Grade 6-12 String Performers' Perceived Meaning of School and Community Youth Orchestra Experience

by

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A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama
August 2, 2014

Keywords: string education, orchestra, meaning, music ensembles

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Abstract

A key issue for string education advocates is the growth of orchestra programs in schools and communities where participants are engaged in learning and performing. There is a need to discover what is personally meaningful to string students so that successful programs can be developed. The purpose of this two-part study was to examine grade 6-12 string performers' perceptions about the meaning of orchestra experience. A further purpose was to discover if students' perceptions of meaning differed as a function of ensemble type (school orchestra, community youth orchestra, both school and community orchestra, homeschool orchestra), music experience (private lessons), and instrument ownership (owned, rental, loaned by school or teacher). The research was based on Hylton's (1980) study with choral students and involved the development and administration of a Likert-type scale (The Orchestra Meaning Scale) to measure students' perceptions of meaning in orchestra. The scale was administered to string orchestra students in school and community youth orchestras in Alabama and Georgia (N= 467). A principal components factor analysis with oblique rotation indicated that string students' perception of meaning was defined by Hylton's five factors (Musical-Artistic, Communicative, Achievement, Integrative, and Psychological). Students answered most positively to items about music learning (Musical-Artistic category). To discover if student meaning differed as a function of ensemble type, music experience, or instrument ownership, a multivariate analysis of variance (MANOVA) was performed. The main effect of ensemble type was significant. The main effects of instrument ownership and

music experience were not significant. The results of the study strengthen the idea that orchestra meaning is a multi-dimensional concept. Additionally, the results suggest that ensemble playing is important to musical learning and contributes to the development of other non-musical skills. String teachers should work together to provide multiple opportunities for string students to participate in ensemble playing. More research is needed in the area of ensemble playing in music education, especially in the area of student perceptions about their experiences.

Acknowledgements

I would like to express my special appreciation and thanks to my advisor Dr. Kimberly C. Walls, who has been an amazing mentor for me, not only involving my research for this project, but also in teaching, program development, and career decisions. Your example of professionalism is tremendously admirable and I appreciate your patience with me on this journey. I would also like to thank my committee members, Dr. Nancy Barry, Dr. Elizabeth Ross, and Dr. William Powell. You have all encouraged me every step of the way in this process and I couldn't have completed this degree without your help, advice, and example. Thank you being available always for my questions, struggles, and concerns. Thank you also to Dr. Jane Kuehne, for being extra understanding about my job expectations, commitments, and schedule while finishing this research. You have been a constant source of encouragement at work.

A very special thanks goes to my family and friends for your help and continual support during the years that I have been in school. Words cannot express how grateful I am for my husband Bryan, who took on many home responsibilities so that I could devote more time to research and writing. I would also like to thank my children, Laura, Amy, David, Joel, Andrew, and Matthew for always understanding the need for me to devote so many hours to this degree. I appreciate all the special support and encouragement you gave me! I want to thank my father also, who taught me about hard work, tackling challenges, and putting forth the very best effort possible in every challenge. Even during your illness, you never failed to ask about my progress and inspire me to keep going and finish. Finally, I am grateful to wonderful friends, who have cheered me on in this progress.

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NSPC	National String Project Consortium
ASTA	American String Teachers' Association
OMS	Orchestra Meaning Scale
MCP	Metropolitan Community Program
SGC	Seattle Girl's Choir
MMS	Music Meaning Survey
PCA	Principal Components Analysis
MANOVA	Multivariate Analysis of Variance

CHAPTER ONE

Introduction

Orchestras offer access to music education and add meaning to American life by providing more than 40 types of educational programs including programs for preschool children, senior citizens, library patrons, and hospital patients (League of American Orchestras, 2009). The League of American Orchestra's *Quick Orchestra Facts* (2009) states that orchestras bring "people and communities together on and off the concert stage around the extraordinary experience of orchestral performance." (p.1) Several surveys support that orchestral participation is widespread in the U.S. (Deegan, 2007; Hamann, Gillespie, & Bergonzi, 2002; NSPC, 2010) although funding for school orchestra has not grown with the increased participation (Byo & Cassidy, 2005; Doerksen & Delzell, 2000; NSPC, 2010).

Deegan (2007) investigated sources of funding, background of orchestra conductors, role in the community, choice of literature, and yearly budget of US community orchestras. The surveyed orchestra conductors revealed an active community orchestra culture with programs ranging from small, rural orchestras with limited budgets to large city orchestras with rich funding. The orchestras often contained members with varied musical ability; some members had advanced musical degrees and others were non-degreed, amateur musicians. Many of the conductors stated that they enjoyed working with volunteer musicians, who participated simply because they loved to play. Approximately 82% of the conductors stated that their community had a string program in their local school district. The researcher concluded that community orchestras are valuable because they provide outlets for musicians who are unable to find jobs in

music. The orchestras also provide an alternative form of music education in areas where school funding for music is unavailable. The researcher stated that orchestras have tremendous value because they are a service to their members and to the community.

A survey of 2139 schools (Hamaan, Gillespie, and Bergonzi, 2002) revealed that string education grew in the United States between 1999 and 2000. There was a steady increase of students in schools playing and studying string instruments. However, between 2000 and 2002, there was an estimated shortage of 5000 string teachers. The National String Project Consortium NSPC, 2009) found that between 2003 and 2008 funds for string programs in schools decreased by 66%. Despite this decrease in funds, the number of students playing string instruments increased at all levels. A major concern of string educators is the difficulty of building and maintaining beginning string programs (Doerksen & Delzell, 2000). Perhaps it would be advantageous to gain an understanding of what orchestra members value about orchestra participation so that successful string programs can be developed and maintained.

Some music educators have addressed the teacher shortage by developing community string programs. Gillespie and Hamaan (2010) surveyed 150 string programs established in the United States between 1999 and 2009 and concluded that 39% of the programs were community programs, taking place after school hours. An evaluation of the 13 string projects in the NSPC showed involvement of children in communities with no school orchestra programs and the enhancement of existing school programs (Byo & Cassidy, 2005). Project directors of six of the programs stated that the project filled a void due to lack of school funding for string programs. The data suggested that participating children learned to play stringed instruments in favorable conditions in which the teachers and student teachers provided a positive learning environment.

The American String Teachers Association (ASTA, 2006) upholds that a comprehensive music education program includes strings study, because of the unique benefits that string education offers. According to the ASTA report, string education in schools allows more students to experience the arts and play classical literature by the world's greatest composers. Additionally, a string program provides students an opportunity for lifelong learning through adult orchestra participation. School string programs also enhance other school programs, such as band, choir, and theatre. A string program can bring recognition to a school. Finally, string programs allow students to learn valuable life skills such as teamwork, practice, and time management.

With the benefits of orchestral string study in mind, it is discouraging that there are fewer string programs in schools and a shortage of string teachers. Kendall (1997) states that school systems must fight to keep string programs in their district by making sure the string program is highly visible and by stressing the interaction between school and community. Gillespie and Hamann (2000) assert that recruitment and retention of qualified string teachers is a key issue in string education.

What factors influence string students' preferences to pursue a career in string teaching? Brumbaugh (2003) asked 11th and 12th grade string orchestra students about their future career plans. A total of 1683 high school string orchestra students in Texas public schools responded to a researcher-designed questionnaire containing questions about work values, characteristics of orchestra teaching, and future career choices. Students who wanted to pursue a career in string teaching had a higher percentage of family members who played instruments and also had relatives who were teachers. They also stated that their high school orchestra director was highly influential in their career choice. Students who did not want to have a future career in string

teaching indicated that teacher salaries were too low and that rewards such as prestige and recognition were lacking in the teaching profession. One interesting finding from this study was that one student stated on the questionnaire that it never occurred to her/him to pursue a career as a string educator. The researcher found that many of the study participants saw music as a hobby rather than a career and suggested that parents and students need to be educated about the values of a string-teaching career.

Hamann, Gillespie, and Bergonzi (2002) claim that the well being of the string teaching profession has great influence on future generations of Americans. They state that there has been much emphasis on string performance in America but not enough emphasis on string education. They suggest that that universities, professional organizations, businesses, and private individuals recognize that string teaching is as important as string performance. Aspiring string teachers have need of the same support and funding opportunities as string performers so that they can pursue the profession of string teaching.

Statement of the Problem

It is crucial that educators advocate for the growth of string education in the schools and in the community. Even more importantly, school and community orchestra programs must strive to engage learners in such a way that they will continue to play strings throughout the school years and beyond, possibly even becoming string teachers. Veblen (2008) published an informative article about the UK Musical Futures Project challenging music educators to provide music to all students at all levels in many settings. According to this author, the biggest, and most important challenge for all music educators in all countries is to connect with every student, engaging them in learning music. Some students have access to excellent music teaching in the school and seem to connect with it, while others do not respond to music in a classroom setting,

although they are inherently talented. In an article describing the Eastman-Rochester Partnership, Robinson (1998) urges community and school music educators to discover what engages students in music learning. Robinson offers specific goals, which focus on student-centered learning and musical participation, encouraging music educators to center their programs on the needs of the learner and seek to involve all children in active music making.

How can orchestra teachers engage string students so that they will continue in orchestra? Educators might begin by discovering what is personally meaningful to students. Leonhard and House (1972) assert that meaning is essential for learning. If something is not meaningful to us, we will not really value it or be interested in it. Students will want to study what is rewarding and valuable to them (p. 122). Wight (1972) suggests a model of education that expands beyond cognitive ability and aims toward what is meaningful to the student. The model Wight suggests focuses on affective goals and objectives so that teachers can instill an interest in life-long learning.

Amabile (1997) explored factors that determine a person's creativity. The study found that in all fields of work, creativity seems to flourish under intrinsic motivation, that is, the drive a person has to achieve something because it is exciting, interesting, satisfying, or personally challenging. The researcher states that "you should do what you love and you should love what you do" (p. 55). Claxton (2007) asserts that when students experience music, the experience can transport them to an intrinsically meaningful mode of engagement. Trombly (1995) states that if educators increase the meaningfulness of educational activities to students, it is likely to result in improvement of intrinsic motivation, saying "only meaningful occupation remains in a person's life repertoire" (p. 964).

Jorgensen (2008) challenges music educators to adopt a pedagogy that focuses on

character, hope, value, personality, and musicality so that through music education, teachers might have a part in creating a better world (p. 146). According to Jellison (2000), learning that is meaningful has a greater likelihood of transferring to adulthood than rote memorization or isolated fact. That is, a student has value for music learning when the activity is interesting to them, leading to outcomes that have relevance both in the present and the future. Flow experience (Csikszentmihalyi, 1997) is closely related to intrinsic motivation and describes a state in which a student is so completely involved in an activity that it requires their complete concentration. Flow experience affects motivation to continue the activity because it is enjoyable. Csikszentmihalyi, Rathunde, and Whalen (1993) suggest that high achieving young musicians experience flow in music activities, that is, they find music activities to be intrinsically enjoyable.

According to the philosopher Seligman (2002), meaning and engagement are both part of the eudaimonic tradition, which has its focus on the search for well being in life. Engagement, defined as the search for the "good life," occurs when a person finds happiness and gratification through being totally absorbed in an activity or task (p. 14). Meaning, according to Seligman, involves a person devoting time and energy to something larger than themselves, such as work or religion. Seligman asserts that engagement and meaning contribute more to life happiness than the pursuit of pleasure.

Boyce-Tillman (2013) has written an insightful article challenging music educators to help students gain a greater understanding about the power of music in their lives. According to Boyce-Tillman, school curricula often emphasizes only the rational elements of music such as history and theory to the neglect of spiritual, emotional, and cultural awareness. The author urges music educators to adopt a teaching philosophy that includes the whole music experience,

as in the philosophy of Shusterman (2008). Shusterman claims that a person's musical experiences are a combination of several components, including the intellect, the body, the emotions, and the culture. When fusion of these four domains occurs, there is spirituality in music. Boyce-Tillman states that this does not mean teachers should neglect music skills but that they should associate music skills with emotional and cultural awareness so students are empowered to relate music to their lives. The author describes music experience as a "way of knowing" that is different from everyday knowing (p. 5). During this heightened state, composers, performers, and listeners enter into a different dimension, leaving everyday reality. Those who are performing bring meaning to the music being performed. This intrinsic meaning is often associated with an individual's life experiences and culture. Boyce-Tillman stresses that our programs of study in music education must seek to fit the circumstances and needs of our students, so that music education is personally meaningful.

Hylton (1980) stated that while music teachers say they are concerned about students having meaningful music learning experiences, there is a need in the literature to discover meaningfulness from the students' perspectives. Hylton urged researchers and educators to discover students' attitudes about the meaning of music learning. A lack of research on the topic guided his landmark study of students' perceived meaning in choir.

There is also a lack of research into the meaning of the instrumental ensemble experience. Scherber (2011) argues that while there are numerous youth ensembles in every state, there is a lack of research about instrumental students' perspectives. While several researchers have utilized Hylton's scale for choral research (Farmer, 2009; Kwan, 2002; Seago, 1993; Sugden, 2005), there is a need to discover students' perceived meaning of their orchestra experience.

Knowledge about what is meaningful could provide important information needed to develop and maintain successful string programs in schools and communities.

Purpose of the Study

The purpose of this two-part study was to examine grade 6-12 string performers' perceived meaning of orchestra experience. The following research questions provided the framework for this research:

1. How do youth string orchestra members perceive the meaning of their orchestra experience?
2. To what extent will the perception of the meaning of their orchestral experience differ as a function of ensemble type, music experience, and instrument ownership?

The independent variables included ensemble type (school, community, both school and community, and homeschool), music experience (private lessons), and instrument ownership (owned, rental, or loaned by school or teacher). The dependent variable for the study was the students' perceived meaning of the orchestra experience as measured by the Orchestra Meaning Scale (OMS).

Limitations

The following limitations apply to this study:

1. The findings of this study apply only to string orchestra students in school and community youth orchestras.
2. The study was intended for grade 6-12 string performers.

Delimitations

1. Only string players (violin, viola, cello, contrabass) were included in this study. All orchestra members were permitted to take the survey as a class activity, but wind and

percussion instrumentalists' data were not used.

2. The findings for this study are confined to one administration of the survey instrument.
3. The findings for the study are limited to orchestras in Alabama and Georgia, and may not apply to participants in other states.

Assumptions

1. It is assumed that respondents to the survey answered honestly, to the best of their ability.
2. It is assumed that participants responded about orchestra meaning and not other types of ensembles they might have been involved in, such as band or choir.

Definitions

For the purposes of this study, the following terms apply:

Meaning – This study will adopt the definition of meaning utilized in Hylton's (1980) study: Meaning is defined as a psychological construct with cognitive and affective aspects, manifested overtly through behavior, reflecting an individual's evaluation and valuing of an experience.

Community orchestra – For the purpose of this study, the term community orchestra will refer to community youth orchestras taking place after school hours.

School orchestra – Orchestras that are part of public or private school programs and take place during school hours.

Homeschool orchestra – Orchestras composed of students who are educated at home.

Music Experience – The independent variable "music experience" is defined by whether string students have taken private lessons on their instruments or not.

Instrument Ownership - The groups for this variable consist of students who own their

instruments, students who play rental instruments, and students who have had their instruments loaned to them by their school or teacher.

Significance of the Study

This study will provide educators information needed to develop orchestra programs in schools and communities that provide meaningful educational experiences for students. This study also has significance for stimulating further research about student meaning in orchestra and for advocating for string education in the schools and in the community. It is hoped that orchestra programs can improve and grow so that all students can have access to a meaningful string education.

Organization of the Study

Chapter One includes an introduction to the study, a statement of the problem, study purpose, research questions, limitations, delimitations, assumptions, and definitions. Chapter Two contains the review of related literature. The literature first covers studies involving benefits and outcomes of music education, with a focus on instrumental ensembles and orchestras. The second section of the review of literature includes studies pertaining to students' perceptions, motivations, attitudes, and meaning of their music experiences. This section also focuses on instrumental ensembles and orchestras. Chapter Three details methodology, including sample description, instrumentation, data collection, and data analysis. Chapter Four contains findings and Chapter 5 summarizes the study, containing conclusions, implications, and recommendations.

CHAPTER TWO

Review of Literature

Boyes and Reid (2005) assert that music education researchers often take one of two approaches in their research. One approach is to look at the effect or outcome of a particular music program or intervention. The other approach is to explore students' personal perceptions, feelings, and experiences about music education. With this organization in mind, this presentation of literature review first summarizes examples of research into the outcomes and benefits of music experiences in students' lives, focusing on ensemble participation. The review also examined research concerning students' perceptions, motivations, and meaning of their music experiences, especially ensemble experience. All articles reviewed include research in the contexts of both school and community music.

Benefits and Outcomes of Music Participation

There are many examples in research concerning the transforming qualities of music education both in school and out of school. Students can benefit in multiple ways through working together with others towards a common goal of a performance presented to the school or community. Those participating in such programs often benefit in non-musical ways, such as emotionally, personally, and socially (Gacherieu, 2004; Higgins, 2007; Parker, 2010). Gacherieu (2004) wanted to know if an after-school arts program contributed to students' success in their other schoolwork. The goals of the program were to teach the students about music, dance, and theatre, culminating in the presentation of a full-stage production of Pinocchio. During the course of the ten-week program, the researcher administered a questionnaire three times,

interviewed both students and teachers, and kept records of attendance. The findings suggested that students grew in the areas of self-confidence, self-esteem, a sense of community, leadership, and school pride.

Higgins (2007) conducted a case study about the Peterborough Community Samba Band by interviewing band members during a weekend reunion. Some participants of the group reported that making new friends was one of the main motivations for joining the band, saying that their involvement in the band helped them feel a sense of community, hospitality, and belonging. Because of this feeling of belonging, members developed a strong sense of self-identity and personal growth.

Parker (2010) conducted action research with a school choir to explore students' experiences in choral ensemble. The researcher asked 26 students to describe their experiences of belonging in choir. The open-ended interview data indicated that students viewed choir as a safe place. The researcher concluded that because choir was a stress-free place, students felt free to learn and excel. Students also related that there were different degrees of bonding in the choir experience. There was the bonding with the entire group as a whole and there was bonding within each section. Parker stated that students talked more about the sectional bonding, suggesting that the closeness within a section contributed to positive experiences for the larger group. Students also stressed that they chose to join choir, making the choral experience different from other required courses. They saw choir as something they freely elected to do, and this fact helped individual members to be open to forming strong relationships. Students also expressed that choir gave them a sense of belonging. Their membership was like a badge they wore, and it differentiated them from others, helping them to feel they were part of a special

group. Finally, students related that traveling together on choir trips strengthened the bond they had as a group.

A common finding in all of these studies is that students felt a sense of togetherness and community because of their involvement with a performing group. Working together with others to achieve a common goal provided social development for the students and an emotional connection with each other. Students experienced personal growth because of their involvement in music. It is important to note that students experienced this personal growth in both school and community programs.

Students may also benefit musically through their participation in music ensembles. When students play or sing together as a group, they often learn from performers around them. For instance, musical improvement can occur because a student is sitting near another more advanced student (Clements, 2006; Hallum, 1998; Marotto, Roos, & Victor, 2007). Marotto, Roos, and Victor (2007) call this collective virtuosity. These researchers spent a year in the field gathering data while studying what it is like to be a member of an orchestra. The researchers employed qualitative techniques in a longitudinal study in which they were participant observers in the group. The data for this study included orchestra member journals and interviews. The researchers found that orchestra members experienced engaged interaction in which group members are co-creating their performance and collectively experiencing it at the same time. They found that ensembles are transformed by their own musical performance when virtuosity, or individual peak performance, becomes collective. In simple terms, a nominal student might play better because they are sitting near an advanced student. Hallum (1998) refers to this as scaffolding. According to Hallum, scaffolding occurs when a student might help another student without any involvement from the teacher. The members of an ensemble learn from each other.

Clements (2007) researched the Metropolitan Community Program (MCP) to discover factors related to its success. The program is different from most youth string programs because it has successfully trained underrepresented youth beginning in the 1st and 2nd grade. The leaders began the MCP as a string-training program for inner city children. Clements' study employed triangulated data, both interviews and documents to explore this program as a model for other programs. One of the most important findings in this study was that the children developed a sense of community because they were together at the beginning and remained with the same student class for two years. Additionally, once a week all groups combined so that students could benefit from playing with more advanced musicians. The older students proved to be a source of inspiration to the younger ones. The program director stated that the group lesson format helped the children progress quicker because they are learning from one another.

Ensemble playing seems to have a positive effect on musicians' ability to sight-read. The complexity of the ensemble experience helps ensemble members learn tracking skills (Blaker, 1995; Gaylen, 2005; Keller, 2001; Wurtz, Mueri, & Wiesendanger, 2009). Keller (2001) studied resource allocation in ensemble performance, presenting a theoretical paper about the complexity of ensemble playing. The researcher states that ensemble playing requires tracking multiple sound sources and grouping their elements together. Students have to manage their own part while listening to other ensemble members. It is an involved process, requiring the student to keep up with others, while attempting to play with correct technique and musicianship. Keller summarizes that this sort of tracking skill goes beyond technical skill in playing and musical artistry.

Wurtz, Mueri, and Wiesendanger (2009) investigated sight-reading ability of experienced violinists to address the lack of research in the literature about visual anticipation in violinists

during sight-reading. For this study, eye-hand span was defined as the separation between reading and acting during sight-reading. The participants were seven trained violinists between the ages of 23 and 76, who all had previous experience in orchestras and ensembles. Four of the participants were professional violinists, all were right-handed, and had normal vision. The researchers recorded eye movements and bow reversals synchronously while the violinists were sight-reading two pieces of music. By synchronizing the timing of eye fixations, the researchers were able to measure how well the violinists were tracking and looking ahead, while quickly memorizing previous notes in order to move along in the piece. One piece of music was more complex than the other. The main finding of the study was that the violinists' anticipation of the notes was lower for the more difficult piece. The researchers concluded that sight-reading a score involves a learned skill and seems to be affected by the complexity of the music and the experience of the musician.

Though the aforementioned study is not specifically about ensemble playing, the researchers discussed the intricate process of multitasking that occurs while sight-reading a score. They concluded that the string musician must process large amounts of information at one time, while watching the conductor's signals, thinking about fingering, correct bowing, changing strings, changing positions, and managing tempo changes and other musical elements in the score. The researchers pointed out that these activities are learned skills, requiring significant experience. The process becomes even more complicated with group ensemble playing because of the added need to stay with others in the section, bowing in the same direction, etc. Acquiring this skill as a young instrumentalist can result in musical improvement.

The Suzuki method implements the group lesson experience to train young students to sight-read. Blaker (1995) surveyed 67 community music schools to assess the scope, structure,

and implementation of Suzuki violin programs in the United States. The researcher designed a questionnaire to assess four specific areas: teachers employed for these kinds of programs, students enrolled, teacher characteristics, and program characteristics. Part four of the questionnaire contained questions about group lessons, a focal point of the method. The researcher stated that because Suzuki students have highly developed listening skills and learn much of their literature by rote, there is a tendency to neglect note-reading skills. Consistent participation in a large ensemble helps students to transition from Suzuki literature to non-Suzuki literature and helps them develop note-reading skills. The responses for this study indicated that 82% of the Suzuki programs included regular group ensemble experience several times per month.

Thus far, the literature reviewed about musical improvement has focused on learning from peers in an ensemble and through learning tracking skills and sight-reading skills. There can also be musical improvement because ensemble members motivate each other. When musicians play together, they often develop bonds with fellow ensemble members who share the same musical interests, which is motivating to them (Cloete, 2006; Cope, 2002). Cope (2002) conducted phone interviews with six amateur session musicians ages 17-60 who were playing in a Celtic festival. The musicians were asked to describe a brief life history describing how they learned to play their instrument.

