced lunch status, whereas 36.8 % indicated that they do not have free/reduced lunch status.

Likes instrument played. The study findings presented in Figure 4 below show participants' feedback when they were asked to indicate if they liked the instrument they played in band.

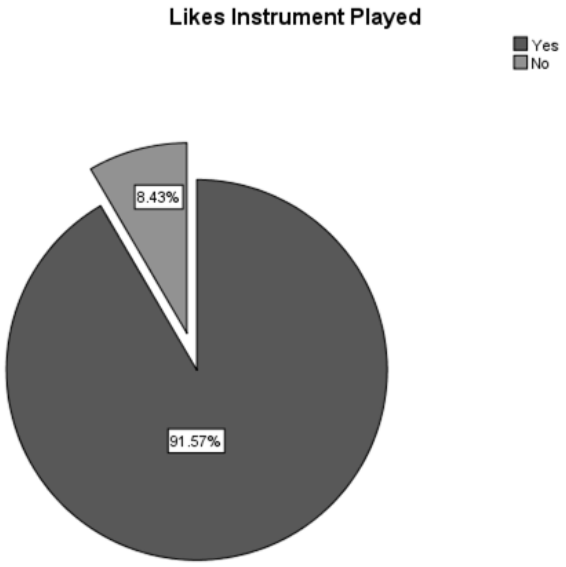

Figure 4. Likes Instrument Played

The findings indicated in Figure 4 affirm that the majority of participants (*n* = 239, 91.57%) indicated that they liked the instruments they played. Alternatively, twenty-two of the participants (8.43%) indicated 'No' to liking the instruments they played.

Instruments in the home before playing. The outcomes presented in Figure 5 demonstrate the distribution of respondent's feedbacks on instruments in their homes before playing.

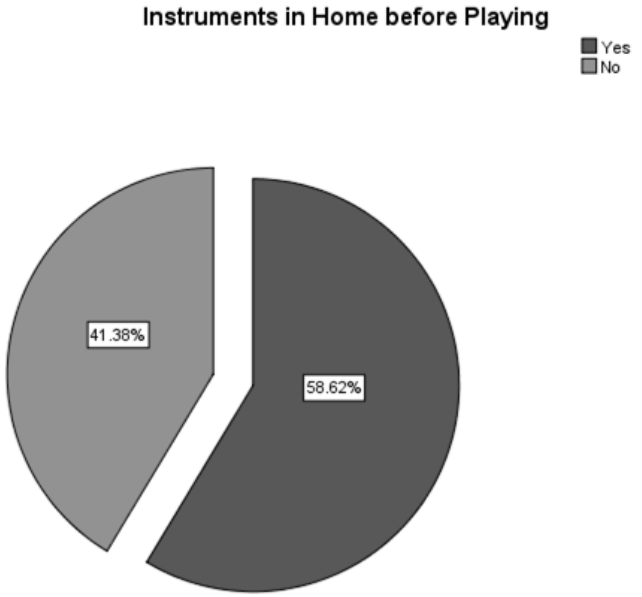

Figure 5: Instruments at the home before playing

The findings presented in Figure 5 indicated that the majority of the participants (*n* = 153, 58.62%) in the study had different forms of musical instruments in their homes before playing. All other respondents (*n* = 108, 41.38%) did not have instruments in their homes before playing.

Plans for playing an instrument. The findings as presented in Figure 6 show the respondents' feedback on their plan for playing an instrument.

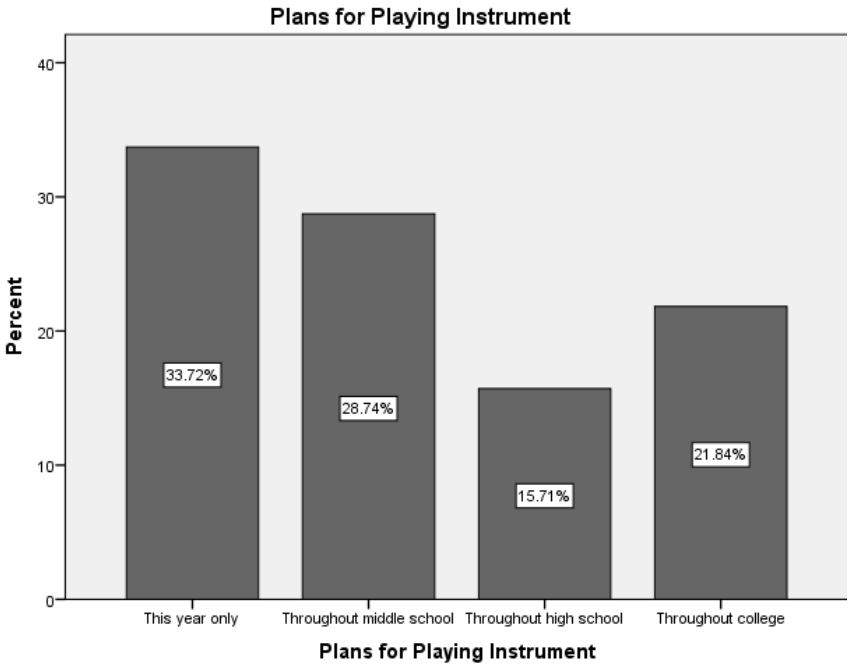

Figure 6: Plans for playing instruments

The results in Figure 6 indicate that the majority of respondents (*n* = 88, 33.72%) were planning to play instruments this year only. This was seconded by 75 participants (28.74%) who indicated they planned to play instruments throughout middle school only, and 41 respondents (15.71%) who indicated that they planned to play instruments throughout high school. Lastly, 57 respondents (21.84%) indicated they planned to play instruments throughout college.

Instrument Type

As shown in Table 4, the most popular instruments to play were clarinet (*n* = 52, 20%), trumpet (*n* = 49, 19%), and percussion (*n* = 49, 19%). Also, many students chose the flute (*n* = 25, 10%) and trombone (*n* = 21, 8%) as their desired instrument. Rarely selected instruments by band students included the bassoon (*n* = 2, 1%), xylophone (*n* = 2, 1%) and tenor saxophone (*n* = 2, 1%). Nearly (*n* = 239) 92% of the band students liked their selected instrument, but (*n* = 88) 34% of them planned to play it this year only.

