

THE RELATIONSHIP OF THE TRANSFORMATIONAL LEADERSHIP PROCESS AND  
GROUP MOOD AMONG MUSICIANS AND THEIR EFFECTS ON ARTISTIC  
QUALITY WITHIN THE AMERICAN ORCHESTRAL ORGANIZATION

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## ABSTRACT

The desire to understand the American classical music experience and its relationship to transformational leadership is the foundational reason for this study. The experience of listening to the same orchestra under the direction of nine different conductors throughout the Chattanooga Symphony & Opera's conductor search, led to an interest in further understanding the processes involved in the classical musical experience. There is minimal research focused on the American symphony orchestra and an acute lack of research on leadership processes within the American symphony orchestra. Examination and study of the leadership process between conductor and musician, musician group mood, and artistic quality are all considerations in understanding the classical musical experience.

The research design for this study was a quantitative design using simple correlation analysis. The intent of this study was to understand how the independent and dependent variables covary, and therefore a non-experimental, associational approach was used (Gliner, Morgan, & Leech, 2009). Given the two independent variables within this study, the conductor's transformational leadership and musician group mood, associational inferential statistics was used to analyze the data collected (Gliner et al., 2009). The Pearson correlation coefficient, ANOVA, and the t-test, were used to accept or reject each hypothesis. The CSO musicians served as the population for this study. The 135-item research questionnaire used in the Boerner and Von Streit (2007) study was used to examine the relationship between the variables of transformational leadership, artistic quality, and musician group mood.

The data analysis did not show a relationship of significance between the conductor's transformational leadership and perception of artistic quality or between the conductor's transformational leadership and musician group mood. The data analysis did show a significant relationship between musicians' positive group mood and artistic quality. Symphonic music and group mood are collaborative, collective, and social in nature (Becker, 1974). Data from this study show that a harmonized group mood of the musicians has a positive relationship to the perception of artistic quality.

## DEDICATION

This study is dedicated to my husband and parents. Thank you for being my unceasing cheering section.

## ACKNOWLEDGEMENTS

Dr. Crawford and Dr. Tucker exceeded the expectation of job descriptions and have genuinely invested in me as a student and as a person. They have exemplified the transformational leadership processes that I have studied throughout my doctoral journey, and I have learned as much from having the privilege to work with them as I have from any book. I also appreciate Dr. Rausch and Dr. Harris who have provided valuable expertise and guidance. Thank you all for your encouragement and time in serving on my committee.

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## CHAPTER I

### INTRODUCTION

Throughout the 2-year conductor search at the Chattanooga Symphony & Opera (CSO), I was amazed at how different the orchestra sounded each time a new conductor took the podium. Prior to the conductor search, I thought to myself “How different is the orchestra really going to sound as each of the nine conductor candidates directs the same orchestra?”

As I sat in the Tivoli Theatre one night listening to the CSO perform, I closed my eyes and thought I could be listening to any of the exceptional orchestras throughout the country. The orchestra sounded energized, inspired, and expertly prepared to deliver an amazing musical performance to the audience. The CSO sounded different from the many times I had previously heard them perform. What was contributing to this difference, I wondered? Nine conductor candidates and two years later, I realized I had a widely varying musical experience, depending on the conductor; and, the musicians and the musical sound seemed to vary as well. The conductor search led me to consider the processes and perceived differences that were occurring between the conductor, musicians, and the musical performance.

#### Statement of the Problem

The variables of transformational leadership, musician group mood, and artistic quality are part of the classical music experience (Boerner & Freiherr, 2005). This study examined the relationship between the musician’s perception of the conductor’s transformational leadership, musician group mood, and the artistic quality of the orchestra.

Transformational leadership is suggested to be rooted in a connection between the leader and follower, which increases motivation in both the leader and the individual (Northouse, 2010). Maestro Michael Tilson Thomas (Kerres, 2012) explains this motivational leadership process by stating “The people who are actually giving the performance are the musicians who are playing different parts. My job is to create a situation in which they can give and they will want to give the greatest performance” (p. 58). Transformational leadership can change behavior by motivating followers to utilize their energy and resources for organizational change (Yukl, 2006) or to play a great musical performance (Kerres, 2012). Transformational leadership theory has a foundation in idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation for the purpose of impacting the organization (Northouse, 2010).

Group mood includes the cognitive and emotional harmony or discord of the collective group of musicians (Boerner & Von Streit, 2007). Individual mood is “undifferentiated and transitory by nature” (Williams & Shiaw, 1999, p. 658). This study focuses on group mood, which is “conceived of as a group’s temporally stable, basic temperament, which can take on an overall positive or negative cast” (Boerner & Von Streit, 2007, p. 133). The variable of group mood highlights the collaborative, collective, and social nature of symphonic music making (Becker, 1974).

Artistic quality is the technical and emotional value created through the music making process (Boerner & Von Streit, 2007). Technical components of artistic quality may include physiological, physical, and instrumental technique as well as interpretation of the musical score during a performance (McPherson & Schubert, 2011). Emotional components may include expression, projection, and communication of the emotional character of the work (McPherson & Schubert, 2011). Artistic quality is subjective in nature and includes personal values and

perceptions (Chiaravalloti, 2005). The personal values of an individual shape the musical experience and subjective perception of artistic quality (Radbourne, Johanson, Glow, & White, 2009).

### Purpose of the Study

The purpose of this study is to examine the relationship between the variables of transformational leadership, group mood, and artistic quality as perceived by members of the orchestra to gain a better understanding of the live orchestral performance experience.

### Research Questions

This study focused on the independent variable of transformational leadership, the independent variable of group mood, and the dependent variable of artistic quality in the orchestral context. The three initial research questions considered if there is a connection between these independent and dependent variables.

1. Is there a relationship between artistic quality as perceived by the members of the orchestra and the perceived presence of the conductor's transformational leadership?
2. Is there a relationship between musician group mood and the perceived presence of the conductor's transformational leadership?
3. Is there a relationship between musician group mood and artistic quality as perceived by members of the orchestra?

Upon review of data, the researcher considered an additional research question to analyze differences among groups.

4. Are there differences among groups within the orchestral context (e.g., contract level, instrument section, gender, etc.)?

The research instrument used in this study is a 135-item questionnaire that utilizes a 7-point interval scale of measurement for each question. The questionnaire provides data for measuring the relationship between the independent variables of transformational leadership and musician group mood, as well as the dependent variable of artistic quality. The questions regarding artistic quality are not attempting to measure the actual artistic quality of the performance, but instead seek to measure the musician's perception of artistic quality (Boerner & Von Streit, 2007). Additional research questions address the relationship between demographic factors such as length of professional orchestral experience and the musician's contract level within the orchestra.

### Research Hypotheses

H<sub>1</sub> – There is a significant relationship between the artistic quality of an orchestra to the presence of the conductor's transformational leadership.

H<sub>2</sub> – There is a significant relationship between the positive group mood among the musicians to the presence of the conductor's transformational leadership.

H<sub>3</sub> – There is a significant relationship between the positive group mood among the musicians to the presence of the artistic quality.

### Rationale of the Study

The desire to understand the American classical music experience and its relationship to transformational leadership is the foundational reason for this study. The experience of listening

to the same orchestra under the direction of nine different conductors throughout CSO's conductor search led to my interest in further understanding the processes involved in the classical musical experience. There is minimal research focused on the American symphony orchestra and an acute lack of research on leadership processes within the American symphony orchestra. Examination and study of the leadership process between conductor and musician, musician group mood, and artistic quality are all considerations in understanding the classical musical experience.

### Conceptual Framework

The conceptual framework for this study focused on theoretical understanding of the variables of artistic quality, the conductor's transformational leadership, and positive group mood of the musicians. Prior to Boerner and Von Streit's (2007) study, the impact of a transformational leadership process between conductor and musician on musical outcomes had not been examined. Boerner and Von Streit's (2007) study provides the foundation for the conceptual framework for my study. The study of 208 musicians from 22 German orchestras found perception of artistic quality to be enhanced by the conductor's transformational leadership process and positive group mood of the musicians (Boerner et al., 2007). Boerner and Von Streit's (2007) study serves as the foundation for the conceptual framework for my study. Figure 1 shows the dependent variable of artistic quality at the center of the framework and the independent variables of the conductor's transformational leadership and positive group mood. The figure also shows extraneous variables of musician contract level, musical instrument, length of professional experience in the orchestra, gender, and age. The extraneous variables may help to describe the individual members within the orchestra. Understanding what instrument is

played, as well as whether a musician is a section leader or a section player, may further explain the individual's role within the group. Other demographic variables, such as length of professional experience, gender, and age, may be factors in analyzing perceptions of transformational leadership, musician group mood, and artistic quality.

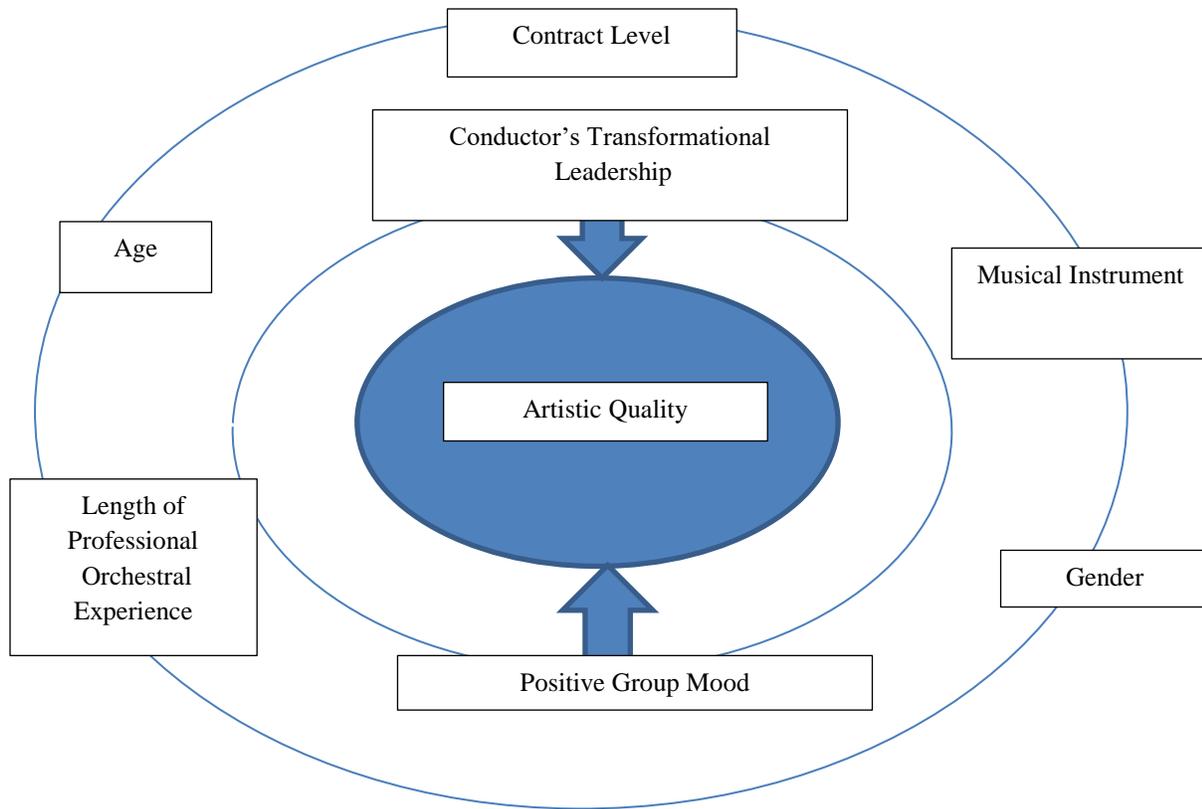


Figure 1 A visual representation of the conceptual framework with the dependent, independent, and extraneous variables that are part of this study

### Definitions of Terms

The following terms are defined as they are used in this study:

- A, B, and C Contract Players: people who receive an annual or multi-year contract from the CSO organization for a specified number, based on A, B, or C level, of services (K. Allison, personal communication, February 11, 2016).
- Artistic Quality: the subjective value of the technical and emotional components of the musical performance (Boerner, 2004).
- Conductor: the artistic leader of the orchestra and the orchestral performance (Seifter & Economy, 2001).

- Contract Players: musicians who operate under an annual or multi-year contract for services with the orchestra (Ayer, 2005).
- Group Mood: the cognitive and emotional harmony or discord of the collective group of musicians (Boerner & Von Streit, 2007).
- Musician: a person who plays a musical instrument in the orchestra.
- Musician Section: a sub-group within the orchestra based on the instrument played by the musician.
- Orchestra: classically trained, instrumental musicians who play together as a group.
- Orchestral Organization: the entire organization including artistic, board, and administrative components.
- Profile of Mood States (POMS): a unipolar method for mood assessment that includes six subscales to measure mood including tension, depression, anger, vigor, fatigue, and confusion (McNair, Lorr, & DroppLemn, 1971).
- Section Leader: the first chair of each musical section within the orchestra.
- Substitute Players: musicians who play on an as-needed basis with the orchestra.
- Tutti Player: a player within the orchestra who is not a section leader.
- Transformational Leadership: a process that inspires and empowers others to succeed (Northouse, 2010)

### Delimitations of the Study

The boundaries and generalizability of the study vary based on the scope of the research. It was the intent of the researcher to limit the study to the Chattanooga Symphony & Opera (CSO). Given that the collection of data only includes data from CSO musicians, this was a

delimitation of the study. Additionally, this study was delimited to the cultural perspective of the American orchestral context.