There were several instruments represented at the festival but Cope (2002) decided to focus on instruments used to play melody, such as flute, whistle, pipes, and violin. The musicians' learning experiences were varied. Two of the six musicians were totally self-taught. They began learning guitar and eventually were able to branch out and learn other instruments such as mandolin and fiddle. Three of the musicians had received music lessons and were

classically trained. They related that they had joined the session group to experience different styles of music. Every musician interviewed reported that the ensemble experience provided a social context in which members were motivated to improve their playing. Being with the other ensemble members in rehearsals motivated them to work hard at their music. The researcher concluded that inner motivation acquired through playing music with peers was an important factor in musical improvement.

In a study of the Manguang String Program, Cloete (2006) found that camaraderie between members helped students improve musically. Peter Guy established the program in 1998 to provide instrumental string instruction for disadvantaged youth in South Africa. Students received string lessons during school time for a minimal fee and then several orchestras met on Saturdays. Cloete worked in the program and used a qualitative questionnaire to describe the development of this program, focusing on the impact of the program on participants and their community. Results indicated that participants benefited not only musically, but also on several socio-cultural levels. An important aspect of this program was the development of ensemble playing. Socially, participants said that through playing together, they formed new friendships, socializing with learners who shared the same interest, thus resulting in a sense of group. The study findings indicated that being part of the ensemble helped the students to progress musically because they developed a friendly, healthy rivalry with their friends in the group. The musical improvement that occurred benefited participants' self worth.

Musical improvement can also occur because of leadership style and personality. Research indicates that ensemble directors can have a positive effect on students' motivation and improvement in ensemble participation (Bartleet, 2008; Brown, 2012; Chuang 2005; Dickey, 1991; Whitaker, 2011). Brown (2012) examined reasons why 201 college students from 63

colleges and universities in the United States enrolled in choir, aside from any degree requirement. The questionnaire elicited motivations to enroll in choir related to the social aspects of choir membership, the musical/aesthetic aspects of choir membership, and the behaviors and attitudes of conductors. The main finding was that participants reported conductor behaviors and attributes affected their decision to enroll in a college choir more that social reasons and musical/aesthetic reasons. The researcher suggested that the results of the study places immense responsibility on conductors of choral ensembles.

Whitaker (2011) examined high school band directors' teaching behaviors. Five rehearsals of successful band directors were videotaped conducting their top-rated ensemble while preparing for local and state festival competitions. The researcher analyzed the videos for sequential patterns of teaching, conducting gestures, speech speed, speech pitch, speech volume, director facial expressions, and eye contact. Then, both students and directors rated the video rehearsal excerpts using a researcher-created evaluation sheet and responded to a written questionnaire. Additionally, the researcher used open-ended interviews to get feedback from selected participants. Results indicated that maintaining eye contact, allowing more student performance in rehearsals, limiting teacher talk, and using more expressive conducting gestures had effects on student perceptions of rehearsals. Based on evaluations of their rehearsals, students preferred less teacher talk and more encouragement and performance time. Even though the students felt that criticism in rehearsal was necessary for musical improvement, they expressed that praise from the conductor was more important to them than criticism. The researcher emphasized that each director is an individual, and brings his or her own personal values, musical abilities, and teaching style to the rehearsal. This creates a unique environment for each ensemble.

Chuang (2012) investigated how orchestra and choir ensemble members felt about and related to their conductors. The researcher developed a survey based on previous research and administered the survey to 153 choir and orchestra members at the University of Maryland. More than half of the participants were choir members and 87% of all participants had worked with more than five conductors. The findings from the survey suggested that certain conductor skills affected participants' experiences. First, several participants related that they valued organizational skills and could not trust a conductor who was not organized. Participants also related that a conductor must maintain a professional demeanor and self-control. Loud yelling, throwing music, angry outbursts, and sarcasm were not acceptable. Also, a conductor should have both leadership skills and teaching skills. Finally, participants indicated that a conductor should be encouraging to the ensemble by communicating with ensemble members and trying to find out what they really care about. This study shows the importance of the conductor in both choir and orchestra.

Bartleet (2008) found that the leadership in an ensemble contributed to student musical improvement. This researcher studied four community music groups in Australia including the Attitude Music Therapy Program, the Yauguru Drumming Group, Just Fiddlin, and the McLaren Vale Community Carols. The researcher used an ethnographic approach to discover the success factors and learning dynamics of these groups. Data for this research included interviews, field notes, focus groups, observation, and analysis of relevant documentation. Participants indicated that inspiring leadership was one of the main factors contributing to their success in these groups.

In all of the previous studies, certain elements of the ensemble experience seemed to promote both musical and non-musical student growth. The ensembles studied had different contexts; some were choral, some were instrumental, some were school ensembles and some

were community ensembles. According to the literature, ensemble participation has both personal and musical benefits.

A Student Centered Approach to Research

In addition to researching the outcomes of music ensemble participation, researchers have also adopted a more student-centered approach in which they explore participants' personal perceptions, attitudes, motivations, and meaning in music education. By entering the world of the participant, researchers glean important information concerning the value of music programs according to the personal views of participants. It is essential to explore students' perceptions about music because a person's perception is closely related to meaning. Wight (1972) states that if an activity is not meaningful to someone, they will not incorporate it into their personal value system, nor will they develop interests or attitudes toward it. The following studies focused on students' perceptions in school and after school music ensembles.

Perceptions of Benefits of Vocal Music

Researchers have explored choir members' perceptions about choir and singing (Bailey & Davidson, 2002; Bartolome, 2012; Murray, Lamont, & Hale, 2010; Willingham, 2001). The following qualitative studies pertain to vocal music programs taking place outside school hours. Willingham (2001) studied members of the Bell'Arte Singers in Canada, to discover the effects of membership on the singers' lives. The study was a grounded theory case study, which employed ethnographic tools. The measures included video and audio-recorded field events, transcribed interviews, transcribed focus groups, field notes, and questionnaires. The members expressed that they viewed choir as a close community of people that were united by their common love of music. Because of this bond, there was a strong sense of mutual teamwork. The participants expressed that their fellow choir members were people they did not see outside

of weekly choir rehearsals, yet they viewed them like close family members. Choir was a welcoming and safe place. The choir members also expressed that singing served as a means to discover personal identity. The members felt a personal connection to beauty through the choral music they performed, and the experience of musical art gave members a strong, positive sense of self. In addition, singing gave choir members a means of stress release, promoting restoration and healing. Singers indicated that learning breath control promoted relaxation, and that they felt invigorated physically and emotionally.

Some of the responses did reflect spiritual themes, including religious themes. Members also expressed that they were emotionally moved inside through singing and that this experience made them more open to transcendental experiences. Interestingly, one member stated that they had participated in other music activities, including orchestra, but it was only the choir experience that produced this awareness of spirituality. Finally, singers reported that as they participated in choir, they grew in the areas of music reading skills, contextual knowledge, and musicianship.

Bailey and Davidson (2002) explored choir members' perceptions about their experiences in a choir for homeless men, ages 45-62. The researchers used a phenomenological approach to discover whether group singing was a factor in promoting adaptive behavior in the men's lives. The data from semi-structured interviews indicated that group singing positively influenced emotional, social, and cognitive processes. The participants' perceptions were that singing had clinical benefits. The experience was therapeutic, improved self-esteem, and helped them overcome shyness. One of the most significant benefits for these men was that of feeling accepted through an audience's approval of their performances. The researchers mentioned that these men had often felt ridiculed by society because of their homelessness and personal troubles.

Consequently, the experience of receiving applause from an audience was especially meaningful to them. They felt that, for the first time, they could be messengers of hope to others.

The choir experience also helped members learn to express inward emotions. Participants related that usually, when homeless people were together, communication was poor. Because of serious problems, they had learned to suppress emotions to survive. Choir helped members learn to socialize, sometimes sharing troubles with their new friends. They learned how to interact appropriately with fellow choir members. One member of the choir mentioned the spirituality of singing and group enjoyment of songs with spiritual ideas.

Finally, the men experienced cognitive benefits through choir participation. Music memorization of the music required concentration and dedication to practice at home. It was concluded that participation in choral singing could be a factor in alleviating depression, increasing self-esteem, improving social interaction skills, and inducing cognitive stimulation. Additionally, the researchers suggested that the cognitive benefits experienced by the men are an example of flow experience (Csikszentmihalyi, 1997). According to flow theory, our quality of life is determined by our inner thought processes. Negative experiences often result in worry and apathy, causing self to take center stage. The remedy of this self-indulgence, according to Csikszentmihalyi, is to invest one's energy into more positive activities and relationships.

Murray, Lamont, and Hale (2010) conducted a qualitative interview study to discover the perceptions of the *Golden Voices Choir* for senior citizens. The researchers interviewed eight choir members individually and an additional three took part in a focus group. Five themes emerged from this study. The most important theme in the findings was that participants believed that older people should try to protect their physical and mental health by staying involved in outside activities. Choir members stated that choir rehearsals and performances

made them feel younger. They felt a sense of gratification that they achieved something. Also, members stated that they experienced mental, physical, and social benefits from choir. The social interaction helped to keep the senior citizens active and interacting with others. The breathing exercises in rehearsals seemed to help the members physically. Many of them indicated that they learned to breathe properly when singing, which also benefited them physically.

The weekly commitments of getting to rehearsals and concert commitments seemed to help members with depression and other mental problems. In addition, choir members stated that they felt a sense of community and enjoyed supporting one another as friends. They also learned leadership skills and benefited from working with a professional conductor as a motivational role model. There were no comments in this study about spirituality.

Bartolome (2012) explored the perceived values and benefits associated with participation in a highly successful community-based girls' choral ensemble. The Seattle Girls' Choir (SCG) was formed to address the lack of school choral programs in area schools. Bartelome spent a year doing fieldwork for this research, observing choir rehearsals, classes, summer camp events, performances, board meetings, and other community events. The data included transcripts from interviews, parent surveys, and examination of documents.

The findings suggested that choral experience was beneficial to the girls in several areas. First, the participants expressed that the choir provided an excellent music education to the girls, which was valued since they did not have music in the schools. Participants found choir to be a rewarding experience and a source of accomplishment and self-confidence. The girls felt empowered, stating that they learned leadership skills, the value of commitment, and self-

discipline. They also expressed that choir was like a safe haven where they could escape from other life difficulties and focus on music.

There was also a strong theme of the social benefits of choir. The choir members valued the fact that they had become friends with other choir members through working together as a team. Students felt that choir gave them a sense of belonging and acceptance. Additionally, participants mentioned community benefits of choir. The choir advocates for music education in the surrounding areas. Choir leaders said that the girls were ambassadors, performing across the country at conferences and conventions, serving as positive role models for other youth. There were no themes of spirituality, despite the fact that the girls sang a large amount of traditional, sacred literature.

These choral studies in this section highlight specific aspects of choir participation in which singers related that rehearsals were a safe haven. Other benefits included social bonding, teamwork, musical growth, and even mental and physical health benefits. Spirituality was also a theme found in some of the studies.

Perceptions of Benefits of Instrumental Ensembles

The next set of studies involved participants' personal perceptions about instrumental ensembles, including orchestras (Hager & Johnsson, 2009; Kokotsake and Hallum, 2007; Malhotra, 1981; van Niekerk & Salminen, 2008; Tuncer, 2008). The first two studies involved string programs for children and used qualitative methods. Van Niekerk and Salminen (2008) researched the STTEP program sponsored by the University of Pretoria. The string partnership program began in 1995, aiming to teach western orchestral instruments to disadvantaged African children free of charge. All instruction took place on Saturdays. The qualitative research data included interviews, journals, and observation. Most of the students interviewed would have had

no other opportunity to learn an instrument. Findings included both musical and social benefits. One of the most important results of this study was that students acknowledged that the program gave them a wonderful hobby that kept them off the streets and away from crime. The musical learning for the children was important because many of the students went on to become professional string players in local orchestras.

Tuncer (2008) researched African-American violin students' experiences at Lincoln Elementary School in northern Florida. The researcher utilized interviews to explore students' perceptions and experiences, especially about their musical lives outside the classroom. The researcher first conducted a pilot study with five children in the program. The main study involved seven students. The interview data suggested that the students' perception of music was that it tells stories and has a distinctive beat. They learned this concept in their unique social environment. The students' perceptions of playing the violin interacted with their social lives when they played their violins at church and listened for violin music in their favorite songs at home. The children wanted to keep a beat on their violins and play familiar songs on them. Their interview responses seemed to suggest that they wanted their learning to be culturally meaningful. In both of these studies with children, learning the violin affected the children both musically and in other ways. Learning an instrument was more than a musical act. It also carried over into their personal lives.

The next two studies involved university students in ensembles. Kokotsake and Hallum (2007) explored university students' perceptions of participative music making in choir, band, and orchestral ensembles. The researchers asked 78 undergraduate and postgraduate students to report on the impact of group ensemble playing in their lives. During the interviews, the participants had flexibility in leading the direction of the interviews. The findings indicated that

university students viewed group music making as a means to improve musically, develop technical skills, learn about repertoire, develop listening skills, and improve their sight-reading skills. Students also viewed their ensemble participation as a social act, saying that they felt a strong sense of community, improved self-esteem, and feelings of belonging. Additionally, they stated that their group music making influenced them inwardly, strengthening self-achievement, self-confidence, leadership skills, and inner motivation. According to the researchers, the greatest number of responses involved the social aspects of ensemble playing. The participants related that they made friends, learned to work as team, and learned cooperation. Most importantly, students related that ensemble participation enhanced intrinsic motivation to participate in music. This included motivation to seek a future career in music. The researcher suggested that music educators should encourage their students to participate in ensembles because of its many benefits.

Hager and Johnsson (2009) interviewed students to explore perceptions about their participation in two symphony orchestra programs: the Sinfonia program and the Fellowship program. The Sinfonia program provided orchestral experience for university music majors and the Fellowship program was for former music students who have graduated. The findings showed the multiple types of learning that can only take place in an ensemble. The students stated that the learning was practical learning as opposed to a more theoretical learning that they experienced in music school.

The features of this learning are very important. First, participants related that learning involved peer-to-peer learning rather than traditional learning between a master teacher and a student. Members of an ensemble learn through their practice together, rather than in traditional, theoretical learning. The learning occurs with others, rather than explicit learning from a teacher.

There is an emphasis on fitting into a group style rather than developing individual style on one's instrument. This involves listening to peers within the section. The participants stated that this context-rich learning in an orchestra prepared them to become a professional orchestra player.

The researchers asserted that the features of learning mentioned in the findings could only be accomplished only through actually being in an orchestra, and that theoretical learning in music school alone cannot produce a competent orchestral musician. The learning in orchestra is tacit, making it difficult to learn traditionally. They cite Lave and Wenger (1991) and Wenger (1998), noting that these scholars recognize the social dimensions of learning, referring to group learning as a "community of practice." (p. 133) Hager and Johnsson also pointed out that every orchestra has a unique context, which includes the individual players, the conductor, the concert venue, and the size of the orchestra.

Malhotra (2007) conducted a longitudinal phenomenological study through participant observation of a symphony orchestra. The researcher found that group music making is a complex social-psychological act and that participants share a meaningful experience through their relationship with the conductor and with each other. Players must be not only conscious of their own music but of the parts of the other musicians. Like other orchestra studies, the players use gestures to communicate.

The researcher mentions the "we relationship" that occurs between the members of the orchestra and the conductor (p. 106). This relationship occurs also with the composer indirectly, because by playing the written notes, the musicians enter the stream of consciousness of the composer. During the rehearsals and concerts, the primary focus for all the players and the conductor is the music. An interesting part of the study was that data collection took five years. In those five years, the researcher said no one ever once interrupted the flow of music during

rehearsal. This finding is significant and seems to support Csikszentmihalyi's (1997) flow theory in which musicians become immersed in the activity of music making, resulting in complete focus and concentration.

To summarize the studies of participant perceptions, ensemble members benefit in many ways through their experiences of making music with others. The social experience of playing music with peers seems to promote learning that goes beyond traditional learning. The meaningful social experience of learning and performing music together benefits ensemble members in non-musical ways also. These studies are also beneficial because qualitative methodology can yield rich interview data about participants' perspectives and feelings. Researchers are able to enter the world of the ensemble member and discover the meaning of their experiences. A disadvantage is that the researcher is limited in the number of participants that can be interviewed, whereas in quantitative research, a larger sample of participants can be used.

Student Motivation to Participate in Music Ensembles

Many of the studies about music motivation are concerned with students' motivation to participate and remain in ensembles (Adderly, Kennedy, & Berz, 2003; Conway & Borst, 2001; Farrar, 2011; Hurley, 1995; Moder, 2013; Scherber, 2011; Schmidt, 2007; Shansky, 2010; Sichivitsa, 2003; Siebenaler, 2006). The following studies include both qualitative and quantitative studies and are grouped by ensemble type. The first two studies involve participants from choir, band, and orchestra ensembles.

Adderly, Kennedy, and Berz (2003) wanted to discover why high school students join music ensembles and remain. Citing Hylton (1980), the researchers wanted to know about the world of the high school music ensemble. The participants for this study were students at a large

high school in an upper middle class community. The researcher conducted interviews 20 band students, 20 orchestra students, and 20 choir students, all grades 10-12. The data indicated that students join ensembles for musical, social, academic, and family reasons. Ensemble participation yielded musical, academic, psychological, and social benefits. One of the most important motivational elements in the study was the social climate of the ensemble experience. Students shared the importance of social relationships in their personal growth.

Scherber (2011) investigated factors influencing students' motivation to participate in community youth ensembles. A total of 73 student musicians responded to a questionnaire that included demographic questions, free response questions, and Likert-type questions. The participants were members of either an orchestral, choral, or band community ensemble. Results indicated significant differences between social and musical factors. Participants rated musical factors as more important than social when considering participation in ensembles. Additionally, the data revealed that teachers and parents had the greatest influence on participants, rather than friends and acquaintances.

Conway and Borst (2001) conducted action research with high school choral students to discover motivational factors related to choral student retention. The researcher conducted interviews with ten students to determine the relationship between student motivation and choral involvement. Data collection included individual interviews, interviews with all ten students in a panel setting in front of the choir, and parent interviews. Results from individual interviews showed that students continued in chorus to learn, for self-expression, for social reasons, for enjoyment, to perform with the group, to be identified with the program, and just for music itself.

Siebenaler (2006) researched factors that predict high school students' motivation to participate in choral ensemble groups. The researcher developed a questionnaire compiled from

prior studies and administered it to 288 students during their regularly scheduled choral classes. The results indicated that the factors of home support, positive music experiences in elementary and middle school, positive musical self-concept, and support of peers were related to students' motivation to participate in choir.

Sichivitsa (2003) explored university choral students' motivations to participate in choir and their intentions to continue in choir after college. Using Tinto's (1975, 1993) model of institutional departure, the researcher created a questionnaire and administered it to 150 college students at a large public university, who were enrolled in choir. The first section of the questionnaire contained questions about demographic information, including gender, age, college major, previous choir experience, and plans for enrolling or not enrolling the following semester. The second section of the questionnaire assessed five constructs, which were background, self-concept of music ability, value or music, integration, and musical intentions. Findings indicated that the majority of singers in the study enrolled in choir because of a love for singing, enjoyment of the class, and admiration for the conductor.

Moder (2013) investigated collegiate students' motivation to enroll in college band programs. The researcher used an electronic Likert-type scale to elicit responses about their reasons for enrolling in band. The participants included 2,933 college students from 95 colleges in 37 states. The majority of the students were in more than one band ensemble group. The results revealed several factors that influenced students' participation. Students indicated that the school band experience, social aspects of band, a sense of pride, and the band reputation were key motivators in their enrollment. The factor that most dominated and influenced all participants was a simple love for making music. The researcher concluded that educators must strive to implement factors into their programs that influence life-long learning in music.

Schmidt (2007) developed a survey for 456 concert band ensemble students in grades 6-12 to discover the relationship of band students' motivation to specific variables. Items in the researcher developed Likert-type scale pertained to both individual achievement and group achievement. The results revealed a positive profile of student motivation in instrumental music, indicating that the sample held an incremental view of musical ability and had high means for self-efficacy, group efficacy, intrinsic-mastery, cooperative orientations, and commitment to band.

Farrar (2011) researched why school orchestra students stayed in an orchestra program. The researcher developed a survey based on ten different predicting factors of continuation or discontinuation. Orchestra students responded to the survey by checking reasons they thought other students would continue or discontinue orchestra. Next, they indicated how important these same reasons were to them on a five point Likert-type scale. The results indicated that middle school students were more concerned with musical aspects of orchestra class, while high school students placed more importance on both musical and extra musical aspects. Both groups indicated that friends, liking the teacher, and liking the class repertoire were also important factors. The researcher concluded that it seems that as orchestra students get older, they add dimensions to their concept of orchestra. They do not alter their views but new dimensions are added to their existing view.

Shansky's (2010) research focused on adults' motivation to participate in community orchestra. The researcher conducted a case study with the Bergen Philharmonic Orchestra, a community orchestra located in northern New Jersey. The case study included interviews with members of the orchestra. The emergent themes indicated that the members were motivated to participate because of the love of playing one's instrument, desire and inspiration for challenge,

and a commitment to the organization. The researcher mentioned that the data was valuable for studying informal learning practices and training students for community music involvement after school.

Hurley (1995) explored students' thoughts on motivation concerning a string instrumental program. The students were elementary school string students divided into three groups: continuing string students who began in fourth grade and continued to middle school, promising students who chose to discontinue string study when they reached middle school, and students who discontinued study while in middle school. The researcher conducted interviews and instructed the students to express self-perceived motivations for initial enrollment and how this motivation changed over a period of years. The interview data indicated that socializers were involved in instrumental music. Students shared that they participated in the string program for social reasons. The students who discontinued related that they still felt positively about string instruction but that other opportunities got in the way of pursuing it. In addition, the students cited effort as a major factor towards success in playing a string instrument. The researcher discusses the fact that if learning is meaningful, students should continue to be interested and motivated to continue. This motivation comes from within the student.

In summary, there are several factors that influence students' motivation in music ensembles including parental support, past music experience, ensemble directors, how engaging the experience is, friends, and personal desire. All of these factors work together and it is often difficult to isolate them. For instance, students might join an ensemble because their friends are there but also remain in the group because the teacher and fellow students are as source of encouragement and. Students are motivated to remain because the ensemble experience is meaningful to them.

Participants' Perceived Meaning in Music Education

In addition to the previous studies, the literature contains several studies about the meaning of music in participants' lives. The following review includes studies about the meaning of music and the arts (Barrett & Smigiel, 2007; Campbell, Connell & Beegle, 2007; Hays & Minichiello, 2005), the meaning of general music class (Davis, 2009), the meaning of orchestral experience (Cape, 2012; Wu, 2012), and the meaning of choir experience (Arasi, 2006; Hylton, 1980; Farmer, 2009; Kwan, 2002; Seago, 1993; Sugden, 2005).

Campbell, Connell, and Beegle (2007) studied the expressed meanings of music both in and out of school, giving attention to adolescent views of the role of music in their lives. The data for this research were essays from a contest in which students wrote their feelings about why schools should not eliminate music education. The student participants were either currently involved in music learning experiences or had been at one time. The music learning included private vocal or instrumental lessons, ensemble experience, or classes in music theory or music appreciation. The majority of ensemble participants indicated that they were involved in school band. The essays submitted rarely exceeded one paragraph. The researchers used an inductive approach to analyze the essay content. The data analysis resulted in five themes within the expressed meaning of music both in and out of school. Students expressed that they experienced emotional benefits, social benefits, life benefits, character building, and the development of a positive self-identity. The students had both positive and negative impressions of their school's music programs and their teachers. The researcher concluded that music is a prominent force in the lives of students and a meaningful part of their identity.

