

5-2013

Exploring the Influence of Students' Socioeconomic Status Upon Musical Instrument Choice

LaTerence E. Varnado

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The University of Southern Mississippi

EXPLORING THE INFLUENCE OF STUDENTS' SOCIOECONOMIC STATUS
UPON MUSICAL INSTRUMENT CHOICE

by

LaTerence E. Varnado

A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Music Education
in the School of Music

April 2013

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Abstract

The purpose of this study is to investigate the effects of socioeconomic status (SES) of students on their instrument choice. Information about SES and instrument choices could be valuable to music educators, especially at the beginning band level. If socioeconomic status affects instrument choice, teachers who recommend instruments to students may more effectively prescribe choices and take considerations for their students. Also, it would be helpful to know if certain students from certain socioeconomic groups are predisposed to certain choices or restrict themselves to certain instruments.

A sample population of band students was taken from two schools. One school had a high population of lower SES students, whereas the other school represented more students from a higher SES level. Students received a researcher-designed survey that included items that gathered information about gender, primary instrument selection, secondary instruments, and influences upon instrument choice. A survey item also asks the student to state whether they receive free/reduced lunch, and this question was used to code surveys into a lower or higher SES group. Results suggest that SES may affect instrument choices among lower SES students, but this may be superseded by gender stereotypes, timbre preference, and/or influence from friends and family members.

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ACKNOWLEDGEMENTS

The completion of this thesis is because of the faith, patience, and cooperation of many people and organizations. Without their encouragement and inspiration, it would have been impossible, and I would not have been able to complete this work.

First, I would like to thank my parents. They have always supported every endeavor I tackle, and this was no different. Their faith in my potential was truly a blessing. They provided encouragement whenever I felt overwhelmed or defeated and were a driving force behind this project. I would like to give special acknowledgement to my father. His stories about his experiences in band gave me an inspiration for the research topic.

I would also like to express my gratitude to all participants, band directors, and superintendents from Hattiesburg High School, Hattiesburg Public School District and Oak Grove High School, Lamar County School District. They willingly gave up their time and resources in order to help me complete this project.

Next, I would like to acknowledge the McNair Scholars Program and the Honors College at Southern Miss. These two organizations presented me with an opportunity to pursue an independent research project. Their guidance, feedback and instruction were very instrumental in this process, and I probably would not have even had the chance to do this thesis without them.

I would like to thank Dr. Jennifer Shank, who advised me through the first stages of this project and helped me to get it off the ground. She was always available when I had questions and was very helpful.

Special thanks to Ms. Ida Mitchell, director of bands at Stone High School in

Wiggins, MS. I was still working on this while student teaching under her. She was very supportive and always encouraged me to press forward when I felt like I could do no more. She always provided a humorous story or bit of wisdom when I needed it the most and she has become a great mentor and friend.

Last, but not by any means least, is Dr. Amanda Schlegel who willingly and without hesitation took on the role of adviser after Dr. Shank was unable to continue in that role. She has been such an important role model, mentor, and adviser who did not mind me spending hours in her office just to work through a few pages or just to vent about my day. No matter how busy or swamped her schedule became, she was always there for me. At times, she has been like a family member to me, and I am very grateful that I was able to work with her on this thesis. She helped me when I felt discouraged or defeated about this paper and was always there to lend support (or food) when I needed it.

Without the dedication, support, and resources of all these people, organizations, and institutions, this project could not have come into fruition. I am truly thankful for each and every one of them. Thank you for your endless dedication, your tireless support, and your unwavering, steadfast, love. I could not have finished this thesis or this degree without you, and I hope that I can one day share the same type of blessings that you have provided me.

This is dedicated to my teachers and mentors, past, present and future, my future students, the USM School of Music, and my loving family.

Introduction

The success of many band students who begin any program may be dependent on their choice of musical instrument. Common factors known to influence instrument choices include gender (Abeles & Porter, 1978; Byo, 1991; Conway, 2000; Delzell & Leppla, 1992; Sheldon & Price, 2005), timbre preferences (Chen & Howard, 2004; Fortney, Boyle, and DeCarbo, 1993; Hudson, 2004), and family/friend input (Fortney, Boyle, DeCarbo, 1993).

Research has shown that SES can affect one's musical preferences and musical exposure (Craig & Peery, 1986; Peterson & Kern, 1996; van Eijck, 2001). Results of other research suggest that students of different SES levels may have different levels of achievement at certain musical tasks such as tonal memory or rhythm (Dawkins & Snyder, 1972; Gordon, 1980). Preferences, exposure, and musical aptitude may have an effect upon choice of musical instrument. Additionally, differing financial situations among SES groups may also affect the types of instrument a family may be able to afford for a student. Because of these differences in finances and musical experiences, a student's socioeconomic status may have an influence upon instrument choice.

The purpose of this study is to determine the effects of socioeconomic status (SES) on instrument choice. Information related to socioeconomic status and instrument choices could prove to be valuable to music educators. Results of this study may help teachers who recommend instruments more effectively prescribe choices. It may also prove useful to know if students from differing SES levels are predisposed to certain choices or restrict themselves to certain instruments.

Results of studies on common influences upon instrument choices were

investigated in order to gather information about known factors that affect instrument choice. Research on differences in musical exposure, aptitude, and preferences among SES groups, were studied in order to draw hypotheses about how SES may affect a students' desire to play certain musical instruments. Studies that refer to SES-related factors (i.e. availability, price, passed-down instruments) were used to make more inferences about instruments that may be selected by students at different SES levels and any effects that SES may have upon instrument choice.

Review of Literature

Known influences upon instrument choices include gender (Abeles & Porter, 1978; Byo, 1991; Conway, 2000; Delzell & Leppa, 1992; Sheldon & Price, 2005), timbre preferences (Chen & Howard, 2004; Fortney, Boyle, & DeCarbo, 1993; Hudson, 2004), and family/friend input (Fortney, Boyle, & DeCarbo, 1993). In order to make inferences about the effects of SES upon instrument choice, previous research about general information on students' instrument preferences, decision making, finances, and musical exposure among people of varying socioeconomic levels was used in this study. Additional studies that make references to SES-related influences were also investigated to draw research-based hypotheses about trends in preferences of students from certain socioeconomic levels.

Influences on Instrument Choice

Fortney, Boyle, and DeCarbo (1993) performed studies investigating general factors affecting musical instrument choices. Results revealed gender stereotyping of instruments (e.g. girls play flute and clarinet, while boys play low brass and percussion) as a major factor. However, students indicated that timbre (the way an instrument sounds) of the instruments was the greatest influence, while other influences included "people," that is, middle school music teachers, parents, and friends. They report that while not directly indicated by students, gender association overrides professed reasons for selecting an instrument (p. 28).

Abeles and Porter (1978) performed a landmark series of four studies on gender stereotyping of musical instruments. In the first study, surveys were handed out to adults. A hypothetical situation, adults were asked to indicate which instrument they would

encourage their child to select. Results showed that respondents preferred clarinet, flute, and violin for their daughters, while drums, trombone, and trumpet were more preferred for their sons. Cello and saxophone produced no significant differences. The second study was designed to place the instruments on a masculine-feminine spectrum. These results mirrored those of survey one, with flute clarinet, and violin being the most feminine, and drums, trombone, and trumpet being the most masculine. The results also showed drums as the most masculine and flute as the least masculine. Cello and saxophone were in the middle of the scale. The third study was designed to investigate instrument gender associations of children in kindergarten through fifth-grade. Participants were presented with large cardboard pictures accompanied by a photo of someone playing the instrument, and listened to recordings of the instruments playing an excerpt in the normal range and in a range centered on middle C. After hearing and seeing all of the instrumental examples, students were asked to select which instrument they would most like to play. Results showed that gender stereotyping was not strong in young children, but strengthens beyond third grade. The fourth study was designed to investigate the way in which instruments are presented to students as a possible cause of sex stereotypes. Participants were divided into three groups. The first group was presented with pictures of instruments, the second group had visual and aural stimuli, and the third group heard recorded excerpts while presented with pictures of children playing several instruments. They were then asked to identify instruments and select the instrument they preferred. Results showed that girls select a wider variety of instruments and were generally not affected by the mode of presentation. Both boys and girls in this study selected from the masculine end of the spectrum.