Table 4: *Distribution by Instrument Type*

Instrument	**# of students**	**Percent**
Clarinet	52	19.9
Trumpet	49	18.8
Percussion	49	18.8
Flute	25	9.6
Trombone	21	8.0
Alto Saxophone	15	5.7
Saxophone	13	5.0
French Horn	10	3.8
Baritone	6	2.3
Oboe	4	1.5
Electric Bass	4	1.5
Bass Clarinet	4	1.5
Tuba	3	1.1
Xylophone	2	0.8
Bassoon	2	0.8
Tenor Saxophone	2	0.8
Total	**261**	**100%**

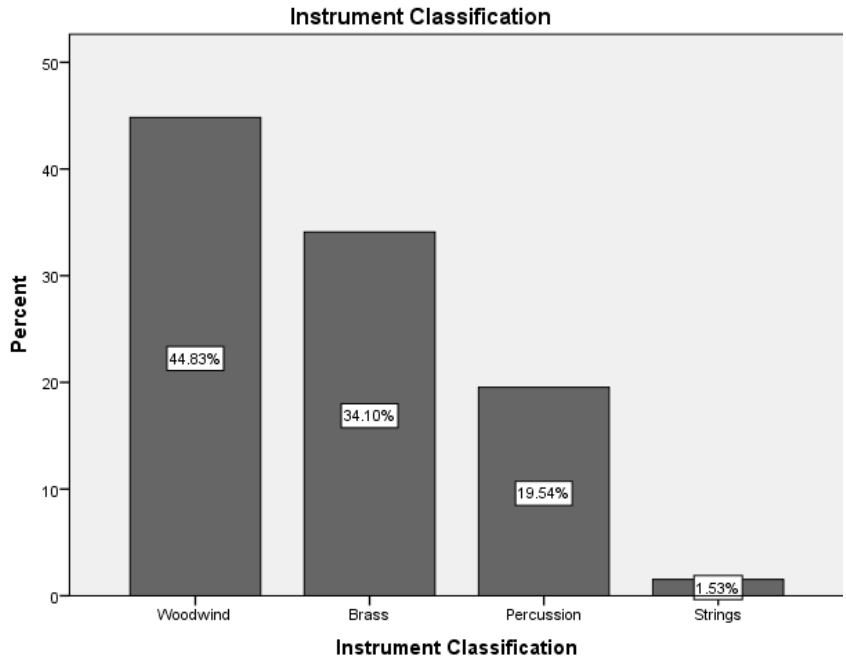

Figure 7. Instrument Classification by Instrument Family

In Figure 7, the classification of instruments selected by band students revealed that the majority selected woodwind instruments (n = 117, 45%); followed by brass (n = 89, 34%) and percussion (n = 51, 20%). Approximately four band students (2%) indicated that they also played a string instrument (bass guitar) in their jazz band. No respondents reported playing the customary orchestra string instruments (violin, viola, cello, and double bass), but the orchestra students were not included in this survey.

Although (n = 153) 59% of band students reported they had musical instruments in their home *before* they started playing an instrument, there were many reasons given in the free-response section of the survey for selecting their instrument choice (Table 5). The most frequent rationale provided included that participants liked the sound and aesthetics (n = 43, 16.9%) and a family member or friend played the same instrument (n = 43, 16.5%). Many band students reported that they just liked their instrument and wanted to learn to play (n = 32, 12.3%), simply thought it would be fun to play (n = 29, 11.1%), while a small number of participants thought

their instrument looked difficult and challenging and wanted to learn how to play (n = 4, 1.5%). Some students were inspired to play their selected instrument by their band director (n = 4, 1.5%), whereas only a few students reported being forced to play their selected instrument by a parent (n = 3, 1.1%).

Table 5: *Reason for Selecting Instrument*

Open-ended Response	**# of students**	**Percent**
Liked the sound and/or look	44	16.9
A family/friend played it	43	16.5
Liked it and wanted to learn how to play it	32	12.3
Thought it would be easy to play	29	11.1
Played it before/since elementary	18	6.9
Thought it would be fun to play	14	5.4
I didn't, but it was assigned by my band director	14	5.4
Thought it was good/perfect/right for me	14	5.4
Wanted to try something new	10	3.8
It was interesting and different from all the other instruments	10	3.8
I just did or I don't know	6	2.3
Nobody else played it, so I wanted to be different	6	2.3
Wanted to learn different notes, melodies, or instruments	5	1.9
It is cool	5	1.9
Inspired by band director	4	1.5
Looked hard, challenging and wanted to learn how to play it	4	1.5
Parent forced me to play it	3	1.1
Total	**261**	**100%**

Significant Factors that Predict Instrument Selections made by Sixth Grade Students

Multinomial logistic regression was performed to identify which factors from the rating scale section influenced the probability that sixth-grade band students would select a given class of instrument. The factors represented in this analysis included gender, ethnicity, lunch status, instrument traits, instrument cost, and availability. The different types of instruments were classified into four categories: woodwind, brass, percussion, and strings (bass guitar). The null hypothesis is that one or more of these factors are significant predictors of instrument selection of sixth-grade band students. The alpha level was set at .05.

Testing assumptions of multinomial regression. The assumptions regarding variable type were first evaluated. The independent variables can be either categorical or numeric in nature (Chan, 2005). In this study, the independent variables included gender, ethnicity, lunch status, instrument traits, instrument cost, and availability. The dependent variable must be nominal with three or more levels (Chan, 2005). In this study, instrument types were classified into four main categories: woodwind, brass, percussion and strings. Secondly, assumptions of linearity and multicollinearity were assessed. A scatterplot of the predictor variables revealed linear relationships existed, as evident by the elliptical shapes (see Figure 8).