Barrett and Smigiel (2007) conducted qualitative research to discover the meaning and value of the arts in the lives of Australian children. The researcher explored children's

perceptions of their participation in four youth music/arts sites in Australia. The research involved a collective case study in which the researcher conducted artifact-elicited interviews with participants to discover what their experiences in the arts meant to them. The students brought an artifact of their choice that represented the program and its importance to them personally. The artifacts chosen by the students included trophies, photographs, props, programs, costumes, posters, shirts, and musical instruments. The researchers hoped that the artifacts would generate rich data about the meaning students experienced in the four programs. After interviewing 25 participants, the findings resulted in five main themes. The students experienced a love of performance, unity of purpose, individual well-being, a sense of community, and a sense of challenge and professionalism.

Davis (2009) replicated Hylton's (1980) research with middle school general music students using the Music Meaning Survey (MMS). First, the researcher used an open-ended question to generate items for the MMS. Then, after piloting the MMS, the researcher administered the survey to 762 sixth, seventh, and eighth grade students across eight states. The researcher employed a principal component factor analysis on the MMS results, generating five factors involving music meaning. These factors included a vocational factor pertaining to future outcomes of music learning, an academic factor referring to music as a school subject, a factor about belongingness involving social interaction with the other students, and an agency factor involving students' sense of self-esteem, motivation, identity, and emotional development. The primary conclusion from this study is that for middle school students, music class can be a meaningful experience, where students can experience multiple benefits.

Hays and Minichiello (2005) conducted qualitative research with adults 60 years and older to discover the influence of music in their lives. Open-ended interviews and focus groups

were used to discover how the meaning of music was constructed in the participants' individual lives. Some participants were professional musicians, others were amateurs in different ensembles, and others just enjoyed listening to music and playing music at home. Results indicated that music provides a way of understanding and developing self-identity, a means of connecting with others, an activity that helps maintain health and well-being, and a way to experience and express spirituality.

The responses about spirituality were especially interesting. All participants in the study described music participation as a spiritual experience, though many could not define what they meant by spirituality. For some, spirituality referenced religious feelings and beliefs; others felt that this spirituality was a realization of the beauty of music, which they described as something 'non-worldly,' transcending normal, everyday life experiences. Their experiences of music helped them to avoid loneliness and isolation in old age.

Cape (2012) researched high school instrumentalists' perceptions of meaning in music by doing qualitative research, using interviews and participant observation. The researcher conducted in-depth interviews with six wind ensemble students, five guitar class students, and six jazz band students. Also included in the data were interviews with the participants' music teachers, and school principals. According to the findings from this study, instrumental students stated that instrumental music education provided an opportunity to achieve in music, strengthen social relationships, express themselves to others, and construct identities as individuals and group members.

Findings also showed the importance of a dynamic leader in the lives of students. The leader's influence affected both musical and non-musical benefits, even well beyond high school years. The non-musical benefits, such as character development, critical thinking skills, and

social development were the benefits that lasting throughout participants' lives, although not all participants were involved in choir later in life.

Wu (2012) explored Chinese American string students' meanings of orchestra experience. The eight participants were members of their public school orchestra and a community youth orchestra. The participants indicated that none planned to pursue music as a career; rather, they participated in orchestra to build their resumes for college applications and for social reasons. The data for the study included participant observation and interviews with students, parents, and music teachers. The findings for this research suggested that the social element of orchestra promoted psychological wellbeing in the students' lives. Additionally, students expressed that their school orchestra programs lacked challenge compared to their community orchestra experience.

Arasi (2006) investigated the lifelong meaning of a high school choral program to a group of adults who had participated in the program previously. The participants were eight adults who had been in the choir program for at least three years. All participants had pursued careers other than music. The data for this study included semi-structured interviews, researcher field notes, and archival information. For the first interview, the researcher asked each participant a question about his or her memories of high school choir. The researcher reviewed the interview transcripts with each participant before going on to the second interview. The second interview focused on the lifelong impact of choir participation. Also, the participants completed a questionnaire about the teaching strategies of their choral director. After the interviews, the researcher observed the choral director to verify the teaching strategies mentioned in the interviews.

The findings revealed three themes about lifelong meaning of choir. First, the choral

teacher's personality and teaching strategies were highly influential in students' perceptions of meaning. The participants valued the choir director's high expectations, stating that the teacher taught them valuable life lessons that resulted in positive character development and improved self-confidence. Another theme from this study was that the adults connected their choral experiences in high school to their desire for lifelong learning as adults. Participants related that they learned to think critically in choir and came to value other students and love learning. Students asserted that they learned these things from the choral director. Finally, a third theme from the study was that participants valued their choir experience for both intrinsic and extrinsic reasons. They shared that they had a desire to strive for excellence and had learned to evaluate and appreciate many kinds of music through being in choir. In addition, they grew socially through singing with others.

Hylton (1980) felt that educators must seek to discover things that are meaningful to students so that music learning would be engaging and significant to them. His research focused on what high school choral students perceived as the meaning of their choral experience. Additionally, he wanted to discover if there were specific dimensions in this meaning construct. For this particular study, Hylton defined meaning as "a psychological construct with cognitive and affective aspects, manifested overtly through behavior, reflecting an individual's evaluation and valuing of an experience" (p. 20). To measure students' perceived meaning, Hylton developed the Choral Meaning Scale (CMS) using qualitative data from his pilot study (Hylton, 1980), which involved three high school choral groups of 189 students in central Pennsylvania. Hylton used an open-ended question to elicit a wide range of responses about the meaning of choral music. Each student answered the following open-ended question:

As a member of your high school choral group, you are a person who sings

because this experience means something to you. We are trying to find out what it is about this experience that is meaningful for you. Would you list below what this singing experience means to you and the part singing plays in your life?

There were 420 responses, which the researcher reviewed, combined, and reduced to 62 statements He organized these statements into four categories; Psychological, Communicative, Integrative, and Musical Artistic. Since some statements had religious aspects, Hylton thoroughly reviewed the choral literature and then added a Spiritualistic category. The original Choral Meaning (CMS) scale contained 72 items. This pilot version of the scale was a Likert-type scale with items randomly drawn from the previous five categories. The researcher piloted this scale with 251 students from four different high schools. After performing a principle component factor analysis with the results, Hylton added a sixth category, an Achievement factor, relating to the students' need for Achievement in choral groups. The final choral meaning scale contained the six categories listed below:

- Psychological - this category involves the meaning students perceive as it relates to self- identity and personal satisfaction experienced because of choir participation
- Communicative - The Communicative category is about reaching out to an audience, expressing ideas and feelings through choral music.
- Integrative -The social aspect of choral participation is the focus of this category. Choral participation fills a need to be with others.
- Musical-Artistic - this category involves the musical development of the choral students. Choir participation is meaningful because it provides an opportunity for music learning and growth.
- Spiritualistic - Students expressed religious reasons for choir participation. Singing

can be a way to express spiritual feelings and thoughts.

- Achievement- these statements reflect the need to achieve in choir, resulting in a positive self-esteem.

Hylton addressed content validity of the CMS with the use of the pre-pilot study. The use of an open-ended question supplemented by gleanings from applicable choral literature, insured that the survey was a valid measure of the meaning of choir participation. Hylton addressed construct validity by doing a factor analysis of the data from the pilot study. A principle components factor analysis with oblique rotation showed the relationships of each statement to specific psychological factors. Cronbach's Alpha was calculated to measure reliability for each factor category: Spiritualistic (.95), Achievement (.93), Psychological (.87), Communicative (.87), Integrative (.90), and Musical-Artistic (.90).

The researcher administered the scale to 673 high school choral students in 14 different choral ensembles. Hylton concluded that the meaning of choral singing for high school choral students is a multidimensional concept. Hylton suggests that there are multiple outcomes of music education experiences in the lives of students and states "emphasis in the professional literature of music education on the power of music to enhance students' affective development is well-founded" (p. 302).

The following studies about meaning have replicated Hylton's study with choral students (Farmer, 2009; Kwan, 2002; Seago, 1993; Sugden, 2005). Farmer (2009) explored the degree to which 307 high school choral students preferred participation in concert choirs and show choirs. This research also explored the perceived meaning of the students and how this meaning might predict the kind of choir they preferred. Results from this study show that high school choral students have a strong regard for show choir participation. The factor of dance was statistically

significant for predicting students' preferences for show choir over concert choir. While students valued concert choir, they preferred show choir to concert choir because of the dance element.

Kwan (2002) utilized Hylton's Choral Meaning Scale to discover the meaning of high school choir for students. This study examined student perceptions as a function of gender, grade level and music experience. Kwan omitted the qualitative portion of the study and excluded the spiritualistic items in Hylton's scale, using only the items in the remaining five factors. The researcher administered the modified version of the scale to 84 high school students. All factors of the survey received high means, especially the Achievement items. The main effects of gender, grade level, and musical experience and their interaction effects were not significant. The schools for this sample were rural schools. The researcher suggested that researchers study schools with different demographics.

Sugden (2005) investigated the effects of ensemble level, years of choir experience, gender, and private music study on singers' perceptions of the meaning of choir experience and their musical self-concept. Similar to Kwan, the researcher used a modified version of Hylton's CMS, omitting the spiritualistic items. However, the researcher added an open-ended question at the end of the CMS, asking students to add any additional thoughts about what singing meant to them. The Arts Self-Perception Inventory (Vispoel, 1993) was used to measure students' musical self-concept. The researcher also developed a questionnaire to obtain demographic information including gender, years of choir experience, ensemble level, and private music study. A total of 835 choral students in Indiana participated in the research.

Findings suggested that the choir members found meaning in the choir experience in all five of Hylton's categories. Thirteen participants also wrote about a spiritual dimension in their meaning in choir, stating in the open-ended question that they found choir meaningful because of

religious reasons. Additionally, students' musical self-concept was highly correlated to their meaning in choir. The private lesson experience seemed to be related to students' self-concept about music. Moreover, the younger students seemed to be more positive about their own musical ability than did older students.

Seago (1993) studied the motivational factors influencing 956 choir members to participate in church choir. The research involved two measures: Hylton's CMS and The Personal Inventory Profile, a scale developed by the researcher. After employing a principal components factor analysis, the six factors identified were Musical-Artistic, Spiritualistic, Achievement, Communicative, Psychological, and Integrative. The findings indicated that church choir members said their strongest motivation for belonging in church choir was for spiritual reasons.

In summary, according to the literature, music students of all ages find meaning in ensemble participation. Ensemble members have positive attitudes and motivation about their ensemble experiences because they benefit personally, emotionally, socially, and musically. These benefits are closely intertwined in the fact that ensemble participation is a social experience. Members feel a strong sense of community, resulting in the positive development of the whole person. The meaningful experience of ensemble participation results in positive attitudes and increased motivation to learn music.

Literature Summary

The literature review has included research focused on outcomes of ensemble participation in students' lives and research about students' personal perceptions, attitudes, motivations, and meaning in regard to ensemble participation. There are several key ideas from the literature that warrant discussion. First, it can be concluded that ensemble participation has

multiple positive outcomes for participants in all kinds of music ensembles. A common theme through all the research about ensemble participation is that group participation in music seems to result in music learning, social growth, a sense of belonging and community, emotional well-being, character development, and sometimes, spiritual meaning. These findings seem to be relevant regardless of whether the ensemble takes place in a school setting or in a community setting.

Next, findings from the literature specific to instrumental ensembles are noteworthy. First, the data suggest that orchestra performance is a complex activity. Many events occur at once, requiring instrumentalists to multitask. Specifically, string players must attend to their own parts while watching a conductor and listening to the parts of others. They are also focusing on their individual tone, bowing technique, intonation, and fingering. Through this activity, they are learning and improving musically through listening to their peers, sight-reading, and following the conductor.

Part of the learning that occurs in orchestra seems to be tacit learning. Polanyi (1962) first introduced the idea of tacit learning, suggesting that all knowledge is rooted in this kind of learning. According to Polanyi, tacit knowledge is knowledge we possess that cannot be transferred verbally and that we might not even be aware that we have. The transfer of this learning involves extensive personal contact, social interaction, and trust.

Additionally, it bears mentioning that context is important. Each ensemble, whether it is choir, band, or orchestra has a unique context because each individual member is unique and because every conductor brings their personal style, teaching philosophy, and personality with them into the rehearsal. This means that not only is orchestra different from choir and band but each orchestra is unique in context from other orchestras. Remarkably, despite this difference of

context, findings seem to be similar. Each ensemble, whether it is choir, band, or orchestra, is a community within itself. It is an environment where learning is a shared experience between peers.

Need for the Study

The research literature about student perceptions of orchestra is limited and many of the existing studies are small-scale, qualitative studies. Additionally, while several researchers have replicated Hylton's study in the field of choral music, there is a need for a similar scale for orchestra. Finding what is meaningful and engaging for string orchestra students can provide valuable information for improvement of programs, thus advocating for string education. This present study seeks to address the limitations in the literature through exploring string students' perception of the meaning of orchestra participation.

CHAPTER THREE

Methods and Procedures

The purpose of this two-part study was to examine grade 6-12 string performers' perceptions of the meaning of orchestra experience. The following research questions provided the framework for this research:

1. How do youth string orchestra members perceive the meaning of their orchestra experience?
2. To what extent will the perception of the meaning of their orchestral experience differ as a function of ensemble type, music experience, and instrument ownership?

The independent variables included ensemble type (school, community, both school and community, and homeschool), music experience (private lessons), and instrument ownership (owned, rental, or loaned by school or teacher). The dependent variable for the study was the students' perceived meaning of the orchestra experience as measured by the Orchestra Meaning Scale (OMS).

The study involved the development, testing, and administration of a scale to assess students' perceptions of the meaning of orchestra participation. Similar to Hylton (1980), the researcher conducted the study in two parts. Part one of the study involved the development and piloting of the OMS. In part two of the study, the researcher administered a revised version of the OMS to a larger sample of school and community orchestra members.

Participants

The population of interest was grade 6-12 string performers who were members of school, community youth, or homeschool orchestras. Members (N = 74) of the following orchestras participated in the qualitative portion of the study: Tiger Strings Youth Orchestra (n = 15), Etowah Youth Orchestra (n = 6), Alabama School of Fine Arts (n = 8), Wiregrass Youth Symphony (n = 10), St. Paul's Episcopal School (n = 32), and Montgomery Youth Orchestra (n = 3). Members (N = 175) of the following orchestras completed the 70-item pilot version of the OMS: Macon Youth Symphony Orchestra (n = 20), Dekalb Youth Symphony (n = 16), Decatur Youth Symphony (n = 8), Bravo Homeschool Orchestra (n = 12), Forsyth Youth Orchestra (n = 13), North Cobb High School (n = 91), and Tiger Strings Youth Orchestra (n = 15).

The researcher conducted the main study (part two) during the 2013-2014 school year. Participants for part two of the study consisted of a non-probability volunteer convenience sample of grade 6-12 string performers in both school and community youth orchestras in Alabama and Georgia. The researcher searched for school orchestras by researching each school district website to determine if there were orchestra programs. To find community orchestras, the researcher conducted a Google search using the terms "community youth orchestras in Alabama" and "community youth orchestras in Georgia." A total of 467 string performers completed the final version of the OMS. The participating orchestras for this part of the study were the participants from the OMS pilot (N = 175), Sprayberry High School (n = 16), Kell High School (n = 58), Pope High School (n = 34), Wheeler High School (n = 43), Hillgrove High School (n = 41), and McEachern High School (n = 100).

Sample demographics included 14 sixth graders, 9 seventh graders, 18 eighth graders, 174 ninth graders, 97 tenth graders, 87 eleventh graders, and 66 twelfth graders. Two high

school string students did not enter grade information. There were 46 community orchestra students, 334 school orchestra students, 12 homeschool orchestra students, and 75 students who played in both school and community orchestras. A total of 367 students in the sample owned or rented their instruments and 99 had instruments loaned to them by their schools. One participant did not indicate instrument ownership. Additionally, the sample represented 268 violinists, 81 violists, 88 cellists, and 24 double bassists. Five participants did not provide instrument information. A total of 203 string performers had taken private lessons and 262 indicated that they had not taken lessons. Two participants did not answer the survey question about music experience.

Access and Permission

The Institutional Review Board of the Office of Human Subjects at Auburn University approved the two-part study as expedited. (See Appendix 1 for IRB approval letter, documents, and consent forms.) For each part of the study, the researcher sent an initial email to announce the study to orchestra directors. Once the director responded, the researcher emailed or telephoned the director to discuss and explain the research. After obtaining approval, the researcher emailed a letter requesting consent from school administration or community orchestra organization. The letter summarized the research study and the researcher's planned procedures, assuring directors and teachers about the confidentiality of the study. Upon agreeing to the research, each principal or administrator signed the permission letter, printed it on the school or organization stationary, and emailed it to the researcher. Next, the researcher mailed consent forms and a script (see Appendix 1) to participating directors to announce the study. The directors read the script to orchestra students and distributed consent forms.

Instruments and Data Collection

The instruments for this study were adapted from Hylton's (1980) study. Similar to Hylton's research, part one utilized qualitative data to strengthen content validity and to discover if there were additional themes that suggested other factors. The researcher used Hylton's open-ended question (Appendix 2) for part one of the study, replacing all choir-related words with orchestra-related words. The adapted, open-ended question for part one of this study is stated below:

> As an orchestra member, you are a person who plays in orchestra because this experience means something to you. We are trying to find out what it is about the orchestra experience that is meaningful for you personally. Please list below what the orchestra experience means to you and the part it plays in your life.

The researcher had two specific goals when developing OMS for part two of the study. First, the research instrument should replicate Hylton's work and include as many of Hylton's items as possible. An additional goal was to develop new survey items that would reflect the orchestra students' responses to the open-ended question about the meaning of orchestra. Because Hylton's study was done with choral students, it was expected that new items specific to the orchestra experience might emerge in the qualitative data. Additionally, the researcher did not anticipate emergent data pertaining to spiritual themes.

The analysis of the qualitative data involved a detailed process, which included the following steps:

- Separating all student responses into individual statements
- Reducing compound sentences to simple sentences

- Simplifying wordy statements
- Editing referrals to specific instruments to all instruments
- Eliminating statements if they were unrelated to orchestra, not relevant, or unclear
- Casting each statement into infinitive form
- Categorizing statements into Hylton's (1980) categories

Each step in this analysis is described in more detail in the following section.

The purpose of the open-ended question was to encourage students to write anything they wanted to write about the meaning of the orchestra experience. Some students wrote one sentence describing what orchestra meant to them and other students wrote several sentences. Since Hylton's design for the open-ended question contained numbered lines, most of the participants listed their thoughts line by line rather than expressing them in paragraph form. For example, students listed multiple thoughts on the page, listing the things that made orchestra meaningful to them as thoughts came to mind. An example response from one student is included below:

1. The orchestra lets me express myself
2. It gives me fun experiences
3. The sound of the beautiful music calms me down
4. It lets me understand the language of music
5. The orchestra is my happy place
6. It gives me some sense of life
7. Without it, everything would be bland and tasteless

Each student response was separated into individual sentences, resulting in 476 individual statements about the meaning of orchestra. (Qualitative raw data is displayed in appendix 3.)

In some cases, students used compound sentences in which they shared multiple ideas about orchestra in one sentence. When applicable, the researcher changed compound sentences to simple sentences. The researcher altered the following compound statements by writing them as two simple sentences.

Original: "I love meeting new people and learning new music."

Altered as two statements:

"I love meeting new people"

"I love learning new music"

Original: "One reason is that it makes me feel that not only am I doing it for me, I am doing if for others to make a difference."

Altered as two statements:

"It makes me feel I am doing it for me"

"It makes me feel I am doing it for others to make a difference"

Original: "I learned how to play the violin a few years ago, and I really enjoy playing it. But it really is wasted talent if you do not have anyone to play for/with."

"I really enjoy playing the violin"

"It is really wasted talent if you do not have anyone to play for/with"

Original: "Teaches leadership and how to express yourself more"

Altered as two statements:

"It teaches leadership"

"It teaches how to express yourself more"

Original: "Great teacher, great music"

Altered as two statements:

"Great teacher"

"Great music"

Original: "Strings makes me and those around me, happy."

Altered as two statements:

"Strings make me happy"

"Strings makes those around me happy"

Original: "There is no comparing. You do your best!"

Altered as two statements:

"There is no comparing."

"You do your best!"

Original: "Gives me an escape from stress and most importantly, it brings joy to others while exposing them music and what it can do."

Altered as two statements:

"Gives me an escape from stress"

"It brings joy to others while exposing them to music and what it can do"

This process resulted in 484 simple sentences about the meaning of orchestra.

Occasionally, it was necessary to reduce sentences further because of excess wordiness. For example, a student wrote "I've been playing music since I was 7 and to be able to play music everyday is a blessing." The researcher shortened the statement to "I like being able to play music everyday." The statement "I've always loved playing a musical instrument, but I could never find one that suited me until I tried violin" was changed to "I like playing an instrument that suits me personally." When omitting words, great care was taken to preserve the students' original meaning.

Additionally, some students mentioned specific string instruments. There were 13 statements referencing violin, two statements about cello, and two statements about double bass. The researcher altered these statements to include other instruments. For example, the statement "It gives me time to practice my violin" was altered to "It gives me time to practice my instrument."

Some statements were not related to the orchestra experience. For example, three students in one school indicated that they like having free time in class to do other work. This teacher had occasionally allowed students to work on other schoolwork if they needed time during class to catch up. The researcher eliminated these statements because they had nothing to do with the meaning of orchestra experience. Another student wrote, "I learned a life lesson on our trip about doing what is right and that little things have big consequences." The researcher excluded this statement also. Learning appeared to be a result of a disciplinary action rather than orchestra learning. Finally, the response, "snacks sometimes" was eliminated.

Some statements were unclear or lacked detail. For instance, students occasionally wrote down single words that reminded them of orchestra, such as soulful, magical, imaginative, memories, and focus. The meanings of these statements lacked clarity. Also, statements, "It helps build character," "This class helped me focus on what I'm trying to do," "Applying what I learn in music to other areas of life," and "Cello is new and different" were eliminated because they seemed unclear.

Some statements about orchestra were not relevant to the study. The statement "First time getting bitten by bug while playing violin" and "I don't have to exercise in the morning – I play double bass" seemed to be an attempt to be funny. These two statements were eliminated

because they were not relevant to the study. One student expressed their displeasure concerning chair positions and meeting days:

> "It's on a Saturday, which I find highly inconvenient. I would prefer it to be held at a different time. It helps my music, but I think it could be more helpful if we were split better between groups, as I feel many are misplaced and should be occupying a different position."

While these are real issues in orchestra, the researcher did not use this statement because it was unrelated to the meaning of orchestra. This statement was the only negative statement in all the data.

Next, the researcher altered each of the remaining statements by changing each one to infinitive form, resulting in items such as "To work as a team," "To make new friends," "To learn new techniques on my instrument," or "To experience great music." This resulted in a total of 468 student statements, altered to infinitive form.

Statement Categories

The researcher then interpreted and categorized the 468 statements according to how they fit into Hylton's original categories for choral meaning. The researcher's dissertation committee chair assisted in sorting the responses into categories. This peer briefing process enhanced content validity and strengthened the credibility of the data (Lincoln & Guba, 1985). Appendix 4 contains an example of the categorization of the data.

As anticipated, none of the students' statements fit into Hylton's Spiritualistic category. Hylton's remaining five categories (Musical-Artistic, Achievement, Psychological, Communicative, Integrative) were reflected in student responses.

Psychological. Statements relating to development of self were included in this category. Orchestra experience is meaningful insofar as one achieves personal satisfaction and growth from it in an existential way. Statements in this category indicate that orchestra experience is meaningful in that it helps to make one aware of his or her identity.