Later studies about gender stereotypes produced similar results. In a study of instrument preferences, Byo (1991) found that girls have higher preferences for flute, whereas most boys find it to be an unfavorable instrument. This was consistent with the results of the Abeles (1978) studies which noted the same gender-based instrument preferences. Sheldon and Price (2005) noted that females populated flute, clarinet, and double reed sections in professional ensembles, and that all other sections were mostly populated by males. Conway (2000) investigated gender stereotypes among high school instrumentalists. Results showed that a considerable number of students were aware of gender-instrument stereotypes, and that these ideas were a primary factor in students' instrument selections. For example, a boy did not want to play clarinet or flute because they were "more girly" instruments (p. 14). Most students who broke stereotypes (e.g. a boy who played flute) were reported as having a desire to break status quo and be different from others, whereas students who did not break stereotypes report influence from parents and peers. Other influences upon choice included wanting to play the melody, inspiration from demonstration on particular instrument by teacher, and parental or peer input.

Research into changes in gender stereotyping of musical instruments has also been investigated (Abeles, 2009; Byo, 1991; Delzell & Leppla, 1992). Byo (1991) cited trumpet as a more gender-neutral instrument and saxophone as highly preferable among boys; however, drums were also highly preferable among both sexes. The differences from the gender stereotypes as found by Abeles and Porter (1978), specifically higher preferences for drums, were attributed to notions that although stereotypes are still prevalent, they may be changing and shifting over the progression of time. These

conclusions were also consistent with results of another study which reinforced the prevalence of gender stereotypes, but also noted a similar change in these stereotypes over time (Delzell & Leppla, 1990). Abeles (2009) examined the gender-instrument rankings of 180 college students. Results showed a reduction in strength of stereotypes reported in earlier studies. Secondly, the researcher gathered data about instruments played by middle school students ($N= 2001$). Females still predominantly played flutes, clarinets, and violins, while males predominantly played drums, trumpet, and trombone. There was evidence showing that females are more likely to play nonconforming gender instruments than males.

Additionally, timbre preferences were reported as a major factor (Chen & Howard, 2004; Fortney, Boyle, & DeCarbo, 1993; Hudson, 2004). Most of the aforementioned articles listed timbre as the biggest or one of the biggest factors on instrument choice. Hudson (2004) contradicted the research on gender, stating that the majority of students in his study reported sound being and influencing factor for choice of instrument (p. 2; p. 90). In another study, 22.9% of participants cited that the reason for starting their instrument was that they liked the sound or the parents chose it for them (Chen & Howard, 2004).

Musical Aptitude Tests and Socioeconomic Status

A musical aptitude test is a test used to measure a person affinity for certain musical concepts such as pitch, rhythm, or tempo. These tests are used by many music educators who want to assess the strengths and weaknesses of current and potential students. Results from such tests may also be used to suggest or predict the musical instrument on which the student would be most successful. Multiple studies investigate

the use of musical aptitude tests and how SES affects performance on these tests (Dawkins & Snyder, 1972; Gordon, 1980; Kuhlman, 2005).

Dawkins and Snyder (1972) investigated performance of disadvantaged junior high school students on *The Seashore Measures of Musical Talent* which is a measure designed to test musical aptitude. The research further explored comparisons according to gender and race predicting that there would be no significant difference between disadvantaged boys and girls or African and white students (p. 439). The test measured students' understandings of musical concepts including pitch, rhythm, loudness, time, timbre, and tonal memory. Students were selected from a Title I school with mostly poor students. Tests were given, across a time period of a month and a half, to about forty students at a time. Answer sheets were coded to indicate race and gender. Analysis involved: 1) a comparison of disadvantaged white and black students to the testing norms 2) a comparison of disadvantaged male and females to the norms and 3) a comparison of the total group (170 students, 50 of which were music students) with the norms. Lower SES Caucasian and African-American students scored below national norms with the latter scoring the lowest. Both groups scored best on the rhythm test and lowest on the tonal memory test.

Gordon (1980) administered the *Musical Aptitude Profile* to disadvantaged students ($N=658$). Seventy-five percent of the disadvantaged students who score at or above the 90th percentile did not participate in music programs. Additionally, he conducted a study to test differences in musical achievement between the disadvantaged and the privileged. Results of Gordon's study challenge the overall validity of such tests, suggesting that with proper instruction, the disadvantaged, though deficient at the

beginning, can perform and achieve just as well as students who are more privileged.

Gordon also developed the *Instrument Timbre Preference Test* (ITPT), a test designed to identify sound preferences, helping to identify a student's preferred instrument choice based on timbre. The test uses seven different synthesized sounds of the same brief melody that represent the timbre of the flute, clarinet, double reed, saxophone/horn, trumpet, trombone/euphonium, and tuba. The ITPT takes approximately 22 minutes of listening time, including the recorded directions. The seven timbres are organized into 42 recorded test items on the cassette. Each of the seven timbres is paired twice with every other timbre, allowing each to be heard twelve times. It is heard as first in the pair six times and as second in the pair for six times. Each pair of timbres is a test item. The student is asked to listen to each test item and to indicate on an answer sheet which one of the two timbres he or she prefers (1991).

Gordon used synthesized sounds instead of natural ones to remove prejudice based on familiarity, gender bias, or previous experience with a particular instrument. However, this has also been one of the arguments against the test's validity. Results from a study on the ITPT's internal validity suggested that the synthesized tones may not produce a valid measure of timbre preference (Williams, 1996). Student musicians participating in the study only recognized the timbre of their own instrument 800 out of 1,541 times that it was heard (52% of the time) and preferred only 880 times (57% of the time) overall. Individually, timbres were only recognized 23% of the time and preferred 43% of the time. Additionally, the researcher suggests that changing the timbres to more realistic instrument sounds would increase validity (p. 276).

Payne (2009) investigated timbre preferences along with personality and gender

as influences on instrument choice. Participants ($N = 624$) were band students in four school districts in a southwestern state. The researcher used three instruments to gather data: a demographics questionnaire which produced a descriptive profile of the participants, the Adolescent Personal Style Inventory (APSI) which provided results on five personality traits (agreeableness, conscientiousness, emotional stability, extraversion, and openness), and Gordon's *Instrument Timbre Preference Test* (ITPT) which indicated timbre preference. Results revealed that the participants' personality trait levels of extraversion and openness were significantly related ($p < .05$) to timbres A (flute), B (clarinet), C (saxophone and horn), E (trumpet), F (trombone, baritone, and horn), and G (tuba). In addition, gender stereotyping was observable regarding both music instrument selection and timbre preference. In public school bands, gender was found to be a significant predictor of timbre choices A, B, F, and G. Significant relationships were found between personality traits, timbre preference, gender, and music instrument selection in public school band students. Levels of extraversion and openness, as well as gender and instrument choice, were found to be significant predictors of timbre preference.