Substitute players are often used for performances, depending on the musical score selection as well as availability of the contract players. Substitute players are a part of this study. Given that their relationship with the conductor and other CSO musicians may be limited to a single performance, including substitute players may skew or alter the data.

### Limitations of the Study

Several limitations exist for the researcher in this study. The researcher worked with the CSO for more than 10 years and currently serves on the board of directors. Given this work and volunteer experience, bias regarding organizational leadership may exist. In addition, it may not be within the control of the researcher to obtain the proper level of survey participation, or honesty of reporting on the survey.

### Summary

The CSO conductor search laid the foundation for my interest in creating this study. Analyzing the variables of the conductor's transformational leadership, artistic quality, and musician group mood is the framework for better understanding the classical music experience. The Boerner and Von Streit (2007) research instrument was utilized to gather data in order to measure the relationships between the independent variables of transformational leadership and musician group mood, as well as the dependent variable of artistic quality. This study expands understanding of the American classical music experience and its relationship to transformational leadership.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

The evolution of the conductor's and musician's roles in the American orchestra has provided a unique opportunity for the study of leadership. The leadership process within the orchestral performance context involves synchronized, yet individualized, group action of approximately 75-100 musicians and one conductor (Boerner & Von Streit, 2007). The musicians and conductor are most often highly educated and highly skilled (Hunt, Stelluto, & Hooijberg, 2004), and the leadership process between musicians and conductor must generate synchronized and collective action in a musical performance. Bass (1985) suggests a "change in performance and relationships occur in transformational leadership to the benefit of the individual and the organization" (p. 95). Transformational leadership as a process that can change performance and relationships lends itself to the context of the American orchestra, the conductor, the musicians, and the artistic performance outcome.

#### Transformational Leadership Defined

Downton (1973) first used transformational leadership in his sociological treatise *Rebel Leadership*. Shortly following Downton (1973), Burns (1978) created foundational understanding of transformational leadership through defining and contrasting transformational and transactional processes (Yukl, 2006). Burns (1978) defined transformational leadership as "a process in which one or more people engage with others in such a way that leaders and

followers raise one another to higher levels of motivation and morality” (p. 20). In contrast, transactional leadership “occurs when one person takes the initiative in making contact with others for the purpose of an exchange of valued things” (Burns, 1978). Burns’ (1978) ideas of leadership focused on the relationship and interactive processes between leader and follower.

While Freud (1922), in the early 20<sup>th</sup> century, had considered the idea that leadership was more transactional, the process of further defining and researching transformational leadership began, in large measure, with the work of Bass (1985). Bass (1985) built on the work of Burns (1978) by modifying the notion that transactional and transformational leadership were contrasting processes, suggesting instead that transformational leadership and transactional leadership can work in tandem (Bass & Stogdill, 1990). The research of Avolio, Bass, and Jung (1999) showed that the most skilled leaders can utilize both transformational and transactional leadership factors, which include inspirational, intellectual stimulation, individualized consideration, contingent reward, management by exception, and laissez-faire leadership.

Bass and Avolio (1994) expanded on the idea of transformational leadership to include idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Weber’s (1924) concept of charismatic leadership is noted as being important in the development of transactional and transformational leadership theories. The research of Bass and Avolio (1985) suggests that the transformational leadership process creates beneficial performance and relationship changes within an individual and an organization.

Transformational leadership inspires and empowers others to succeed (Northouse, 2010). The transformational leadership process has a human-centric focus and considers emotions, values, and ethics in moving individuals and teams toward a common goal (Northouse, 2010). Transformational leadership is also suggested to be rooted in a connection between the leader

and follower that increases motivation in both (Northouse, 2010). Further, leadership can transform behavior by motivating followers to utilize their energy and resource for organizational change (Yukl, 2006).

### Transformational Leadership Applied to the Orchestral Context

After a search and review of the literature regarding the leadership role of an orchestral conductor, the researcher found a small variety of scholarship that informs understanding of the leadership process within this context. There have been important leadership studies by Woodbury (1955), Atik (1994), Boerner and Gebert (2012), and others described in this literature review, which inform understanding of the symphony orchestra and the research focus of this dissertation study. Additionally, Boerner and Von Streit's (2007) study of the impact of a transformational leadership process between conductor and musician on musical outcomes is foundational to this study, given its particular focus on the transformational leadership process.

Woodbury (1955) surveyed 103 orchestral musicians using a written questionnaire and an oral interview to analyze leadership traits of 12 conductors from eight major American orchestras. Leadership trait theory was "one of the first systematic attempts to study leadership" (Northouse, 2010, p. 15). Stogdill (1948) developed foundational understanding of leadership trait theory and identified individual traits including intelligence, alertness, insight, responsibility, initiative, persistence, self-confidence, and sociability as important in effective leadership processes. Woodbury's (1955) research shows the top five traits of greatest necessity for conductors. including self-confidence, musical integrity, sincerity, high intelligence, and human understanding. There is significant overlap with the leadership traits suggested by

Stogdill (1948) and the traits found to be important for conductor's leadership in the orchestra setting (Woodbury, 1955).

Atik (1994) researched leadership in the orchestral organization through a qualitative study of 19 players, eight administrators, and 11 conductors from three major orchestras. The study showed that both the conductor and musicians viewed inspirational leadership, which is a component of the transformational leadership process, as assisting in the improvement of the musical performance. The research further showed collaboration between the leader and follower, as well as characteristics of a transformational leadership process between conductor and musician (Atik, 1994).

Allmendinger, Hackman, and Lehman (1996) conducted a large-scale study of 78 orchestral organizations in the United States, the United Kingdom, the former West Germany, and the former East Germany. Data were gathered by visiting each participating orchestra to collect filed data, conduct interviews, and make observations (Allmendinger & Hackman, 1996). Allmendinger and Hackman (1996) suggest that the behavior of the conductor is the key differentiating factor between over- and under-performing orchestras. Over-performing orchestras have music directors who give clearer musical direction and commit more time to engagement and coaching musicians than music directors of under-performing orchestras (Allmendinger, Hackman, & Lehman, 1996). While their research does not point directly to a transformational leadership process, it does have the component of individualized consideration. In addition, the research highlights the importance of the relationship between conductor and musician to musical outcomes.

Mintzberg (1998) utilized a one-day observation of the artistic director and conductor of the Winnipeg Symphony Orchestra to examine leadership in the symphony organization. It was

noted that the highly trained nature of the symphony musician provides unique leadership opportunities for the conductor, including inspiration and respect for individual players as well as the larger social unit of musicians. “Knowledge workers respond to inspiration, not supervision” (Mintzberg, 1998, p. 141). Orchestral musicians are knowledge workers, and this study highlights that a transformational leadership process may be most beneficial for the conductor and musician, given the inspirational motivation component of the process. Additionally, individualized consideration is needed in the leadership process between musician and conductor because orchestral musicians play individually and together at the same time (Mintzberg, 1998). The transformational leadership components of inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1994) are all evident in Mintzberg’s (1998) observation.

A study by Boerner, Krause, and Gebert (2004) gathered data from 334 musicians from 30 German orchestras utilizing a 23-item questionnaire. There were six hypotheses in the study:

- (a) coordination among the orchestral musicians will be positively related to the artistic quality of the orchestra;
- (b) the musicians’ skill will enhance the co-operation within the orchestra;
- (c) the musicians’ motivation will enhance the co-operation within the orchestra;
- (d) directive-charismatic leadership enhances both the musicians’ skill
- (e) directive-charismatic leadership enhances both the musicians’ motivation
- (f) the directive-charismatic leadership style enhances the artistic quality of an orchestra. (pp. 3-5)

Boerner et al. (2004) found that a directive-charismatic leadership style had a positive effect on the artistic quality of the orchestral ensemble.

Until 2007, there had not been a research study that analyzed the transformational leadership process between conductor and musician. Boerner and Von Streit’s (2007) study utilized written questionnaires and included 208 musician respondents from 22 orchestras in Germany. There were two hypotheses in this study:

- (a) the conductor's transformational leadership style fosters the artistic quality of an orchestra's achievement only if it is accompanied by highly positive group mood among the musicians; and
- (b) positive group mood among the musicians fosters the artistic quality of an orchestra's achievement only if it is accompanied by the conductor's transformational leadership style. (p. 136)

The study found that the conductor's transformation style alone did not enhance the artistic quality of the orchestra (Boerner & Von Streit, 2007). However, the combination of the conductor's transformational leadership process and positive group mood of the musicians was shown to enhance the orchestral performance.

Boerner and Gerbert (2012) built on previous research to create a framework to explain the role and positive effects of transformational leadership in the orchestral organization. Figure 2 is used in this study (Boerner & Gebert, 2012) as a framework to develop propositions for the positive effects of transformational leadership in the orchestral setting. Transformational leadership is shown as central to ensemble diversity, idea generation, idea integration, and artistic ensemble performance.

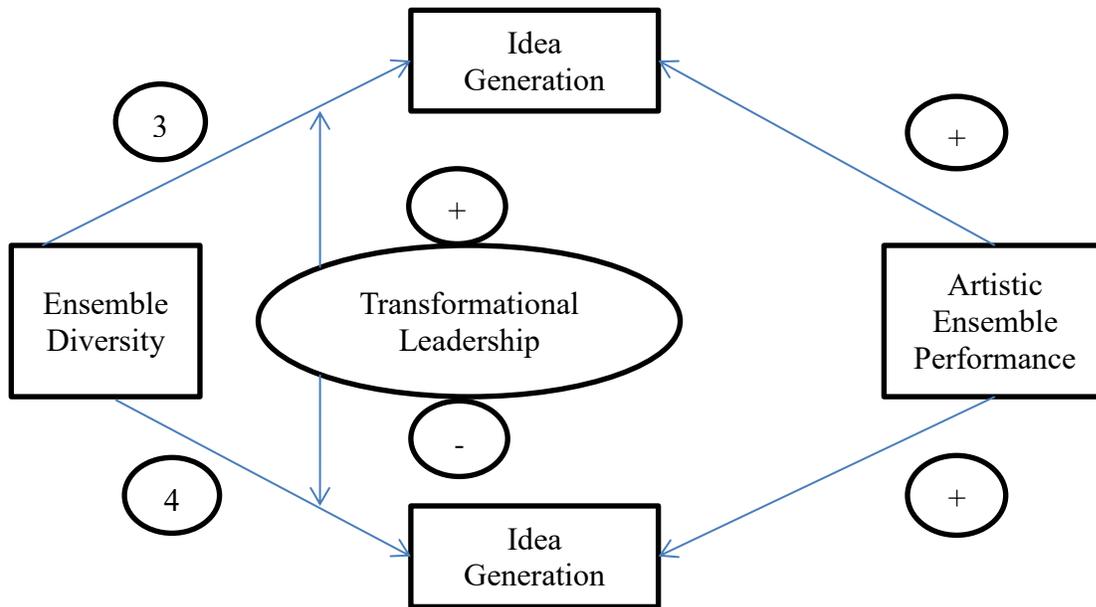


Figure 2 A diagram showing the role of transformational leadership in the performing arts (Boerner & Gebert, 2012)

Wood (2010b) conducted leadership research in the orchestral setting for dissertation work to complete the Doctor of Management in Organizational Leadership degree at the University of Phoenix. This study utilized the Bass and Avolio (2008) Multifactor Leadership Questionnaire, as well as several other instruments, and gathered data from 390 respondents sampled from 27 randomly selected orchestras throughout the United States (Wood, 2010b). The results of this study showed a statistically significant and positive relationship between transformational leadership of the conductor and musicians' job satisfaction. A statistically significant relationship was not shown between transactional leadership of the conductor and musicians' job satisfaction. Additionally, a statistically negative relationship was shown between passive/avoidance leadership of the conductor and musicians' job satisfaction.

## Additional Analysis

Review of the literature also revealed articles that analyzed the conductor role through varying means and theoretical contexts. Ropo and Sauer (2007) suggested that the position of the maestro “is created through the conductor’s relationships with the musicians, the audience, and the media” (p. 13). Conductor Roger Nierenberg stated that, “your job as a leader is to communicate a sense of how things could be - and to show people how to achieve that vision” (Rosenfeld, 2001, p. 46). Faulkner (1973) made several suggestions about the role of the conductor, including the necessity of mutual respect and trust between the conductor and musician. In addition, Faulkner (1973) viewed the relationship from the perspective of the musician, noting that musicians have expectations of the conductor to elevate collaborative consensus as well as to detect and correct musical errors. In a National Public Radio interview (Dudamel, 2010), Los Angeles Philharmonic conductor Gustavo Dudamel stated that,

when you are a leader, you have to learn how to work because you have to convince the people in front of you of your ideas. What I want from the musicians is that they enjoy what they are doing. (para. 9)

Dudamel’s (2010) understanding of the leadership process also highlights components of relationship and inspiration.