Achievement. Statements in this category were reflective of a need on the part of students to try, succeed, and get better. The self-esteem that results from musical accomplishment may contribute greatly to an individual's sense of well being resulting in feelings of accomplishment, success, and pride.

Communicative. Statements in this category involve reaching out to others. These statements concerned the expression of ideas and feelings to an audience.

Integrative. Statements in this group reflect a desire to participate in and interact with the group. This category reflects the social aspects of orchestra participation. Statements were included that indicated that orchestra participation fulfills a need to be with others.

Musical-Artistic. Statements in this category involved musical growth. Development of self occurs through the drawing in of musical knowledge. Orchestra participation is meaningful insofar as it affords opportunities for musical growth and development.

Most of the student statements were comparable to the statements used by Hylton. However, some statements warranted the inclusion of new survey items for specific categories. The summary below describes the process of adding items to Hylton's five categories.

Integrative Category. The researcher added two items to Hylton's Integrative category. There were several statements about students finding meaning because orchestra helped them please their family members or have a closer bond with them:

- "I felt like since my sister has been playing I thought I might try it again and I starting to like it again"
- "Family members are proud and entertained"
- "It has brought me and my dad closer through his love of music and my new love"
- "Playing the violin makes my whole family happy and it gives equal attention to my sister and me"
- "Doing music is important to my family"

Because more than one group mentioned the benefits of orchestra on family relationships, the researcher added the item "To make my family happy" to the Integrative category.

Several students mentioned that being a part of an ensemble was very important to them. The following statements reflect students' experiences with others in an ensemble as being meaningful.

- "Gives experience playing in an ensemble"
- "Learn ensemble performance etiquette"
- "I learned how to blend into the sound of an orchestra"
- "It's fun to play with others instead of playing by myself"
- "It is a fun experience that I get to play with my friends and make music with people that have so much more experience than me. I am always learning"
- "It means that I am playing with others"
- "I can play with others that have the same instrument"
- "To be a part of the ensemble"
- "It gives me pleasure to know I can play with them because it take skill and dedication"
- "Working and experiencing music with others"

Similar to Hylton's items, some of these statements could fit in more than one category. Because of the frequent mention of playing with others and playing in an ensemble, a new item "To be a part of an ensemble" was added to the Integrative category.

Musical-Artistic Category. The researcher also added an item to Hylton's Musical-Artistic category. One statement involved learning from a dynamic leader. Ten different string students from several groups made positive statements about their conductors and teachers.

- "The conductor is funny and full of energy"
- "Seeing a conductor work"
- "Working with a conductor"
- "Get to know your conductor"
- "It's inspiring to have a conductor from the symphony"
- "Making friends with your conductor and stand partner"
- "Watch at the conductor"
- "A way to serve conductors"
- "Our conductor becomes our friend and mentor and helps us grow more than in the musical sense"
- "Great teacher – great music"

Rather than add an entire new leadership category, the researcher included the new statement, "To learn from a conductor."

Psychological Category. The researcher added several new items to this category. Several statements from the raw data seemed to fit into the Psychological category because they concerned student feelings about orchestra. However, they did not correspond to any of Hylton's existing items. First, there were numerous responses about the fun of orchestra. Hylton's scale

had an item about fun also. However, the item "To have a good time with the rest of the group" seemed to focus on the fun of social interaction with friends. For this current study, several students spoke of orchestra being fun without expressing why it was fun. They seemed to express the idea that orchestra was fun just because it was orchestra.

- "Having fun"
- "Fun"
- "It gives me fun experiences"
- "It's fun"
- "It is fun"
- "Fun"
- "It's fun"
- "Fun activity"
- "We have fun each and every day"
- "Being in the orchestra gives me something enjoyable to do"

Additionally, students expressed specifically that the music learning experiences in orchestra were fun in that they enjoyed playing the music, learning, and playing next to someone with more ability and experience. Student feelings of enjoyment and fun came from the music learning experience:

- "Having fun and learning at the same time"
- "It is fun to play the music"
- "Orchestra lets me have lots of fun while I am being challenged by new music"
- "It's fun to play with others instead of playing by myself"
- "We play fun music"

- "It's fun to accompany a soloist"
- "It is a fun experience that I get to play with my friends and make music with people that have so much more experience than me. I am always learning"
- "To have fun playing the music"

A new item "To have fun" was added to the Psychological category. Also, students expressed the specific enjoyment of playing their instrument in orchestra:

- "I enjoy playing in orchestra because I like the opportunity to play my instrument with peers, and also because I don't have that opportunity in my school system"
- "I enjoy playing my instrument"
- "I enjoy playing bass because it means I am very important to any orchestra"
- "I learned how to play the violin a few years ago, and I really enjoy playing it. But it really is wasted talent if you do not have anyone to play for/with"
- "Play instruments"
- "To play instruments"
- "To have time to practice my instrument"
- "I like being able to play music everyday"

"To enjoy playing my instrument" was added to the survey. Other statements in the raw data seemed to fit into the Psychological category because they concerned students' experiences of self-growth and personal feelings of uniqueness because of being in an orchestra. The researcher categorized this data by first grouping statements together if they seemed to express the same idea.

Five students stated that orchestra helped them to feel special or unique:

- "Playing music also makes me feel unique and one of a kind"

- "I take pride in doing something many others can't"
- "Being different"
- "Playing violin makes me feel special!"
- "I get to be different than everyone"

A new item, "to feel important to an orchestra" was added to the Psychological category.

Two students stated that orchestra helped them learn leadership skills:

- "As a bass player I get to be a 'leader' but in a subtle way"
- "I grow as a leader in every rehearsal"
- "To learn leadership skills"

A new item "To learn leadership skills" was added to the survey.

One student expressed the importance of orchestra by stating "It's a part of me that I don't think I could live without." Several students expressed that the anticipation of going to orchestra rehearsal gave them something to look forward to each week:

- "It means a lot to me because I have something to look forward to at the end of the week"
- "It gives me a reason to look forward to coming to school"
- "Playing music also gives me something to look forward to"
- "To have one period a day that is enjoyable"
- "Every morning when I come to school I looked forward to strings"
- "To have something every morning to look forward to"

The researcher added the item "To have something to look forward to" to the survey.

Some students stated that playing a string instrument had become "a part of them" and that they couldn't imagine being without the experience:

- "It's a part of me because I have played for so long"

- "Orchestra is essentially a part of me and it makes me who I am"
- "Music has always been a huge part of my life"
- "Music is important to me"
- "To do something I can't live without"

The new items "To make me who I am" and "To do something that is very important to me" were added to the survey.

Achievement Category. Students mentioned numerous times that orchestra made them smarter or helped develop their brain. The raw data is included below:

- "Strengthens the brain through reading music"
- "Keeps my mind from turning to mush"
- "Learning to use mind in different ways"
- "I think I've gotten smarter from playing violin"
- "Thinking in a different way"

The statement "To develop my mind" was added as a new item to the Achievement category.

Also, students from several different orchestra groups mentioned preparing for college. Hylton's choral survey had an item in the Musical-Artistic category "To prepare for a musical career." Sometimes students did indicate that they wanted to prepare for a musical career. Other statements just mentioned preparing for college, without indicating a specific career choice in the statement.

- "Helps me with a college resume"
- "I might go to a college with an orchestra"
- "It will look good on college applications"
- "Provides opportunities to get my name in colleges"

- "It can help me get a scholarship or aid to college"
- "Playing an instrument is good for college"
- "Looks good on college transcripts"
- "To prepare for playing orchestra in college"

A new item "To help me prepare for college" was added to the Achievement category.

Communicative Category. Finally, some students spoke of helping others through their performances. Hylton's choral scale contained an item about helping others enjoy music. However, orchestra students were not specific in the nature of how their performances helped others. Therefore, the researcher added, "To help others" as a new item in addition to Hylton's item "To help others enjoy music." A total of 13 new items (Appendix 5) were added to Hylton's scale and are listed below:

Integrative

"To make my family happy"

"To be part of an ensemble"

Musical-Artistic

"To learn from a conductor"

Psychological

"To learn leadership skills"

"To do something that is very important to me"

"To enjoy playing my instrument"

"To have fun"

"To feel important to an orchestra"

"To make me who I am"

‘To have something to look forward to”

Achievement

“To develop my mind”

‘To help me prepare for college”

Communicative

“To help others”

Adaptation of Hylton’s Choral Meaning Scale

Since Hylton’s scale was developed for choral students, some of the wording had to be altered so that the items would relate to orchestra students. After close examination, the researcher altered nine items from Hylton’s original scale. A description of this process is summarized below:

- Original: “To sing many different kinds of music”
- Altered: “To play many different kinds of music”
- Original: “To learn to sing new songs well”
- Altered: “To learn to play new songs well”
- Original: ‘To find out if I have some singing ability”
- Altered: “To find out if I have some playing ability”
- Original: “To learn to sing things other than the melody”
- Altered: “To learn to play things other than the melody”
- Original: “To learn to sing songs well”
- Altered: “To learn to play songs well”
- Original: “To enjoy being a part of the sounds of many voices blending together”
- Altered: “To enjoy being a part of the sounds of many instruments blending together”

- Original: “To be with chorus people”
- Altered: “To be with orchestra people”
- Original: “To give people a message through our singing”
- Altered: ‘To give people a message through our playing”
- Original: “To get out in front of a crowd and sing”
- Altered: “To get out in front of a crowd and play”
- Original: “To sing well for others”
- Altered: “To play well for others”
- Original: “To express a composer’s thoughts and words contained in his music”
- Altered:” To express a composer’s music”

The researcher eliminated only one of Hylton’s items from the scale. The statement “To learn to control my voice” was eliminated from the OMS because there did not seem to be any way to alter it to relate to orchestra. The pilot version (Appendix 6) of the OMS included 70 statements: 57 statements from Hylton’s scale and 13 new items.

Demographic Information

The researcher included a few demographic survey questions at the end of the survey. The demographic information needed for the independent variables in this research included:

- Ensemble type (school orchestra, community youth orchestra, both school and community orchestra, and homeschool)
- Music experience (private lessons)
- Instrument ownership (owned, loaned, or rental)

Also, students were asked to indicate their school grade. Since some community orchestras have elementary school members, he researcher included grade level in the demographic information

to ensure that the sample was accurate. Because the sample represented grade 6-12 string orchestra, younger students' surveys were pulled out and not used. Additionally, students were asked to indicate what instrument they played in orchestra. This question was included to make survey administration easier on directors. The survey could be administered to all members including strings, winds, and percussion and the researcher could easily pull all string surveys out for the data analysis.

Pilot of OMS

The researcher piloted the OMS with seven well-established orchestras in Alabama and Georgia: five community orchestras, one large high school orchestra, and one home school orchestra. A total of 175 string performers completed the pilot version of the OMS. The students were asked to indicate their agreement or disagreement to each item on a five point Likert scale. Analysis of the pilot data involved a principle components analysis (PCA). A brief overview of PCA is included in this section to provide a rationale for use of this procedure in both the pilot study and the final study.

PCA is a data reduction procedure that takes a set of possibly correlated variables and changes them into a set of values called principle components. The objective is to reduce a set of variables to a smaller set of factors. The procedure was first developed by Pearson (1901) and is useful to researchers who want to reduce a set of variables. The process of extracting components from a larger set of variables is accomplished by calculating the eigenvalues of the matrix. An eigenvalue is the total variance explained by each factor. The number of positive eigenvalues determines the number of factors to be extracted (Reitveld & Van Hout, 1993).

Sample size has great importance in conducting any kind of factor analysis. Many statisticians insist that there should be a 10:1 person to item ratio represented in the sample size.

Some scholars are more lenient and recommend a 5:1 ratio (Worthington & Whittaker, 2006). Henson and Roberts (2006) assert that the largest possible sample should be used and that sample size adequacy cannot be determined until after the data is analyzed. According to Comrey and Lee (1992), a sample of 50 participants is very poor, 100 is poor, 200 is fair, 300 is good, and 500 is very good.

It is critical to conduct preliminary tests to make sure the data satisfies several assumptions when conducting PCA. Laerd Statistics (n.d.) state that the assumptions for a factor analysis are as follows:

1. There are multiple variables that can be measured at the ratio or interval level.
2. There should be a linear relationship between variables.
3. There must be an adequate sample size.
4. The data should be suitable for data reduction, meaning that it must have adequate correlations between the variables.
5. There should be no significant outliers.

In the present study, the use of a 70-item survey required a sample size of at least 350 participants to satisfy the minimal 5:1 ratio. However, despite the smaller sample size ($N = 175$) of the pilot, the researcher conducted the analysis for the following reasons:

1. It was necessary to discover which categories would contain the 13 new orchestra items
2. The analysis is important for evaluating construct validity in a scale (Clark & Watson, 1995)
3. The analysis is useful for refining a measurement for research (Floyd & Widaman, 1995)
4. Preliminary tests confirmed that assumptions for PCA were not violated.

Tabachnick and Fiddell (2007) provide recommendations for deciding which kind of rotation to use in principle components factor analysis. They suggest that researchers use oblique rotation initially, then choose the desired number of factors, and examine the factor correlations for the output. If any of the correlations exceed a value above .32, the researcher can conclude that an oblique rotation is warranted.

With these guidelines in mind, the researcher conducted an exploratory principle components factor analysis with oblique rotation. According to Hylton's previous procedures, five factors were extracted using a promax rotation, suppressing small coefficients below the .32 criterion. This initial analysis converged in 9 iterations with the first five factors representing 52.3% of the total variance. The mean scores were similar, with a similar spread. There were no negative correlations and many were greater than .32, confirming that an oblique rotation was warranted. Bartlett's Test of Sphericity was statistically significant ($p < .001$), indicating that variances were not equal.

The five-factor structure seemed to fit the data well and the first factor represented 36.2% of the total variance. Figure 1 displays the five-factor scree plot.

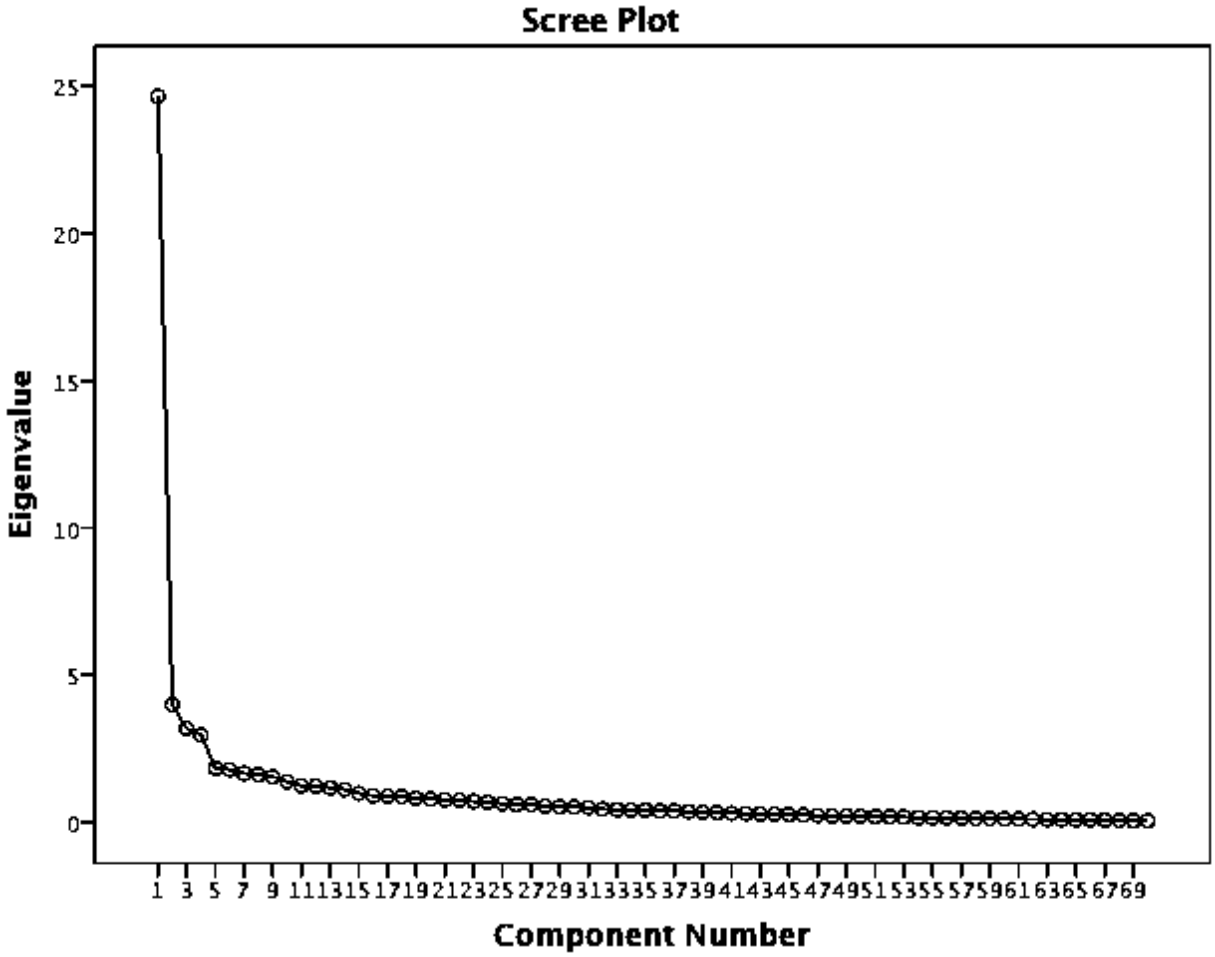

Figure 1. Five factor Catell's scree test for pilot study

Validity and Reliability

Content validity was enhanced by the use of the qualitative study in which students' responses were used to generate survey items. In addition, the peer debriefing process of sorting statements into categories with the assistance of the committee chair strengthened content validity. The factor analysis for the pilot study data strengthened construct validity by revealing relationships of the variables to Hylton's five categories.

Data Analysis

The purpose of this two-part study was to examine grades 6-12 string performers'

perceptions about the meaning of orchestra experience as a function of ensemble type, music experience (private lessons), and instrument ownership (owned, rental, or loaned). Specific data analyses were chosen to address the study purpose and research questions. These analyses included principle components factor analysis (PCA) and multivariate analysis of variance (MANOVA). The researcher used the Statistical Package for the Social Sciences to conduct all data analysis.

Chapter Four

Results

The purpose of this two-part study was to examine grades 6-12 string performers' perceptions of the meaning of orchestra experience. The following research questions provided the framework for this research:

1. How do youth string orchestra members perceive the meaning of their orchestra experience?
2. To what extent will the perception of the meaning of their orchestral experience differ as a function of ensemble type, music experience, and instrument ownership?

The independent variables included ensemble type (school, community, both school and community, and homeschool), music experience (private lessons), and instrument ownership (owned, rental, or loaned by school or teacher). The dependent variable for the study was the students' perceived meaning of the orchestra experience as measured by the Orchestra Meaning Scale (OMS).

The study involved the development, testing, and administration of a scale to assess students' perceptions of the meaning of orchestra participation. Similar to Hylton (1980), the researcher conducted the study in two parts. Part one involved the development and piloting of the OMS. In part two of the study, the researcher administered a revised version of the OMS to a

larger sample ($N = 467$) of school and community orchestra members.

Response Rate and Sample Characteristics

The researcher shipped a total of 1900 consent forms and surveys to orchestra directors in Alabama and Georgia who agreed to participate in the study. One week before survey administration, the orchestra director distributed consent forms to orchestra members during a regularly scheduled rehearsal. Every orchestra student completed the survey but the director collected only the consented students' surveys, placing them in a separate envelope. The responses of students who did not return consent forms were not included in the data. When all data were collected, the director mailed the consented surveys back in a self-addressed envelope. Data from the pilot study were included in part two of the study.

The following ensembles were included in part two of the study: Macon Youth Symphony Orchestra in Macon, GA ($n = 20$), Dekalb Youth Symphony in Chamblee, GA ($n = 16$), Decatur Youth Symphony in Decatur, GA ($n = 8$), Bravo Homeschool Orchestra in Chamblee, GA ($n = 12$), Forsyth Youth Orchestra in Cumming, GA ($n = 13$), North Cobb High School in Kennesaw, GA ($n = 91$), Sprayberry High School in Marietta, GA (n = 16), Kell High School in Marietta, GA (n = 58), Pope High School in Marietta, GA (n = 34), Wheeler High School in Marietta, GA (n = 43), Hillgrove High School in Powder Springs, GA (n = 41), McEachern High School in Powder Springs, GA (n = 100), and Tiger Strings Youth Orchestra in Auburn, AL ($n = 15$). Of the 1900 surveys mailed, 467 were returned, for a response rate of 25%.

There were two main reasons that the response rate was only 25%. First, many school orchestra directors who agreed to administer the survey could not follow through because of scheduling conflicts. Also, directors and teachers indicated that it was very difficult to get students to return consent forms.

Research Question One

The first research question was, "How do youth string orchestra members perceive the meaning of their orchestra experience?" To address this question, the researcher conducted a PCA with oblique rotation, extracting five factors with a promax rotation, to discover underlying dimensionality in the meaning of students' orchestra experience. According to the suggestions of Tabachnick and Fidell (2001), the researcher suppressed coefficients with absolute values below .32.

The Kaiser-Meyer-Olkin measure of sampling adequacy was .955, above the recommended value of .6, and Bartlett's test of Sphericity was significant (χ^2 (2415) = 20181.77, $p < .05$). The first factor explained 34.4% of the total variance. The five factors together represented 51.0% of the total variance. The rotation converged in eight iterations. Based on Hylton's previous research and the PCA data from the pilot study, the researcher concluded that the prediction of Hylton's five categories was verified. The five-factor scree plot is presented in Figure 2.