Although results of research do not support or refute the idea that there are SES differences in timbre preferences, the results of research in timbre preferences and the ITPT reinforce the results of other studies that suggest an influence of timbre upon instrument choice. Published standardized music tests can be used to recommend or choose a musical instrument, and there is research that implies differences among people in different socioeconomic statuses with these tests, it may be possible that differences in socioeconomic status may produce differences in instrument choices. Two of the studies

(Dawkins & Snyder, 1972; Gordon, 1980) cited that the less advantaged students performed better on tests of rhythm than on those of tonal recognition, and pitch memory. If this is the case, lower SES students may be less successful playing an instrument that is reliant on pitch memory/tonal recognition such as horn; however, they may have greater chances of success on instruments that rely more heavily on rhythmic skills such as percussion.

SES: Financing, Decision Making, and Musical Exposure

As stated by the American Psychological Association (2013), “socioeconomic status is commonly conceptualized as the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation.” Families of higher SES generally have more income; thus they are able to exercise more liberties with budgeting, decision making, and miscellaneous purchases, whereas those of lower SES have less income and financial freedom (Sykes, 2011). These assumptions would provide some answers to the research questions as it would be expected that one may be inclined to choose a musical instrument based on its price and what his or her family can afford. However, SES differences in musical exposure and preferences should also be investigated.

There is a line of research that explores differences in musical preferences among individuals of various socioeconomic statuses (Peterson & Kern, 1996; van Eijck, 2001 Williams, 1972). Williams (1972) sought to determine whether experimental students of three different socioeconomic statuses had differences in attitudes toward selected types of musical genres and to determine if socioeconomic status and musical aptitude accounted for the greatest variance in attitude toward the selected musical genres. The

researcher chose 299 subjects, and 162 experimental students were taken from an undergraduate music appreciation course at a local university. The remaining participants for the control group were taken from an undergraduate English course. The researcher gave students a form with ten rating scales from one to seven with a set of bipolar adjectives (good-bad, interesting-boring, relaxed-intense) on the end of each scale. Musical examples from the five genres were played for the students, and they were asked to give ratings in each of scales (Mark “1” if it is totally boring, “7” if it is very interesting, “4” if your attitude towards it is neutral). Questionnaires were also distributed to the control group about musical aptitude and socioeconomic status. He found that there were no significant differences in attitudes towards the music for these groups, but SES accounted for the greatest variance in attitudes toward chamber and symphonic music. The study implies that certain types of music may be more appreciated by people of a certain SES. Chamber, symphonic, and opera music, in particular, would be more appreciated by higher SES individuals.

Conversely, more recent studies would make an opposing point about musical preferences and SES. Peterson and Kern (1996) proposed a more “omnivorous” (more diverse as a result of being exposed to different genres) musical taste among people of a higher SES level. Their research stated that although musical tastes among those of a higher SES were at one time limited to certain types of music, the range of preferences has broadened significantly over time. The researchers speculate that this shift from “snob” to “omnivore” relates to status-group politics influenced by changes in social structure, values, art-world dynamics, and generational conflict (p. 900). van Eijck (2001) conducted a similar study in which 3,178 Dutch citizens were surveyed about their

musical preferences. The researcher hypothesized that SES is positively related to the number of musical genres a person appreciates, and SES groups will differ more with respect to the number of genres to which they listen. The researcher expected to find a pattern of preferences organized around each of the genre discourses- that is, a folk pattern (folk, blues, accordion music, etc. expected to be appreciated older, lower SES people), a highbrow pattern (symphonic, opera, and chamber music expected to be appreciated by older, higher SES individuals.), and a pop pattern expected to be appreciated by younger participants who lack higher education. Higher SES individuals were shown to have a wider, more varied range of musical tastes. This study complements results from Peterson and Kern (1996), as both studies imply that individuals who are of a higher social SES tend to have a more heterogeneous set of musical preferences.

Peery and Peery (1986) explored the relationship between musical exposure and musical preferences. Their hypothesis was that repetition, modeling, and social reinforcement can influence musical preference. Forty-five preschool children were divided into experimental and control groups. Children were pre-tested on their liking of six classical and two popular pieces of music using Likert-scale ratings with cartoon facial expression instead of numbers for each piece. Pretest results showed that all children liked all pieces at the beginning of the study. Over a 10-month period, the experimental group received 45-minute classes in classical music appreciation during which they listened to classical music, sang themes, played musical games, learned the names/sounds of orchestral instruments, etc. The control group experienced a decline in classical music preferences, while the experimental group maintained their liking for

classical music with no pretest/posttest differences, and all groups liked popular music. This suggests that the degree to which one is musically exposed may affect his or her musical preferences.

Musical genres vary not only in style, but also in instrumentation. If students have more exposure or preference to certain types of music, then this could influence their affinity and familiarity with different musical instruments and possibly influence their likelihood of selecting certain instruments. For example, students who prefer pop music or jazz may be more inclined to play percussion because they like the drum set often played in these genres, while a student growing up exposed to orchestral music, may be more inclined to play a string instrument.

Peery and Peery (1986), Peterson and Kern (1996), van Eijck, (2001) and Williams (1972) have suggested that musical exposure can affect musical preferences. Additionally, there is some variation in musical preferences among individuals of different SES. In particular, the musical preferences of higher SES individuals generally include a wider, more “omnivorous” set of genres than those of lower SES individuals. This means that the number of genres of music to which they have been exposed is higher. Therefore, in reference to the research questions, this could imply that differences may not lie in the particular instruments chosen by music students of differing socioeconomic statuses, but in the number of different instruments that are being played. In other words, groups of students from higher SES families may represent a wider range of instrument selections because they may have: 1) more financial freedom, thus have an opportunity for a wider selection of instruments with no concerns about price and 2) been exposed to a more heterogeneous set of musical genres, and, as a result have a greater

familiarity and affinity for a wider range of musical instruments.

Instrument Choice and Socioeconomic Status

Research that directly investigates the effects of SES upon instrument choice is not as extensive as other research on instrument choice. These studies discussed the role of SES in instrument selection and the relationship between SES and instrument selection (Chen & Howard, 2004; Ester & Turner, 2009; Katzenmoyer, 2003; Mitchum, 1969). Results from these studies outline price, availability, and finances as influences upon musical instrument choice.

Ester and Turner (2009) examined the impact of school loaner programs on students and their musical achievement. Loaner programs are funded programs that loan instruments to financially disadvantaged students, so that they may participate in instrumental music programs. They stated the importance of such programs on development and self-esteem of lower income students. Their study also cited the musical achievement of these students, stating that they are able to perform on par with their higher SES counterparts. This statement is also reinforced in results of the research by Gordon (1980), which stated the students can perform just as well as any other student with proper instruction.

Mitchum (1969) investigated how various factors, including SES, may affect the predictability of musical aptitude and performance. He found a negative correlation ($r = -.35$) between SES and musical aptitude or performance capability. There was also a correlation ($r = -0.13$) revealed between SES and student instruments, suggesting that woodwind and high brass players tend to come from a higher SES than those who play low brass or percussion. Mitchum noted, however, the weakness of this correlation and

that this was not removed far enough from chance to produce valid, usable information (p.86).

Other research has identified factors related to SES also affected one's choice of musical instrument (Chen & Howard, 2004; Katzenmoyer, 2003). In addition to the common factors stated earlier (pg. 2), Katzenmoyer (2003) stated that availability and cost of the instrument, and television/commercial music were contributing factors to instrument choice. Cost and availability seem to reflect issues related to SES, as budget differences within families of different socioeconomic statuses and varied costs of types of instruments could affect what, if any, instrument is to be selected by a student. The study by Chen and Howard (2003) reinforces these ideas. In their study, 13.8% of participating students stated that they chose a particular instrument because it was already at their home and 8.9% stated that their instrument was available or required at school. The authors further noted that availability, family, and finance were contributing factors that were important to consider when looking into influences upon instrument choices.