Hunt et al. (2004) utilized the competing values framework (Quinn & McGrath, 1982; Quinn & Rohrbaugh, 1983) to analyze what leadership capabilities are needed for conductors. The article does not provide a primary source of data, yet it does assist in an understanding of the conductor and musician relationship, as well as the importance of teamwork in the orchestral setting.

It is from this interplay between the conductor’s vision and the musicians’ application that we expect to derive additional insights for leadership. The way in which the orchestra both operates as a team and allows for individual expressions through solo parts

provides an opportunity to also examine our ideas on what makes for effective teamwork. (Hunt et al., 2004, p. 14)

### The American Orchestra: Historical Background

American orchestras have played an important role in the history and cultural development of the United States (Mueller, 1951). Public concerts in Boston, New York, and Charleston are noted as early as 1731-1733 (Mueller, 1951). From the St. Cecilia Society of Charleston in 1771, made up of amateur and professional musicians, to the Philharmonic Society of New York in 1799, instrumental musicians have come together to perform in the United States for several hundred years (Hubbard, 1908). Beginning in the mid-1800s to 1900, thirty-seven professional orchestras were founded, beginning with the New York Philharmonic in 1842 (Lang, 1961). “The long history of music in America is a saga of growth from the early embryonic dependence on the rich accumulation of European culture to the present era, which manifests an admirable degree of maturity, independence, and self-respect” (Mueller, 1951, p. 19).

Orchestra revenue in the United States totaled \$1.8 billion in the 2010-2011 season (League of American Orchestras, 2013). There are more than 1,800 symphony, chamber, collegiate, and youth orchestras throughout the United States that played to 24.5 million audience members in the 2010-2011 season (League of American Orchestras, 2013). Based on this information, the American orchestral organization appears to be an important economic and cultural component of communities throughout the nation.

However, unlike European orchestras, which rely on royal or industrial patronage, American orchestras have relied, and continue to rely, on community interest and civic pride (Mueller, 1951). American orchestras have developed alongside the American economy (Lang,

1961). The democratic principles of the American society have utilized ticket sales as the financial base of organizational income, with an emphasis on accessible ticket prices in order to reach a broad segment of the public (Lang, 1961). This economic development includes,

first the amassing of great personal fortunes, next the growth of tax structures that place restrictions on such fortunes, and as personal income becomes smaller the gradual assumption of voluntary financial responsibility of cultural affairs by the general citizenry, business, and industry. (p. 37)

Today, symphony orchestras need a variety of patronage in order to operate. Artistic, board, and management collaboration creates financial and artistic integrity, which lays the foundation for public and private support (Bathurst, Williams, & Rodda, 2007).

### Chattanooga Symphony & Opera

For more than 80 years, the Chattanooga Symphony and Opera (CSO) has performed throughout the Chattanooga region, giving its first public performance in 1933 (CSO, 2015). The CSO began from community interest by talented high school musicians throughout Chattanooga who sought opportunities to play music together with other classical musicians. The CSO was directed voluntarily for four years by Melvin Margolin and Borden Jones and in 1938 came under its first professional conductor from the Julliard School, Dr. Arthur Plettner (CSO, 2015).

The CSO continues to rely on community interest and civic pride to generate a revenue mix of ticket sales, sponsorships, donations, and grants. The CSO has an uncertain future, given economic and organizational challenges (Courter, 2013). National trends show that orchestral organizations have decreased attendance, as well as continued challenges of finding funding sources to fill in the gap between revenues generated and operational expenses (Courter, 2013; Kennicott, 2013; La Placa Cohen, 2011).

Given the significant challenges that American orchestral organizations are facing, analysis and study of leadership, group mood, and artistic quality within this context is important. The CSO was under the baton of Maestro Robert Bernhardt from 1992 to 2011, and is currently led by Maestra Kayoko Dan. The recent change in CSO musical leadership presents new opportunity for analyzing, researching, and creating new trends to move the CSO into the future.

### *The Audience*

A recent study by the La Placa Cohen (2011) organization suggests that the economy has significantly impacted cultural participation across the country since 2009. Fifty percent of the more than 4,000 respondents reported a decrease in attendance of cultural events from 2009 to 2011. Further research of the classical music experience could serve as foundational information in building strategies to reverse the decline in classical music attendance.

The National Endowment for the Arts (NEA) report (2009) showed 20.9 million United States adults attended 60.4 million classical music performances in 2008. This attendance number is down from 23.8 million U.S. adults attending 72.8 million performances in 2002. The NEA report further showed the demographic of classical music performances to be (a) predominantly college educated (i.e., 86.6% - 26.8% with some college, 32.2% college graduate, 26.6% graduate school) and (b) predominantly in the top annual income brackets of \$50,000 or more (72%). The age demographic shows a relatively standard bell curve, with the peak audience participation bracket as the 45 to 54-year-old audience attendee.

## *The Conductor*

As the American orchestral organization has evolved, so has the role of the conductor or maestro. In the early stages of the New York Philharmonic in the mid-1800s, the role of conductor rotated with each concert. Whether a guest conductor or a musician within the orchestra, the conductor began with little authority or noteworthy role past keeping the tempo in order to coordinate musicians' playing (Mueller, 1951). Beginning in the mid-1800s, the conductor role began an evolution from temporary and rather insignificant to the organizational figurehead that most American organizations utilize today (Mueller, 1951).

### Artistic Quality

Levinson (1980) states that “a piece of music is some sort of structural type, and as such is both nonphysical and publicly available” (p. 6). The primary mission of a symphony orchestra is public performance of the symphonic repertoire (Allmendinger et al., 1996). Further, the musician's perspective of orchestral organizational identity is that it is a “producer of high-quality classical music” (Glynn, 2000, p. 291). The nonphysical and publicly available nature of music, particularly in the orchestral context, lends itself to complex and varying understandings of defining its quality.

The American Society for Quality (1978) suggests that quality is the ability of goods or services to satisfy given needs. Evans and Lindsay (1999) suggest that meeting and exceeding customer expectations are central in defining quality (Gronroos, 1983; A. Parasuraman, Zeithaml, V. A., & Berry, L. L., 1985). Juran (1951) defines quality as “fitness for use” (p. 2). Quality can also be defined through the context of excellence or value (Abbott, 1955; Feigenbaum, 1951) or by conformance of a product or service to meet certain specifications or

requirements (Crosby, 1979; Gilmore, 1974; Levitt, 1972). Additionally, quality can be understood through the effort and investment necessary to create the best outcome (Tuchman, 1980). Reeves and Bedner (1994) evaluate definitions of quality in Table 1, Strengths and Weaknesses of Quality Definitions. “Quality is measured most precisely when defined as conformance to specifications; it is most difficult to measure when defined as excellence” (Reeves & Bednar, 1994, p. 435).

Table 1 Strength and Weaknesses of Quality Definitions

Definition	Strengths	Weaknesses
Excellent	<ul style="list-style-type: none"> <li>• Strong marketing and human resource benefits</li> <li>• Universally recognizable-mark of uncompromising standards and high achievement</li> </ul>	<ul style="list-style-type: none"> <li>• Provides little practical guidance to practitioners</li> <li>• Measurement difficulties</li> <li>• Attributes of excellence may change dramatically and rapidly</li> <li>• Sufficient numbers of customers must be willing to pay for excellence</li> </ul>
Value	<ul style="list-style-type: none"> <li>• Concept of value incorporates multiple attributes</li> <li>• Focuses attention on a firm's internal efficiency and external effectiveness</li> <li>• Allows for comparisons across disparate objects and experience</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty extracting individual components of value judgement</li> <li>• Questionable inclusiveness</li> <li>• Quality and value are different constructs</li> </ul>
Conformance to Specifications	<ul style="list-style-type: none"> <li>• Facilitates precise measurement</li> <li>• Leads to increased efficiency</li> <li>• Necessary for global strategy</li> <li>• Should force disaggregation of consumer needs</li> <li>• Most parsimonious and appropriate definition for some customers</li> </ul>	<ul style="list-style-type: none"> <li>• Consumers do not know or care about internal specifications</li> <li>• Inappropriate for services</li> <li>• Potentially reduces organizational adaptability</li> <li>• Specifications may quickly become obsolete in rapidly changing markets</li> <li>• Internally focused</li> </ul>
Meeting and/or Exceeding Expectations	<ul style="list-style-type: none"> <li>• Evaluates from customer's perspective</li> <li>• Applicable across industries</li> <li>• Responsive to market changes</li> <li>• All-encompassing definition</li> </ul>	<ul style="list-style-type: none"> <li>• Most complex definition</li> <li>• Difficult to measure</li> <li>• Customers may not know expectations</li> <li>• Idiosyncratic reactions</li> <li>• Short-term and long-term evaluation may differ</li> <li>• Confusion between customer service and customer satisfaction</li> </ul>

Quality can also be understood through cost assessment (Harrington, 1987). Quality costs are suggested to fall into four categories: prevention costs, appraisal costs, internal error, and external error. Prevention costs are costs incurred to prevent errors from being made. Appraisal costs are evaluation and measurement costs related to conformity of established criteria. Internal error, or internal failure, costs are costs that happen when errors are identified before the output is received by the consumer, while external error costs occur when the final output received by the consumer is an unacceptable product of service (Harrington, 1987). An exploratory study by Weisinger, Daily, and Holman (2006) utilized a cost of quality framework within arts and cultural organizations and found many benefits for decision making pertaining to affecting quality, including considerations for continuous quality improvement efforts.

Goldschmidt and Goldschmidt (2001) utilized the European Foundation for Quality Management (EFQM) model, due to its generic approach to quality, for a study of quality in the field of art. Four types of quality in the EFQM model include functional quality, material quality, craftsmanship, and emotional quality. The EFQM model was used to analyze quality of Ludwig van Beethoven's Symphony no. 5, Op. 67; Leonardo da Vinci's Mona Lisa; Filippo Taglioni's La Sylphide ballet; and Dondi White's Graffiti train. The study found the EFQM model to be appropriate for quality evaluation in the art sector and "a unique way to compare different works of art in a formalized fashion" (Goldschmidt & Goldschmidt, 2001, p. 435).

Weisinger, Daily, and Holman (2006) analyzed quality specifically within the performing arts and defined quality as "a subjective assessment of the degree of excellence of an artistic endeavor, which may or may not include customer expectations" (p.132). Radbourne, Johnson, Glow, and White (2009) proposed that the audience is a co-creator of value in the musical performance and "the quality of an artistic performance can be defined by the individual

audience member's personal definition of quality based on her or his experience of the performance" (p 22). Budiansky and Foley (2005) also submitted that the subjective nature of measuring quality is based on the individual listener's experience. Ivey (2005) used the terms artistic excellence and artistic quality interchangeably, and concurred with the subjective nature of excellence or quality, stating that "excellence is where you find it" (p. 6). Boyle (2007) proposed that technical level of orchestral playing and types of works performed are both considerations in artistic quality.

There are suggested challenges in defining quality within the artistic context. "Many defenders of the status quo suggest that it is impossible to define artistic quality" (Budiansky & Foley, 2005, p. 20). Schuster (1996) stated "the claim is made that artistic activities, which are based fundamentally on aesthetic principles and subjective judgment, are not amenable to traditional forms of evaluation" (p. 259). Further, the intangible nature of the symphony performance, supposed variable perception of quality of the performance, and perception of success or quality based on empty or full seats in the concert hall, all contribute to complexities in measurement of performance outputs (Myerscough, 1988).

However, there is wide acceptance of ranking top orchestras throughout Europe including the Berlin and Vienna Philharmonics, the Leipzig Gewandhaus, and others, as well as the Big Five in the United States, which includes the Boston, Chicago, Cleveland, New York, and Philadelphia (Clark, 2007). If it is possible for an orchestra to reach a level of elite status, thus suggesting a higher level of artistic quality, it would seem that it is also possible to define and measure artistic quality of an orchestra. From the orchestral musician perspective, "any course of action taken by the symphony will be evaluated according to the impact it has on the quality of the music performed by the orchestra" (Ruud, 2000, p. 125). Again, the suggestion that action

and decisions within the orchestral organization can positively or negatively impact the artistic quality (Ruud, 2000) suggests that there is an inherent, or overt, definition and evaluation process of artistic quality.