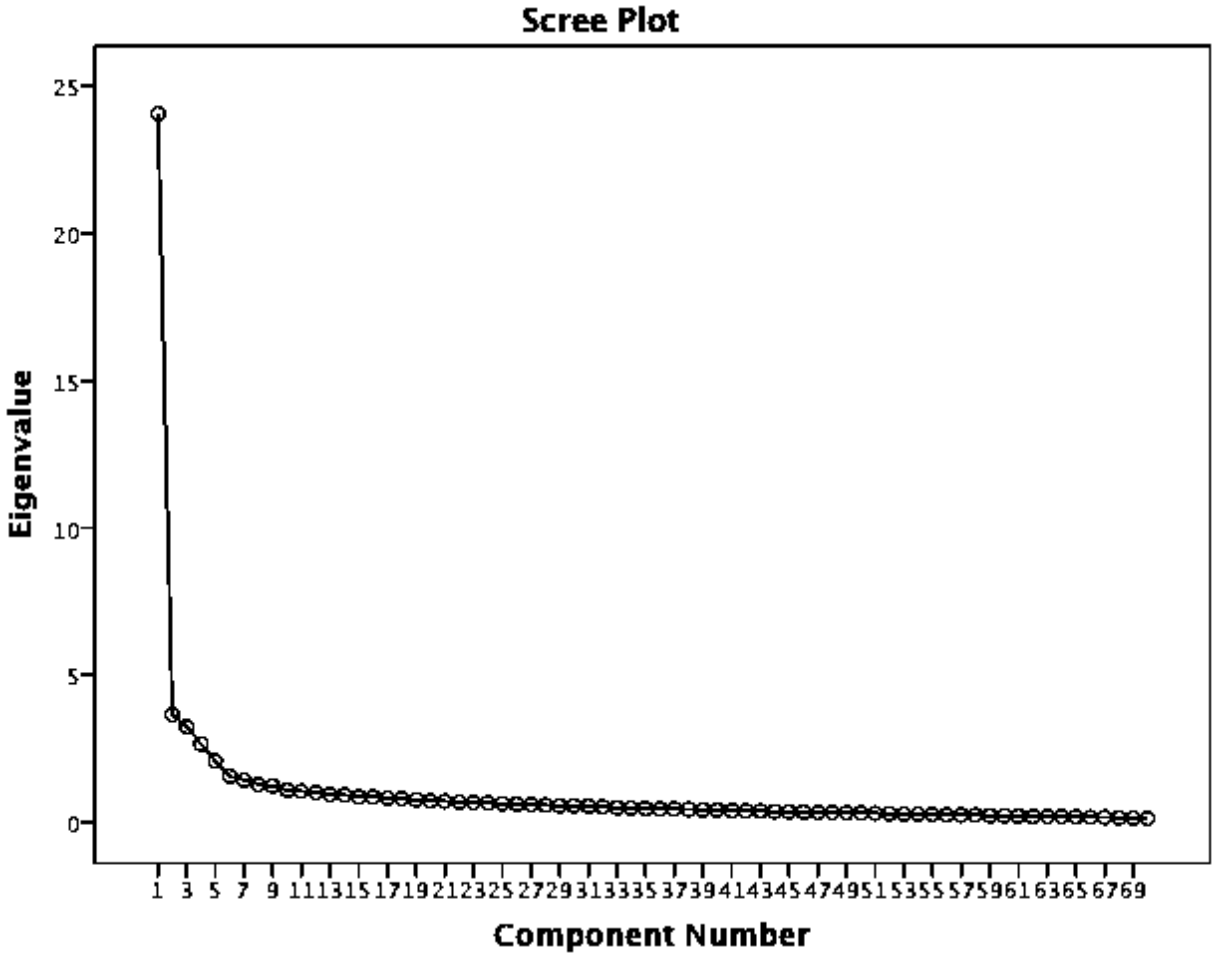

Figure 2. Five factor Catell's scree test for final study

A close examination of the pattern matrix (Appendix 7) revealed that a few items did not load on any of the five components. The items "To be part of an ensemble," "To hear others around me perform," "To contribute to a group effort," and "To learn leadership skills," failed to load in any category, and were deleted from the scale. Additionally, similar to Hylton's (1980) study, some items loaded on more than one component. Costello and Osborne (2005) recommend that if there are crossloadings, the researcher needs to drop the item from the scale. There were five items that loaded on more than one category: "To find out if I have some playing ability," "To enjoy being a part of the sounds of many instruments blending together," "To understand why other people love music," "To feel a sense of pride," and "To do something that

is very important to me." Six of the eliminated items were Hylton's and three were new OMS items. The final version of the OMS contained 61 items, with 51 items representing Hylton's scale and 10 orchestra items added by the researcher. The items for each dimension that met the .32 criterion are described below in order of how they appear in the pattern matrix (See Appendix 8). Also included is a brief description of each category and its application to orchestra experience.

Communicative

Hylton's Communicative category is involved with reaching out to others through musical performance. Student responses indicated that reaching out to an audience by participating in orchestra performances was a meaningful part of their orchestral experience. The results verify that music provides an opportunity for non-verbal communication with an audience. The items "To perform for others," "To play well for others," and "To get out in front of a crowd and play" had very strong loadings in this category. The item loadings for the Communicative category are presented in Table 1.

Table 1

Item Loadings for Communicative Factor

Statement	Loading
To perform for others	.919
To play well for others	.873
To get out in front of a crowd and play	.837
To please people with our playing	.786
To share my talent with others	.783
To have others listen to me	.773
To present good concerts	.760
To see the faces of the audience when we give a concert	.725
To have the excitement and thrill of presenting concerts	.708
To communicate so well with an audience that they applaud	.704
To help other people enjoy music	.514
To give others a message through my playing	.513
To have people hear the final product of a lot of hard work	.491
To help others	.442
To express a composer's music	.382
To help me prepare for college	.376

Musical-Artistic

The items that loaded highly on the Musical-Artistic factor involved musical growth. Musical participation is considered meaningful because it provides an opportunity for students to improve as a musician. String students found meaning in orchestra because they were learning more about orchestra literature, improving in their instrumental technique, learning from a conductor, and developing musical talent. The new item "To learn from a conductor" loaded in this category, suggesting that students related their musical learning to the conductor. The items with the strongest loadings were Hylton's " To discover styles and patterns in music," "To experience musical art," and "To enrich my musical knowledge," "To prepare for a musical career," and "To develop my mind" had the weakest loadings. The Musical-Artistic items are presented in Table 2.

Table 2

Item Loadings for Musical-Artistic Factor

Statement	Loading
To discover styles and patterns in music	.857
To experience musical art	.787
To enrich my musical knowledge	.772
To learn to appreciate the arts	.737
To learn to play things other than the melody	.701
To train my ear	.680
To learn to appreciate all kinds of music	.646
To play many different kinds of music	.638
To learn how to read music	.627
To develop my musical talent	.617
To learn to play some new songs well	.611
To learn from a conductor	.584
To learn to play songs well	.457
To prepare for a musical career	.384
To develop my mind	.342

Psychological

The factors in Hylton's Psychological category concerned development of self and the meaning that students received through the personal satisfaction of musical participation. The

item loadings in this category indicate that string students perceived increased personal growth through orchestra experience and that the experience was an outlet to help them forget problems, increase in self-worth, and have positive inner feelings. The items in this category with the strongest loadings were "To help me get to know myself better," "To help me be at peace with myself," and "To find out who I am." The items loading in the Psychological category are presented below in Table 3.

Table 3

Item Loadings for Psychological Factor

Statement	Loading
To help me get to know myself better	.882
To help me be at peace with myself	.838
To find out who I am	.827
To make me who I am	.771
To help make life go by easier	.727
To feel more at ease	.690
To relax and forget my problems for a while	.668
To give me a good feeling inside	.606
To have an experience full of feeling	.527
To make my family happy	.420
To develop my self-discipline	.420

Integrative

The items loading on the Integrative factor characterized personal meaning through interaction with other ensemble members. Instrumentalists viewed the social experience of orchestra as highly meaningful. The items "To make and enjoy good friends," "To meet new people," "To be with a great group of people," and "To have a good time with the rest of the group" had very high loadings in this category. The items loading above the .32 criterion are presented in Table 4.

Table 4.

Item loadings for Integrative Factor

Statement	Loading
To make and enjoy good friends	.895
To meet new people	.869
To be with a great group of people	.868
To have a good time with the rest of the group	.800
To be a part of a very close group of friends	.740
To learn to get along with other people	.632
To associate with talented people	.513
To work with other people	.446
To work together to achieve a goal	.440
To be with orchestra people	.353
To find out if I have some playing ability	.349
To contribute to a group effort	.327

Achievement

The Achievement category characterizes meaning as the gratification that students receive through musical improvement and accomplishment. Accomplishment in orchestra results in feelings of reward, personal pride, success, and enjoyment. The strongest factor loadings for the Achievement category were "To enjoy playing my instrument" and "To have fun." This indicated that orchestra students perceived that their accomplishments in orchestra were what made the orchestra experience enjoyable.

Table 5

Item Loadings for Achievement Factor

Statement	Loading
To enjoy playing my instrument	.808
To have fun	.715
To get a sense of accomplishment	.689
To feel rewarded	.576
To have something to look forward to	.568
To be part of something good	.553
To feel the satisfaction of practicing long hours and getting results	.454
To feel important to an orchestra	.442
To try, succeed, and get better	.355

To calculate mean scores for each category, the researcher took all items that loaded in that category and created a new scale variable with the mean scores from those items. Table 6 contains the mean scores of each scale.

Table 6

Means and Standard Deviations for Each Factor and Overall Score

	N	*M*	*SD*
Communicative	467	3.97	.71
Musical-Artistic	467	4.24	.55
Psychological	467	3.60	.79
Integrative	467	4.00	.69
Achievement	467	4.17	.66
Total	467	3.99	.57

Overall, student responses to the OMS were positive in terms of the agreement-disagreement continuum of the Likert-type scale. The Musical-Artistic category ($M = 4.24$) and the Achievement category ($M = 4.17$) received the highest mean scores, indicating that students viewed orchestra as meaningful because they improved musically and that this improvement gave them feelings of accomplishment and personal satisfaction. The mean scores for the Communicative ($M = 3.97$) and Integrative category ($M = 4.00$) were similar. Clearly, students indicated that orchestra was meaningful because they could join their friends and work together to present quality concerts to an audience. The Integrative and Communicative categories were both about connecting with others. String participants connected to an audience by sharing a composer's music and reaching out to them with the music. They also connected to the members of the orchestra through playing the music. Similar to Hylton's (1980) study, the Psychological category ($M = 3.60$) received lower mean scores than the other four categories.

After creating the summated scales for each category, the researcher computed a reliability coefficient for each subscale using Cronbach's Alpha formula (Cronbach, 1951). Nunnally and Bernstien (1994), McIver and Carmines (1981), and Specter (1992) discuss guidelines for computing Cronbach's alpha to measure reliability. They suggest that when using Likert-type scales, the analysis must use summated scales or subscales and not individual items or the reliability of the items will be low. The reasons for using scales and not individual items are:

- Individual items have considerable random measurement and are unreliable. However, measurement error averages out when individual items are added to obtain a total score (p. 67).
- Second, an individual item can only categorize people into a small number of groups. An example of this would be a dichotomous item, which can only distinguish between two levels, so it lacks precision.
- Individual items lack scope but a scale has more capability of representing a concept or construct (p. 15).

The reliability coefficient scores for each scale indicated that the scale had excellent internal consistency; Musical-Artistic (α = .90), Integrative (α =.90), Psychological (α =.92), Communicative (α =.93), and Achievement (α =.88). These results suggest that each category defines the dimension of meaning that it is meant to define.

Besides looking at the separate category scores, it was also necessary to determine if there were intercorrelations between the five category scales. Though the pattern matrix plainly defines five separate categories of orchestra meaning, the oblique rotation allows for the correlation of factors. A correlation coefficient computation indicated that all the factors are positively related. The correlations ranged from .532 between Psychological and Musical-

Artistic categories to .723 between the Achievement and Communicative categories. The correlation coefficient scores are presented in Table 7.

Table 7

Pearson Correlation Coefficients for Each Factor

	Comm.	Mus.	Psych.	Integ.	Ach.
Communicative	1				
Musical artistic	.643**	1			
Psychological	.641**	.532**	1		
Integrative	.578**	.575**	.547**	1	
Achievement	.723**	.607**	.676**	.552**	1

** Correlation is significant at the 0.01 level (2-tailed)

Research Question Two

Research question two stated, "To what extent will the perception of orchestral experience differ as a function of ensemble type, music experience, and instrument ownership?" To address this question, the researcher conducted a multivariate analysis of variance (MANOVA) to examine the effect of each separate independent variable on the dependent variables. The MANOVA is applicable for the analysis, since the dependent variables are moderately correlated with each other and share a common conceptual meaning. Also, numerous univariate tests or ANOVA can inflate the operational alpha level. MANOVA does provide some control over type one error. Harris (2001) recommends that a factorial MANOVA can be ignored to create a simplified composite for all effects. This saves the effort of trying to

simplify and label different composites for each effect in a factorial MANOVA. Based on this reasoning, the researcher conducted a separate one-way MANOVA for each independent variable (Ensemble Type, Music Experience, Instrument Ownership), using the scores from the five categories of orchestra meaning.

A one-way MANOVA was calculated to discover if students' perceived meaning of orchestra differed significantly as a function of ensemble type. The independent variable ensemble type had four groups; students in community youth orchestra, students in school orchestra, students in both school and community youth orchestras, and students in home school orchestra. The data contained no outliers and Levine's test was not significant, indicating that variances between groups were different. Based on the guidelines of Huberty and Petoskey (2000), the Box's *M* value of 72.4, associated with the *p* value of .021, was not significant, indicating that the assumption of equality of equal covariance was not violated ($p < .005$). There was a statistically significant difference in orchestra meaning based on ensemble type, F (15, 1267.5) = 2.16, p = .006; Wilk's Λ = 0.933, partial η^2 = .023.

Follow-up procedures included an examination of the pairwise comparisons using a Holm-Bonferroni adjustment of alpha levels. The Holm-Bonferroni procedure is a simple calculation that addresses the issue of type one error by allowing more rejections than the simple Bonferroni correction (Holm, 1979). Group means for the homeschool ensemble group were significantly lower than the both school and community group means for four categories of meaning. The homeschool mean for Musical-Artistic (M = 3.9, SD = .36) was significantly lower (α = .017, p = .007) than the both school and community group mean of 4.4 (SD = .4). The homeschool mean for Communicative (M = 3.5, SD = .52) was significantly lower (a = .016, p = .009), than the both school and community group mean (M = 4.1, SD = .68). The

homeschool mean for Psychological (M = 2.9, SD = .71) was significantly lower (a = .0125, p = .003), than the both school and community group mean (M = 3.6, SD = .84). Finally, the Achievement homeschool mean (M = 3.9, SD = .61) was significantly lower (a = .05, p = .026), than the both school and community group mean of (M = 4.3, SD = .59). There was a significant difference between school orchestra (M = 3.6, SD = .83) and homeschool orchestra (M = 2.9, SD = .71) groups in the Psychological category (a = .016, p = .004). There was also a significant difference for the Achievement category (a = .025, p = .012), between the school orchestra group (M = 4.1, SD = .68) and the group performing in more than one type of ensemble (M = 4.3, SD = .59). None of the other pairwise comparisons were statistically significant.

The researcher also calculated a MANOVA to discover if students' perceived meaning of orchestra differed significantly as a function of music experience. The independent variable music experience had two groups: students who had taken private lessons, and students who had not taken private lessons. The MANOVA results were not significant for music experience F (5, 459) = 5886.2, p = .006; Wilk's Λ = .015, partial η^2 = .985.

The researcher calculated a MANOVA to discover if students' perceived meaning of orchestra differed significantly as a function of instrument ownership. The independent variable had three groups; students who owned their instrument, students who rented their instrument, and students who were loaned an instrument by their school or teacher. The MANOVA results were not significant for instrument ownership F (10, 912) = 1.42, p = .167; Wilk's Λ = 0.970, partial η^2 = .015

CHAPTER FIVE

Discussion

The purpose of this two-part study is to examine grade 6-12 string performers' perceptions about the meaning of orchestra experience. The following research questions provided the framework for this research:

1. How do youth string orchestra members perceive the meaning of their orchestra experience?
2. To what extent will the perception of orchestral experience differ as a function of ensemble type, music experience, and instrument ownership?

The independent variables included ensemble type (school, community, both school and community, and homeschool), music experience (private lessons), and instrument ownership (owned, rental or loaned by school or teacher). The dependent variable for the study was the students' perceived meaning of the orchestra experience as measured by the Orchestra Meaning Scale (OMS)

The study involved the development, testing, and administration of a scale to assess students' perceptions of the meaning of orchestra participation. The researcher conducted the study in two parts. Part one involved the development and piloting of the OMS. In part two of the study, the researcher administered the OMS to a larger sample of school and community

orchestra members**.**

The review of related literature began with the benefits and outcomes of music education, focusing on group participative music making in both school and community music. The literature also included studies with a more student-centered approach, in which researchers investigated students' perceptions, motivations, and meaning about their ensemble experiences. While some researchers have investigated students' perceptions about orchestra experience, the review of literature did not reveal any quantitative studies about string students' perceived meaning of orchestra participation.

The objective of this research was to create a quantitative questionnaire so that string teachers and program directors could discover what is meaningful to string students. Knowing what is engaging to students could facilitate the improvement of string education programs in both schools and communities. Additionally, it is hoped that as programs improve, string students could see the value of life-long participation in string playing and in orchestra.

The qualitative portion of this study seemed to be consistent with Hylton's study in that the student responses clearly fit into five of Hylton's six categories. Orchestra had meaning for them because they were improving musically, feeling a sense of accomplishment, increasing in self-worth, reaching out to an audience, and learning with friends. It should also be noted that out of 476 individual statements about orchestra, there was only one negative statement. One might speculate that group music making for students is meaningful in similar ways as it was for students participating in ensembles over 30 years ago. Students feel positive about learning and playing music with their peers.

The absence of Hylton's Spiritualistic category in this study is worth mentioning. The Spiritualistic category in Hylton's study had the highest factor loadings of any category and the

items in that category included religious statements. The sample of orchestra participants for the qualitative part of this study did include a private religious school. However, the qualitative raw data contained nothing relating to spiritual themes or spiritual meaning in orchestra from any participant.

One may assume that this is because orchestral repertoire does not contain lyrics, while much of traditional choral literature contains spiritual lyrics. However, Bartelome (2012) relates that though the Seattle Girl's Choir frequently sang sacred choral music, there were no spiritual references in the interview data from that study. Kennedy (2002) suggests that the age of the participants might be a factor. Adolescents may feel uncomfortable about discussing the spiritual elements of music whereas older adults seem less inhibited (Hays & Minichiello, 2005). However, this was not the case with Hylton's study. Kennedy also states that the current secular society is a possible reason that adolescent participants might not refer to spiritual ideas (p. 35). Also, personality types can influence participants' responses. MacLellan (2011) found that orchestra students tend to be more introverted than choir students. Builione and Lipton (2001) found that the personalities of string players and brass players were on opposite ends of a continuum. Kemp's (1981) research suggests that string instrumentalists were characterized by aloofness. It is possible that some or all of these things influenced the study results for orchestra students.

Research question one was "How do youth string orchestra members perceive the meaning of their orchestra experience?" To address this question, the researcher conducted a principle components factor analysis with oblique rotation. Similar to Hylton and other choral studies that have utilized his scale (Farmer, 2009; Kwan; 2002), the results suggest that students' perception of orchestra meaning is multi-dimensional. The five dimensions of orchestra

meaning are Musical-Artistic, Integrative, Psychological, Achievement, and Communicative. All five factors of orchestra meaning received high mean scores. Clearly, these results indicate that orchestra experience is highly meaningful to string students in multiple ways. Similar to previous research (Bartolome, 2012; Bartleet, 2008; Blaker, 1996; Brown, 2012; 1996; Chuang, 2005; Clements, 2007; Cloete, 2006; Cope, 2002; Dickey, 1991; Gaylen, 2005; Hager and Johnsson; 2009; Hallum, 1999; Keller, 2001; Kokotsake & Hallum, 2007; Marotto, Roos, & Victor, 2007; Van Niekerk & Salminen, 2008; Whitaker, 2011; Wurtz, Mueri, & Wiesendanger, 2009), students perceive that orchestra benefits string students musically, through helping them learn instrumental technique, orchestra repertoire, performance skills, and sight-reading skills. An additional music benefit is that participants have the opportunity to learn from fellow students in their section and from the example of an inspiring leader (Bartleet, 1998; Dickey, 1991). The data also suggests that orchestra can benefit students in non-musical ways, by helping them learn to work with others, develop positive self-esteem, and have an outlet for stress release. The ensemble experience gave them feelings of accomplishment, reward, and personal satisfaction (Gacherieu, 2004; Higgins, 2007; Parker, 2010). Orchestra students viewed orchestra an event to look forward to as the high point of their week and as an activity that provided a means of stress relief.

Additionally, the five separate categories for orchestra meaning are highly correlated with each other. Hylton (1980) describes this intercorrelation of factors as "a more global concept of meaning in which each dimension is a sub-concept" (p. 16). One might speculate that the orchestra meaning categories are intertwined with each other in multiple ways. For instance, a student might initially join orchestra for social reasons and later realize that they developed musically through the experience. This musical development might result in performing for an

audience and having them applaud, resulting in improved self-esteem and feelings of accomplishment. This positive cycle continues, motivating the student to continue in orchestra, making new friends and continuing to improve musically. This process speaks of an experience of the whole person (Shusterman, 2008), where students find musical meaning through a combination of the intellect, emotions, body, and culture.

Contrasts between the factor analysis results of this study and Hylton's choral study are interesting. For example, factor loadings to certain items were different for orchestra students than for choral students. The survey item "To perform for others" in the Communicative category had the highest factor loading of all items for string students. Of the five categories used in this study, the highest factor loading for Hylton's (1980) study was "To discover styles and patterns in music."

Also, mean scores for both studies were similar in that Achievement scores and Musical-Artistic scores had the highest mean scores and the Psychological category had the lowest mean scores of all categories. "To enrich my musical knowledge," "To develop my musical talent," "To enjoy playing my instrument," and "To have fun" had the highest mean scores in the scale. This is an indication that the orchestra students in this study found the most meaning in orchestra through the music learning and improvement that they experienced. It is noteworthy that string students found orchestra to be meaningful because of learning, performing, and having fun. It could be that the music learning made orchestra fun or maybe the friendships, bonding, and group effort was fun to the students and learning was just a natural result.

The second item in the OMS, "To prepare for a musical career," did not have high loadings in this study. An important advocacy goal for string education is that students have meaningful experiences in string education that motivates them to continue playing, learning,

perhaps even teaching strings as a lifelong activity. Although this item had one of the lowest mean scores of all OMS items, 43.3% of all students indicated "strongly agree" or "agree," so almost half of the participants may have considered a musical career. Fifty students selected "undecided" concerning preparing for a musical career being part of the meaning of orchestra participation. Hopefully, the high levels of meaning experienced by students in this study will result in lifelong involvement with strings and orchestras.

Intercorrelations among factors differed from Hylton's study. In this study, Communicative was highly correlated with the other four categories, especially Achievement. Perhaps for the participants, performance provided musical and personal growth as well as group bonding. In Hylton's study, Achievement was most positively related to Integrative. Hylton proposed that possibly choral students felt a strong sense of accomplishment through being part of a group effort and singing with others. This social connection to music learning is similar to other research about orchestras. Although correlations do not indicate a cause and effect relationship between constructs but the relationships can provide insight into what students perceive as meaningful.

Perhaps the differences in findings between choral students and string students are contextual. An orchestra does not have the same cultural context as a choir. Morrison (2002) states that performance ensembles are not just classes or performance groups. They are unique cultures that enrich the lives of members. According to Morrison, diversity within an ensemble is created by what each individual student brings to the group from the outside. This would mean that not only do choral and orchestral ensembles differ, but also orchestras differ from each other, because of what individual students bring. Morrison also suggests that while each ensemble is diverse, there is also group unity that develops during the rehearsal, through the

shared experiences of ensemble performance.

The fact that string performers agreed that learning is an important aspect of the orchestral experience is notable, since almost half of the participants had never taken private lessons on their instrument. These students found meaning in orchestra because they learned and their learning helped them to grow personally and have fun with their peers. As stated earlier, some researchers suggest that the learning in orchestra is tacit learning, which is learning that cannot be transferred verbally so learners may not realize learning has occurred. Polanyi (1962) believed that all knowledge stems from this kind of learning. The transfer of this learning involves extensive personal contact, social interaction, and trust. This can certainly be applied to ensemble playing. In orchestra, instrumentalists learn through personal contact with other members and with the conductor. String orchestra students can learn by just sitting beside a string player who is more advanced than them. The social interaction with other musicians and the trust that develops between them helps each individual member grow musically.

This trust that develops through participative music making is discussed by Gallwey (1986), who claims that ensemble playing is a team effort and requires the development of trust in three different areas. There must be trust in one's own musical ability, there must be trust between group members, and there must be trust between ensemble members and the conductor. This development of trust in an ensemble results in musical improvement. Wiggins (2001) refers to this kind of learning as a "community of learners," explaining that a child learns through interacting socially with peers, then they absorb what they learned, and are eventually able to function independently. This sense of community and friendship can empower ensemble members so that they can improve on their instruments. This is very important in this study because the Musical-Artistic category had the highest mean scores of all other factors.

Obviously, music learning was very important to these string performers and affected their perceptions of meaning in orchestra. Many students learned an instrument in ensemble, often without private lessons. They found the most meaning in this musical learning which was different from traditional, formal learning in a classroom--because they learned from their peers, through social interaction, and trust. The social aspect of the orchestra is a key component of their learning. Learning with others provided meaning for them.