Summary and Research Questions

While there are not many studies or investigations into the research topic, those that investigate common factors affecting instrument choice show some results, substantial or otherwise, in relation to socioeconomic status and instrument choices. The literature related to SES differences and musical aptitude suggests a potential influence of SES on varying aspects of music education and performance, stating that aptitudes for certain musical skills may be higher in one socioeconomic group than another (Dawkins & Snyder, 1972; Gordon, 1980; Kuhlman, 2005). This implies that there may be SES differences in achievement of music-related tasks, and this may affect instrument choice

or success on particular instruments. Furthermore, details about the ITPT illustrate how timbre preference may be used to assess musical instrument preferences and selections.

The literature on variations in musical exposure and preference among varying SES groups implied that musical exposure can indeed affect one's musical preferences (Peery & Peery, 1986; Peterson & Kern, 1996; van Eijck, 2001; Williams, 1972). With this in mind, research into musical preferences among people of different socioeconomic statuses suggest that socioeconomic has an effect on the number of musical genres that one likes or at least chooses to listen to at times. This literature provided details about musical preferences and exposure from a social perspective. The results from Williams (1972) which suggest that people of dissimilar SES levels have different preferences for specific musical genres is countered by newer research which suggests that higher SES individuals have more varied tastes in musical genres (Peterson & Kern, 1996, van Eijck, 2001).

The reviewed literature illustrates finance, family, and availability as factors affecting instrument choices (Chen & Howard, 2004; Katzenmoyer, 2003). In addition to these factors, Mithcum (1969) investigated the effects of many factors, including SES, upon musical aptitude. The results implied a weak relationship between instrument categories and SES of student musicians; however, he states that he could not draw a valid conclusion about SES and instrument choice as his results were not removed far enough from chance when looking at this phenomenon (p.86). This counters other research that may imply an influence of SES upon instrument choice (Chen & Howard, 2004; Katzenmoyer, 2003), and research that implies stronger relationships between SES and musical aptitude (Dawkins & Snyder, 1972; Gordon, 1980; Kuhlman, 2005). In

addition, research listing factors related to SES cite just how prevalent they were without explaining the occurrence of these influences.

Different SES groups are shown to differ not only in financial stability but also musical preferences and exposure. This may affect instrument choice as a wider range of musical exposure/preferences could increase the number of instruments in which a potential music student could express interest, familiarity and affinity. While the literature directly related to the research topic is not in abundance, it does suggest that SES and instrument choices are related. The relationship between the socioeconomic status of students and their instrument choices were investigated using the following research questions: 1) What is the distribution of selected primary instruments among students from families of varying SES levels? 2) Are students of particular socioeconomic statuses predisposed to picking certain instruments? 3) Are students in lower SES families choosing instruments based on what they want to play or what is available (passed down/school-owned instruments)?

Methodology

Research Perspective

The purpose of this research is to explore the relationship between the socioeconomic status of music students and their choices of musical instrument. This study was used to determine whether or not a student's socioeconomic status has relationship with his or her choice of musical instrument. Results were also used to determine if students of lower SES only pick school-owned instruments and if students select instruments because of the price. The research also determined if students in lower SES families choose instruments based on what they want to play or what is available (passed down/school-owned instruments).

Participants

Two schools were chosen for this study. School one is located in a small suburban area on the outskirts of a major city. Its student population is 62% Caucasian, 32% African American, 4% Hispanic, and 2% Asian. It is an academically high-performing school with a graduation rate of 80.2%, and thirty percent of its population is at or below poverty level. The second school, however, is located in a very urban area within a major city. School two's student population is 94% African American, 4% Caucasian, 1% Hispanic, and 1% Asian. The school performs below average academically, in an average-performing school district. The graduation rate is 72%, and 79% of school two's students are at or below poverty level. In order to get accurate data on both lower and higher SES students, these two schools were the targets of this study.

In order to narrow the study's focus, only band students (wind and percussion) participated. This choice of participants follows the methodologies outlined in previous

research (Chen & Howard, 2004; Fortney, Boyle, & DeCarbo, 1993; Katzenmoyer, 2003; Hudson, 2004). Participants in the study were high school music students in grades 9-12 including wind and percussion players from two high schools students that were chosen from two demographically different high schools. School one's student population is 62% Caucasian, 32% African American, 4% Hispanic, and 2% Asian, and school two's student population is 94% African American, 4% Caucasian, 1% Hispanic, and 1% Asian. Seventy-nine percent of School two's students are at or below poverty level, whereas 30% of school one's student population is at or below poverty level.

Research Instrument

The study explored various factors and necessitated that I ask participants questions related to their socioeconomic status and factors affecting their choice of musical instrument. I created an original survey to collect information regarding participants' socioeconomic status (SES), gender and ethnicity and choice of primary and secondary instruments. "Primary instrument" refers to the instrument that the participant mostly plays or mainly plays within the ensemble, and "secondary instrument" refers to any additional instrument other than the one stated as the primary, or main, instrument. The survey also included items for students to report factors affecting their instrument choice. To determine SES, the survey requested information regarding parent/guardian occupation and whether the student receives free/reduced lunch. Whether the students receive free/reduced lunches was used to as an indicator of SES; this is consistent with the methods used by prior studies (Fitzpatrick, 2006; Kinney, 2010). The survey also inquired about the student's current choice of instrument(s) and preferences/desires of secondary instrument(s). Student responses were analyzed to determine the nature of the

a effects between SES and instrument choice, observing how these factors may have not only affected personal choice of instrument, but also preferences for other instruments. The survey included four open-ended questions that enabled participants to discuss why they chose their respective particular instrument(s) and reveal instrumental preferences. Using a five-point Likert scale, participants rated their initial desire to play their primary instruments and secondary instruments. From a given list of factors based on previous research (Conway, 2000; Fortney, Boyle, & DeCarbo, 2005; Katzenmoyer, 2003; Sheldon & Price, 2005; van Eijck, 2001), participants also selected the greatest influence on their instrument selection. The possible choices for this item were: liked the sound, offered at school, available at home, price of instrument, suggested/insisted upon by friend or family member, a friend/family member played same instrument, school needed people to play instrument, associated with favorite genre, and other. Additional questions asked participants about availability of instruments in the home and financial concerns regarding instrument selection. This survey can be found in Appendix A.

Data Collection and Analysis

After obtaining permission from the appropriate school administrators and music teachers, surveys were distributed to the students at their schools. For the participants who were under 18 years old, permission to participate was obtained from their parents. Participation was completely voluntary and they could choose not to participate without any penalty. Afterwards, the surveys were coded and divided into two groups based on responses to questions regarding free/reduced lunch status. Students who receive free/reduced lunches were coded into a lower SES group, while those who did not were coded into a higher SES group. This is also consistent with the methods used by

Fitzpatrick (2006) and Kinney (2010). Data were collected from each group about the instruments that the students primarily play. Special note was taken of students who claim to play more than one instrument. The answers to open-ended responses in each group were recorded and analyzed for patterns. Frequency of answers was recorded and categorized according to the nature of the responses given. Analysis of primary and secondary instrument preferences and the factors affecting them was also completed.