Additional understanding of artistic quality can be understood through definitions of poor quality. Budiansky and Foley (2005) analyzed musical compositions in the school band setting and suggested that poor artistic quality is,

formulaic, emotionally superficial, monotonously alike, dull, and didactic; that it fails to inspire students; and that by being removed from any genuine living musical tradition, classical or popular, it fails to provide students with a true musical education or the basis for further independent exploration of music, either as a performance or a listener. (p. 17)

A critical component in measuring the live orchestral performance is the audience experience (Radbourne et al., 2009). Weisinger, Daily, and Holman (2006) highlighted that the customer is a part of the artistic experience, thus adding a layer of complexity to the understanding of quality. Kushner and Brooks (2000) also focused on the nature of live artistic performance as a moment in time in which there is an interchange between the producer and consumer. "Performance is inherently a social process" (p. 67). Ruud (2000) suggested that there is a spiritual bond between the symphony and the audience or customer, and that the apex of this spiritual nirvana comes when artistic quality is the foundational focus of the symphony. Individual experience and personal definition of quality influence understanding of the quality of an artistic performance (Radbourne et al., 2009). The musical performance experience is suggested to involve the complete person and his/her physical, mental, and emotional responses to the experience (Lull, 1987). While there may be individualized understandings of artistic quality, it is also suggested that the emotional content of musical works is reliably agreed upon by listeners (Cochrane, 2010).

When considering the understanding of artistic quality within the musical experience, Sessions (1962) submits four stages of listening: hearing, reacting, understanding, and discriminating or differentiating. The understanding stage of the listening processes allows the listener to obtain the meaning of the music, and the final stage of discrimination, or differentiation, involves cultivating values from the musical experience (Sessions, 1962). The audience member, and the individual process of listening throughout the musical experience, informs the cultivation and understanding of artistic quality.

#### Artistic Quality Variables, Models, and Assessment

Boerner (2004) created an artistic quality model for an opera company that includes subjective and objective quality components that are shown in Figure 3. The model suggests a meta-criterion of performance quality including interactions of sub-factors, potential factors, and dimensions. The model (Boerner, 2004) displays the subjective and objective qualities of the composition as the basis for artistic quality. The components of sound, including intonation, articulation, and dynamics, as well as congruity of these factors within the performance itself are suggested in the model as factors in the perceived performance quality. Additionally, orchestral quality and solo quality in the musical dimension are suggested variables in artistic quality.

Boerner and Von Streit (2007) suggest that there is emotional and technical values created in the music-making process. Boerner and Jobst (2008) also suggest that perception of single components, as well as congruity or fit of the components, are important in assessing artistic quality.

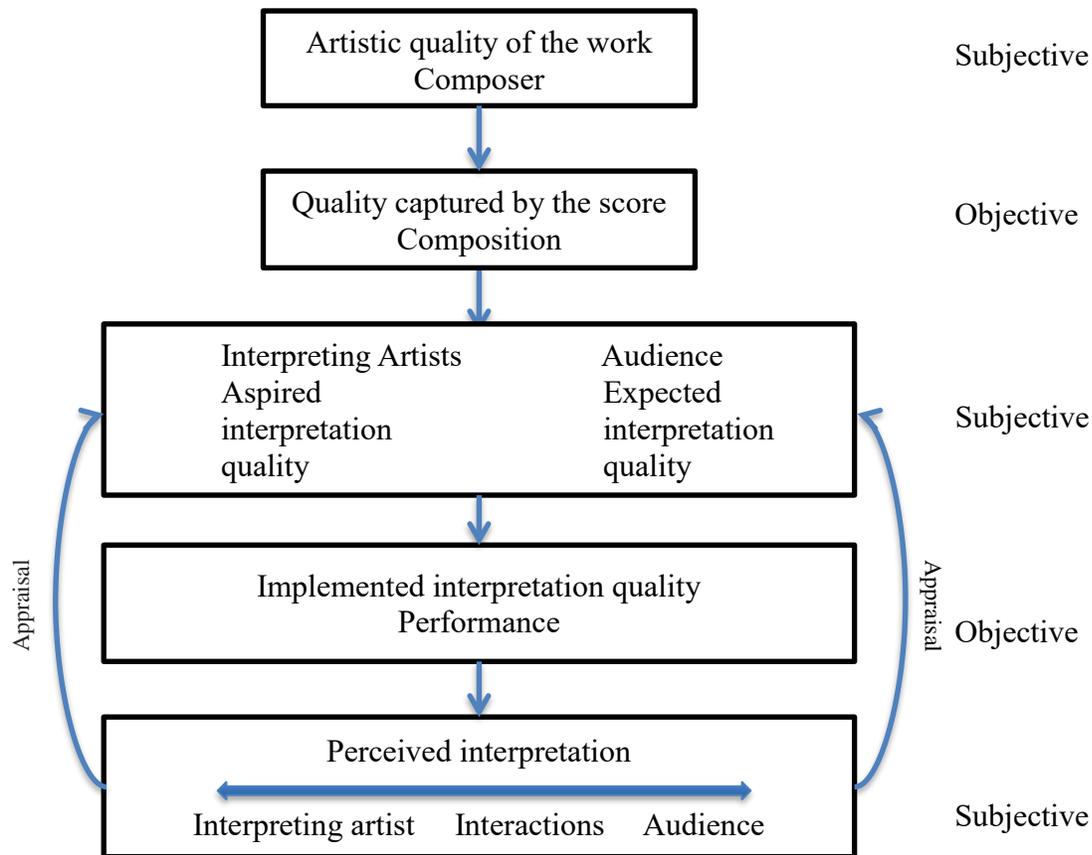


Figure 3 A flowchart showing the subjective and objective aspects of artistic quality in the opera company (Boerner, 2004)

Technical components of artistic quality assessment and measurement may include physiological, physical, and instrumental technique, as well as interpretation of the musical score during a performance (McPherson & Schubert, 2011). Physiological components include breathing, posture, and relaxation or tension (McPherson & Schubert, 2011). Physical elements include physical stamina and endurance, and sound and bodily coordination (McPherson & Schubert, 2011). Pacing of performance and ensemble coordination are included in instrumental technique (McPherson & Schubert, 2011). Emotional components may include expression, projection, and communication of the emotional character of the work (McPherson & Schubert, 2011). Musical institutions typically analyze technique, interpretation, expression, and

communication when assessing musical performance. Interpretation may include authenticity, accuracy, and musical consistency. Understanding and projection of the emotional character of the work are considerations within the expression assessment, and communication may include interactions between other members of the ensemble, confidence, and expressive projection. Norm referencing is used by ranking a performance in relation to other performances, and criterion-based assessment utilizes a pre-determined criterion to assess musical performance. It is still noted that it is erroneous to assert these assessments can accurately denote musical value (McPherson & Schubert, 2011).

Radbourne, Johnson, Glow, and White (2009) suggest artistic quality measures may include the following: critical reviews, peer assessment, value of earned income, access for audiences, attendance numbers, number of performances, and number of new works. Particular to measuring quality of the audience experience are knowledge/information transfer or learning, risk management, authenticity and performer interaction, and collective engagement. “Audience members usually perceive quality as much more than simply having their expectations met, and hence-because of the various meanings of satisfaction, we will talk in terms of engagement” (Radbourne et al., 2009, p. 19).

Evans (1999) considers simplistic market analysis and subjective artistic judgment as possible measurement tools in the performing arts. Pignatoro (2011) proposes that performance indicators in the arts sector are complex due to the various aspects of performance within the cultural institution. However, performance indicators can provide valuable information in understanding, evaluating, and interpreting the performance. Schuster (1996) considers four uses of performance including affecting behavior, evaluating behavior, monitoring behavior, and inferring behavior, as a basis for performance indicators in the arts. “The move toward all four

uses of performance indicators is encouraging. It represents a growing maturity within the field and an increased willingness to expose its operations to public debate” (Schuster, 1996, p. 267).

### *Quality and the Nonprofit/Organizational Considerations*

A nonprofit organization exists to further its mission as stated in the formational articles of incorporation (Fishman & Schwartz, 2006).

Since the mission of performing arts organizations is generally at enriching the cultural environment through artistic achievement, the performance measurement system they use should put more emphasis on the quality of live performances or customer satisfaction than on financial metrics. (Turbide & Laurin, 2009, p. 56)

As nonprofit arts organizations, symphony orchestras have unique considerations when promoting artistic quality. There is a “cost disease associated with the live performing arts” (Mauskapf, 2013, p. 560). In addition to main stage performances, symphony organizations must also provide educational, cultural, and social services to the community (Pompe, Tamburri, & Munn, 2013). These services often do not have direct revenue streams to offset expenses and can exacerbate the cost disease challenges that already exist in providing quality main-stage performances (Pompe et al., 2013). Quality considerations, such as adequate rehearsal time, rehearsal space, and performance venue, increase orchestral organization costs (Lunden, 1969).

Lange and Lukeish (1984) highlighted the complexities of nonprofit performing arts organizations in that they are “output maximizers, quality maximizers, or that they maximize some combination of the two goals” (p. 29). Organizational financial constraints and challenges

in the performing arts organization can impact focus on the artistic quality and balance between appropriate levels of outputs and quality (Turbide & Laurin, 2009). Owen (1979) stated that,

the interaction of quality supply and quality demand would seem to indicate that as an artist becomes popular, the quality of his work declines. The attempt to fill an ever increasing demand causes him to sacrifice quality for quantity on his quality/quantity trade-off. (p. 32)

Kushner and Poole (1996) explored the structure-effectiveness relationship within the nonprofit arts organizations and state “organizational effectiveness evaluations compare organizational performance to existing standards and to the performance of other organizations” (p. 121). Kaplan and Norton (1992) suggest a balanced scorecard concept as a multidimensional tool for measuring performance. The balanced scorecard includes customers, growth and innovation, internal business process and perspectives, and the financial perspective as an effective approach in performance measurement (Kaplan & Norton, 1992).

Artistic quality measurement in the symphony organization is not only an internal consideration. Policy-makers, government funding agencies, foundations, and sponsors utilize quality measurement when deciding how, and to what extent, to fund a symphony organization (Radbourne et al., 2009).

### Musician Group Mood

A group is defined as a collection of individuals who have an incentive to come together as a collection (Bass, 1960). Organizational behavior, and individual behavior, is impacted by mood and emotional states (Bartel & Saavedra, 2000; George & Brief, 1992; Kelly & Barsade, 2001). Within an orchestra, players must synchronize performance with group members of the orchestra as a whole, as well as within sub-groups of their specific instrument section (Fetter,

1993). The orchestra group context is foundational to the coordination of the emotional and technical components of music-making (Boerner & Freiherr, 2005).

“A mood is a transient reaction to specific encounters with the environment, one that comes and goes depending on particular conditions” (Lazarus, 1991, p. 47). Schwarz and Clore (1996) suggest that principal qualities of mood include an unfocused and diffuse nature. Similarly, Wood, Saltzberg and Goldsant (1990) define mood as a pervasive, undirected affective state. Watson (2000) concurs with the momentary nature of mood. Additionally, moods do not demand the total attention of an individual or group (George & Brief, 1992). Poon (2001) states that mood functions to “signal, label, or define the qualitative state of one’s being in relation to the perceived environment and to the needs and values within oneself” (p. 362). Internal and external causes that influence mood may include factors of biochemistry, psychophysiology, personality traits, cognitive appraisals, external events, and physical environment (Poon, 2001).

Within music, Meyer (1957) suggested that mood influences and transforms the “affective experiences evoked by the musical process” (p. 269). Therefore, when considering mood among musicians within the symphony orchestra, it is additionally noted that music affects emotions (Poon, 2001). Group mood within the symphony orchestra has the additional consideration that those being studied are actively engaged in activity that is both a demand of their profession and a mood-affecting activity (Poon, 2001).

Orchestra musicians have a professional identity that includes belonging to the orchestral group of musicians with whom they play (Maitlis & Ozcelik, 2004). Orchestral musicians are specialized personnel who work together in an elaborate, cooperative mode (Becker, 1974), and are considered to have strong emotional personality (Fetter, 1993). Synchronized thoughts,

feelings, and behavior are suggested as foundational to producing coordinated action (Hackman, 1992). Further, coordinated action toward a common goal may be facilitated by shared affect (Spoor & Kelly, 2004, p. 401).

Bartel and Saavedra (2000) suggest that group moods in the workplace are created socially. Task and social/emotional components exist within a group setting (Bales, 1950), and music performance is social in nature, as well as action-oriented (Becker, 1974). Group members' emotional intrinsic attractiveness or averseness and energy can influence group-level outcomes including task performance and cooperation (Barsade, 2000).

In addition to the mood of an individual, mood within a group is a collective phenomenon (Lehmann-Willenbrock, Meyers, Kauffeld, Neining, & Henschel, 2011). Emotional convergence may occur within a group given the collective, social, dynamic, and interactive nature of mood and emotions (Hatfield, Cacioppo, & Rapson, 1994). Forgas and George (2001) suggest a group affective tone as shared affective responses within a group. Within the context of the group or organization, Williams and Shiaw (1999) found positive affect to significantly influence intentions of people to contribute to activities that are organizationally desirable.

Mood may also be understood through review of mood measurement tools. The measurement of mood model in Figure 4 demonstrates a two-factor structural model of mood-utilizing pleasure/displeasure and high/low arousal (Matthews, Jones, & Chamberlain, 1990). The measurement of mood model (Matthews et al., 1990) builds on the work of Thayer (1978), Mackay, Cox, Burrows, and Lazzarini (1978), and Watson and Tellegen (1985) in understanding the nature of mood and providing a model for its measurement.