Research question two was: "To what extent will the perception of orchestral experience differ as a function of ensemble type, music experience, and instrument ownership?" MANOVA results were significant for ensemble type but not for music experience nor instrument ownership.

The variable for ensemble type had four levels:

1. Students in community youth orchestra
2. Students in school orchestras
3. Students in both school and community youth orchestras
4. Students in home school orchestra

The reasoning for coding home school orchestra separately was due to the fact that all home school students in this study listed their group as "other," describing their group as "home school orchestra" on the demographic portion of the survey. Technically, the home school orchestra is a community group, but since membership is limited to home school students only, it was coded as a separate group.

Home school orchestra students had lower mean scores than all other groups in all categories of orchestra meaning. This could be because of the age of the participants and the size of the group. There were only 12 participants in this category and only six of them were in high school, whereas the other ensemble groups had a higher percentage of older students. It is

possible that they did not choose to be in orchestra but were encouraged by their parents to obtain school credit or benefit from socialization with other homeschool students. Since all homeschool participants were in the same orchestra ensemble, the lower mean scores could also be related to the structure or make-up of this specific ensemble. Because of the small sample size for this group, no inferences can be made about the results of the MANOVA.

Implications and Suggestions for Further Research

Several implications can be made from the results of this study. First, the use of qualitative methods to develop a quantitative instrument has proven to be valuable for this research. Other quantitative research instruments could be developed so that researchers can explore students' feelings, perceptions, and values about their music education experiences. The quantitative instrument allows researchers to collect data from larger samples.

Additionally, the scale allows researchers to add to the body of research about the benefits of string education and orchestra participation. Program directors and orchestra teachers can now utilize the OMS to evaluate and improve string education programs. Further research is needed to explore students' perceived meaning of orchestra with all orchestral instruments and with other types of ensemble groups. The scale could also be used for program evaluations of community ensemble groups and summer string camps so that the programs could be improved.

There are implications about the music ensemble setting that are evident in the study results. First, the results suggest that ensemble playing is meaningful to string performers in a multidimensional way, especially in the area of music learning. String students learn from musical peers sitting near them in orchestra. They also develop better sight-reading techniques because of the tracking skills required to stay with the rest of the group. The results of this study highlight music learning that occurred in group settings. The learning was meaningful to

students and benefited the participants musically, socially, and personally. More ensembles need to be created to provide string students additional opportunities to play music together. More research is needed in the area of student perceptions about ensemble performance experiences.

In conclusion, the results of this study reveal the value of string orchestra education in students' lives. This should be encouraging to string educators who are advocating for the inclusion of string education in schools. The creation of successful school and community orchestra programs could provide meaningful learning experiences for string students.

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Appendices

Appendix 1: Institutional Review Board Approval Letter, Documents, and Consents

Institutional Review Board Approval Letter, Documents, and Consent Dear Ms. King,

Your protocol entitled " Students' Perceived Meaning of Orchestra Experience " has received f approval as "Expedited " under federal regulation 45 CFR 46.110(7).

Official notice:
This e-mail serves as official notice that your protocol has been approved. A formal approval letter will not be sent unless you notify us that you need one. By accepting this approval, you also accept your responsibilities associated with this approval. Details of your responsibilities are attached. Please print and retain.

Consent document:
Your approved, stamped consent document(s) will soon be sent by campus mail.

Please note that *you may not begin your research that involves human subjects until you receive the document(s)* with an IRB approval stamp applied. You must use copies of that/those document(s) when you consent participants, and provide a copy (signed or unsigned) for them to keep.

Expiration:
Your protocol **will expire on March 13, 2014**. Put that date on your calendar now. About three weeks before that time you will need to submit a final report or renewal request.

If you have any questions, please let us know.

Best wishes for success with your research!

IRB / Office of Research Compliance
115 Ramsay Hall (basement)
Auburn University, AL 36849
(334) 844-5966
irbadmin@auburn.edu

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS

RESEARCH PROTOCOL REVIEW FORM

For Information or help contact **THE OFFICE OF RESEARCH COMPLIANCE**, 115 Ramsay Hall, Auburn University
Phone: 334-844-5966 **e-mail:** hsubjec@auburn.edu **Web Address:** http://www.auburn.edu/research/vpr/ohs/

Revised 03.26.11 – DO NOT STAPLE, CLIP TOGETHER ONLY. Save a Copy

1. **PROPOSED START DATE of STUDY:** 3/25/2013

PROPOSED REVIEW CATEGORY (Check one): FULL BOARD ✓ EXPEDITED EXEMPT

2. **PROJECT TITLE:** Students' Perceived Meaning of Orchestra Experience

3.	Katherine King	Doctoral Student	Curr. & Teaching	334-844-6877	kingkat@auburn.edu
	PRINCIPAL INVESTIGATOR	TITLE	DEPT	PHONE	AU E-MAIL

808 Socopatoy Ct. Auburn Al, 36830
MAILING ADDRESS FAX ALTERNATE E-MAIL

4. **SOURCE OF FUNDING SUPPORT:** ✓ Not Applicable | Internal | External Agency _____ | Pending | Received

5. **LIST ANY CONTRACTORS, SUB-CONTRACTORS, OTHER ENTITIES OR IRBs ASSOCIATED WITH THIS PROJECT:**

6. **GENERAL RESEARCH PROJECT CHARACTERISTICS**

6A. Mandatory CITI Training

Names of key personnel who have completed CITI:
Katherine King
Kimberly C. Walls

CITI group completed for this study:
✓ Social/Behavioral | Biomedical

PLEASE ATTACH TO HARD COPY *ALL* CITI CERTIFICATES FOR *EACH* KEY PERSONNEL

6B. Research Methodology

Please check all descriptors that best apply to the research methodology.

Data Source(s): ✓ New Data Existing Data
Will recorded data directly or indirectly identify participants? Yes ✓ No
Data collection will involve the use of:
Educational Tests (cognitive diagnostic, aptitude, etc.)
Interview / Observation
Physical / Physiological Measures or Specimens (see Section 6E)
✓ Surveys / Questionnaires
Internet / Electronic
Audio / Video / Photos
Private records or files

The Auburn University Institutional Review Board has approved this document for use from 3/14/13 to 3/13/14
Protocol # 13-107 EP1303

6C. Participant Information

Please check all descriptors that apply to the participant population.
✓ Males ✓ Females AU students
Vulnerable Populations
Pregnant Women/Fetuses Prisoners
✓ Children and/or Adolescents (under age 19 in AL)
Persons with:
Economic Disadvantages Physical Disabilities
Educational Disadvantages Intellectual Disabilities
Do you plan to compensate your participants? Yes ✓ No

6D. Risks to Participants

Please identify all risks that participants might encounter in this research.
✓ Breach of Confidentiality* ✓ Coercion
Deception Physical
Psychological Social
None Other:

*Note that if the investigator is using or accessing confidential or identifiable data, breach of confidentiality is always a risk.

Received MAR 07 2013 Research Compliance

Do you need IBC Approval for this study? No Yes - BUA # _____ **Expiration date** _____

FOR OHSR OFFICE USE ONLY

DATE RECEIVED IN OHSR: 3.7.13 by UB
DATE OF IRB REVIEW: 3/14/13 by CC
DATE OF IRB APPROVAL: _____ by _____
COMMENTS:

PROTOCOL # 13.107 EP1303
APPROVAL CATEGORY: 45CFR 46.110 (7)
INTERVAL FOR CONTINUING REVIEW: 1 year

7. PROJECT ASSURANCES

PROJECT TITLE: Students' Perceived Meaning of Orchestra Experience

A. PRINCIPAL INVESTIGATOR'S ASSSURANCES

1. I certify that all information provided in this application is complete and correct.
2. I understand that, as Principal Investigator, I have ultimate responsibility for the conduct of this study, the ethical performance this project, the protection of the rights and welfare of human subjects, and strict adherence to any stipulations imposed by the Auburn University IRB.
3. I certify that all individuals involved with the conduct of this project are qualified to carry out their specified roles and responsibilities and are in compliance with Auburn University policies regarding the collection and analysis of the research data.
4. I agree to comply with all Auburn policies and procedures, as well as with all applicable federal, state, and local laws regarding the protection of human subjects, including, but not limited to the following:
    a. Conducting the project by qualified personnel according to the approved protocol
    b. Implementing no changes in the approved protocol or consent form without prior approval from the Office of Human Subjects Research
    c. Obtaining the legally effective informed consent from each participant or their legally responsible representative prior to their participation in this project using only the currently approved, stamped consent form
    d. Promptly reporting significant adverse events and/or effects to the Office of Human Subjects Research in writing within 5 working days of the occurrence.
5. If I will be unavailable to direct this research personally, I will arrange for a co-investigator to assume direct responsibility in my absence. This person has been named as co-investigator in this application, or I will advise OHSR, by letter, in advance of such arrangements.
6. I agree to conduct this study only during the period approved by the Auburn University IRB.
7. I will prepare and submit a renewal request and supply all supporting documents to the Office of Human Subjects Research before the approval period has expired if it is necessary to continue the research project beyond the time period approved by the Auburn University IRB.
8. I will prepare and submit a final report upon completion of this research project.

My signature indicates that I have read, understand and agree to conduct this research project in accordance with the assurances listed above.

Katherine King	Katherine King	3/6/13
Printed name of Principal Investigator	**Principal Investigator's Signature (SIGN IN BLUE INK ONLY)**	**Date**

B. FACULTY ADVISOR/SPONSOR'S ASSURANCES

1. By my signature as faculty advisor/sponsor on this research application, I certify that the student or guest investigator is knowledgeable about the regulations and policies governing research with human subjects and has sufficient training and experience to conduct this particular study in accord with the approved protocol.
2. I certify that the project will be performed by qualified personnel according to the approved protocol using conventional or experimental methodology.
3. I agree to meet with the investigator on a regular basis to monitor study progress.
4. Should problems arise during the course of the study, I agree to be available, personally, to supervise the investigator in solving them.
5. I assure that the investigator will promptly report significant adverse events and/or effects to the OHSR in writing within 5 working days of the occurrence.
6. If I will be unavailable, I will arrange for an alternate faculty sponsor to assume responsibility during my absence, and I will advise the OHSR by letter of such arrangements. If the investigator is unable to fulfill requirements for submission of renewals, modifications or the final report, I will assume that responsibility.
7. I have read the protocol submitted for this project for content, clarity, and methodology

Kimberly C. Walls	Kim Walls	3/6/13
Printed name of Faculty Advisor / Sponsor	**Signature (SIGN IN BLUE INK ONLY)**	**Date**

C. DEPARTMENT HEAD'S ASSSURANCE

By my signature as department head, I certify that I will cooperate with the administration in the application and enforcement of all Auburn University policies and procedures, as well as all applicable federal, state, and local laws regarding the protection and ethical treatment of human participants by researchers in my department.

Kimberly C. Walls	Kim Walls	3/6/13
Printed name of Department Head	**Signature (SIGN IN BLUE INK ONLY)**	**Date**

8. **PROJECT OVERVIEW: Prepare an abstract that includes:**
(400 word maximum, in language understandable to someone who is not familiar with your area of study):

I.) A summary of relevant research findings leading to this research proposal:
(Cite sources; include a "Reference List" as Appendix A.)
II.) A brief description of the methodology,
III.) Expected and/or possible outcomes, and,
IV.) A statement regarding the potential significance of this research project.

I. Summary of Relevant Research Findings

According to research conducted by the League of American Orchestras, orchestras offer access to music education and add meaning to American life by providing for more than 40 kinds of programs. Additionally, this research found that orchestras bring people and communities together on and off the concert stage around the extraordinary experience of orchestral performance (Quick Orchestra Facts, 2009). A survey of 2139 schools in the United States revealed that string education is growing in the United States, in that there are more students playing and studying string instruments. However, there are fewer schools offering string education (Hamaan, Gillespie & Bergonzi, 2002). Many music educators are addressing the teacher shortage by developing community string programs. Deegan (2007) says there is an active community orchestra culture in the United States. Gillespie and Hamaan (2010) investigated string programs established in the United States between 1999 and 2009, concluding that 39% of the 150 programs established were taking place after school hours. An evaluation of the NSPC string projects conducted by Byo and Cassidy (2005) showed involvement of children in communities with no school orchestra programs and the enhancement of existing school programs.

ASTA (2006) upholds that a comprehensive music education must include a string program, because of the benefits of a string education. Due to the increase in string study, it is crucial that educators advocate for the growth of string education in the schools and in the community. Even more importantly, these programs must strive to engage learners in such a way that they will continue to play strings throughout the school years and beyond, possibly even becoming string teachers. Leonard and House (1972) assert that meaning is essential for learning. Trombly (1995) states that if educators increase the meaningfulness of educational activities to students, it is likely to result in improvement of intrinsic motivation, saying "only meaningful occupation remains in a person's life repertoire" (p. 964). According to Jellison (2000), learning that is meaningful has a greater likelihood of transferring to adulthood than rote memorization or isolated fact.

Hylton (1981) stated that while music educators said they wanted students to have meaningful experiences in music education, there was a need in the literature to discover what students perceived as meaningful. This limitation in the choral music literature guided Hylton's landmark research about students' perceived meaning in choir. While several researchers have replicated Hylton's research for choral students (Seago, 1993; Kwan, 2002; Farmer, 2009), there is a need to discover students' perceptions of meaning about their orchestra experience.

II. Brief Description of the Methodology

This study is a mixed methods design consisting of a content analysis of a classroom written assignment and a factor analysis of a survey.

III. Expected and/or Possible Outcomes

The expected outcome of this study is the development of a scale that is useful to orchestra directors for discovering student perceptions and feelings about orchestra.

IV. Significance of This Research Project

This study will provide educators information needed to develop orchestra programs in schools and communities that provide meaningful educational experiences for students. This study also has significance for stimulating further research about student meaning in orchestra and for advocating for string education in the schools and in the community.

9. **PURPOSE.**

a. Clearly state all of the objectives, goals, or aims of this project.

The purpose of this two-part study is to examine high school students' attitudes about the meaning of orchestra as a function of ensemble type, music experience (years of private lessons), grade level, and instrument ownership (owned or loaned). The following research questions provide the framework for this research:

1) How do youth string orchestra members perceive the meaning of their orchestra experience?

2) To what extent will the perception of orchestral experience differ as a function of ensemble type, music experience, and instrument ownership and the interaction of these variables?

The independent variables include:

- Ensemble type (school or community)
- Music experience (years of private lessons)
- Instrument ownership (owned or loaned)

The dependent variable for the study is the students' perceived meaning of the orchestra experience based on Hylton's (1980) study.

Part 1 of the study will involve the development of a scale to assess students' perceptions of the meaning of orchestra.

Part 2 of the study will involve the administration of that scale to school and community orchestra students.

b. How will the results of this project be used? (e.g., Presentation? Publication? Thesis? Dissertation?)

The results will be submitted for fulfillment of the PhD in Music Education. The study results will also be submitted for dissertation, journal publication, and/or conference presentation.

10a. **KEY PERSONNEL.** Describe responsibilities. Include information on research training or certifications related to this project. **CITI is required. Be as specific as possible.** (Attach extra page if needed.) *All non AU-affiliated key personnel must attach **CITI certificates of completion.***

Principle Investigator Katherine King **Title:** Doctoral Student **E-mail address** kingkat@auburn.edu
Dept / Affiliation: Curriculum and Teaching

Roles / Responsibilities:
Direct Study
Obtain Consents
Collect Data
Data analysis

Individual: Kimberly C. Walls **Title:** Dept Chair/Advisor **E-mail address** kim.walls@auburn.edu
Dept / Affiliation: Curriculum and Teaching

Roles / Responsibilities:
Audit Data Analysis

Individual: _____ **Title:** _____ **E-mail address** _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ **Title:** _____ **E-mail address** _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ **Title:** _____ **E-mail address** _____
Dept / Affiliation: _____

Roles / Responsibilities:

Individual: _____ **Title:** _____ **E-mail address** _____
Dept / Affiliation: _____

Roles / Responsibilities:

11. **LOCATION OF RESEARCH. List all locations where data collection will take place.** (School systems, organizations, businesses, buildings and room numbers, servers for web surveys, etc.) **Be as specific as possible. Attach permission letters in Appendix E.**
(See sample letters at http://www.auburn.edu/research/vpr/ohs/sample.htm)
Part 1 and 2 of this study will take place at the rehearsal locations of each orchestra involved. The sites are school classrooms and community centers of orchestra directors who have been permitted to distribute consent/assent documents and survey instruments. Data collection will take place during regular orchestra rehearsal/class times.

12. **PARTICIPANTS.**

a. **Describe the participant population you have chosen for this project.**

Check here if there is existing data; describe the population from whom data was collected & include the # of data files.

Part 1 - The sample will include students from two kinds of orchestra programs, school orchestras, and community orchestras. The school orchestras will consist of school string students, age 12-18 from middle schools and high schools in Columbus, Ga. The proposed schools are Rothschild Middle School and Hardaway High School. The community orchestra students (age 12-18) participating in the study are from the The Tiger Strings program in which the researcher is affiliated.

Part 2 - The sample for part two of the study will include string students age 12-18 who are members of school and community orchestras in Alabama, Georgia, South Carolina, North Carolina and Virginia. The researcher used the Google search engine to locate youth orchestras in both schools and communities in each state.

b. **Describe why is this participant population is appropriate for inclusion in this research project.** (Include criteria for selection.)

Since the study included both community and school orchestra students, it was important to use participants for both types of groups. Since Auburn/Opelika area schools do not have orchestra programs, it was necessary to find other school orchestra programs in close vicinity to Auburn. Additionally, the community orchestra program, Tiger Strings, is convenient because the researcher is an active leader/teacher in the group.

c. **Describe, step-by-step, all procedures you will use to recruit participants.** *Include in Appendix B a copy of all e-mails, flyers, advertisements, recruiting scripts, invitations, etc., that will be used to invite people to participate.*
(See sample documents at http://www.auburn.edu/research/vpr/ohs/sample.htm.)

For both parts of the study, the researcher will:

1) Send an initial e-mail to announce the study to each orchestra director. Once an e-mail response is obtained, the researcher will e-mail again to arrange a time to collect data.

2) The researcher will telephone the directors who do not respond to the initial e-mail. After obtaining approval on the telephone or by e-mail, the researcher will mail a letter to each orchestra director requesting consent from school principals and/or community orchestra organizations. The letter will summarize the research study and the researcher's planned procedures, assuring directors and teachers about the confidentiality of the study.

3) Additionally, the researcher will send a packet containing consent forms and a script to read to students for recruiting purposes. Before distributing the consent forms, the orchestra directors will read the recruiting script.

What is the minimum number of participants you need to validate the study? 200

Is there a limit on the number of participants you will recruit? ☑ **No** ☐ **Yes – the number is** _____

Is there a limit on the number of participants you will include in the study? ☑ **No** ☐ **Yes – the number is** _____

d. **Describe the type, amount and method of compensation and/or incentives for participants.**
(If no compensation will be given, check here ✓.)

Select the type of compensation: ___ Monetary ___ Incentives
- ___ Raffle or Drawing incentive (Include the chances of winning.)
- ___ Extra Credit (State the value)
- ___ Other

Description:

13. PROJECT DESIGN & METHODS.

a. Describe, step-by-step, all procedures and methods that will be used to consent participants.

(— Check here if this is "not applicable"; you are using existing data.)

For both parts of the study, the researcher will:

1) Send an initial e-mail to announce the study to each orchestra director. The e-mail will describe the research procedures.

2) Once an e-mail response is obtained, the researcher will e-mail again describing specific tasks for the director to complete. The researcher will also telephone the directors who did not respond to the initial e-mail.

3) After obtaining approval on the telephone or by e-mail, the researcher will mail a letter to each orchestra director requesting consent from school principals and/or community orchestra organizations. The letter will summarize the research study and the researcher's planned procedures, assuring directors and teachers about the confidentiality of the study.

4) When each principal/organization agrees to the research, they will sign the permission letter, print it on the school/organization stationary, and return it to the Office of Human Subjects.

5) When this process is completed for each part of the study, the researcher will mail the consent forms to the director to be distributed to the students on the scheduled day. The packet will include a script to announce the study to the students.

6) The director will keep a list of all students who return the signed consent forms.

7) On the day of the research, all students will participate in the question/questionnaire. Only consented students will hand in their question/ questionnaire.

b. Describe the procedures you will use in order to address your purpose. Provide a step-by-step description of how you will carry out this research project. Include specific information about the participants' time and effort commitment. *(NOTE: Use language that would be understandable to someone who is not familiar with your area of study. Without a complete description of all procedures, the Auburn University IRB will not be able to review this protocol. If additional space is needed for this section, save the information as a .PDF file and insert after page 6 of this form.)*

Part 1: Pilot Study - Development of OMS

1) When school/organization consent is obtained, the orchestra director will announce the pilot to the orchestra students by reading an information summary. Consent forms will be distributed and students will take them home to be completed and signed. The orchestra director will collect all signed consent forms and put them in an envelope in a safe place. The director will keep a list of all students who returned consent forms.

2) Scheduling - To schedule for the pilot study, the researcher will telephone or e-mail both orchestra directors to arrange a time to administer the open-ended pilot study question.

3) On the scheduled day, the researcher will hand-deliver the open ended question to all orchestra students. Before writing responses, the researcher will clearly explain the procedures for data collection and will assure students that the study is confidential and that they do not have to participate. When responses to the open-ended question are completed, the researcher will leave the room and the orchestra director will collect the responses of students who have completed consent forms.

4) After collecting responses, the researcher and committee members will compile and interpret statements according to how they fit into Hylton's original categories for Choral Meaning, adding any additional categories that might emerge from the data pertinent to orchestra experience.

5) The researcher will employ a principle components factor analysis of the responses from the pilot study to determine the relationships of each statement to specific psychological constructs.

Part 2: Administration of the OMS

1) When school/organization consent is obtained, the orchestra director will announce the pilot to the orchestra students by reading an information summary. Consent forms will be distributed and students will take them home to be completed and signed. The orchestra director will collect all signed consent forms and put them in an envelope in a safe place. The director will keep a list of all students who returned consent forms.

2) Scheduling - The researcher will telephone or e-mail all school and community orchestra directors/teachers to arrange a time to come to the rehearsal location and administer the OMS.

3)On the scheduled day, the researcher will hand-deliver the OMS questionnaire to all orchestra members. Before writing responses, the researcher will clearly explain the procedures for data collection and will assure students that the study is confidential and that they do not have to participate. When responses to the open-ended question are completed, the researcher will leave the room and the orchestra director will collect the responses of students who have completed consent forms.

4) Responses and signed consent forms will be collected by the researching and placed in and safe place.

13c. List all data collection instruments used in this project, in the order they appear in Appendix C.
(e.g., surveys and questionnaires in the format that will be presented to participants, educational tests, data collection sheets, interview questions, audio/video taping methods etc.)

1. Open-ended Survey Question

2. OMS questionnaire

d. Data analysis: Explain how the data will be analyzed.

Principle components factor analysis will be computed on the generated items from the open-ended question to enhance construct validity. Item reliability for each category of the OMS will be computed using Cronbach's Alpha. Since the dependent variable (students' perceived meaning) consisted of five levels, a multivariate analysis of variance (MANOVA) will be used to calculate students scores on the OMS.

14. RISKS & DISCOMFORTS: List and describe all of the risks that participants might encounter in this research. ***If you are using deception in this study, please justify the use of deception and be sure to attach a copy of the debriefing form you plan to use in Appendix D.*** *(Examples of possible risks are in section #6D on page 1.)*

Breach of confidentiality
Coercion

15. **PRECAUTIONS.** Identify and describe all precautions you have taken to eliminate or reduce risks as listed in #14. If the participants can be classified as a "vulnerable" population, please describe additional safeguards that you will use to assure the ethical treatment of these individuals. ***Provide a copy of any emergency plans/procedures and medical referral lists in Appendix D.***

Breach of confidentiality - Students will be assured that the study is anonymous and that they must not use their names. Any data containing a student's name will be destroyed immediately.