Results

The participants surveyed ($N=64$) consisted of 26 females and 38 males. There were 44 African Americans, 15 Caucasians, two Asians, one Native American, and two students whose ethnicity was unreported. The students' surveys were coded into two groups based on socioeconomic status (SES). SES was determined by their report of whether they received free or reduced lunch. Students who receive free/reduced lunch were in the lower SES group ($n=36$), while those who pay full price were in the higher SES group ($n=28$).

Based on the research by Abeles and Porter (1978), Byo (1991), Delzell and Leppla (1992), and Sheldon and Price (2005), gender stereotypes were established as follows: flute and clarinet were stereotyped as the most feminine instruments, while low brass, trumpet, and percussion were the most masculine instruments. The saxophone and horn were placed in the middle of the scale, so they were considered as more unisex, or neutral, instruments. Table 1 displays the distribution of the instruments according to gender and SES group. Participants who play an instrument in accordance with the gender stereotype are stated as those who play "conforming instruments"; those who break the stereotype are stated as those who play "nonconforming instruments." Those

who play an instrument in the unisex range of the scale play “neutral instruments.”

Instances of students playing nonconforming instruments are shown in bold.

Table 1

Gender Distribution of Selected Primary Instruments

<i>Instrument</i>	<i>Free/Reduced Males</i>	<i>Full Price Males</i>	<i>Free/Reduced Females</i>	<i>Full Price Females</i>
Percussion	8	5	1	0
Saxophones	3	1	3	1
Trumpet	2	5	4	2
Clarinet	0	0	4	2
Trombone	4	3	0	0
Euphonium/baritone	2	0	2	0
Tuba	2	2	0	0
Horn	0	1	1	3
Flute	0	0	0	3

Almost 69% of participants played conforming instruments, whereas 14.07% played nonconforming instruments and 20.31% played neutral instruments. All of the participants who played nonconforming instruments were females, and the majority these females were from the lower SES group. Most of the saxophonists were male, and most of the horn players were female. This result is supported by results of prior research which state females are more likely to play nonconforming instruments than males (Abeles, 2009).

The first two research questions investigate the potential effect SES has upon

instrument choice and if students from a particular SES are predisposed to picking certain instruments. One item on the survey simply asked that students name their primary instrument. Table 2 displays the distribution of primary instrument selections between the two groups of music students.

Table 2

Distribution of Participants' Reported Primary Instruments

<i>Instrument</i>	<i>Free/Reduced</i>	<i>Full Price</i>
Percussion	9	5
Saxophones	6	2
Trumpet	6	7
Clarinet	4	2
Trombone	4	3
Euphonium/baritone	4	0
Tuba	2	2
Horn	1	4
Flute	0	3

Because of the relatively high price, tubas, euphoniums, percussion instruments, and, in some cases, horns are typically school-owned instruments. Almost 45% of participants in the free/reduced lunch (lower SES) group report playing instruments that are typically school-owned, most of which were percussionists. In contrast, 38% of the full price lunch (higher SES) group played school-owned instruments. It should, however, be noted that there was no survey item that asked whether the participant's primary instrument was personal or school-owned. There were no flautists in the

free/reduced group, but they were present in the full price group. There were also a larger percentage of horn players and clarinetists in the full price group.

Some participants reported playing one or more secondary instruments. In the group of participants who receive free/reduced lunch nine students (25%) report playing a secondary instrument, while 20 (56%) reported not playing one. In the full price group, fourteen (50%) participants reported playing a secondary instrument, while ten (35.71%) reported not playing one. Table 3 displays the reported secondary instruments in each of the two groups. Some students reported playing more than one secondary instrument.

Table 3

Frequency of Participants' Reported Secondary Instrument

<i>Instrument</i>	<i>Free/Reduced</i>	<i>Full Price</i>
None	20	10
Unreported	6	2
Percussion	4	2
Trombone	2	0
Violin	2	2
Viola	0	1
Cello	1	2
Piano/organ	1	7
Tuba	1	0
Sax	1	4
Euphonium	1	2

The percentage of participants in the full price group who play secondary instruments was considerably larger than that of the reduced/free group. In the reduced/free group, the most common secondary instrument was a percussion instrument, while the most common secondary instrument in the full price group was piano. The second most common secondary instruments in both groups were stringed instruments.

Participants were also asked to rate, on a Likert-scale of one (strongly disagree) to five (strongly agree), their initial desire to play their primary and secondary instruments at the time of selection. The mean rating of the lower SES group's primary instrument selection was $M= 3.75$ ($SD= 1.11$), and the average rating from the higher SES group was $M=3.89$ ($SD = 1.17$). The average rating of the lower SES group's secondary instrument selection was $M= 4.18$ ($SD= 0.75$), and the average rating from the higher SES group was $M=4.07$ ($SD= 1.16$). These differences in the means suggested that overall initial desire to play their selected instrument was somewhat greater in the higher SES group than in the lower SES group.

An important facet of this endeavor was to ascertain if students in lower SES families choose instruments based on availability rather than genuine interest or desire to play their instrument and if these same students select or reject instruments because of price or finances. Three items in the survey provided data and addressed these questions: Two open ended responses about the reason for primary and secondary instrument choice and selection of greatest influencing factor.

The self-reported responses were coded into categories: interest, family/friend influence, instrument testing, perceived ease, needed hobby, no interest/not student's choice, previous musical experience, teacher recommendation, availability, unreported,

and other. Most participants' responses fit into one category but a few responses were coded into two categories. Table 4 displays student self-reported response categories pertaining to the reason for their instrument choices. Since some responses coded into more than one category, the tables report the frequency at which a type of answer occurred rather than a percentage.

Table 4

Frequency of Participants' Self-reported Reasons for Picking Primary Instrument

<i>Response category</i>	<i>Free/reduced</i>	<i>Full price</i>
Interest	11	11
Family/Friend Influence	5	2
Instrument Testing	5	6
Perceived Ease	5	1
Unreported	4	0
No Interest/Not student's choice	3	0
Needed Hobby	2	0
Other	3	4
Previous Musical Experience	1	2
Teacher Recommendation	1	2
Availability	1	0

In both groups, answers pertaining to genuine interest were the most common self-reported reasons for selecting a primary instrument. Answers related to perceived

ease (i.e. “I thought it would be easy to play”), need for a hobby, and availability were more common in the free/reduced group than in the full price group. Also, there were participants in the free/reduced group who stated that the instrument was chosen for them or that they were not initially interested in the instrument. These responses did not occur in the full price group.

Participants were also asked to state reasons for secondary instrument selections. Table 5 reports the data from the answers to this survey item. Since some responses coded into more than one category, the tables report the frequency at which a type of answer occurred rather than a percentage.

Table 5

Frequency of Participants’ Self-reported Reasons for Picking Secondary Instrument

<i>Response Category</i>	<i>Free/reduced</i>	<i>Full price</i>
Interest	4	7
Needed Hobby	1	0
Previous Musical Experience	1	2
Family/Friend Influence	1	5
Instrument Testing	1	0
Other	2	3
Teacher Recommendation	1	1
College	0	1

Frequencies of some responses to this item were similar to responses from the earlier survey item pertaining to primary instrument selection. Once again, genuine interest was the most common answer in both groups. Family/friend influence was

common in the full price group. Neither perceived ease, need for hobbies, nor availability appeared in responses from participants in the two groups.

There was also a selected-response question in which students were asked to select from a given list the greatest influencing factor upon their instrument choices. The possible responses were: liked the sound, offered at school, available at home, price of instrument, suggested/insisted upon by friend or family member, a friend/family member played same instrument, school needed people to play instrument, associated with favorite genre, and other. Some students selected more than one factor. The selected responses were coded into six categories: sound (sound and association with favorite genre), family/friend influence (family/friend suggested or previously played it), availability (offered at school and available at home), school need/self-esteem (school needed people to play instrument), price, and other. Based on responses to this survey item, Table 6 displays the greatest influences upon instrument choices for both groups. Since participants selected more than one major influencing factor, the table displays the frequency a response category was reported by the participants in both groups.