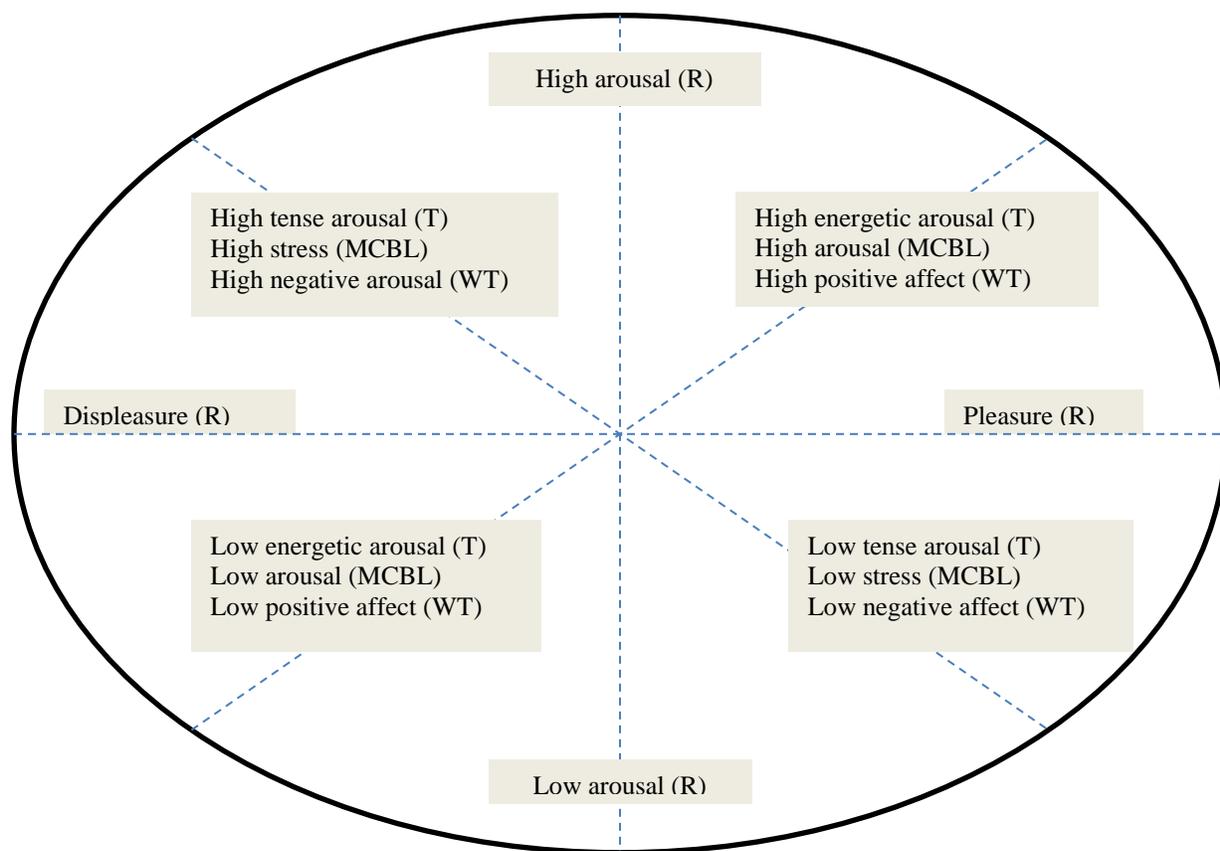


Figure 4 The measure of mood: a two-factor structural model of mood utilizing pleasure/displeasure and high/low arousal

Profile of mood states (POMS) utilizes a unipolar method with six subscales to measure mood (McNair et al., 1971). The six subscales are tension, depression, anger, vigor, fatigue and confusion (McNair et al., 1971). Shacham (1983) created an additional version of the POMS (McNair et al., 1971) using the same sub-scales but with fewer assessment items. Grove and Prapavessis (1992) also created a revised POMS assessment with an additional subscale of esteem.

In addition to considering assessment of individual mood, Parasurman and Purhoit (2000) conceptualize the impacts of individual and group mood variables on job attitudes within the

orchestra. Parasurman and Purhoit (2000) display moderator variables, orchestra stressors, and job attitudes in Figure 5. Physical environment, cognitive appraisals, psycho-pysciology, and external events are all orchestra stressors (Poon, 2001) within the Parasurman and Purhoit (2000) figure. Adding complexity to the group mood dynamic within the orchestral setting is the sub-group context of the musician groups that are separated by instrument type and musical role within the orchestral score (Langendörfer, 2008). Parasurman and Purhoit (2000) show this variable in Figure 5 as a moderating variable that can impact orchestra stressors and job attitudes. The orchestra stressors and moderating variables are shown to impact job attitudes and assist in understanding individual and group mood within the orchestra.

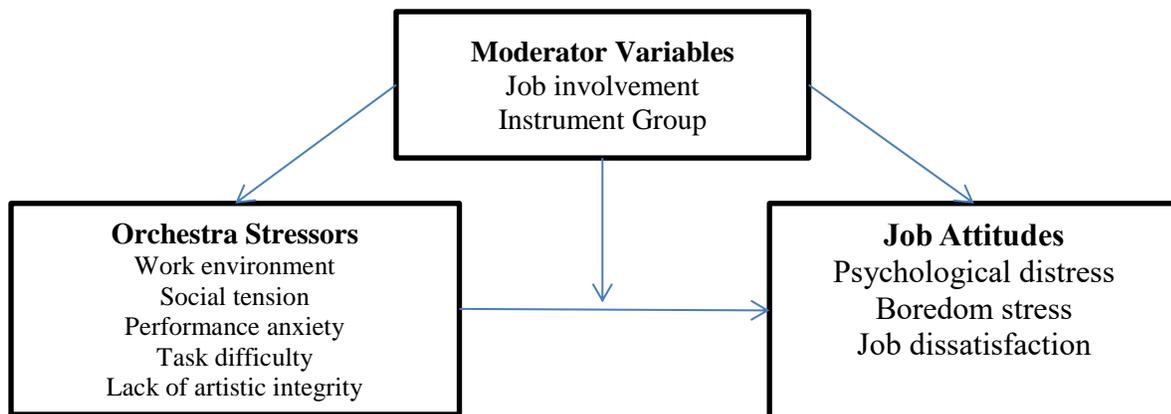


Figure 5 A conceptual model of musician stress and well-being

### Additional Group Mood Studies

Thompson, Schellenberg, and Hussain (2001) considered mood and arousal within a study utilizing the Mozart Effect. The Mozart effect suggests that listening to the music of Mozart, particularly Sonata for Two Pianos in D Major, K 448, improves test performance and short-term spatial-temporal reasoning (Rauscher, Shaw, & Ky, 1995). The study (Thompson et al., 2001) found that the musical excerpts of Mozart positively impacted short-term spatial-temporal reasoning; whereas, there was no impact from listening to the sad music of Albinoni Adagio in G Minor for Organ and Strings. Thompson, Schellenberg, and Hussain's (2001) research found that the Mozart effect could be explained through the positive mood and arousal states created by the pleasing stimuli, thus suggesting that mood impacts behavior.

Terry, Pink, Lane, Jones and Hall (2000) explored mood and perceptions of group cohesion in 415 members of rowing, rugby, and netball athletic teams using the Profile of Mood States (McNair et al., 1971) and Group Environment Questionnaires (Widmeyer, Brawley, & Carron, 1985). The study used predictive consideration of task and social components of group attraction and group cohesion on the outcome of mood (Terry et al., 2000). Research by Terry et al. (2000) research shows that perception of higher levels of group task, attraction, and cohesion are associated with lower levels of negative mood. This research demonstrates connection between group interaction and mood. Bramesfeld and Gasper (2008) researched mood and group decision-making and found that happy moods encourage group performance, assist in moving participants beyond individual preferences, and create a broader focus on group information. Additionally, the research showed possible connection between mood and group performance.

Bates, Thompson, and Flanagan's (1999) research focused on mood and memory in 79 undergraduate university students. Key components include the ability of the mood of a group to

be altered, thus group mood is possible, and the effectiveness of music as a mood induction tool (Teasdale & Dent, 1987). As part of the Bates et al. (1999) study, three separate pieces of classical music were utilized for mood induction. Prokofiev's "Russia Under the Mongolian Yoke," Krawfwerk's "Kling Klang," and the Largo movement of Dvorak's "New World Symphony," were used for depressive mood induction, neutral mood induction for the individual, and neutral mood induction for the group, respectively. The findings revealed group and individual induced mood state through a combination of Velten's (1968) statements and music.

(Totterdell, Kellett, Teuchmann, & Briner, 1998) conducted a study of 65 nurses in 13 teams and found a significant association between individual mood and collective team mood. In another study, Totterdell (2000) analyzed two professional cricket teams and found collective activity and individual player happiness to be connected to group mood. Additionally, Bittman, Buhn, Stevens, Westengard, and Umbach (2003) considered group, music-based activities as an intervention tool for mood disturbances and mood states. Significant improvements were found in the mood states and total mood disturbances of the 125 men and women in the study due to group, music-making interventions.

Symphonic music and group mood are collaborative, collective and social in nature (Becker, 1974). The coordinated action needed in producing symphonic music is connected to a harmonized group mood (Hackman, 1992; Spoor & Kelly, 2004). Understanding of group mood within the orchestra assists in the study of the relationship between positive group mood among musicians, the conductor's transformational leadership, and artistic quality.

## Summary

The variables of transformational leadership, musician group mood, and artistic quality are part of the classical music experience (Boerner & Freiherr, 2005), and review of the literature provides a foundational understanding of these variables within the American orchestra, which informs this study. Additionally, review of the literature highlights the opportunity for further study of transformational leadership within the context of the American orchestra, given the relatively small variety of studies on the topic. Transformational leadership as a process that can change performance and relationships lends itself to the context of the American orchestra, the conductor, the musicians, and the artistic performance outcome. This study was designed to examine the relationship between the variables of transformational leadership, group mood, and artistic quality as perceived by the members of the orchestra in order to better understand the live performance experience.

## CHAPTER III

### METHODOLOGY

#### Description of Population and Sample

The Chattanooga Symphony & Opera (CSO) population of the A, B, and C contract players, as well as substitute players, were used for this study. These A, B, and C contract players receive an annual or multi-year contract from the CSO organization for a specified number of services. A service within this context is a three-hour timeframe for rehearsal or performance. Level A contract players are guaranteed payment for 192 services annually. Level B contract players are guaranteed payment for 90 services annually. Level C contract players are guaranteed payment for 30 services annually. Based on the orchestral repertoire to be performed on a given concert, substitute players are hired on an as-needed basis. This census includes approximately 75 CSO musicians. Substitute players are often used for performances depending on the musical score selection as well as availability of the contract players.

#### Identification of Variables

An identification and analysis of variables (see Appendix A) shows a description and scale of measurement for the independent, dependent, and extraneous variables. The dependent variable in this study is the musicians' perception of artistic quality. The two independent variables are the perception of conductor's transformational leadership and the perception of musician group mood. The independent and dependent variables were measured using a 135-item questionnaire, which uses a 7-point Likert scale of measurement.

Extraneous, nominal variables included musical instrument, a musician's section within the orchestra, musician function, gender, and musician contract level. Extraneous, scale variables included number of years a musician has played with the orchestra and age of the musician.

### Instrumentation

Dr. Sabine Boerner, Chair of Management at the University of Konstanz in Germany, created and utilized a research instrument to measure the orchestra conductor's transformational leadership, musician group mood, and artistic quality (Boerner & Von Streit, 2007). The researcher contacted Dr. Boerner and received permission for the use of the research instrument (see Appendices B, C, and D for complete correspondence). The research instrument was sent to the researcher for use in this study (see Appendix E). The questionnaire is a 135-item questionnaire, which uses a 7-point scale of interval measurement. The questionnaire is estimated to take between 15-20 minutes to complete.

### Research Design

The framework for this study was a quantitative design using simple correlation analysis. This research utilized the research questionnaire used in Boerner and Von Streit's (2007) study in order to examine the relationship of the transformational leadership process and group mood among musicians on artistic quality within the CSO organization. The 135-item questionnaire was completed by CSO musicians and used a 7-point scale to measure the perception of the conductor's transformational leadership, group mood among musicians, and artistic quality.

Translation of the research instrument from German to English provides a threat to content validity. The researcher triangulated the translation by having the instrument translated by three different parties, with a subsequent expert review and final compilation of the three translations. An additional threat to content validity included the attempt of the instrument to measure the reaction of third parties to the orchestra's artistic achievement. The instrument was therefore not attempting to measure actual artistic achievement, but reaction of a third party to the musical performance.

Boerner and Von Streit's (2007) study produced high internal consistency measures using Cronbach's Alpha, with a measure of .73, .94, and .94 for variables 1, 2, and 3, respectively. In addition, the original study was published in the well-ranked, peer-reviewed journal, *Psychology of Music*. It was the intent of the researcher to find a research instrument that would provide a solid foundation of reliability and validity for the research design. It is believed that this research instrument provides a solid foundation of research that will further the understanding of leadership in a representative American orchestral organization.