Coercion - Students will be assured that they can change their minds about participating in the study. They just need to tell the director before turning in the question/questionnaire.

If using the Internet to collect data, what confidentiality or security precautions are in place to protect (or not collect) identifiable data? Include protections used during both the collection and transfer of data.
(These are likely listed on the server's website.)

16. **BENEFITS.**

a. **List all realistic direct benefits participants can expect by participating in this specific study.**
(Do not include "compensation" listed in #12d.) Check here if there are no direct benefits to participants.

The results from this research can be used to develop new programs and improve existing ones that will provide meaningful educational experiences for students. Additionally, participants will have the opportunity to reflect on what orchestra means to them and may improve their enjoyment and motivation to learn.

b. **List all realistic benefits for the general population that may be generated from this study.**

It is hoped that this research will increase community awareness and appreciation of string education in schools and communities. Development of new programs and improvement of existing programs could result in an increase in concert activity in communities.

17. **PROTECTION OF DATA.**

a. **Will data be collected as anonymous?** ☑ Yes ☐ No *If "YES", skip to part "g".*
("Anonymous" means that you will not collect any identifiable data.)

b. **Will data be collected as confidential?** ☐ Yes ☑ No
("Confidential" means that you will collect and protect identifiable data.)

c. **If data are collected as confidential, will the participants' data be coded or linked to identifying information?**
■ **Yes** (If so, describe how linked.) **No** ■

d. **Justify your need to code participants' data or link the data with identifying information.**

Data will be anonymous so coding is not necessary.

e. **Where will code lists be stored?** (Building, room number?)
Data will be stored in a locked cabinet in the music education office (5092).

f. **Will data collected as "confidential" be recorded and analyzed as "anonymous"?** ☐ Yes ☑ No
(If you will maintain identifiable data, protections should have been described in #15.)

g. **Describe how and where the data will be stored** (e.g., hard copy, audio cassette, electronic data, etc.), **and how the location where data is stored will be secured in your absence. For electronic data, describe security. If applicable, state specifically where any IRB-approved and participant-signed consent documents will be kept on campus for 3 years after the study ends.**

All documents, child assent forms, consent forms will be kept in a locked cabinet in the music education office. Consent forms will be retained at least 3 years after the study is completed.

h. **Who will have access to participants' data?**
(The faculty advisor should have full access and be able to produce the data in the case of a federal or institutional audit.)

The principle investigator and faculty advisor/dept. chair.

i. **When is the latest date that confidential data will be retained?** (Check here if only anonymous data will be retained. ___)
Only anonymous data will be retained.

j. **How will the confidential data be destroyed?** *(NOTE: Data recorded and analyzed as "anonymous" may be retained indefinitely.)*

AUBURN
UNIVERSITY

COLLEGE OF EDUCATION

CURRICULUM AND TEACHING

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)
PARENTAL PERMISSION/CHILD ASSENT
for a Research Study entitled
"Students' Perceived Meaning of Orchestra Experience"

- Your child is invited to participate in a research study to discover what orchestra means to them. The study is being conducted by Kathy King, doctoral student, under the direction of Kimberly C. Walls in the Auburn University Department of Curriculum and Teaching. Your child was selected as a possible participant because he or she is a member of orchestra. Since your child is age 18 or younger we must have your permission to include him/her in the study.
- If you decide to allow your child to participate in this research study, during class they will complete an open-ended question about what orchestra means to them.
- There are no risks associated with this research study.
- There are no personal benefits for participating in this research study.
- There is no cost for participating in this study.
- Your child's participation if completely voluntary and totally anonymous. Your child's name will be removed from their paper before I receive it so there is no way to know how to return the paper to them if they should decide to withdraw from the study at a later time. Your decision about whether or not to participate will not jeopardize you or your child's future relations with Auburn University or the Department of Curriculum and Teaching.
- Your child's privacy will be protected. Any information obtained in connection with this study will remain anonymous. Information obtained through your child's participation will be used for my dissertation, in scholarly publications, and for presentations at conferences and professional meetings.
- If you (or your child) have questions about this study, *please ask them now or* contact Kathy King at kingkat@auburn.edu. A copy of this document will be given to you to keep.
- If you have questions about your child's rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE WHETHER OR NOT YOU WISH FOR YOUR CHILD TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR CHILD'S SIGNATURE INDICATES HIS/HER WILLINGNESS TO PARTICIPATE.

_____ _____
Participant's signature Date Investigator obtaining consent Date

_____ _____
Printed Name Printed Name

_____
Parent/Guardian Signature Date

_____
Printed Name

5040 HALEY CENTER
AUBURN, AL 36849-5212

TELEPHONE:
334-844-4434

FAX:
334-844-6789

www.auburn.edu

Email Recruiting Scripts: Qualitative Study

Email 1: Announcement of Study – School Orchestra in Columbus, Ga.

Dear _____ (orchestra director name),

I am working on a pilot study for my dissertation and I am interested in knowing what the orchestra experience means to string students. I have chosen students' perceived meaning of orchestra participation as my dissertation topic and am requesting your help.

I would like to ask permission to collect data from your string students age 12-18 via an open-ended question about the meaning of orchestra. All data will be strictly anonymous and confidential. I will come to your school to collect all the data. If you agree to help with the pilot study, please email me so that I can tell you more about the research and schedule a time to complete the data collection.

Thank you for your consideration!

Kathy King

Email 2: Explanations and Scheduling

Dear _____ (orchestra director name),

Thank you so much for agreeing to participate in my dissertation research!

In order to complete the data collection, I will need your help with the following tasks:

1) Please email me with a date in March that is convenient for completing the data collection.
2) When we have scheduled a date, I will mail a permission letter to you. Have your school principal sign the permission letter and print on school stationary. Mail the signed letter back to me in the stamped, addressed envelope that I provide.
3) When I receive the permission letter, I will mail consent forms to you. A few days before the scheduled data collection date, please read the provided script to announce the research and distribute consent forms to all your students to be signed. When students return consent forms, please put them in an envelope in a safe place. Additionally, please keep a list of students who have completed consent forms.
4) The research can be a normal part of class activity. On the day of the research, I will explain the procedure to students. All students in your class may complete the open-ended question. It will take about 20 minutes of rehearsal time for students to complete the questionnaire. When students have completed the question, I can leave the room while you collect consented responses. Please collect only the responses of students who have returned signed consent forms. Put responses in envelope provided and seal. Also, seal the envelope containing consent forms.

The results of this research should be valuable to youth orchestra directors as they work to improve their programs. Furthermore, I hope the results of this study will contribute to the

growth of string education in schools and communities.
If you have any questions about these procedures, please feel free to contact me by phone or email.
Sincerely,
Kathy King
334-524-0467
kingkat@auburn.edu

Email 1: Announcement of Pilot Study – Tiger Strings

Dear Dr. Caravan,

I am working on a pilot study for my dissertation and I am interested in knowing what the orchestra experience means to string students. I have chosen students' perceived meaning of orchestra participation as my dissertation topic and am requesting your help.

I would like to ask permission to collect data from your string students age 12-18 via an open-ended question about the meaning of orchestra. All data will be strictly anonymous and confidential. I will come to your community rehearsal to collect all the data. If you agree to help with the pilot study, please email me so that I can tell you more about the research and schedule a time to complete the data collection.
Thank you for your consideration!
Kathy King

Email 2: Explanations and Scheduling – Tiger Strings

Dear Dr. Caravan,

Thank you so much for agreeing to participate in my dissertation research!

In order to complete the data collection, I will need your help with the following tasks:

1) Please email me with a date in March that is convenient for completing the data collection.
2) When we have scheduled a date, I will give a permission letter to you. Please sign the permission letter and print on Auburn University stationary. Return the signed letter back to me.
3) When I receive the permission letter, I will give consent forms to you. A week before the scheduled data collection date, please read the provided script to announce the research and distribute consent forms to all the students to be signed. When students return consent forms, please put them in an envelope in a safe place. Additionally, please keep a list of students who have completed consent forms.
4) The research can be a normal part of rehearsal activity. On the day of the research, I will explain the procedure to students. All students in the orchestra may complete the open-ended question. It will take about 20 minutes of rehearsal time for students to complete the questionnaire. When students have completed the question, I can leave the room while you collect consented responses. Please collect only the responses of students who have returned signed consent forms. Put responses in envelope provided and seal. Also,

seal the envelope containing consent forms.

The results of this research should be valuable to youth orchestra directors as they work to improve their programs. Furthermore, I hope the results of this study will contribute to the growth of string education in schools and communities.
If you have any questions about these procedures, please feel free to contact me by phone or email.
Sincerely,
Kathy King
334-524-0467
kingkat@auburn.edu

Email Scripts: Part Two

Email 1: Announcement of Study

Dear _____ (community or school orchestra director's name),

I am working on a pilot study for my dissertation and I am interested in knowing what the orchestra experience means to string students. I have chosen students' perceived meaning of orchestra participation as my dissertation topic and am requesting your help.

I would like to ask permission to collect data from your string students age 12-18 via a questionnaire entitled the Orchestra Meaning Survey (OMS). All data will be strictly anonymous and confidential. I can come to your school to collect data or I can provide detailed instructions for you to collect the data. If you agree to help with this research, please email me back so that I can tell you more about the research and schedule a time to complete the data collection.
Thank you for your consideration!
Kathy King

Email 2: Explanations and Scheduling

Dear _____ (community or school orchestra director's name),

Thank you so much for agreeing to participate in my dissertation research!

In order to complete the data collection, I will need your help with the following tasks:

5) Please email me with a date in April or May that is convenient for completing the data collection.
6) When we have scheduled a date, I will mail a permission letter to you. Have your school principal sign the permission letter and print on school stationary. Mail the signed letter back to me in the stamped, addressed envelope that I provide.
7) When I receive the permission letter, I will mail consent forms to you. A few days before the scheduled data collection date, please read the provided script to announce the research and distribute consent forms to all your students to be signed. When students return consent forms, please put them in an envelope in a safe place. Additionally, please

keep a list of students who have completed consent forms.

8) The research can be a normal part of class activity. On the day of the research, you or I will explain the procedure to students. All students in your class may complete the open-ended question. It will take about 20 minutes of rehearsal time for students to complete the questionnaire. When students have completed the question, please collect consented responses. Please collect only the responses of students who have returned signed consent forms. Put responses in envelope provided and seal. Also, seal the envelope containing consent forms.

The results of this research should be valuable to youth orchestra directors as they work to improve their programs. Furthermore, I hope the results of this study will contribute to the growth of string education in schools and communities.
If you have any questions about these procedures, please feel free to contact me by phone or email.
Sincerely,
Kathy King
334-524-0467
kingkat@auburn.edu

334-524-0467
kingkat@auburn.edu

Scripts for Qualitative Study

Instructions for announcing the study:

Dear _____ (orchestra director name),
Please use the following script for announcing the pilot study to your class. Thank you!
Kathy King

"Our orchestra has been invited to participate in research about the meaning of orchestra. Kathy King, doctoral student at Auburn University, wants to know what orchestra means to you. She is going to come to the school/rehearsal and have you answer a question about your feelings about orchestra. If you decide to participate in this research, it is confidential and your names will not be used. You do not have to do this; it is strictly voluntary. In order to take part in this research, you will need your parents' consent. Please take this consent form home and return to me in the next two days if you want to take part in this study. We will complete the question in class on _____ (scheduled date)."

Procedure Instructions for Qualitative Study

Dear _____ (orchestra director name),

Thank you for agreeing to take part in my dissertation research. I have listed procedures below:
1) A few days before the pilot study question is completed, please distribute the PARENTAL PERMISSION/CHILD ASSENT to your students.

2) Please emphasize to the students that participation is voluntary and that all answers will be strictly confidential and anonymous.
3) Instruct your students to return the signed consent form to you by the day before the scheduled research activity.
4) On the day of the scheduled research, I will bring the questions for the students to complete.
5) After giving brief instructions, I will distribute the question to the students. I will use the following script:

"I am trying to find out what playing in orchestra means to you. To do that, I am asking that you answer the question at the top of the page. List as many things as you can think of. There are no right or wrong answers. To make sure that your answers are anonymous and confidential, do not put your name anywhere on the question page. **Consented students only:** When you are finished, please place your completed questions face down in the envelope provided."
6) When all completed questions are in the envelope, I will seal the envelope.

Scripts for OMS

Instructions for announcing the study:

Our orchestra has been invited to participate in research about the meaning of orchestra. Kathy King, doctoral student at Auburn University, wants to know what orchestra means to you. She is going to come to the school/rehearsal and have you answer a questionnaire about your feelings about orchestra. If you decide to participate in this research, it is confidential and your names will not be used. You do not have to do this; it is strictly voluntary. In order to take part in this research, you will need your parents' consent. Please take this consent form and return to me in the next two days. We will complete the question in class on _____ (scheduled date).

Procedure Instructions for OMS

Dear Orchestra Directors,

Thank you for agreeing to take part in my dissertation research. I have listed procedures below:

1) A few days before the pilot study question is completed, please distribute the PARENTAL PERMISSION/CHILD ASSENT to your students.
2) Please emphasize to the students that participation is voluntary and that all answers will be strictly confidential and anonymous.
3) Instruct your students to return the signed consent form to you by the day before the scheduled research activity.
4) On the day of the scheduled research, I will bring the OMS questionnaire for the students to complete.
5) After giving brief instructions, I will distribute the questionnaire to the students. All students may take part in completing the questionnaire. **Only consented students will turn in completed questionnaires.** I will use the following script:

"Please complete the survey by circling your answers 1through 5 with 1 being completely disagree, 2 being somewhat disagree, 3 being neutral, 4 being somewhat agree, and 5 being strongly agree. There are no right or wrong answers. I am interested in your personal opinion. Your answers will be anonymous and confidential. At the end of the survey, there is some demographic information that I need you to provide. **Consented students only**: When you are finished with the questionnaire, please place it face down in the envelope indicated. Please remember not to put your name anywhere on the questionnaire. I can't use the questionnaire if your name is anywhere on it."

5) When all completed questionnaires are in the envelope, I will seal the envelope.

Qualitative Study: School Principals

SCHOOL LETTERHEAD

Date
Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Students' Perceived Meaning of Orchestra Experience," presented by Ms. Kathy King, a doctoral student at Auburn University, I have granted permission for the study to be conducted at (School Name)
_____.

The purpose of the study is to discover students' perceived meaning of orchestra experience. The primary activity will be the administration of an open-ended question. All orchestra students may participate but only data from consented students will be used in the study.

I understand that Ms. King's research activity will occur for one day during normal classroom instruction, and during students' regularly scheduled orchestra class. Ms. King will contact and recruit our students with the help of our orchestra director and will collect data at our school. I expect that this project will end no later than March 31, 2013.

Ms. King has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Ms. King will be anonymous and will be stored in a locked filing cabinet in her AU advisor's office. Ms. King has also agreed to provide to us a copy of the aggregate results from her study.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Sincerely,

_____
Printed Name

_____
Signature

Qualitative Study: Tiger Strings – Lisa Caravan

Auburn University Letterhead

Date

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Students' Perceived Meaning of Orchestra Experience," presented by Ms. Kathy King, a doctoral student at Auburn University, I have granted permission for the study to be conducted at (School Name)
_____.

The purpose of the study is to discover students' perceived meaning of orchestra experience. The primary activity will be the administration of an open-ended question. All orchestra students may participate but only data from consented students will be used in the study.

I understand that Ms. King's research activity will occur for one day during normal classroom instruction, and during students' regularly scheduled orchestra class. Ms. King will contact and recruit our students with the help of our orchestra director and will collect data at our school. I expect that this project will end no later than March 31, 2013.

Ms. King has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Ms. King will be anonymous and will be stored in a locked filing cabinet in her AU advisor's office. Ms. King has also agreed to provide to us a copy of the aggregate results from her study.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Sincerely,

_____
Printed Name

_____
Signature

Qualitative Study: Site Authorization Jan Dempsey

Jan Dempsey Letterhead

Date
Auburn University Institutional Review Board
c/o Office of Human Subjects
307 Samford Hall
Auburn, AL 36849

Please note that Ms. Kathy King, Auburn University doctoral student, has the permission of Jan Dempsey Community Arts Center to conduct research at our facility for her study, "Students' Perceived Meaning of Orchestra Experience."

I understand that the research will be completed by students during one scheduled orchestra rehearsal. I expect that this project will end no later than March 31, 2013. Ms. King will *contact* and *recruit* our students with the help of the community orchestra staff and will *collect data* at our facility.

I understand that Ms. King will receive parental/guardian consent for all participants, and I have confirmed that she has the cooperation of the community orchestra director. Ms. King has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants. Any data collected by Ms. King will be anonymous. Ms. King has also agreed to provide to us a copy of the aggregate results from his study.

Mrs. King has also agreed to provide to my office a copy of the Auburn University IRB-approved, stamped consent document before she recruits participants, and will also provide a copy of any aggregate results.

If there are any questions, please contact my office.

Signed,

_____
Name

Part 2 OMS: School Principals

SCHOOL LETTERHEAD

Date

Institutional Review Board

c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Students' Perceived Meaning of Orchestra Experience," presented by Ms. Kathy King, a doctoral student at Auburn University, I have granted permission for the study to be conducted at (*School Name*)
_____.

The purpose of the study is to discover students' perceived meaning of orchestra experience. The primary activity will be the administration of a student questionnaire. All students in orchestra may participate but only consented students' data will be used in the research.

I understand that Ms. King's research activity will occur for one day during normal classroom instruction, and during students' regularly scheduled orchestra class. Ms. King will *contact* and *recruit* our students with the help of our orchestra director and will *collect data* at our school. I expect that this project will end no later than May 15, 2013.

Ms. King has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Ms. King will be anonymous and will be stored in a locked filing cabinet in her AU advisor's office. Ms. King has also agreed to provide to us a copy of the aggregate results from her study.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Sincerely,

_____
Printed Name

_____
Signature

Part 2: OMS Community Orchestra Director

COMMUNITY ORCHESTRA LETTERHEAD

Date

Institutional Review Board
c/o Office of Human Subjects Research
307 Samford Hall
Auburn University, AL 36849

Dear IRB Members,

After reviewing the proposed study, "Students' Perceived Meaning of Orchestra Experience," presented by Ms. Kathy King, a doctoral student at Auburn University, I have granted permission for the study to be conducted at (School Name) _____.

The purpose of the study is to discover students' perceived meaning of orchestra experience. The primary activity will be the administration of an open-ended question. All orchestra students may participate but only data from consented students will be used in the study.

I understand that Ms. King's research activity will occur for one day during normal classroom instruction, and during students' regularly scheduled orchestra class. Ms. King will contact and recruit our students with the help of our orchestra director and will collect data at our school. I expect that this project will end no later than May 15, 2013.

Ms. King has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants on campus. Any data collected by Ms. King will be anonymous and will be stored in a locked filing cabinet in her AU advisor's office. Ms. King has also agreed to provide to us a copy of the aggregate results from her study.

If the IRB has any concerns about the permission being granted by this letter, please contact me at the phone number listed below.

Sincerely,

_____
Printed Name

_____
Signature

Part 2: OMS Site Authorization

Community Center/Organization Name
3333 Main Street
Anytown, USA 00000

Date

Auburn University Institutional Review Board
c/o Office of Human Subjects
307 Samford Hall
Auburn, AL 36849

Please note that Ms. Kathy King, Auburn University doctoral student, has the permission of (*community center/rehearsal venue name*) _____to conduct research at our facility for her study, "Students' Perceived Meaning of Orchestra Experience."

I understand that the research will be completed by students during one scheduled orchestra rehearsal. I expect that this project will end no later than May 15, 2013. Ms. King will *contact* and *recruit* our students with the help of the community orchestra staff and will *collect data* at our facility.

I understand that Ms. King will receive parental/guardian consent for all participants, and I have confirmed that she has the cooperation of the community orchestra director. Ms. King has agreed to provide to my office a copy of all Auburn University IRB-approved, stamped consent documents before she recruits participants. Any data collected by Ms. King will be anonymous. Ms. King has also agreed to provide to us a copy of the aggregate results from his study.

Mrs. King has also agreed to provide to my office a copy of the Auburn University IRB-approved, stamped consent document before she recruits participants, and will also provide a copy of any aggregate results.

If there are any questions, please contact my office.

Signed,

_____
Name

Appendix 2: Open-ended Question for Qualitative Study

Open-ended Question for Qualitative Study

OPEN ENDED QUESTION (Hylton, 1980)

As a member of your school or community orchestra, you are a person who plays in orchestra because this experience means something to you. We are trying to find out what it is about this experience that is meaningful to you. Please list below what the orchestra experience means to you and the part it plays in your life.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9_____

10. _____

11. _____

12. _____

13. _____

14. _____

15._____

Appendix 3: Responses to the Qualitative Study

Responses to the Qualitative Study

Teamwork and cooperation

Creating something beautiful

Having fun

Helping people

Teaches me tolerance

Helps me use another part of my brain

To be smarter

Commitment

Experiencing new music

Learning new things

Having a dedication to something

Soulful

Magical

Entrenched in the music

Focus

It made me want to play better and excel

I love meeting new people and learning new music

It means a lot to me because I have something to look forward to at the end of the week

The different music we get each year

The conductor is funny and full of energy

The friends that I've made that I will never forget

How much it makes you better

The enhancing of our playing ability

Be with kids just like me

Having fun and learning at the same time

Build tone and technique

It means that I am playing with others

There are people who like to play in the orchestra

It gives me experience

It lets me show my talent

I can play with others that have the same instrument

Helps me with a college resume

I might go to a college with an orchestra

Being able to listen to other instruments

Hearing other peoples' opinion

Seeing new people

Learning how to play new music

Reading new rhythms

Seeing different time signatures

Seeing a conductor work

Working with a conductor

It helps me to share myself with others through my violin

I get to be with others who share my love for string instruments

It’s a family away from home

It's a part of me that I don't think I could live without

It's a way for me to grow and feel good

It makes me happy on bad days

Orchestra is essentially a part of me and it makes me who I am

Meet new people

Get to learn new stuff

Get to know your conductor

It is fun

It lets you know how an orchestra feels like

Play instruments

Playing with other people

Sharing our talent

Getting to learn stuff

Being in a group

Working in a team

Makes you who you are

First of all, it is a chance to meet new friends

Helps me learn how to listen to the people around me.

Another reason why orchestra is important to me is because it is different for a change to do a concert as a group instead of individually

Learning new techniques

Great music

Getting to learn notes and techniques

Playing different types of music

Getting to see friends

Snacks sometimes

Being in a group

Get to meet new friends

Great music

Get to learn new notes

Experience new pieces

Playing with others

Get to share our talent

It is a community of people interested in music

It is a place to make friends

Orchestra helps me become better

I love the experience of being a part of music

I love hanging out with my friends

It means being able to play my instruments with my friends

It is fun to play the music

It helps me to improve

It makes me learn new things

It's AMAZING!!!