The most common influences upon instrument choice in both groups were sound and influences from family and friends. Answers related to availability were more prevalent in the free/reduced group than in the full price group, and answers related to price were exclusive to the free/reduced group (table on next page).

Table 6

Participants' Reported Greatest Influence upon Instrument Choice

<i>Response Category</i>	<i>Free/reduced</i>	<i>Full price Group</i>
Sound	19	16
Family/Friend Influence	13	13
Availability	11	6
School need/self-esteem	6	4
Unreported	5	0
Price	3	0
Other	3	3

Discussion

The intent of this study was to explore the relationship between the SES of music students and their musical instrument choice. There were some differences between the distributions of selected instruments in the two groups. Almost 45% of the participants in the lower SES group play instruments that are typically school-owned (tuba, euphonium, percussion, or possibly horn), whereas about 38% of the higher SES participants reported playing school-owned instruments. While this is not a major difference, it lends some support to the hypothesis that a greater percentage of the lower SES students would play primarily on school-owned instruments. Additionally, a greater percentage of students in the higher SES group (50%) reported playing a secondary instrument, and there were a large percentage of students in the lower group (52%) who reported that they did not play any secondary instruments. Perhaps, this result is due to possible differences in personal or family finances and availability of instruments in the home. A large number of the students who reported playing piano also reported that they played the piano because it was available in the home. Perhaps, these higher SES students have more readily available funds, making it is easier for them to acquire a desired secondary instrument. Thus, the results of this study provide some support to the hypothesis that more of the higher SES students would play secondary instruments because they have more financial freedom that is necessary for the acquisition of these instruments.

A larger percentage of students in the lower SES group reported playing percussion instruments, whereas, there was a greater percentage of higher SES participants who reported playing flute or horn. This particular occurrence may be

explained by the results of research that state more socioeconomically disadvantaged students are better at tasks relating to rhythm, while the more advantaged students were more proficient at tasks of tonal memory/recognition (Dawkins & Snyder, 1972).

The most common factors in choices in both the lower and higher SES groups were timbre and family/friend influence. Further analysis revealed that gender stereotypes may have also played a role in the students' instrument selection. Flute and clarinet sections in both participant groups were composed entirely of females, while most brass and percussion participants were male. This was consistent with many previous studies that also cited this stereotype (Abeles & Porter, 1978; Byo, 1991; Conway, 2000; Delzell & Leppla, 1992; Sheldon & Price, 2005). Only seven of out of all participants played nonconforming instruments. There were four female trumpeters, two female euphonium players, and one female percussionist. Coincidentally, six out of seven of these participants were in the lower SES group, and all of them were from School 1. This is consistent with results of research by Abeles (2009) which suggest that gender stereotyping is still prevalent, but females are more likely to play nonconforming instruments than their male counterparts.

Additionally, results showed timbre and family influence as the most commonly reported influencer upon instrument choices in both the lower and higher SES groups. While timbre and family/friend input were the greatest influences, they were also reported at similar frequencies in both groups. These results are consistent with the results of research by Conway (2000) and Fortney, Boyle, and DeCarbo (1993), whose findings support the premise that gender, timbre, and family/friend influences were the most common factors affecting instrument choice. The fact that timbre and gender were

both so prevalent could be explained by the results of prior research which implies gender can influence timbre preferences toward flute, clarinet, low brass, and horn (Payne, 2009).

Although there was a slight difference in the number of participants in both groups who played instruments that are typically school-owned, the overall distribution of selected primary instruments in both groups was somewhat similar, though there was a little more variety in the selected instruments in the higher SES group. The higher SES group had a substantially larger percentage of flutes and horns than the higher SES. In fact, there were no flute players among the participants in the lower SES group for this study. The higher SES group had an overall greater percentage of horns and woodwinds, while the lower SES group reported an overall greater percentage of percussion and euphoniums. The slightly greater variety in selected instruments in the higher SES group is consistent with results of research that suggest higher SES individuals may have a wider range of musical tastes than their lower SES counterparts (Peterson & Kern, 1996; van Eijck, 2001).

However, there were some differences in the reported reasons and influencing factors upon their instrument choices. On the open-ended response questions about reasons for primary instrument selection, there were responses that were unique to the lower SES group with little to no responses from higher SES group participants. These included responses pertaining to perceived ease, need of hobby, availability, and lack of initial interest. Moreover, on the selected response question, students in the lower SES group chose answers about price, but this answer did not occur at all in the higher SES group. Also, availability was a much more common factor with students in the lower SES

group. These results (see Table 6) are consistent with results from previous literature about factors related to SES and instrument choice (Chen & Howard, 2004; Katzenmoyer, 2003).

The results of this study suggest factors related to SES (price, availability, finances) had some influence in instrument selection. However, these factors are not as influential as initially hypothesized. As anticipated, responses that suggest SES was an influencing factor were more prevalent in the lower SES group. Twenty-two percent of answers from the lower SES group on the selected response item related to SES, compared to 14% in the higher SES group. Moreover, “price” was not selected by any participants in the higher SES group. Therefore, the results support the hypothesis that SES may affect instrument choice, as price and availability may be a more common factor affecting the instrument choice of lower SES individuals. This conclusion is also supported by results of previous studies (Chen & Howard, 2004; Katzenmoyer, 2003).

A considerable percentage of responses from lower SES participants suggested SES as an influence. Almost 45% of the participants in that group played instruments that are generally school-owned, 52% do not play secondary instruments, and 23% of answers to the selected response question related to price and availability compared to 14% in the higher SES group. Nonetheless, answers pertaining to timbre and influence from family and friends were the most prevalent in this group. Fifty-two percent of responses to the open ended questions from this group were related to sound and family/friend influence. Additionally, further analysis revealed that approximately 83% of students in the lower SES group followed gender stereotypes. Although SES affected instrument choice for reduced/free lunch group, it was not a greatly influencing factor; “offered at school,”

“available at home,” and “price of instrument” were not selected as frequently as hypothesized. According to the results, factors related to sound, gender, and family/friend influence supersede those that are related to price and availability. This could suggest that while lower SES participants are cognizant of their finances, they think more about sound and personal influences when they select an instrument. This conclusion is consistent with research that suggests that more common factors (gender and timbre) may override other reasons affecting musical instrument selection (Fortney, Boyle, & DeCarbo, 1993).

Additionally, instrument testing was cited more often in the higher SES group than the lower SES group as an influence upon choice in the open-ended responses. This could have been because of staffing differences between the two target schools. School one has more personnel who are specialists with certain instruments. These staff members are able to put students through an extensive testing process to provide recommendations. School two, where most of the lower SES participants attend, has two teachers who test all the students and may not get to have as extensive of a trial period. Therefore, fewer lower SES participants cited the testing process as a major influence upon their musical instrument choice. While these staffing situations may not represent all schools, it is important to note that the majority of students who claimed to select an instrument because they “tested well on it” came from the higher SES group from school one. However, the school itself may have had more effect on this occurrence than socioeconomic status of the participants.