The researcher currently serves on the Board of Directors for the Chattanooga Symphony & Opera (CSO). This position assisted in gaining access to the target population for the study. A first step in the process included getting permission to conduct the research from the CSO board president, the CSO conductor, and the president of the Local 80 American Federation of Musicians (AFM) Union. In addition to confirming approval to conduct the research with the CSO musicians, the researcher completed the steps to submit a research proposal to the University of Tennessee at Chattanooga (UTC) Institutional Review Board (IRB).

Following approval from the CSO musicians and the UTC Institutional Review Board to conduct the research, the researcher requested time at a CSO concert rehearsal from the CSO

conductor and the president of the Local 80 AFM union to make an announcement requesting participation from the CSO musicians in this study. Next, the researcher sent the questionnaire to the musicians via email, with two follow-up reminders to complete the questionnaire.

The data were aggregated into mean scores for each construct: transformational leadership, group mood of the musicians, and the artistic quality of the orchestra.

A calculated column for conductor's transformational leadership was created using two items for each of the three components of transformational leadership including charisma, inspirational motivation, and intellectual stimulation (Boerner et al., 2007; Boerner & Von Streit, 2007). Within the conductor portion of the survey, the six questions used to measure transformation leadership include the following:

- charisma (has charisma; we are proud to work with him);
- inspirational motivation (clarifies his objectives with imagery and gestures; makes it clearly understandable to us what he wants of us);
- intellectual stimulation (often makes completely new, convincing suggestions for interpretation; enables us to see familiar works in a new light (Boerner & Von Streit, 2007).

A calculated column for group mood was created using eight questions from the survey instrument (Boerner & Von Streit, 2007). Within the orchestral colleagues portion of the survey, the eight questions used to measure group mood include perceptions of how orchestra colleagues viewed one another: at odds, likeable, incompetent, different groups within the orchestra sticking together, pleasant, tensions between the instrument groups, good team and rivalry among colleagues. Reverse coding was used for points at variance, incapable, lazy, and there are tensions between the sections in order to reverse their polarity. Following reverse coding of

these four questions, an aggregate mean of these eight-items was calculated into a new column and given the title of group mood.

A calculated column for artistic quality was created using five items from the artistic quality section of the survey. These five questions include the following:

- the audience usually judges the quality of our orchestra to be;
- other collaborators usually judge the quality of our orchestra to be;
- the press usually judges the quality of our orchestra to be;
- guest conductors usually judge the quality of our orchestra to be;
- in comparison with other orchestras of the same category, the artistic quality of our orchestra is (Boerner & Von Streit, 2007).

Reverse coding was utilized for all 5 questions in order to reverse their polarity. Following reverse coding of these 5 questions, an aggregate mean was calculated into a new column and given the title of artistic quality.

## Methodology

Simple correlation was used for Research Questions 1, 2, and 3 to identify if there is a relationship between the independent and dependent variable within each hypothesis. The Pearson correlation coefficient provides a “standardized measure of the strength of the relationship between two variables” (Field, 2009, p. 791). Additionally, analysis of variance (ANOVA) examines difference in perceptions based on extraneous variables including contract levels, length of professional orchestral experiences, and musical instrument played. T-test was used to analyze any differences in perceptions based on gender. If the correlation analysis

showed the variables to have a relationship, regression analysis was used to further examine the relationships.

Multiple regression analysis may assist in understanding the main effect and interaction effect between the independent and dependent variables. Multiple regression is used to predict values of an outcome from several predictors and creates a hypothetical model of relationship between several variables (Field, 2009). In this study there are two main effects and an interaction effect. Main effect is defined as “the unique effect of a predictor (or independent variable) on an outcome variable” (Field, 2009, p. 789). The interaction effect is the “combined effect of two or more predictor variables on the outcome variable” (Field, 2009, p. 788). The main effects consider how the conductor’s transformational leadership affects artistic quality, as well as how musician group mood affects artistic quality. The interaction effect considers how both the conductor’s transformational leadership and musician group mood interact with artistic quality.

Research Question 1 explored the correlation between perception of artistic quality of an orchestra and perception of the presence of the conductor’s transformational leadership. The Pearson’s *r* correlation analysis was performed in order to determine if there is a significant relationship between perception of artistic quality of an orchestra and perception of the presence of the conductor’s transformational leadership. Additionally, ANOVA examines differences in perceptions based on extraneous variables including contract level, length of professional orchestral experience, and musical instrument section.

Research Question 2 explored the correlation between perception of positive group mood among the musicians and the perception of the presence of the conductor’s transformational leadership. The Pearson’s *r* correlation analysis was performed in order to determine if there was

a significant relationship between perception of positive group mood among the musicians and the perception of the presence of the conductor's transformational leadership. Again, ANOVA examines differences in perceptions based on extraneous variables including contract level, length of professional orchestral experience, and musical instrument section.

Research Question 3 explored the correlation between the perception of the positive group mood among musicians and the perception of artistic quality. The Pearson's  $r$  correlation analysis was performed in order to determine if there was a significant relationship between perception of positive group mood among the musicians and the perception of the perception of artistic quality. ANOVA examines differences in perceptions based on extraneous variables including contract level, length of professional orchestral experience, and musical instrument section.

Upon review of data, the researcher considered Research Question 4 to analyze differences among groups. The t-test was performed in order to determine if there was a relationship between gender and perceptions of leadership, group mood and artistic quality. ANOVA examines differences in perceptions based on contract level and musical instrument section.

## Summary

The research design for this study was a quantitative design using simple correlation analysis. The intent of this study was to understand how the independent and dependent variables covary, and therefore a non-experimental, associational approach was used (Gliner et al., 2009). Given the two independent variables within this study, the conductor's transformational leadership and musician group mood, associational inferential statistics was

used to analyze the data collected (Gliner et al., 2009). The Pearson correlation coefficient, ANOVA, and the t-test, were used to accept or reject each hypothesis. The CSO musicians served as the population for this study. The 135-item research questionnaire used in the Boerner and Von Streit (2007) study was used to examine the relationship between the variables of transformational leadership, artistic quality, and musician group mood.

## CHAPTER IV

### RESULTS AND ANALYSIS

#### Introduction

The purpose of this study was to examine the relationship between the independent variable of transformational leadership, the independent variable of group mood, and the dependent variable of artistic quality in the orchestral context.

The population for this study included CSO musicians: 10, A contract players; 16, B contract players; 16, C contract players; and 11, substitute players. This CSO musician population was hired to perform in the CSO performance Beethoven's Choral Fantasy on Thursday, October 20, 2016 at the Tivoli Theatre. Within this population 27 musicians began the survey but only 23 completed the survey. The four incomplete attempts were excluded from this study making the sample size 23. The 23 completed surveys represent 16 female and seven male participants. Within this sample, the average number of years that the musician has played for the CSO equals 11.2, and the average number of total years employed as an orchestra musician equals 16.7. Additionally, of this sample, 18 play in the strings section, four play in the woodwinds section, and one survey participant did not provide section information.

Four research questions were developed to guide this study, and three research hypotheses were tested. A 7-point Likert scale of measurement was utilized in this research instrument. The highest level of agreement, or positive value, has a score of 1, and the lowest level of agreement, or negative value, has a score of 7. Descriptive statistics analysis shows the

mean values for artistic quality, group mood and transformational leadership. Out of a scale of 1 to 7, with 1 being positive and 7 being negative, the mean scores for the independent and dependent variables are as follows: artistic quality = 3.26, group mood = 2.92, transformational leadership = 4.38.

Table 2 Descriptive Statistics for Artistic Quality, Group Mood and Transformational Leadership

		Statistic	Std. Error	Bias	Bootstrap <sup>a</sup>		
					Std. Error	95% Confidence Interval	
					Lower	Upper	
Artistic Quality	N	22		0	0	22	22
	Minimum	1.00					
	Maximum	5.00					
	Mean	3.2636		.0029	.2382	2.7818	3.7364
	Std. Deviation	1.11336		-.03626	.12687	.83255	1.31685
	Variance	1.240		-.063	.273	.693	1.734
	Skewness	-.287	.491	.052	.363	-.942	.458
	Kurtosis	-.798	.953	.033	.538	-1.543	.459
Group Mood	N	22		0	0	22	22
	Minimum	1.50					
	Maximum	4.88					
	Mean	2.9205		-.0050	.2115	2.5057	3.3295
	Std. Deviation	.99892		-.02766	.09844	.76715	1.15673
	Variance	.998		-.045	.191	.589	1.338
	Skewness	.208	.491	-.038	.370	-.563	.909
	Kurtosis	-1.109	.953	.043	.452	-1.774	.064
Transformational Leadership	N	22		0	0	22	22
	Minimum	1.17					
	Maximum	6.67					
	Mean	4.3788		.0061	.3019	3.7576	4.9619
	Std. Deviation	1.41438		-.04865	.20535	.94501	1.75867
	Variance	2.000		-.093	.557	.893	3.093
	Skewness	-.566	.491	.034	.387	-1.331	.238
	Kurtosis	-.019	.953	.020	.915	-1.219	2.341
Valid N (listwise)	N	22		0	0	22	22

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

## Research Question 1

Is there a relationship between artistic quality as perceived by the members of the orchestra and the perceived presence of the conductor's transformational leadership?

H<sub>1</sub> – There is a significant relationship between the artistic quality of an orchestra to the presence of the conductor's transformational leadership.

The Pearson's r correlation was performed to determine if there was a significant relationship between perception of artistic quality of an orchestra and perception of the presence of the conductor's transformational leadership. As illustrated in Table 3, the Pearson's r correlation shows a p value of .146. The null hypothesis was accepted because the correlation did not show a relationship of significance between artistic quality and the conductor's transformational leadership.

Table 3 Pearson Correlation Analysis for Research Question 1

		Artistic Quality	Transformational Leadership
Artistic Quality	Pearson Correlation	1	0.321
	Sig. (2-tailed)		0.146
	N	22	22
	Bootstrap <sup>c</sup>	0	-0.01
	Std. Error	0	0.211
	95% Confidence Interval Lower	1	-0.1
	Upper	1	0.695
Transformational Leadership	Pearson Correlation	0.321	1
	Sig. (2-tailed)	0.146	
	N	22	22
	Bootstrap <sup>c\</sup>	-0.01	0
	Std. Error		
	95% Confidence Interval Lower	0.211	0
	Upper	-0.1	1
		0.695	1

Research Question 2

Is there a relationship between musician group mood and the perceived presence of the conductor’s transformational leadership?

H<sub>2</sub> – There is a significant relationship between the positive group mood among the musicians to the presence of the conductor’s transformational leadership.

The Pearson’s r correlation was performed to determine if there was a significant relationship between perception of musician group mood and perception of the conductor’s transformational

leadership. As illustrated in Table 4, the Pearson's r correlation shows a p value of .064. The null hypothesis is accepted because the correlation does not show a relationship of significance between positive group mood among the musicians and the conductor's transformational leadership.

Table 4 Pearson Correlation for Research Question 2

		Transformational Leadership		Group Mood	
Transformational Leadership	Pearson Correlation	1		.402	
	Sig. (2-tailed)			.064	
	N	22		22	
	Bootstrap <sup>c</sup>	Bias	0		-.030
		Std. Error	0		.196
	95% Confidence Interval	Lower	1		-.074
		Upper	1		.680
Group Mood	Pearson Correlation	.402		1	
	Sig. (2-tailed)	.064			
	N	22		22	
	Bootstrap <sup>c</sup>	Bias	-.030		0
		Std. Error	.196		0
	95% Confidence Interval	Lower	-.074		1
		Upper	.680		1

c. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

### Research Question 3

Is there a relationship between musician group mood and artistic quality as perceived by members of the orchestra?

H<sub>3</sub> – There is a significant relationship between the positive group mood among the musicians to the presence of the artistic quality.

The Pearson's r correlation was performed to determine if there was a significant relationship between perception of musician group mood and perception of artistic quality. As illustrated in Table 5, the Pearson's r correlation is .547 and the p value is .008. With a criterion of .05 or less as a measure of significance, a value of .008 shows a significant relationship. The null hypothesis is rejected because the correlation shows a relationship of significance between positive group mood and artistic quality.

Table 5 Pearson Correlation for Research Question 3

		Group Mood	Artistic Quality		
Group Mood	Pearson Correlation	1	.547**		
	Sig. (2-tailed)		.008		
	N	22	22		
	Bootstrap <sup>c</sup>	Bias	0	-.009	
		Std. Error	0	.149	
		95% Confidence Interval	Lower	1	.197
			Upper	1	.795
Artistic Quality	Pearson Correlation	.547**	1		
	Sig. (2-tailed)	.008			
	N	22	22		
	Bootstrap <sup>c</sup>	Bias	-.009	0	
		Std. Error	.149	0	
		95% Confidence Interval	Lower	.197	1
			Upper	.795	1

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

c. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

#### Research Question 4

Are there differences among groups within the orchestral context (e.g., contract level, instrument section, gender)?