Orchestra lets me have lots of fun while I am being challenged by new music

Helps me learn

Passes time

Source of entertainment

Way to meet people

Source of personal pride

Will look good on college applications

Makes my parents happy

Makes my violin teacher happy

It gives me time to practice my violin

I enjoy playing in orchestra because I like the opportunity to play my instrument with peers, and also because I don't have that opportunity in my school system

My school does not have an orchestra

Orchestra allows me to meet new people

I love being in orchestras

I enjoy playing my instrument

I like the pieces

It's inspiring to have a conductor from the symphony

Orchestra allows me to listen to people of higher skill play

It's a chance for me to meet new people and expand my circle of friends

Other people have softball or basketball; I have orchestra

I enjoy playing bass because it means I am very important to any orchestra

Playing in this orchestra has increased my ability, and given me experience

Being part of an orchestra has broadened my mind toward different types of music

Coming and learning great musical pieces

Making friends with your conductor and stand partner

Improving my musical skills

Meeting other people that are interested in classical music

Performing with my friends

I get to hear all these instruments come together and make something beautiful

I can practice a lot and know that I made an impression

I like to meet new people

It gives me time to hang out with my friends

It increases my playing experience

It has increased my love of music

It gives me pleasure to know I can play with them, because it takes skill and dedication

This orchestra has been great for the community.

It has brought together people from all over the area to work together as a team

I personally have enjoyed it, especially when we have a great performance

I like learning to play different music

I love playing different music

I like playing with different people

It's on a Saturday, which I find highly inconvenient. I would prefer it to be held at a different time. It helps my music, but I think it could be more helpful if we were split better between groups, as I feel many are misplaced and should be occupying a different position. It helps my music, but I think it could be more helpful if we were split better between groups, as I feel many are misplaced and should be occupying a different position.

One reason is that it makes me feel that not only am I doing it for me, I am doing if for others to make a difference.

It also helps me toward my goal, which is to become a music teacher

It also helps me to make a difference and to do what's right instead of wrong

Playing in the youth orchestra helps me feel like I am getting closer to my dream of becoming a composer and cellist.

It helps me learn more about music!

Being in the orchestra gives me something enjoyable to do.

It helps to uplift my spirit

I enjoy being around others who enjoy music too.

When I play in the orchestra it makes me calm and steady

It makes me forget about everything else that's going on.

I felt like since my sister has been playing I thought I might try it again and I starting to like it again.

I'm glad to be a part in this community orchestra.

I learned how to play the violin a few years ago, and I really enjoy playing it. But it really is wasted talent if you do not have anyone to play for/with

The Wiregrass Youth Symphony Orchestra gives me a chance to play many different genres of music ever Saturday.

Playing music helps me be able to relax my mind from the stress of the week.

Of course, I can see friends and hang out with them.

I like talking to people that have the same interests as I do.

Of course, I can see friends and hang out with them.

It's fun to play with others instead of playing by myself.

We play fun music

It's fun

It gives me a sense of pride and integrity

It requires focus, time, and energy and enhances each of these

It makes me unashamed to be bold

It has a great level of difficulty

It provides a challenge

It teaches me professionalism

I am allowed to show my skill level

It helps me to be a better player.

It helps me better myself in classical training

It's an opportunity for me to expand on my musical knowledge

I grow as a leader in every rehearsal

I grow as a musician through working with others

I am challenged when receiving new rep during sight-reading

I learn to be a leader as well as a follower

I am part of something bigger than myself

Orchestra helps me connect with other musicians

Orchestra gives me the chance to help my section develop specific techniques, and helps my teaching skills grow

Playing in an orchestra gives me a feeling/connection to music that no other experience gives me

A sense of accomplishment

Helps learn discipline

Helped me work well with others

It gives me a reason to look forward to coming to school

Gives experience playing in an ensemble

It is like freedom

It is like creating a piece of art in collaboration with others

It helps build character

It helps me express what cannot be said verbally!

Listen, what other people have in their parts

Watch at the conductor

Feel the tempo of the music

Helps to sight-read better

I really like to perform with the orchestra

Communication with new people

It's cool to accompany a soloist

Having experience in playing different kinds of music

When we play the music that I really like I feel an unexplainable pleasure

Mood consummate experience

Way to learn new pieces

A way to serve conductors

A way to meet other musicians

Learn to play with other musicians in my section

Expand my future musical career choices

Get to listen to other musicians closer

Learn to write parts for orchestra scores

Form connections in the musical world

Be seen by a wider audience than I would as a soloist

Get to play orchestral solos

Performing great works makes me feel connected to the music community

Playing with other musicians who feel the same way I do makes me happy

It's a great way to make friends

Playing with an orchestra is great for developing aural skills

Playing with students who are better than I am motivates me to practice

It makes me feel more prepared for a music career

Learn to work with others

Of course, play wonderful classic music!

Meet other musicians and get to play with them

Be an individual within a group

Work together for the greater good

Learn ensemble performance etiquette

(All of these have to do with working together)

I enjoy playing an instrument

I enjoy being part of something big

I enjoy when, after a concert, the audience claps. It makes me feel that someone really appreciates what we do.

Ms. C_____ is very motivational

I enjoy learning new things

I love everything about our string orchestra

Music makes me happy but playing it makes me the happiest

Playing music also gives me something to look forward to

Playing music also makes me feel unique and one of a kind

Music is like a friend. Without it, I'd be sad

Break from otherwise stressful life

Way to release emotions you otherwise won't voice or show

Fun!

Something to work hard at and gives a sense of accomplishment

Way to communicate to other people without talking

Opens opportunities to meet new people and places

Makes listeners happy/moved

Gives something to do when you're bored

Endless challenges!

Make many friends who share a common interest

Family members are proud and entertained

Teaches leadership and how to express yourself more

Makes you brave and more accustomed to being in public

Helps with playing other instruments

Gives a deeper insight and knowledge towards music!

It's a part of me because I have played for so long

It forms a bond between the players

It's rewarding when I am able to crack a tough piece

It's a stress reliever from the daily hassle of school

It gives me a chance to be creative

Our conductor becomes our friend and mentor and helps us grow more than in the musical sense

It's a refuge from school because it is something that stays the same every year

It's something that I know will always be in my life

Memories with friends

I've been playing music since I was 7 and to be able to play music everyday is a blessing

I take pride in doing something many others can't

Learning something different

New friends

new experiences

Memories

Trying something new

Different style of learning

Learned I'm talented in a new way

Challenges me

Creative environment

Being different

Expanding my horizons of talents

Meeting new people who I would not meet if I was not in an orchestra

Meeting new challenges

Trying new things

Memories

Working in a different environment

A break from other academic work

Stress reliever

Fun activity

It can be a way you express your feelings

New knowledge

A relaxing part of my day

Friends

New experiences (traveling to new countries, playing in front of new audiences)

Reading challenging music

Learning new techniques and composer information

New language (music in general)

Being a small but important part of something incredible

Playing a unique instrument (violin)

Strengthens the brain through reading music

Learned how to laugh at how bad I am

Met new friends

Learned much more about music through personal endeavor

Introduced me to a new instrument that I will play for the rest of my life

Provides opportunities to play in public

Provides opportunities to get my name in colleges

Gives an opportunity to play abroad

Gives a break in the day

Period a day of enjoyment

I like going to class

Winter strings class was really fun (Austria)

Keeps my mind from turning to mush

Learning to use mind in different ways

Cello is new and difficult

One of the most difficult things

Makes me question and have new resolve in life

Professional training in music theory

Training in music reading

Solid class - easy to comprehend

Great teacher - great music

The strings program has taken me on the greatest trip of my life

I have met new friends

It has brought me and my dad closer through his love of music and my new love

It gives me something to do besides study hall

It can help me get a scholarship or aid to college

I learned a life lesson on our trip about doing what is right and that little things have big consequences

I've made money through playing gigs

Met new people

My violin playing has improved

Free days if I need to study

I think I've gotten smarter from playing violin

Many concerts and recitals

Gotten closer with mom (she plays piano)

Learned about other instruments

Playing an instrument is good for college

Learned how to multi-task better

My violin playing improved

I made friends

I got experienced with auditions

I got to do orchestra away from my house for 4 days

I learned how to blend into the sound of an orchestra

I was on magazine

I learned how to step out

First time getting bitten by bug while playing violin

I got to go to All State

I can play violin awesome now

I made new friends

I can play violin

I feel really happy

Playing violin makes me feel special!

I have eight more friends. Or more.

I've always loved playing a musical instrument, but I could never find one that suited me until I tried violin

I received the exciting opportunity to go to all-state. At all-state I met new people and I got public experience

Every morning when I come to school I looked forward to strings

This year I performed a solo piece in my school concert with a friend and I gained more confidence

Playing the violin makes my whole family happy and it gives equal attention to my sister and me

I have wonderful friends that I made in strings. They are my closest friends; they encourage me to do new things and always support me

Strings make me and those around me happy.

I learn more by reading ahead

I learned to deal with people I don't like

Strings help me grow

I would've never met some of the great people I know now

I learned how to manage my time

I become a better player when I play harder pieces

This class helped me focus on what I'm trying to do

I've met lots of different people because of this

I like how we have some study days

I try my hardest in class

I try my best to get along with everyone

I've improved so much

I get to be different than everyone

I learned something I will keep all my life

I made new friends

I learned to read music

I got better at memorizing things

I understand music more

I now love to play

I could get a scholarship

I will get to go to Europe

Now I could get a job in music

I can play jazz

I can tune an instrument

I can entertain myself

I have heard beautiful music I never would have

I don't have to exercise in the morning - I play double bass

I met people who like the same kind of things

To accomplish things I never would have done except for orchestra

I can finally play 'Jupiter" which I've been wanting to play

I got to go to All State

I got experience with auditions

It lets me express myself

I am usually a shy person but when I play, I lose my shyness

This program has helped me improve in my playing

I have made lots of really good friends

I always felt as if no one liked me, and when I started strings, it helped me make friends

It helped me to go to All State

I like having free days to study

I finally got to do something on my own (All State)

It helped me to learn to read notes

This has opened me to a whole new world of music

I can talk to my friends

Love making music

Imaginative

Found a second family

Effort is required

Increases musical ability

Nurtures artistic abilities

Opposite of boring

Relaxing

Creative environment

Hope to make music all my life

Entertaining education

Sparked my interest in music

Third year in orchestra

Really feel like I've learned a lot

Anything is possible

It's a stress reliever

I enjoy coming to this class everyday

In this class I can relax, and not have to worry about a thing

The instruments are absolutely fun to play

There is no comparing; you do your best!

Classmates are able to socialize while working

Players are able to learn and accomplish new music

Never judged on if you are the best

We have fun each and every day

Working and experiencing music with others

Challenging myself

Bringing people and instruments together to create something beautiful

Applying what I learn in music to other areas of life

Thinking in a different way

Bringing joy, harmony, and an escape to others

Cracking difficult music with myself or with others is rewarding

It allows me to meet new, interesting, and talented people

Gives me an escape from stress and most importantly, it brings joy to others while exposing them music and what it can do

Orchestra is like another family to me

I love music, but feel great when I play it. The experience for me is amazing

Music has always been a huge part of my life

Being in orchestra is like teamwork

You make new friends and meet new people

You learn music that you never knew you could play

Agreeable and kind community

Makes me more well-rounded

Improves me socially

As a bass player I get to be a 'leader' but in a subtle way

Makes me satisfied with playing an instrument in general

Provides a feeling of 'belonging'

Music is important to me

Extracurricular activity

Break from school

Musical expression

Fellowship with other musicians

Meeting new people, not just musicians

Experiences offered only through orchestral organizations

Something to set me apart from others

Looks good on college transcripts

Fun

Way to relax

Learning music theory, composers, music history

Being part of something bigger than myself

Doing music is important to my family

Being part of an established program

Express myself in a unique way

The orchestra lets me express myself

It gives me fun experiences

The sound of the beautiful music calms me down

It lets me understand the language of music

The orchestra is my happy place

It gives me some sense of life

Without it, everything would be bland and tasteless

It helps me with other entertainment; guitar, piano, etc

I made new friends. Yay!

I got a free day to do homework and study

I can read better

I can pick out notes in other music

Communication skills are better

The orchestra experience means a time for me to perform to my fullest ability while not being nervous about playing by myself

The orchestra is a comforting practice time where I can learn things that I wouldn't normally learn from a private lesson

Not many people are talented enough to be in an orchestra

Lots of opportunities to go places and meet people

Furthering our musical career

I love to play music

Music helps me to calm down (playing music)

Lots of people I know are in the orchestra

It's fun

More friends or social life

Help you with music

Helps you with your music career

It makes me happy

Help e get things off my mind

I love music so playing it helps me know the meaning

Being in orchestra has kept me very busy

It brings a lot of opportunities in my life

I've been asked to play solos for different occasions

It's something I can put my time in

It helps me keep an open mind on what I want to do in life

It also shows me how to be dedicated to something

It is a fun experience that I get to play with my friends and make music with people that have so much more experience than me. I am always learning

Appendix 4: Example of Categorization of Raw Data

Example of Categorization of Raw Data

Raw data statement numbers were retained to provide an audit trail.

To help life go by easier
293 To make me question and have new resolve in life
445 To give me some sense of life
To feel more at ease
139 To make me calm and steady
154 To make me unashamed to be bold
234 To become brave and more accustomed to being in public
320 To learn how to step out
332 To gain more confidence when playing solos
369 To overcome shyness through playing
To give me a good feeling inside
48 To have a way to feel good
137 To help uplift my spirit
188 To have a mood consummate experience
218 To experience the happiness of playing music
422 To feel a sense of satisfaction
To relax and forget my problems for a while
49 To make me happy on bad days
140 To make me forget about everything else that is going on
222 To have a break from an otherwise stressful life
240 To have a stress reliever from the daily hassle of school
243 To have a refuge from school because it is something that stays the same every year

Appendix 5: New Orchestra Items

New Orchestra Items

To make my family happy

To be part of an ensemble

To learn from a conductor

To learn leadership skills

To do something that is very important to me

To enjoy playing my instrument

To have fun

To feel important to an orchestra

To have something to look forward to

To make me who I am

To develop my mind

To help me prepare for college

To help others

Appendix 6: Orchestra Meaning Scale Pilot Version

Orchestra Meaning Scale Pilot Version

Each of the short statements listed below represents a possible meaning of the orchestra experience. For each statement, please indicate how well it expresses the meaningfulness of orchestra experience for you by circling one of the responses.

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

Make your responses thoughtfully. We want to find out what the meaning of the orchestra experience is for you. There are no right or wrong answers. You must decide how well each item describes a meaning that orchestra class has for you. Please do not put your name or any identifying information on this survey.

1. To enrich my musical knowledge	SA	A	U	D	SD
2. To prepare for a musical career	SA	A	U	D	SD
3. To play many different kinds of music	SA	A	U	D	SD
4. To learn how to read music	SA	A	U	D	SD
5. To train my ear	SA	A	U	D	SD
6. To learn to appreciate all kinds of music	SA	A	U	D	SD
7. To develop my musical talent	SA	A	U	D	SD
8. To learn to play new songs well	SA	A	U	D	SD
9. To find out if I have some playing ability	SA	A	U	D	SD
10. To experience musical art	SA	A	U	D	SD
11. To discover styles and patterns in music	SA	A	U	D	SD

12. To learn to play things other than the melody	SA	A	U	D	SD
13. To learn to appreciate the arts	SA	A	U	D	SD
14. To learn to play songs well	SA	A	U	D	SD
15. To learn from a conductor	SA	A	U	D	SD
16. To meet new people	SA	A	U	D	SD
17. To be with a great group of people	SA	A	U	D	SD
18. To make and enjoy good friends	SA	A	U	D	SD
19. To work together to achieve a goal	SA	A	U	D	SD
20. To enjoy being a part of the sounds of many instruments blending together	SA	A	U	D	SD
21. To learn to get along with other people	SA	A	U	D	SD
22. To associate with talented people	SA	A	U	D	SD
23. To work with other people	SA	A	U	D	SD
24. To contribute to a group effort	SA	A	U	D	SD
25. To understand why other people love music	SA	A	U	D	SD
26. To be a part of a very close group of friends	SA	A	U	D	SD
27. To have a good time with the rest of the group	SA	A	U	D	SD
28. To be with orchestra people	SA	A	U	D	SD
29. To hear others around me perform	SA	A	U	D	SD
30. To make my family happy	SA	A	U	D	SD
31. To be a part of an ensemble	SA	A	U	D	SD
32. To help make life go by easier	SA	A	U	D	SD
33. To feel more at ease	SA	A	U	D	SD

34. To give me a good feeling inside	SA	A	U	D	SD
35. To relax and forget my problems for a while	SA	A	U	D	SD
36. To feel a sense of pride	SA	A	U	D	SD
37. To develop my self-discipline	SA	A	U	D	SD
38. To have an experience full of feeling	SA	A	U	D	SD
39. To help me be at peace with myself	SA	A	U	D	SD
40. To help me get to know myself better	SA	A	U	D	SD
41. To find out who I am	SA	A	U	D	SD
42. To make me who I am	SA	A	U	D	SD
43. To do something that is very important to me	SA	A	U	D	SD
44. To learn leadership skills	SA	A	U	D	SD
45. To have something to look forward to	SA	A	U	D	SD
46. To enjoy playing my instrument	SA	A	U	D	SD
47. To have fun	SA	A	U	D	SD
48. To feel important to an orchestra	SA	A	U	D	SD
49. To feel the satisfaction of practicing long hours and getting results	SA	A	U	D	SD
50. To get a sense of accomplishment	SA	A	U	D	SD
51. To feel rewarded	SA	A	U	D	SD
52. To be part of something good	SA	A	U	D	SD
53. To try, succeed and get better	SA	A	U	D	SD
54. To develop my mind	SA	A	U	D	SD
55. To help me prepare for college	SA	A	U	D	SD

56. To have people hear the final product of a lot of hard work	SA	A	U	D	SD
57. To help other people enjoy music	SA	A	U	D	SD
58. To please people with our playing	SA	A	U	D	SD
59. To perform for others	SA	A	U	D	SD
60. To present good concerts	SA	A	U	D	SD
61. To give others a message through my playing	SA	A	U	D	SD
62. To communicate so well with an audience that they applaud	SA	A	U	D	SD
63. To share my talent with others	SA	A	U	D	SD
64. To get out in front of a crowd and play	SA	A	U	D	SD
65. To play well for others	SA	A	U	D	SD
66. To have others listen to me	SA	A	U	D	SD
67. To have the excitement and thrill of presenting concerts	SA	A	U	D	SD
68. To see the faces of the audience when we give a concert	SA	A	U	D	SD
69. To express a composer's music	SA	A	U	D	SD
70. To help others	SA	A	U	D	S

Please complete the following:

1. Ensemble type (check all that apply)

____Community youth orchestra

____School orchestra

_____Other (please describe)

2. What instrument do you play in orchestra? _____

3. Have you ever taken private lessons on this instrument? (*Circle one*) Yes No

4. If yes, how many years? _____

5. Instrument ownership

I own my instrument

My instrument is a rental

My school provided my instrument

Other (please describe) _____

6. What is your grade level? (*Please circle*) 6 7 8 9 10 11 12

Appendix 7: Pattern Matrix

Pattern Matrix					
	Component				
	1	2	3	4	5
To enrich my musical knowledge		.768			
To prepare for a musical career		.363			
To play many different kinds of music		.640			
To learn how to read music		.632			
To train my ear		.697			
To learn to appreciate all kinds of music		.641			
To develop my musical talent		.618			
To learn to play some new songs well		.617			
To find out if I have some playing ability				.356	
To experience musical art		.781			
To discover stlyes and patterns in music		.856			
To learn to play things other than the melody		.699			
To learn to appreciate the arts		.735			
To learn to play songs well		.454			
To learn from a conductor		.580			
To meet new people				.856	
To be with a great group of people				.859	
To make and enjoy good friends				.891	
To work together to achieve a goal				.455	
To enjoy being a part of the sounds of many instruments blending together		.454			.428
To learn to get along with other people				.621	
To associate with talented people				.526	
To work with other people				.440	
To contribute to a group effort				.335	
To understand why other people love music		.346	.376		
To be a part of a very close group of friends				.737	
To have a good time with the rest of the group				.798	
To be with orchestra people				.359	
To hear others around me perform					
To make my family happy			.413		
To be a part of an ensemble					
To help make life go by easier			.730		
To feel more at ease			.692		
To give me a good feeling inside			.608		
To relax and forget my problems for a while			.677		

To feel a sense of pride			.431		.437
To develop my self-discipline			.419		
To have an experience full of feeling			.529		
To help me be at peace with myself			.839		
To help me get to know myself better			.879		
To find out who I am			.825		
To make me who I am			.771		
To do something that is very important to me			.396		.521
To learn leadership skills					
To have something to look forward to					.567
To enjoy playing my instrument					.813
To have fun					.725
To feel important to an orchestra					.440
To feel the satisfaction of practicing long hours and getting results					.435
To get a sense of accomplishment					.679
To feel rewarded					.576
To be part of something good					.546
To try, succeed, and get better					.343
To develop my mind		.344			
To help me prepare for college	.381				
To have people hear the final product of a lot of hard work	.493				
To help other people enjoy music	.518				
To please people with our playing	.783				
To perform for others	.918				
To present good concerts	.752		-.321		
To give others a message through my playing	.513				
To communicate so well with an audience that they applaud	.708				
To share my talent with others	.769				
To get out in front of a crowd and play	.831				
To play well for others	.874				
To have others listen to me	.782				
To have the excitement and thrill of presenting concerts	.716				
To see the faces of the audience when we give a concert	.724				
To express a composer's music	.381				
To help others	.447				

Appendix 8: Promax Rotation of Five-Factor Solution

Promax Rotation of Five-Factor Solution

Psychological

Statement	**Loading**
To help make life go by easier	.716
To feel more at ease	.731
To give me a good feeling inside	.675
To relax and forget my problems for a while	.805
To feel a sense of pride	.503
To have an experience full of feeling	.531
To help me be at peace with myself	.854
To help me get to know myself better	.783
To find out who I am	.802
To make me who I am	.798
To do something that is very important to me	.588
To have something to look forward to	.439

Communicative

Statement	**Loading**
To learn to play some new songs well	.336
To make my family happy	.500
To be a part of an ensemble	.350
To please people with our playing	.671

To perform for others	.784
To present good concerts	.695
To give others a message through my playing	.424
To communicate so well with an audience that they applaud	.757
To share my talent with others	.714
To get out in front of a crowd and play	.848
To play well for others	.754
To have others listen to me	.797
To have the excitement and thrill of presenting concerts	.738
To see the faces of the audience when we give a concert	.682

Musical-Artistic

Statement	**Loading**
To enrich my musical knowledge	.840
To play many different kinds of music	.542
To learn how to read music	.579
To train my ear	.642
To learn to appreciate all kinds of music	.488
To develop my musical talent	.777
To learn to play some new songs well	.765
To find out if I have some playing ability	.305
To experience musical art	.605
To discover styles and patterns in music	.765
To learn to play things other than the melody	.594

To learn to appreciate the arts	.688
To learn to play songs well	.654
To learn from a conductor	.586
To understand why other people love music	.329
To hear others around me perform	.323
To be a part of an ensemble	.363

Integrative

Statement	**Loading**
To meet new people	1.014
To be with a great group of people	.882
To make and enjoy good friends	.848
To work together to achieve a goal	.347
To learn to get along with other people	.766
To associate with talented people	.362
To work with other people	.494
To understand why other people love music	.376
To be a part of a very close group of friends	.710
To have a good time with the rest of the group	.766
To be with orchestra people	.328
To learn leadership skills	.325
To help others	.471

Achievement

Statement	**Loading**

To enjoy being a part of the sounds of many instruments blending together	.449
To contribute to a group effort	.315
To do something that is very important to me	.337
To have something to look forward to	.344
To enjoy playing my instrument	.763
To have fun	.663
To feel important to an orchestra	.347
To feel the satisfaction of practicing long hours and getting results	.423
To get a sense of accomplishment	.656
To feel rewarded	.466
To be part of something good	.522
To try, succeed, and get better	.631
To develop my mind	.619
To help me prepare for college	.322
To have people hear the final product of a lot of hard work	.496
To help other people enjoy music	.379
To express a composer's music	.382
To help me prepare for college	.376