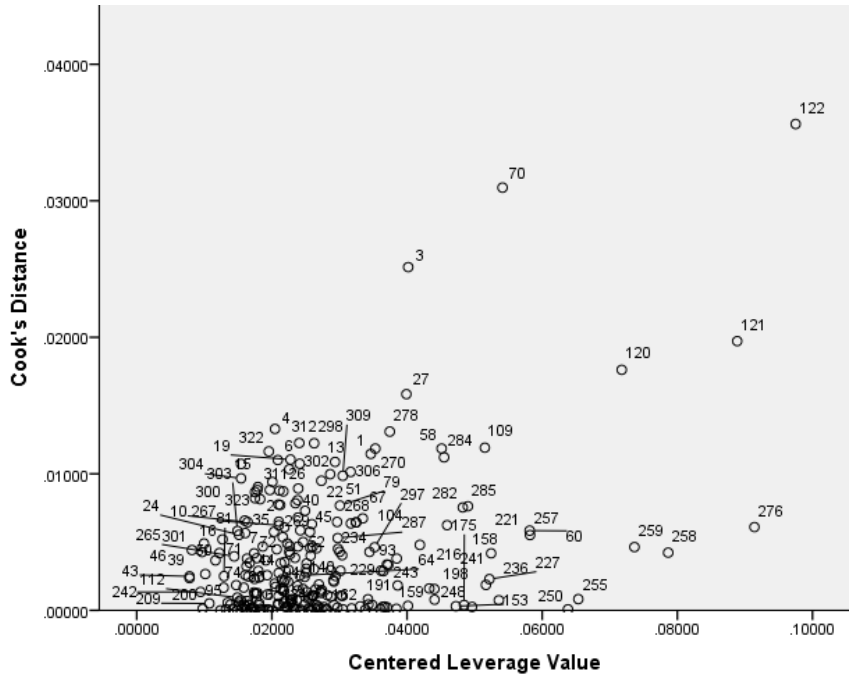

Figure 8. Cook's Distance and Leverage Values

To determine if there were high correlations between these variables, a preliminary linear regression was performed to produce the tolerance statistics (Mertler & Vannatta, 2010). In this instance, the tolerance statistics for all predictor variables were well above .1, so multicollinearity was not considered to be an issue.

The estimates of regression coefficients can be affected by influential cases and high leverage values (Heiberger & Holland, 2013). There were several cases with Cook's distance values and/or leverage values that were far away from the rest of the sample, resulting in 9 cases being omitted from this data analysis. The sample size was reduced to 253 participants for this statistical analysis.

Results of multinomial regression: Information regarding the model fit is presented in Table 6. Results indicated that that final model improved from the intercept model (i.e., no variables included) and was statistically significant (X^2 (27) = 69.637, $p<.001$).

Table 6. *Model Fitting Information Table*

	Model Fitting Criteria	Likelihood Ratio Tests		
Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	558.513			
Final	488.876	69.637	27	.000

Given the high number of cells with zero frequency (74.4%), the model was not expected to fit the data very well. This was confirmed by the large chi-square statistic, X^2 (717) = 693.043, p=.73, which is non-significant. The Cox and Snell R^2 and Nagelkerke R^2 suggested the proportion of variation being explained by the model was roughly 24% and 29%, respectively.

Furthermore, results of the Likelihood Ratio Tests revealed that only two of the seven predictor variables statistically significantly contributed to the model (Table 6). These variables included Gender [X^2(3) = 35.385, $p<.001$] and Ethnicity [X^2 (9) = 23.618, p=.01].

Table 7. *Likelihood Ratio Tests Table*

	Model Fitting Criteria	Likelihood Ratio Tests		
Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	488.876[a]	.000	0	.000
Instrument Traits	489.187	.311	3	.958
Cost & Availability	490.757	1.882	3	.597
Gender	524.261	35.385	3	.000
Ethnicity	512.494	23.618	9	.005
Reduced	491.216	2.340	3	.505

Note: The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Table 8. *Classification Table*

	Predicted				
Observed	Woodwind	Brass	Percussion	Strings	Percent Correct
Woodwind	88	21	5	0	77.2%
Brass	34	52	1	0	59.8%
Percussion	19	29	2	0	4.0%
Strings	2	2	0	0	0.0%
Overall Percentage	56.1%	40.8%	3.1%	0.0%	55.7%

Coefficients of the model were given in Table 7. The variable, Gender [Wald=22.719, $p < .001$] was a significant contributor to the model. The log odds indicated that males were 5.048 times more likely to select a brass instrument than a woodwind instrument compared to that of females. The log odds also revealed that males were 6.825 more likely to select percussion instruments than a woodwind instrument compared to that of females.

The variable ethnicity [Wald= 140.990, $p < .001$], was a significant contributor to the model. The log odds highlight that African-American band students were more likely (ExpB=32.27M) to select a string instrument than a woodwind instrument compared to biracial students. Therefore, a null hypothesis was rejected indicating that gender and ethnicity were not significant predictors of instrument selection in sixth-grade band students.

The relationship between two nominal variables—Rationale for Selecting Instrument and Plans for Band Experience

A chi-square test of independence was performed to look at the association between variables. All participants were included in this portion of the data analysis (N = 261). The null hypothesis being tested was that there was no significant relationship between the rationale for selecting instrument and plans for band experience. The alpha level was set at .05.

Open Ended Responses by category

Each participant was required to answer one open-ended question on the survey: "Why did you select this instrument?" Here, students listed their rationales for selecting the instruments they selected. The results of this question were categorized into 5 subcategories: Aesthetics, External Factors, Internal Factors, Miscellaneous, and Accessibility. Aesthetics refers to the natural traits of the instrument (appearance, size, sound, weight etc.). External factors include those sources of influence that were imposed upon the participant. Internal factors refer to the participants' personal rationale for selecting their instrument. The miscellaneous sub-category includes the responses that were outside the categorical characteristics of the other categories. Accessibility refers to the availability of the instrument at school, home or its affordability. There were no open-ended responses categorized under the 'Accessibility' subcategory.

Each table below (Tables 9-12) provides a cross-tabulation of the free-responses within each subcategory and the participant's plans for band participation. The choices for band participation included: a) this year only, b) middle school, c) high school, and d) college. Overall, 88 students (33.7%) planned on playing their instrument a) this year only, 75 students (28.7%) through middle school, and 41 students (15.7%) through high school. Last, 57 students (21.8%) indicated they planned on remaining on their instrument through college.

The Aesthetic based free responses for the participants included: a) liked sound/look, b) it was right for me, and c) it was cool. Of the students whose responses were based on aesthetics, 13 students (4.9%) indicated they would play this year only, 21 students (8%) planned on playing through middle school, 8 students (3.1%) would play through in high school, and 21 students (8.1%) planned on playing throughout college.