ANOVA analysis examined differences in perceptions based on extraneous variables including contract level and musical instrument section. The ANOVA analysis comparing the means of transformational leadership and contract level shows the p value of .886. With a criterion of .05 or less as a measure of significance, a value of .886 shows that there is not a significant difference between contract level, whether salaried player or substitute player, as relates to perception of transformational leadership.

Table 6 Descriptives and ANOVA Analysis for Research Question 4: Transformational Leadership and Musician Contract Level

**DESCRIPTIVES**

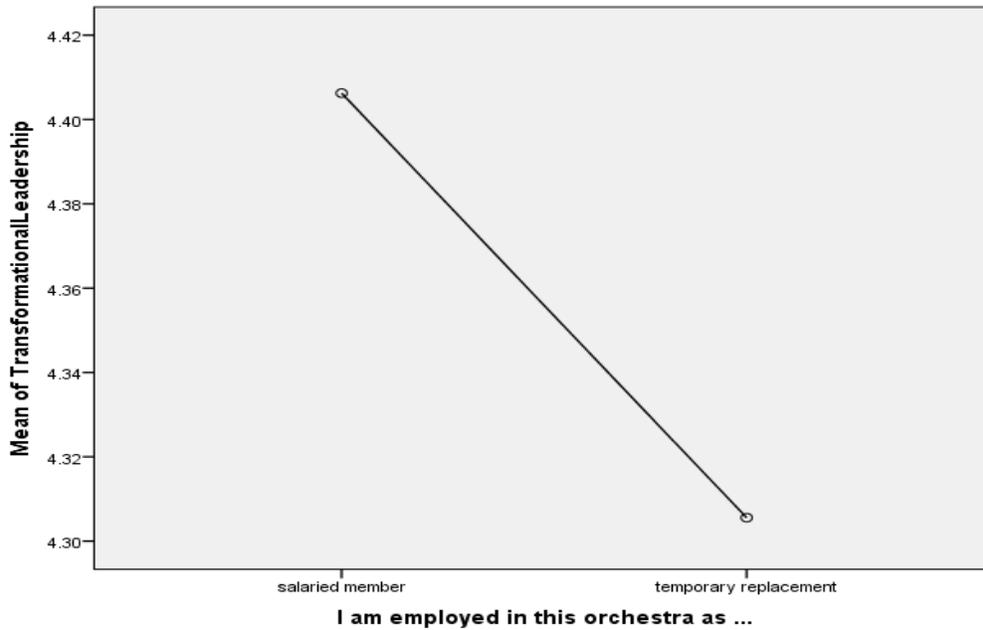
Transformational Leadership

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Salaried Musician	16	4.4063	1.61929	.40482	3.5434	5.2691	1.17	6.67
Substitute Musician	6	4.3056	.72585	.29633	3.5438	5.0673	3.17	5.00
Total	22	4.3788	1.41438	.30155	3.7517	5.0059	1.17	6.67

**ANOVA**

Transformational Leadership

			Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	(Combined)		.044	1	.044	.021	.886
	Linear Term	Unweighted	.044	1	.044	.021	.886
		Weighted	.044	1	.044	.021	.886
Within Groups			41.966	20	2.098		
Total			42.010	21			



The ANOVA analysis comparing the means of transformational leadership and musical instrument section shows a value of .574. With a criterion of .05 or less as a measure of significance, a value of .574 shows that there is not a significant difference between instrument section, whether strings or woodwinds/brass, as relates to perception of transformational leadership.

Table 7 Descriptives and ANOVA Analysis for Research Question 4: Transformational Leadership and Musical Instrument Section

**Descriptives**

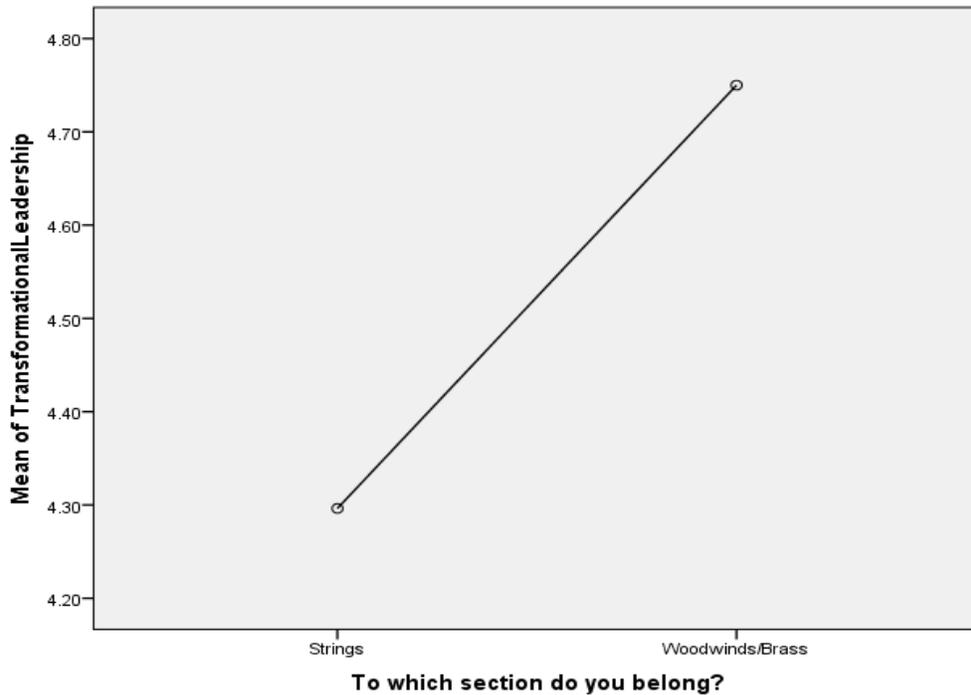
Transformational Leadership

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Strings	18	4.2963	1.33033	.31356	3.6347	4.9579	1.17	6.50
Woodwinds/Brass	4	4.7500	1.93649	.96825	1.6686	7.8314	2.17	6.67
Total	22	4.3788	1.41438	.30155	3.7517	5.0059	1.17	6.67

**ANOVA**

Transformational Leadership

			Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	(Combined)		.674	1	.674	.326	.574
	Linear Term	Unweighted	.674	1	.674	.326	.574
		Weighted	.674	1	.674	.326	.574
Within Groups			41.336	20	2.067		
Total			42.010	21			



ANOVA analysis examined differences in perceptions based on extraneous variables including contract level and musical instrument section. The ANOVA analysis comparing the means of group mood and contract level shows the p value of .326. With a criterion of .05 or less as a measure of significance, a value of .326 shows that there is not a significant difference between contract level, whether salaried player or substitute player, as it relates to group mood.

Table 8 Descriptives and ANOVA Analysis for Research Question 4: Group Mood and Musician Contract Level

**Descriptives**

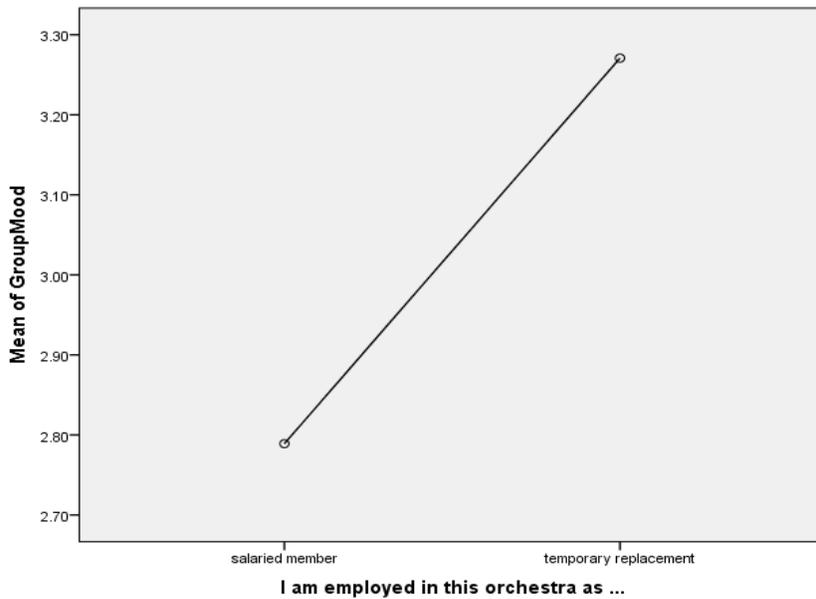
Group Mood

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Salaried Musician	16	2.7891	1.05250	.26312	2.2282	3.3499	1.50	4.88
Substitute Musician	6	3.2708	.81554	.33294	2.4150	4.1267	1.75	4.13
Total	22	2.9205	.99892	.21297	2.4776	3.3633	1.50	4.88

**ANOVA**

Group Mood

		Sum of Squares	Df	Mean Square	F	Sig.	
Between Groups	(Combined)	1.013	1	1.013	1.016	.326	
	Linear Term	Unweighted	1.013	1	1.013	1.016	.326
		Weighted	1.013	1	1.013	1.016	.326
Within Groups		19.942	20	.997			
Total		20.955	21				



The ANOVA analysis comparing the means of transformational leadership and musical instrument section shows a value of .976. With a criterion of .05 or less as a measure of significance, a value of .976 shows that there is not a significant difference between musical instrument section, whether strings or woodwinds/brass, as it relates to group mood.

Table 9 Descriptives and ANOVA Analysis for Research Question 4: Group Mood and Musical Instrument Section

**Descriptives**

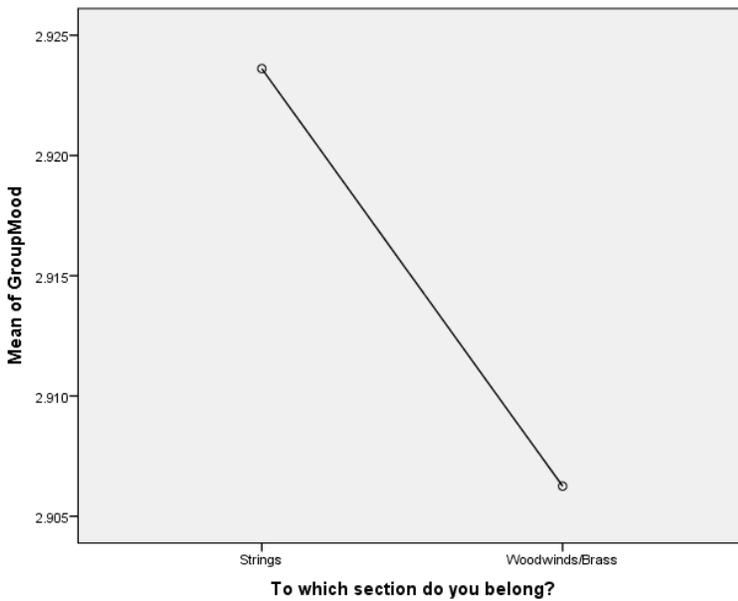
Group Mood

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Strings	18	2.9236	.96838	.22825	2.4420	3.4052	1.50	4.88
Woodwinds/Brass	4	2.9063	1.29251	.64625	.8496	4.9629	1.63	4.50
Total	22	2.9205	.99892	.21297	2.4776	3.3633	1.50	4.88

**ANOVA**

Group Mood

		Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	(Combined)	.001	1	.001	.001	.976
	Linear Term					
	Unweighted	.001	1	.001	.001	.976
	Weighted	.001	1	.001	.001	.976
Within Groups		20.954	20	1.048		
Total		20.955	21			



ANOVA analysis examined differences in perceptions based on extraneous variables including contract level and musical instrument section. The ANOVA analysis comparing the means of artistic quality and contract level shows the p value of .672. With a criterion of .05 or less as a measure of significance, a value of .672 shows that there is not a significant difference between contract level, whether salaried player or substitute player, as it relates to artistic quality.

Table 10 Descriptives and ANOVA Analysis for Research Question 4: Artistic Quality and Musician Contract Level

**Descriptives**

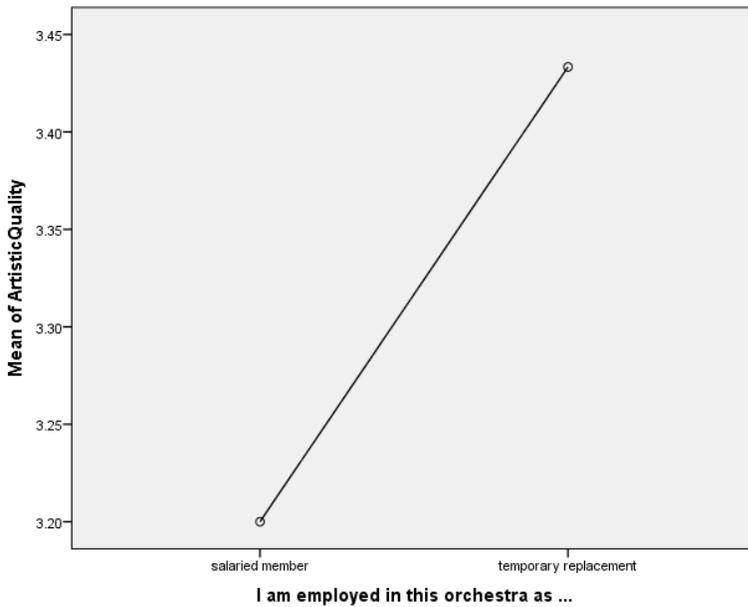
Artistic Quality

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Salaried Musician	16	3.2000	1.18434	.29609	2.5689	3.8311	1.00	5.00
Substitute Musician	6	3.4333	.97502	.39805	2.4101	4.4566	2.40	4.80
Total	22	3.2636	1.11336	.23737	2.7700	3.7573	1.00	5.00

**ANOVA**

Artistic Quality

		Sum of Squares	df	Mean Square	F	Sig.	
Between Groups	(Combined)	.238	1	.238	.184	.672	
	Linear Term	Unweighted	.238	1	.238	.184	.672
		Weighted	.238	1	.238	.184	.672
Within Groups		25.793	20	1.290			
Total		26.031	21				



The ANOVA analysis comparing the means of artistic quality and musical instrument section shows a value of .979. With a criterion of .05 or less as a measure of significance, a value of .979 shows that there is not a significant difference between musical instrument section, whether strings or woodwinds/brass, as it relates to artistic quality.