The most prevalent factors were the same for both groups (gender, timbre, family/friend influence). Although, price and availability were considerably more

common in the lower SES group, these were often overridden by gender, timbre, and family/friend influence. Student interest for both groups was also very similar. The average ratings of the lower and higher SES groups' primary instrument selections were $M= 3.75$ ($SD= 1.11$), and $M=3.89$ ($SD= 1.17$) respectively. These numerical data along with answers to the open-ended questions from the survey suggest that genuine interest in playing the instrument was equally important in instrument selection for both groups of participants. Thus, the results of the research imply that, regardless of SES, gender, timbre, and personal influences are the most common influencers upon instrument choice and in some cases, these factors may supersede other factors such as price and availability. These conclusions are consistent with results of previous research into the most common influencers on instrument choice (Chen & Howard, 2004; Conway, 2000; Fortney, Boyle, & DeCarbo, 1993; Hudson, 2004)

In conclusion, socioeconomic status (SES) has some influence upon musical instrument choice. More students in the higher SES group played secondary instruments, most of which were reported as piano, violin, or viola. The greater percentage of lower SES percussionists and higher SES horn and woodwind players may be explained by research that suggests differences in certain musical skills between the two SES groups (Dawkins & Snyder, 1972). Additionally, higher SES students are may be more likely to play secondary instruments because they might have more readily available funds to invest in second instruments or may have another instrument in the home. The results of this study support the hypothesis that price and availability are more commonly reported as an influence on lower SES students' instrument choices than choices of higher SES students; however, these are not the *only* phenomena affecting these students' choices. As

suggested by prior research (Chen & Howard, 2004; Conway, 2000; Fortney, Boyle, & DeCarbo, 1993; Hudson, 2004), timbre, gender, and influence from family and friends will take precedence over the other factors that are directly related to SES. Therefore, educators should be cognizant of the SES of students and their families when recommending instruments. However, they should not discourage lower SES students from selecting certain instruments because of price, nor should they push all of these students to play school-owned percussion and low brass simply because of availability. Students in lower SES groups may still select any instrument based on timbre preferences, family/friends, gender, or genuine interest and play the instruments they want because of loaner programs, rent-to-own plans, or passed down instruments.

Limitations

There were certain limitations to this study. Most previous studies that examined instrument choice involved relatively younger participants who had selected their instruments closer to the time the study was done. This included middle school-aged students who had a more recent recollection of their instrument selection. This study was done with high school students who had been playing for at least two years before the surveys were distributed. Also, these surveys rely on self-reported data. Since these decisions were made several years prior, the results of the study may not fully reflect participants' attitudes at the time of their instrument selection. In addition to having to rely on memories, participants may have lied, exaggerated, or fabricated a desired answer or may have perceived that one answer was more favorable than another.

There were some limitations involved with the research instrument as well. Although some ideas for the survey questions were influenced by previous research, the

survey itself was an original, researcher-designed survey. Quite a few of the questions were based on the intuitions of the researcher and had no previous research influence on which they could be based. Also, the researcher did not pilot the survey to test its clarity and wording. Although the survey item about primary instruments was used to determine if participants played school-owned instruments, no item was included to address ownership of the instruments. Therefore, some statements about participants who play school-owned instruments may have been based on assumptions. Questions from the survey (most/least desired instruments, instruments at home, personal finances as a barrier) did not receive a large enough response from all students to be included in the analysis; therefore, they were excluded from the results. Perhaps, this was due to lack of clarity or understanding of these questions that could have been rectified had a pilot test of this survey been run before it was administered.

There were also some limitations with the population of participants that were used in this study. Six surveys had to be removed from analysis because five participants did not answer the question that was used to place them into SES groups, and one participant did not name their primary instrument. There were numerous students from the two schools that did not participate. There were no participating percussionists or euphonium players from school one; however, these instrumentalists are in that school's instrumental music program. Perhaps, rosters that listed band students and their respective instruments could have been pulled from each school in order to make up for this limitation and strengthen the results of this study related to gender and instrument choices. It should also be noted that the participants in this study came from band programs. Therefore, none of the participants primarily played string instruments.

Although these instrumentalists were excluded to narrow the study's focus, the results of the study are limited since all instrument families are not fully represented. Moreover, the populations of the two schools are not fully represented either, so results may be somewhat skewed due to lack of certain respondents.

The population samples chosen may have also created certain issues with this study. The instrumentalists at school one reported their reasons for instrument selection, but before the surveys were distributed, the band director at this school noted that the results might be biased because of the school's extensive instrument testing and recommendation procedures. That particular school has specialists for brass, woodwind, and percussion who have the students try all instruments and recommend instrument selections. Therefore, although students from that school cite more personal reasons for instrument choices, teacher recommendation may have more influence upon that sample of students than the results suggest.

Implications for Further Research

This study focused on the effects of SES upon instrument choice of wind and percussion students. My intention was to add to the body of knowledge on instrument choices and to provide helpful information to educators that would help them more effectively prescribe instruments to their students. Further research could include investigations of instrument choice from other social or cultural perspectives, an expansion of this study's focus to include stringed instruments, or a deeper look into the influence of SES upon music student's instrument-related decisions.

The study focused on SES from a financial perspective, but are there other social factors such as culture and media that can play a role in instrument choices? Some

participants stated in their open-ended responses that they chose a particular instrument because of a previous musical experience at a parade or concert. Also, a few percussionists stated in the survey they were influenced by watching the popular movie, *Drumline*. Answers like these may warrant further research into the influence of culture (family, ethnicity, social environment) and/or media (movies, television, mainstream music) upon musical instrument choices. While cultural influences may be considered an expansion of family influences, cultural events such as parades, church services, and festivals are often accompanied by music. Could seeing an instrument performed at one of these events influence a child to pursue playing that instrument?

There was another participant who stated that they selected the saxophone because they enjoyed jazz music, and the selected response item from the survey included an option, “Associated with favorite genre of music,” but when the data were coded, this was included in the “sound” category. However, additional research could focus on musical exposure and musical genre preferences, investigating their relationship with instrument choice. The literature reviewed discussed SES and musical preferences, and I used that information to make inferences about instrument choice; however it would be beneficial to explore just musical preferences and instrument choices. Can a person’s favorite genre affect their instrument choice? Again, one of the participants was a saxophonist who enjoyed jazz, but perhaps a violinist could have chosen his or her instrument because of a preference for orchestral music. An investigation into the effects of genre preference upon instrument choice would provide answers to these questions and complement existing knowledge about preferences, musical aptitudes, and instrument choices.

Although this study investigated the relationship between SES and the selection of musical instrument, further research may take a closer look into connections between SES and instrument choices. For each instrument, there are a multitude of makes, models, and manufacturers. Is the influence of SES on instrument choice more about what type of instrument the student chooses, or is it about the quality of the particular instrument? Each section of an ensemble may represent a range of SES levels, but are all of the trumpet players playing on quality Yamaha or Bach Stradivarius model instruments? Perhaps the lower SES individuals play on a less reputable, less expensive model. Additionally, research could expand, investigating the prevalence of upgraded instruments in high school ensembles. For example, how many lower SES high school flautists are still playing on their beginner flute with no B foot joint? Are there any clarinetists who still play on the plastic beginner clarinet instead of an upper-line wooden one? Are more of the higher SES individuals playing on high quality instruments and switching from student to intermediate model instruments in high school? One of the articles reviewed discusses the use of loaner programs for lower SES individuals (Ester & Turner, 2009). This prompts a question about ownership of instruments. Do lower SES individuals who do not play on typically school-owned instruments own their instruments, or are the instruments passed down, on loan, or rent-to-own? Knowing the means of instrument acquisition for these students could expand upon and strengthen the conclusions drawn from this study about the influence of SES upon choice of instrument.