Table 9. *Cross-tabulation of free-response reason for selecting instrument by plans for playing (Aesthetics)*

	This Year Only		Middle School		High School		College	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Liked sound/look	10	3.8	14	5.4	6	2.3	14	5.4
It was right for me	3	1.1	4	1.5	2	0.8	5	1.9
It was cool	0	0	3	1.1	0	0	2	0.8
Total	**13**	**4.9**	**21**	**8**	**8**	**3.1**	**21**	**8.1**

The free responses relating to External factors included: a) parents forced me to play it, b) family/friend played it, c) inspired by band director and d) I didn't-it was assigned to me. Of the students whose responses were based on External factors, 21 students (8%) indicated they would play this year only, 13 students (5%) planned on playing through middle school, 12 students (4.6%) would play through in high school, and 18 students (6.9%) planned on playing throughout college.

Table 10. *Cross-tabulation of free-response reason for selecting instrument by plans for playing (External Factors)*

	This Year Only		Middle School		High School		College	
	n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
Parents forced me to play it	2	0.8	0	0	0	0	1	0.4
Family/friend played it	9	3.4	10	3.8	10	3.8	14	5.4
Inspired by band director	1	0.4	2	0.8	1	0.4	0	0
I didn't--it was assigned to me	9	3.4	1	0.4	1	0.4	3	1.1
Total	**21**	**8**	**13**	**5**	**12**	**4.6**	**18**	**6.9**

The free responses relating to Internal factors included: a) fun to play, b) I wanted to try something new, c) I liked it and wanted to play, d) I can learn different notes, melodies, or instrument variety, e) it looked hard and challenging and f) no one played it and wanted to be different. Of the students whose responses were based on Internal factors, 29 students (11.1%) indicated they would play this year only, 20 students (7.7%) planned on playing through middle school, 14 students (5.3%) would play through in high school, and 8 students (3.2%) planned on playing throughout college.

Table 11. *Cross-tabulation of free-response reason for selecting instrument by plans for playing (Internal Factors)*

	This Year Only		Middle School		High School		College	
	n	%	*n*	%	*n*	%	*n*	%
Fun to Play	6	2.3	2	0.8	5	1.9	1	0.4
I wanted to try something new	6	2.3	3	1.1	0	0	1	0.4
I liked it and wanted to play	14	5.4	12	4.6	4	1.5	2	0.8
I can learn different notes, melodies or instrument variety	0	0	2	0.8	1	0.4	2	0.8
It looked hard and challenging	0	0	0	0	3	1.1	1	0.4
No one played it wanted to be different	3	1.1	1	0.4	1	0.4	1	0.4
Total	**29**	**11.1**	**20**	**7.7**	**14**	**5.3**	**8**	**3.2**

The free responses relating to Miscellaneous factors included: a) played in elementary, b) I just did/I don't know, c) easy to play and d) It was interesting/different from the other instruments. Of the students whose responses were based on miscellaneous factors, 23 students (9.6%) indicated they would play this year only, 21 students (7.9%) planned on playing through middle school, 7 students (2.7%) would play through in high school, and 10 students (3.8%) planned on playing throughout college.

Table 12. *Cross-tabulation of free-response reason for selecting instrument by plans for playing (Miscellaneous)*

	This Year Only		Middle School		High School		College	
	n	%	*n*	%	*n*	%	*n*	%
Played in elementary	8	3.1	4	1.5	1	0.4	5	1.9
I just did/ I don't know	2	0.8	4	1.5	0	0	0	0
Easy to play	12	4.6	9	3.4	4	1.5	4	1.5
It was interesting/ different from the other instruments	3	1.1	4	1.5	2	0.8	1	0.4
Total	**23**	**9.6**	**21**	**7.9**	**7**	**2.7**	**10**	**3.8**

Testing Assumptions of MANOVA

A one–way multivariate analysis of variance (MANOVA) was performed to see how band students' instrument choices might be guided by external and internal motivations. The independent variable is represented by instrument classification. The dependent variables included the band students' mean scores on the internal and external motivation subscales. The null hypothesis being tested is that there is no significant difference in band students' choice of instruments based on external and internal motivators. The alpha level is set at .05 for the multivariate tests (Mertler & Vannatta, 2010).

All participants were included in this portion of the data analysis (N = 261). The analysis was based on the rating system from the Likert scale ranging from 1 (not at all) through 5 (very much). Band students rated on average a 2.41 (SD = 1.141) for the external motivators (M = 2.41), and a 2.59 for the (SD = 1.305) internal motivators (M = 2.59). Students were only

slightly influenced by internal or external factors in their choice of instrument. Additionally, the most frequent responses to questions on both of these subscales were "not at all" (Table 13).

Table 13. *Descriptive Statistics of External and Internal Motivation*

	External Subscale	Internal Subscale
N	261	261
Mean	2.4061	2.5913
Std. Deviation	1.14051	1.30510

One-Way MANOVA Results

Band students' average scores on the external and internal motivation subscales are displayed in Table 14. It showed that regardless of instrument classification band students tended to indicate low ratings with external motivators influencing their choice of instrument. Band students (n = 51) who played percussion instruments had the highest mean scores (M = 2.52, SD = 1.191), while students who played string instruments (n = 4) had the lowest mean scores (M = 2.13, SD = 0.777). Similarly, they tended to display low ratings with internal motivators influencing their instrument selection. Band students (n = 89) who played brass instruments had the highest mean scores (M = M = 2.73, SD = 1.366) and students (n = 4) who played string instruments had the lowest (M = 2.08, SD = 1.134). Regardless of instrument classification, the participants tended to agree with internal motivators influencing their choice of instrument.

Table 14. *Descriptive Statistics of Extrinsic and Intrinsic Motivation by Instrument Classification*

	Instrument Classification	Mean	Std. Deviation	N
Extrinsic Subscale	Woodwind	2.4295	1.16238	117
	Brass	2.3202	1.10268	89
	Percussion	2.5245	1.19086	51
	Strings	2.1250	0.77728	4
	Total	**2.4061**	**1.14051**	**261**
Intrinsic Subscale	Woodwind	2.4501	1.24053	117
	Brass	2.7303	1.36596	89
	Percussion	2.7124	1.34498	51
	Strings	2.0833	1.13448	4
	Total	**2.5913**	**1.30510**	**261**

Chi-square results. The Pearson r statistic and its associated Sig. value produced from the results of the chi-square test indicated that the relationship between *rationale for selecting instrument* and *plans for band experience* was statistically significant, $X^2(48) = 69.653$, p=.02; therefore, I rejected the null hypothesis that there is no significant relationship between rationale for selecting instrument and plans for band experience.

Table 15. *Chi-Square Tests*

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	69.653	48	.022
Likelihood Ratio	77.454	48	.004
Linear-by-Linear Association	.153	1	.695
N of Valid Cases	261		

Generally, the Phi coefficient is used to interpret the strength of the association when the variables have only two levels. However, Cramer's V coefficient is appropriate for determining the strength of correlations when the variables have more than two levels (Steinberg, 2008). In Table 11, Cramer's V = .298 is highlighted, suggesting a moderate relationship between *rationale for selecting instrument* and *plans for band experience*.

Table 16. *Symmetric Measures*

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Nominal by Nominal	Phi	.517			.022
	Cramer's V	.298			.022
Interval by Interval	Pearson's R	-.024	.063	-.391	.696[c]
Ordinal by Ordinal	Spearman Correlation	-.041	.063	-.655	.513[c]
N of Valid Cases		261			

Note: a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

CHAPTER 5: Discussion

Introduction

The purpose of this quantitative descriptive study was to identify the influence of musical instrument choices made by sixth grade beginning band students in the Atlanta Public School System and to identify the tendencies and rationale that occurred amongst their choices in order to assist band directors in building stronger foundations of band programs in the Atlanta Public school system. This study was guided by a research question that asked what factors contributed to the instrument choices made by sixth grade beginning band students. The study found that the majority of beginning sixth-grade band students reported a variety of factors when deciding to select an instrument. Some of those factors included playing an instrument because they liked the sound/look of the instrument, they were influenced by family/friends, or they simply liked it and wanted to play. Gender may have played a role in the decision to select an instrument, as males were 5.048 times more likely to select a brass instrument than a woodwind instrument compared to females. Other areas that appeared to determine instrument selection included an instruments' timbre, longevity for playing the instrument, and the instrument's aesthetics.

Research Design

A quantitative descriptive research design was used in this study. Ormond and Leedy (2010) stated that survey research involves acquiring information about one or more groups of people – focusing on their characteristics, opinions, attitudes, or previous experiences, by asking questions and tabulating their answers in a quantitative manner. Therefore, a descriptive research design was the most appropriate methodological design used to identify the tendencies and rationale amongst instrument choice and to establish associations between variables. Because this study examined 6th-grade band students in the Atlanta Public School System, descriptive

research design was best suited as it aimed at collecting data for larger sample sizes that were representative of the population (Creswell & Creswell, 2017).

A survey was used to collect information regarding gender, ethnicity, whether they were on free and reduced lunch, an instrument played, and why they chose that instrument. Additionally, the researcher asked questions to aid in determining the influences of that choice. The free response question responses were organized into separate categories as were the Likert scale responses. These categories included Aesthetics, Internal factors, External factors, and Accessibility. Any other responses were categorized as Miscellaneous.

The purpose of the study was to identify what factors contributed to the instrument choices made by sixth grade beginning band students. The majority of participants (n = 153, 58.62%) reported that they had an instrument in the home before playing, indicating that this may have contributed to the decision as to whether they began playing an instrument in the sixth grade. Having an instrument in the home may have increased exposure to an instrument, which may influence musical instrument selection.

When it came to the popularity of instruments for sixth grade students, the instruments that were the most popular included that of the clarinet, the trumpet, and percussion. The least popular instruments included bassoon, xylophone, and tenor saxophone. The availability of the instrument at the school may have influenced the choices. The Fine & Performing Arts Department in every school in the Atlanta Public School System is afforded a budget. That budget dictates the purchases to be made for the ensembles and classes. Often times, band directors must decide to make one big purchase (i.e. bassoon, tuba, xylophone), which encompasses the entire budget or several less expensive purchases (flute, clarinet, trumpet), which ensures more students will play an instrument. As a result, many band programs contain

instrument inventories filled with flutes, clarinets, trumpets and other instruments of economic affordability. It is possible that when a 6th grader sees an old baritone or saxophone that costs too much to replace next to a brand new clarinet, they are likely to choose the clarinet. Adolescents may often times choose new over old, and clean over dented and worn out. Many band programs rely on a strong booster to raise money to purchase the more expensive instruments, but not all schools in the study may have had a booster club. Schools with increased budgets may give band directors more options when making instrumental purchases for their band programs. This in turn ultimately may give the students a greater variety of instruments to select from. I did not request information about budget or available inventory from the directors for this study and further research about the relationship of student choice and inventory and condition is warranted.

According to the results of the study, the aesthetics of the instrument played a vital role in which instrument the student selected and how long they intended to play. Forty-four students reported in the free-response section that they (16.9%) selected an instrument because they 'Liked the sound and/or look.' Also, if a band program requires mandatory practice at home, then a determining factor could be if the instrument is too heavy to take home. Thus, it is vital for the students to see, hear, feel, hold and even attempt to play the instrument before making a final selection. That way, they will likely select an instrument that best suits them during their entire band experience.

Similarly, Cutietta and Foustalieraki's (1990) study found that a relationship existed between musical instrument preference and success in learning to play a musical instrument. Additionally students who could accurately identify the sound of the instrument they found most pleasing were more likely to be successful playing the instrument than students who could not identify the sound of the musical instrument.

Szpunar, Schellenberg, & Pliner (2004) found that incidental listening and focused listening, with focused listening being the strongest, were the primary forms of exposure when it came to identifying musical instruments. They also found that any changes of music preference correlated strongly with being exposed to certain musical instruments. Similarly, Cutietta and Foustalieraki's (1990) reported that exposure to different musical instrument timbres (sounds) may have altered the perceptions of students regarding instrument choice. Therefore, students in the current study may have been influenced to pick their instrument because it may have been in their home.

A surprising finding in the study was that accessibility was not an important factor in instrument choice. No student reported in the free-response section that accessibility influenced their choice. The factors of accessibility included having an instrument available at home, having access to an instrument at school or having purchased their own instrument. The data indicated that 153 students (58.6%) had instruments at home before playing. This may infer that having access to their selected instrument was no issue; however, the data does not specify if the instruments at home were the instruments the students actually selected. In Atlanta Public Schools, the students are not required to provide their own instrument in order to participate in band. The school provides the students with their individual instruments based upon the school's inventory. These findings could also denote the nature of their school's instrument inventory in that the schools were well equipped to supply the students with enough instruments.

The results of this study did find a slight preference of choice based on gender between the three instrument families: woodwind, brass, and percussion. The results of the Likelihood Ratio Tests demonstrated that gender was a predictor of instrument choice. The results indicated that males were 5.048 times more likely to select a brass instrument than a woodwind instrument

compared to females. The log odds also revealed that males were 6.825 more likely to select percussion instruments than a woodwind instrument compared to females.