This study focused on choice of band (wind and percussion) instruments, but what about the selection of stringed instruments (violin, viola, cello, double bass) or piano? Expanding the study's focus to include these instruments would be an essential step into

further research on this topic. In order to gain a full understanding of instrument choices, it would be necessary to include all instruments in such a study. Abeles and Porter (1978) included stringed instruments in their studies on gender and instrument choice, so it would be logical to include these instruments in a second run of this study or in further research. This would be worthwhile, as it could expand upon this study while adding a thorough investigation of instrument choices to the body of knowledge on this topic.

References

- Abeles, H. & Porter, S. (1978). The sex-stereotyping of musical instruments. *Journal of Research in Music Education*, 26, 65-75.
- American Psychological Association. (2013, April 27). Socioeconomic status. Retrieved from <http://www.apa.org/topics/socioeconomic-status/>
- Abeles, H. (2009). Are musical instrument gender associations changing? *Journal of Research in Music Education*, 57, 129-139.
- Bayley, J. G. (2000). *An investigation of the process by which elementary and junior high school teachers prepare students to choose a musical instrument* (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 304611192)
- Byo, J. (1991) An assessment of musical instrument preferences of third-grade children. *Bulletin of the Council for Research in Music Education*, 110, 21-32.
- Chen, S., & Howard, R. W. (2004). Musical instrument choice and playing history in post-secondary level music students: Some descriptive data, some causes and some background factors. *Music Education Research*, 6, 217-230.
- Conway, C. (2000). Gender and musical instrument choice: A phenomenological investigation. *Bulletin of the Council for Research in Music Education*, 146, 1-17.
- Dawkins, A. & Snyder, R. (1972). Disadvantaged junior high school students compared with norms of Seashore measures. *Journal of Research in Music Education*, 20, 438-444.
- Delzell, J.K. & Leppla, D.A. (1992). Gender association of musical instruments and preferences of fourth-grade students for selected instruments. *Journal of Research in Music Education*, 40, 93-103.
- Ester, D., & Turner, K. (2009). The impact of a school loaner-instrument program on the attitudes and achievements of low-income music students. *Contributions to Music Education*, 36, 53-71.
- Fitzpatrick, K.R. (2006). The effect of instrumental music participation and socioeconomic status on Ohio fourth-, sixth-, and ninth-grade proficiency test performance. *Journal of Research in Music Education*, 54, 73-84.

- Fortney, P. M., Boyle, J. D., & DeCarbo, N.J. (1993). A study of middle school students' instrument choices. *Journal of Research in Music Education*, 41, 28- 39.
- Gordon, E. E. (1980). Developmental music aptitudes among inner-city primary children. *Bulletin of the Council for Research in Music Education*, 63, 25-30.
- Gordon, E. E. (1991). A study of the characteristics of the instrument timbre preference test. *Bulletin of the Council for Research in Music Education*, 110, 33-51.
- Hallam, S. (2006). *Music Psychology in Education*. London: Institute of Education, University of London.
- Hinckley, J. (1995). Urban music education: Providing for students. *Music Educators Journal*, 82, 32-35.
- Hudson, M. L. (2004). *Relationships among personality types, timbre preferences, and choice of instrument by beginning band students in selected schools in southern Mississippi* (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3149913)
- Johnson, C. M; & Stewart, E. E. (2005). Effect of sex and race identification on instrument assignment by music educators. *Journal of Research in Music Education*, 53, 348-357.
- Katzenmoyer, S. P. (2003). *A study of the factors that influence the musical instrument selections of students: A comparison of teacher and student perceptions* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3093407)
- Kinney, D.W. (2010). Selected nonmusic predictors of urban students' decisions to enroll and persist in middle school band programs. *Journal of Research in Music Education*, 57(4), 334-350.
- Kuhlman, K. (2005). Musical aptitude versus academic ability as a predictor of beginning instrumental music achievement and retention: Research and implications. *Update: Applications of Research in Music Education*, 24, 34-43.
- Mitchum, J P. (1969). *The Wing 'Standardized Tests of Musical Intelligence': An investigation of predictability with selected seventh-grade beginning-band students* (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 7008565)
- Payne, P.D. (2009). *An investigation of relationships between timbre preference, personality traits, gender, and music instrument selection of public school band*

- students* (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3366051)
- Peery, J. C. & Peery, I.W. (1986). Effects of exposure to classical music on the musical preferences of preschool children. *Journal of Research in Music Education*, 34, 24-33.
- Peterson, R. A. & Kern, R.M. (1996). Changing highbrow taste: From snob to omnivore. *American Sociological Review*, 61, 900- 907.
- Sheldon, D.A. & Price, H.E. (2005). Sex and instrumentation distribution in an international cross-section of wind and percussion ensembles. *Bulletin of the Council for Research in Music Education*. 163, 43-51.
- Sykes, J. (2011) *Paychecks and parenting: Taxes, symbolic spending, and child expenditures among low-income working parents* (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3462114).
- Sergeant, D. & Thatcher, G. (1974). Intelligence, social status, and musical abilities. *Psychology of Music*, 2, 32-57.
- van Eijck, K. (2001). Social differentiation in musical taste patterns. *Social Forces*, 79, 1163-1185.
- Walker, M. J. (2004). Influences of gender and sex-stereotyping of middle school students' perception and selection of musical instruments: A review of the literature. *Visions of Research in Music Education*, 4. Retrieved from <http://www-usr.rider.edu/~vrme/>
- Williams, D. (1996). A Study of internal validity of the instrument timbre preference test. *Journal of Research in Music Education*. 44, 268-277.
- Williams, R. O. (1972). Effects of musical aptitude, instruction, and social status on attitudes towards music. *Journal of Research in Music Education*, 20, 362-369.

Appendix A

Gender: _____

Ethnicity: _____

Do you currently receive free or reduced lunch? Y/N

What is you parent(s)/guardian's current occupation? _____

Instrument/Section: _____

Why did you select to learn the instrument(s) that you currently play?:

Thinking back to when you first decided to play this instrument. Rate on the following scale (1-did not want to play this instrument at all, 5-this was my first-choice most desire instrument) how much you wanted this instrument.

1 2 3 4 5

Do you play another instrument/other instruments? If yes, list it/them.

If you answered yes to the previous question, why/how did you select to play this instrument(s)?

Thinking back to when you first decided to play this instrument. Rate on the following scale (1-did not want to play this instrument at all, 5-this was my first-choice most desire instrument) how much you wanted this instrument.

1 2 3 4 5

If you could select any other instrument to play, what instrument would you pick? _____

Which instrument would you least prefer to play? _____

Was finance a barrier for you in playing your current instrument or any other instruments (e.g. instruments or lessons too expensive)?

Did your home contain any musical instruments (piano, your instrument, etc.) before you started playing? If so, which one(s)?

Overall, what was the biggest factor affecting your choice of instrument?

- Liked the sound
- Offered at School
- Available at Home
- Price of Instrument
- Suggested/Insisted upon by friend/family member
- Because a friend/family member played same instrument
- School needed people to play this instrument
- Associated with my favorite genre of music (e.g. I play trumpet because I like jazz)
- Other (briefly explain)_____

Appendix B

**THE UNIVERSITY OF SOUTHERN MISSISSIPPI
AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT**

Participant's Name

Consent is hereby given to participate in the research project entitled *Exploring the Relationship between Students' Socioeconomic Status and Musical Instrument Choice*. All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained by the researcher, LaTerence Varnado. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. All personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to LaTerence Varnado at 601-572-1070. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.

A copy of this form will be given to participants

Signature of minor participant

Date

Signature of parent/Guardian

Date

Signature of person explaining the study

Date