One of the first studies exploring gender and instrument choice was conducted by Abeles and Porter (1978) which determined that the adults displayed the strongest sex-stereotyping regarding flute and clarinet with females and trumpet with males. Abeles and Porter's (1978) study concluded that violin and flute (woodwind) selections were characterized as feminine musical instruments and drum (percussion), trombone (brass), and trumpet (brass) were identified as masculine instruments. The authors also concluded that sex-stereotyping was not prevalent amongst very young children but appeared to increase with age. The findings in the current study aligned with Abeles and Porter (1978), whereas males were 5.048 times more likely to select a brass instrument than a woodwind instrument compared to females. Additionally, males were 6.825% more likely to select percussion instruments than a woodwind instrument compared to females. Although some of the instruments did appear to differ between the two studies, an individual's gender did appear to play a role in the selection of an instrument. These results were also supported by Fortney, Boyle, and DeCarbo (1993), who researched instrument selection between the different genders from a middle school perspective. Their study concluded that out of the students who were enrolled in middle school music programs, females were more likely to select instruments such as the flute or clarinet than males, whereas males were more likely to select instruments such as the saxophone or trumpet than were females.

The likelihood ratio test also revealed that ethnicity may have been a contributing factor for instrument choice. In terms of ethnicity, the results highlighted that African-American band students were more likely to select a string instrument (electric bass) than a woodwind instrument compared to biracial students. Only 4 individuals (2%) selected a string instrument as

opposed to 117 students (44.83%) who selected a woodwind. The likelihood of an African American student (*n = 168)* selecting any classification of instrument would be greater than a biracial student (*n* = 9). Numerous factors may account for the findings. The string instrument (electric bass) may have been offered at a school with a lower percentage of biracial students. Or conversely, woodwind instruments are offered in the schools with a higher population of biracial students and lower percentage of African American students. Therefore, a null hypothesis was rejected indicating that gender and ethnicity were not significant predictors of instrument selection in sixth-grade band students. Thus, these statistics should be taken with caution.

Sandene (1997) suggested that retention is related to intrinsic and extrinsic student motivation in that if students are motivated to succeed in instrumental music, then they are likely to continue to be enrolled in band programs. In this study, the participants reported in the free-response section a number of external factors that led to their instrument selection. Those factors included the parents forcing the students to play, having family/friends to play it [the instrument], being inspired by the band director, and simply having the instrument assigned to the student. The data from the external factors highlighted that students who selected an instrument because a family member/friend played it were likely to remain on that same instrument throughout middle school, high school, and some even through college. This finding indicates that when the influence comes from family/friends the probability of there being longevity is present and the parent's investment in getting that instrument may not be in vain. Family members and friends may serve as a source of motivation as well as extra enrichment. Also, this notion points to a sign of stability for both middle school and high school band directors when building the foundations of their ensembles.

To highlight these results in conjunction with previous studies, Katzenmoyer (2003) completed research that concluded that fifth through ninth grade students reported the most frequent factors for their instrument selection were "parents, other relatives, friends, music, teachers, sound of the instrument, look of the instrument, size of the instrument, availability of the instrument, cost of the instrument, and familiarity of the instrument through television and celebrity status (p.10)." In this current study, the results aligned with Katzenmoyer's (2003) study as 43 participants (16.5%) reported that a family/friend played it, highlighting the influence of family and friends on the selection of an instrument.

The data from internal factors revealed that the students who chose an instrument because 'I liked it and wanted to play' selected that they were likely to play for their 6th grade year and throughout middle school only. The students are least likely to extend their music education on that particular instrument throughout high school and college. This may prove problematic for parents who invest in an instrument for their child assuming the child will remain on it throughout high school and college. Furthermore, this may prove problematic for high school band directors who rely on their middle school feeders to supply them with certain instrumentalist to fill out their band instrumentation. For example, if a high school is depending on a tuba player from middle school, and that middle school tuba player is playing tuba because 'I liked it and wanted to play', then there is a high probability that the middle school tuba player won't play in high school. When that happens, the instrumentation in the high school program becomes unbalanced and the high school band director has to make adjustments to his/her ensemble.

According to the Miscellaneous data, many students chose an instrument because it was 'Easy to play.' Often times, students correlate the physical requirements necessary to play an

instrument with the instrument's perceived level of difficulty. For instance, beginning band students assume the trumpet is easier to play because it requires only three fingers to operate, whereas the woodwinds require all ten. Beginning percussionists assume that playing the percussion is simply "banging on the drums," when in fact it takes a great deal of technique and skill to master the percussion instruments. Also, some students assume the trombone is easy because it lacks any keys/valves at all. Parents and band directors should be cautious when a student chooses an instrument based on this logic. According to the data from this survey, these students are more likely to play that instrument for their 6th grade year only. This lack of commitment on the instrument means that the student may be more likely to quit, the parent spent money acquiring the instrument, and the balance of the band director's ensemble instrumentation may be affected.

The results further highlighted the association between the variables, 'Reason for selecting instrument' and 'plans for playing.' All participants were included in this portion of the data analysis (N = 261). Of the students who responded, 88 students (33.7%) planned to play this year only, 75 students (28.7%) planned to play through middle school, 41 students (15.7%) planned to play through high school and 57 students (21.8%) planned to play through college. According to the data, only 37.5% of students will remain on their instrument past middle school. This statistic begs the question, "What transpires during middle school to yield such low retention rates in band?" Or, do students come into band with the idea they will only play three years. In this study, the surveys were given to the students seven weeks into their 6th grade year. This indicates that their decisions to remain in band for their 6th grade year, middle & high school, and college were based on seven weeks of their band experience. It was during this time that they reflect on their choices about on their instrument selection, band director, band

program, classmates, and school as a whole. The possibility remains that as the students matriculate through their 6th grade year, they gain new experiences that alter their mindset from the first 7 weeks. It further indicates the potential expectation for their instrumental longevity. Therefore, another recommendation for a future study could include a longitudinal study that could continue to track sixth-grade band students into future grades to determine how their instrument selection has supported their music educational journey.

The recommendation for all future stakeholders is to gauge the student's rationale for a selecting an instrument and compare that with the projected longevity the student may be on the instrument. For example, if a student chooses an instrument because they "like the sound/look", then there is a higher probability that they will remain on that instrument throughout college as opposed to their 6th grade year only. This understanding may save time and money for all parties involved.

Ben-Tovim & Boyd (1995) believed that failure to select the appropriate instrument leads to attrition amongst band students. Papinchak (1992) suggested that student retention in instrumental music was based on: student selection, motivation, and support; communication; student, teacher, parent, and peer attitude; materials and methodology; format of the instrumental music program. Future research should be explored to further indicate why the middle school to high school retention rate is declining

Limitations

There were some limitations that should be discussed in this study. First, this study was limited to sixth-grade band students in the Atlanta Public School System; therefore, results should not be generalized outside of this geographical region. Additionally, this study was

completed at schools that were identified as Title 1 schools, again, limiting the generalizability to other populations.

A second limitation to the study was that of the methodology and the data collection procedures. Because this study was statistical in nature, participants were not provided the opportunity to expand further on any answers they provided in the free response, and instead filled out Likert scale questions. It is also worth noting that during the statistical analysis, the first Likert scale question, '1. Weight/Size of the Instrument', seventh question, 'Recommended by friend/family member', and ninth question, 'Associated with my favorite of genre of music & artist' could each be two questions. A family member recommending something is different than a friend recommending something. With these combined in one question, no information about the differences in influence of a family member compared to a friend could be explored. Therefore, future researchers should consider separating the questions to two questions on the Likert scale.

Furthermore, the rating scale in the Likert scale should have clear definitions for each number. This study only defined the rating of 1 as not at all and the rating of 5 as very much, making it difficult to interpret the ratings of 2, 3 or 4 made by the participants. The entire Likert scale should be labeled as: 1. Not at all, 2. A little, 3. Somewhat, 4. A good amount, to 5, Very much.

A third limitation to the study was that the survey did not require the participants to indicate which school they attended. As a band director in the corresponding school system, I purposely did not keep track of the participants' individual school data so as to not inadvertently cast judgment on my fellow band directors and their band programs. Future studies should include utilizing a survey that identifies the school each participant attended. This demographical

information would derive more data for the researcher to explore the influence of SES and the availability and condition of inventory within instrument selection research.

Recommendations

Previous research has highlighted how students can be more successful in musical education if they follow band directors' recommendations when it comes to music instrument choices (Pizer, 1978; Solomon, 1983). It is recommended that sixth-grade band directors reflect on the results of this study to better understand the factors and influences that beginning sixth-grade band members have when making an instrument choice. This study highlighted other factors that band directors should take into account, namely the exposure of a musical instrument in their students' homes, whether a family member or relative had previously played the musical instrument, or if the students are drawn to the instruments aesthetic qualities.

Future studies should be focused on the continuation of this topic, with perhaps a more diverse population outside of one school district. Additionally, future studies could complete research within a different methodological design in order to explore experiences and perceptions of students by collecting data via semi-structured interviews and other qualitative formats. This type of research would allow researchers to better explore instrument selection for beginning band members in sixth grade milieus and in-depth reasons as to why they have selected the instruments that they are playing. The results of this study could be useful to band directors throughout middle school environments when discussing the importance of instrument selection and the effects of that choice on retention through different grade and educational levels in order to help maintain and build music education and the performing arts within their school and the school systems.

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APPENDIX A

Office of Research +Evaluation

130 Trinity Ave., SW, 6th Floor | Atlanta, Georgia 30303 | P: 404.802.2672 | F: 404.802.1601

Date: August 27, 2015

To: Mr. John Conner
[redacted]

From: Mr. John Keltz
Interim Director, Office of Research + Evaluation
Atlanta Public Schools
130 Trinity Ave. SW 6th Floor
Atlanta, Georgia 30303
[redacted]

Re: Letter of Support

Dear Mr. Conner:
Your request to conduct research within the Atlanta Public Schools (APS) has been reviewed by the Research Screening Committee in accordance with its guidelines. Your research prospectus entitled "**An exploration of the societal influences on the musical instrument choices of 6th grade beginning band students in Atlanta, Georgia**" has the support of the Atlanta Public Schools and the Office of Research + Evaluation.

The purpose of this study is to identify the factors that contribute to the instrument selection made by 6th grade beginning band students in the Atlanta Public School System. In doing so, it helps to identify the tendencies that occur among the choices of beginning students and the rationale for their choices. This study is significant because it allows instrumental music teachers, parents of band students, and all stakeholders of the band genre to utilize their knowledge of a student's rationale for selecting a particular instrument and help them gain an optimal instrumental music experience and foster a sincere growth in music education as a whole. [redacted] are the selected schools for this research study.

The research screening committee looks forward to reviewing the final research proposal and research application upon IRB approval from The University of Georgia. Please contact Dr. Curtis Grier at [redacted] or at [redacted] if you need any further assistance.

Sincerely,

John Keltz

"The mission of the Research and Evaluation Department is to build capacity through research, evaluation, and the application of data to inform school improvement for student success."

ATLANTA PUBLIC SCHOOLS
Making A Difference

APPENDIX B

Recruitment Flyer

Are you a 6th grader in beginning band?!?!?
Let your voice be heard!

Please see your band director at the beginning of class to take part in an EXCITING new study about MUSIC INSTRUMENTS!!! ☺ ☺ ☺

Must be a beginning 6th grade Band student

APPENDIX C

Instrument Selection Survey

Gender: Male / Female

Ethnicity:_____

Do you currently receive free or reduced lunch? Yes / No

What instrument do you currently play?_____

Do you like your instrument? Yes / No

How long do you plan to stay on this instrument? (circle one)
1.This year only 2. Throughout middle school 3. Throughout high school 4. Throughout College

Why did you select this instrument? _____

_____

Did your home contain any musical instruments (flute, piano, etc.) before you started playing your current instrument? Yes/ No

Think back to when you first decided to play your current instrument. Using the following scale (1 – Not at all, 5 – Very much) please indicate if the following factors affected your choice of instrument selection.

1.Weight / Size of the instrument	1	2	3	4	5
2. Liked the sound	1	2	3	4	5
3. Liked the appearance	1	2	3	4	5
4. Available at home	1	2	3	4	5
5. Offered at School	1	2	3	4	5
6. Price of the Instrument	1	2	3	4	5
7. Recommended by friend/family member	1	2	3	4	5
8. A friend/family member played the same instrument	1	2	3	4	5
9. Associated with my favorite of genre of music & artist (e.g. jazz & trumpet)	1	2	3	4	5
10. School needed people to play my instrument	1	2	3	4	5
11. My band director suggested this instrument for me	1	2	3	4	5

APPENDIX D

Band Directors Script

Dear Band Directors,

Thank you for allowing your students the possibility of participating in this study. The purpose of this study is to identify the factors that contribute to the instrument selection made by 6th grade beginning band students in the Atlanta Public School System. In doing so, it helps to identify the tendencies that occur among the choices of beginning students and the rationale for their choices.

This study is significant because it allows instrumental music teachers, parents of band students, and all stakeholders of the band genre to utilize their knowledge of a student's rationale for selecting a particular instrument and help them gain an optimal instrumental music experience and foster a sincere growth in music education as a whole.

When first speaking to the participating students, it is recommended that you state the following:

Director: Greetings students and thank you for your interest in this study! Before you participate, please make sure that you take the parental consent form home for your parents to sign and bring back. This ensures that you will be able to participate. Take a couple of seconds to think about your instrument. Think about why you are playing your instrument. This is only a short survey to see why you chose to play the current instruments that you play. When you take the survey try to do your best and remember that there are no wrong answers. You will not receive a grade for it and it is absolutely anonymous; meaning no one will know your name. Thank you again students for your interest in this study!

For any questions or concerns please do not hesitate to contact me at [redacted] or [redacted] or give me a call [redacted]

Sincerely,
John W. Conner

APPENDIX E

Parental Consent Form

Parental Permission Letter

Dear Parents,

I am John W. Conner, a band director in the Atlanta Public School System and a doctoral student under the direction of Dr. Clint F. Taylor in the Hugh Hodgson School of Music at The University of Georgia. I invite your child to participate in a research study entitled "An exploration of the societal influences on the musical instrument choices of 6th grade beginning band students in Atlanta, Georgia" .The purpose of this study is to identify the factors that contribute to the instrument selection made by 6th grade beginning band students in the Atlanta Public School System. In doing so, it helps to identify the tendencies that occur among the choices of beginning students and the rationale for their choices. The requirements for the participants are as follows: 1. They must be in 6th grade, 2. Must be currently enrolled in a band class 3. Must be beginning on an instrument for the first time. Your child's participation in the research study only involves taking a brief 5-minute survey about why they selected the instrument that they're playing.

Your child's involvement in the study is voluntary, and your child may choose not to participate or to stop at any time. The participants shall remain completely anonymous. The results of the research study may be published, but your child's name or any identifying information will not be required. In fact, the published results will be presented in summary form only. There are no known risks or discomforts associated with this research.

The findings from this study is significant because it allows instrumental music teachers, parents of band students, and all stakeholders of the band genre to utilize their knowledge of a student's rationale for selecting a particular instrument and help them gain an optimal instrumental music experience and foster a sincere growth in music education as a whole.

If you have any questions about this research project, please feel free to call me, John W. Conner at [redacted] or send an e-mail to [redacted] or [redacted]. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, 629 Boyd GSRC, Athens, Georgia 30602; telephone (706) 542-3199; email address irb@uga.edu.

Thank you for your consideration! Please keep this letter for your records.

Sincerely,

John W. Conner, M.M.Ed

If your child is allowed to participate in this research study, please sign your name below.

Your Child's Name: _____

Your Signature: _____Date _____

Your Printed Name: _____

Signature of Researcher: _____ Date _____

Please sign both copies, keep one and return one to the researcher.

APPENDIX F

Assent Form

September 24, 2015

Dear Student Participant,

You are being invited to participate in a research study entitled "An exploration of the societal influences on the musical instrument choices of 6th grade beginning band students in Atlanta, Georgia".
This research hopes to find out and identify the factors that contribute to the instrument selection made by 6th grade beginning band students in the Atlanta Public School System. In doing so, it helps to identify the tendencies that occur among the choices of beginning students and the rationale for their choices. Your participation will involve completing a short survey about why you selected the instrument that you are currently playing. Completing this will allow the researchers to use the information that were collected through your participation to be included in their research.

Your participation, of course, is voluntary but would be greatly appreciated. You may choose not to participate or to withdraw your consent at any time. You do not have to say "yes" if you don't want to. No one, including your parents, will be mad at you if you say "no" now or if you change your mind later. We have also asked your parent's permission to do this. Even if your parent says "yes," you can still say "no." Remember, you can ask us to stop at any time. Your grades in school will not be affected whether you say "yes" or "no."

While participating in this study your identity will remain completely anonymous!.
The researcher conducting this study is John W. Conner. If you have questions, you are encouraged to contact them at [redacted], or [redacted]

Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, 629 Boyd GSRC, Athens, Georgia 30602-7411; telephone (706) 542-3199; email address irb@uga.edu.
Research Subject's Consent to Participate in Research:
I have read the above information and I consent to take part in the study.

Name of Child: _____**Parental Permission on File:** ☐ Yes ☐ No
(For Written Assent) **Signing here means that you have read this paper or had it read to you and that you are willing to be in this study. If you don't want to be in the study, don't sign.**

Signature of Child: _____ **Date:** _____
(For Verbal Assent) **Indicate Child's Voluntary Response to Participation:** ☐ Yes ☐ No

Signature of Researcher: _____ **Date:** _____

APPROVAL OF PROTOCOL

September 25, 2015

Dear Clint Taylor:

On 9/25/2015, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	"An exploration of the societal influences on the musical instrument choices of 6th grade beginning band students in Atlanta, Georgia"
Investigator:	Clint Taylor
IRB ID:	STUDY00002419
Funding:	None
Grant ID:	None

The IRB approved the protocol from 9/25/2015 to 9/24/2016 inclusive. Before 9/24/2016 or within 30 days of study closure, whichever is earlier, you are to submit a continuing review with required explanations. You can submit a continuing review by navigating to the active study and clicking Create Modification / CR.

If continuing review approval is not granted before the expiration date of 9/24/2016, approval of this study expires on that date.

To document consent, use the consent documents that were approved and stamped by the IRB. Go to the Documents tab to download them.

In conducting this study, you are required to follow the requirements listed in the Investigator

Manual (HRP-103).

Sincerely,

Adam Goodie, Ph.D.
University of Georgia
Institutional Review Board Chairperson

310 East Campus Rd, Tucker Hall Room 212 Athens, Georgia 30602
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