Table 11 Descriptives and ANOVA Analysis for Research Question 4: Artistic Quality and Musical Instrument Section

**Descriptives**

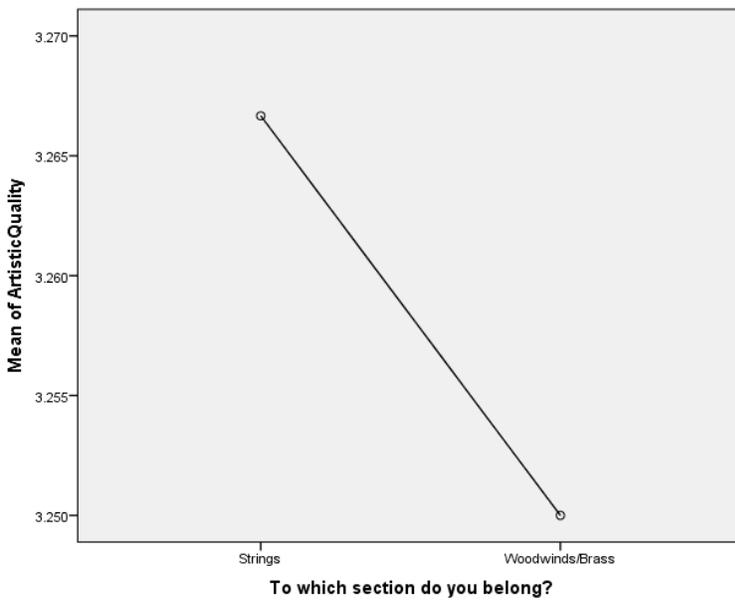
Artistic Quality

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Strings	18	3.2667	.97498	.22981	2.7818	3.7515	1.60	4.80
Woodwinds/Brass	4	3.2500	1.81384	.90692	.3638	6.1362	1.00	5.00
Total	22	3.2636	1.11336	.23737	2.7700	3.7573	1.00	5.00

**ANOVA**

Artistic Quality

		Sum of Squares	Df	Mean Square	F	Sig.	
Between Groups	(Combined)	.001	1	.001	.001	.979	
	Linear Term	Unweighted	.001	1	.001	.001	.979
		Weighted	.001	1	.001	.001	.979
Within Groups		26.030	20	1.302			
Total		26.031	21				



An independent t-test was performed to determine if there is a significant relationship between transformational leadership and gender. The mean transformational leadership value among male musicians is 4.50 (SD=1.43). The mean transformational leadership value among female musicians is 4.32 (SD=1.45). As illustrated in Table 11, the p value is .791. There is not enough evidence to suggest a significant difference between gender, whether male or female, as it relates to perception of transformational leadership relationship.

Table 12 Independent t-test Analysis for Research Question 4: Transformational Leadership and Gender

Levene's Test for Equality of Variances		F	Sig.	t	Df	t-test for Equality of Means			95% Confidence Interval of the Difference	
						Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Transformational Leadership	Equal variances assumed	.067	.798	.268	20	.791	.17778	.66221	-1.20357	1.559
	Equal variances not assumed			.270	11.983	.792	.17778	.65817	-1.25648	1.612

An independent t-test was performed to determine if there is a significant relationship between artistic quality and gender. The mean artistic quality value among male musicians is 3.22 (SD=1.22). The mean artistic quality value among female musicians is 3.28 (SD=1.10). As illustrated in Table 12, the p value is .923. There is not enough evidence to suggest a significant difference between gender, whether male or female, as it relates to artistic quality.

Table 13 Independent t-test Analysis for Research Question 4: Artistic Quality and Gender

		Independent Samples Test								
		t-test for Equality of Means							95% Confidence Interval of the Difference	
Levene's Test for Equality of Variances		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Artistic Quality	Equal variances assumed	.084	.775	-.099	20	.923	-.05143	.52208	-1.14048	1.03762
	Equal variances not assumed			-.094	10.680	.927	-.05143	.54474	-1.25479	1.15193

An independent t-test was performed to determine if there is a significant relationship between group mood and gender. The mean group mood value among male musicians is 3.29 (SD=1.18). The mean group mood value among female musicians is 2.74 (SD=.867). As illustrated in Table 13, the p value is .223. There is not enough evidence to suggest a significant difference between gender, whether male or female, as it relates to group mood.

Table 14 Independent t-test Analysis for Research Question 4: Group Mood and Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Group Mood	Equal variances assumed	.636	.434	1.242	21	.228	.54353	.43779	-.36691	1.45396
	Equal variances not assumed			1.097	8.973	.301	.54353	.49536	-.57757	1.66463

a. No statistics are computed for one or more split files

### Summary

Research Questions 1, 2, 3, and 4 were analyzed. Utilizing the Pearson's r correlation to examine RQ 1, the null hypothesis was accepted. The Pearson's r correlation for RQ 1 does not show a relationship of significance between artistic quality and the conductor's transformational leadership. Utilizing the Pearson's r correlation to examine RQ 2, the null hypothesis was accepted because the correlation does not show a relationship of significance between positive group mood among musicians and the conductor's transformational leadership. Utilizing the Pearson's r correlation to examine RQ 3, the null hypothesis was ejected because the correlation shows a relationship of significance between positive group mood and artistic quality. RQ 4 utilized both the t-test and ANOVA analysis. The t-tests did not demonstrate any difference between gender and transformational leadership, gender and artistic quality, or gender and musician group mood. ANOVA analysis did not demonstrate any difference between contract level transformational leadership, contract level and artistic quality, or contract level and

musician group mood. ANOVA analysis did not show any difference between instrument section and transformational leadership, instrument section and artistic quality, or instrument section and musician group mood.

## CHAPTER V

### DISCUSSION AND CONCLUSION

#### General Discussion of the Study

The desire to understand the American classical music experience and its relationship to transformational leadership was the foundational reason for of this study. The study examined the relationship between variables of transformational leadership, group mood, and artistic quality as perceived by members of the orchestra, in order to better understand the live orchestral performance experience. The framework for examination of these variables was a quantitative design using simple correlation analysis.

Four research questions were developed for this study to consider connections between the independent variables of the musicians' perception of the conductor's transformational leadership and the perception of group mood, and the dependent variable of the musicians' perception of artistic quality:

1. Is there a relationship between artistic quality as perceived by the members of the orchestra and the perceived presence of the conductor's transformational leadership?
2. Is there a relationship between musician group mood and the perceived presence of the conductor's transformational leadership?
3. Is there a relationship between musician group mood and artistic quality as perceived by members of the orchestra?
4. Are there differences among groups within the orchestral context (e.g., contract level, instrument section, gender)?

This research utilized the 135-item research questionnaire used in Boerner and Von Streit's (2007) study in order to analyze the relationship of the transformational leadership process and group mood among musicians on artistic quality within the CSO organization. The 135-item questionnaire completed by CSO musicians used a 7-point scale to measure the perception of the conductor's transformational leadership, group mood among musicians, and artistic quality. Data were gathered from a population of CSO musicians: 10 A-contract players; 16, B-contract players; 16 C-contract players; and 11 substitute players. Within this population, 23 CSO musicians completed the survey.

#### Hypothesis 1

Hypothesis 1 stated that there is a significant relationship between the artistic quality of an orchestra and the presence of the conductor's transformational leadership. To examine the hypothesis, survey responses related to artistic quality and transformational leadership were examined. The survey analysis utilized five statements to measure artistic quality on a 7-point Likert scale from low to high, including the following:

- the audience usually judges the quality of our orchestra to be;
- other collaborators usually judge the quality of our orchestra to be;
- the press usually judges the quality of our orchestra to be;
- guest conductors usually judge the quality of our orchestra to be;
- in comparison with other orchestras of the same category, the artistic quality of our orchestra is (Boerner & Von Streit, 2007).

Within the conductor portion of the survey, 6 statements were used to measure transformational leadership on a 7-point Likert scale from low to high including the following:

- charisma (has charisma.; we are proud to work with him);
- inspirational motivation (clarifies his objectives with imagery and gestures; makes it clearly understandable to us what he wants of us);
- intellectual stimulation (often makes completely new, convincing suggestions for interpretation; enables us to see familiar works in a new light) (Boerner & Von Streit, 2007).

The Pearson's  $r$  correlation analysis did not support Hypothesis 1, which stated there is a significant relationship between artistic quality of an orchestra to the presence of the conductor's transformational leadership.

## Hypothesis 2

Hypothesis 2 stated that there is a significant relationship between the positive group mood among the musicians and the presence of the conductor's transformational leadership. To examine the hypothesis, survey responses related to positive group mood among the musicians and transformational leadership were examined. The survey analysis utilized 8 statements to measure perceptions of group mood among orchestral colleagues on a 7-point Likert scale from low to high including: at odds, likeable, incompetent, different groups within the orchestra sticking together, pleasant, tensions between the instrument groups, as well as good team and rivalry among colleagues. Within the conductor portion of the survey, the survey analysis used 6 statements to measure transformational leadership on a 7-point Likert scale from low to high including the following:

- charisma (has charisma.; we are proud to work with him);
- inspirational motivation (clarifies his objectives with imagery and gestures; makes it clearly understandable to us what he wants of us);
- intellectual stimulation (often makes completely new, convincing suggestions for interpretation; enables us to see familiar works in a new light) (Boerner & Von Streit, 2007).

The Pearson's  $r$  correlation analysis did not support Hypothesis 2, which stated there is a significant relationship between the positive group mood among the musicians to the presence of the conductor's transformational leadership.

### Hypothesis 3

Hypothesis 3 stated that there is a significant relationship between the positive group mood among the musicians and the presence of artistic quality. To examine the hypothesis, survey responses related to positive group mood among the musicians and the presence of artistic quality were examined. The survey analysis utilized 8 statements to measure perceptions of group mood among orchestral colleagues on a 7-point Likert scale of low to high including: at odds, likeable, incompetent, different groups within the orchestra sticking together, pleasant, tensions between the instrument groups, as well as good team and rivalry among colleagues. The survey analysis utilized five statements to measure artistic quality on a 7-point Likert scale of low to high including the following:

- the audience usually judges the quality of our orchestra to be;
- other collaborators usually judge the quality of our orchestra to be;

- the press usually judges the quality of our orchestra to be;
- guest conductors usually judge the quality of our orchestra to be;
- in comparison with other orchestras of the same category, the artistic quality of our orchestra is (Boerner & Von Streit, 2007).

The Pearson's  $r$  correlation analysis did support Hypothesis 3, which stated there is a significant relationship between the positive group mood among the musicians to the presence of artistic quality.

### Interpretation of the Results

The 2-year, 9-candidate conductor search at the CSO was a catalyst for this study. I had widely varying musical experiences throughout the CSO conductor search. These experiences created a desire to better understand the leadership process between conductor and musician in the American orchestra, and its relationship to the orchestral performance experience. The data generated through this study assist in understanding the relationships between the variables of transformational leadership, artistic quality, and group mood. Interpretation of the results of this study serve to better understand the foundational question "what was contributing to these differences?"

Analysis of the data does not support a significant relationship between artistic quality of an orchestra and the presence of the conductor's transformational leadership or between the positive group mood among the musicians to the presence of the conductor's transformational leadership. Analysis of the data does support a significant relationship between the positive group mood among the musicians and the presence of artistic quality.

The orchestra group context is foundational to the coordination of the emotional and technical components of music-making (Boerner & Freiherr, 2005). Group Mood is the cognitive and emotional harmony or discord of the collective group of musicians (Boerner & Von Streit, 2007). The data does not support a direct relationship of significance between the artistic quality and the conductor's transformational leadership, or a direct relationship between the group mood of the musicians and the conductor's transformational leadership. However, it seems that the conductor's transformational leadership process may still have an indirect impact on the musicians' group mood, and thus, the artistic quality. When there is a presence of positive group mood among the musicians, the conductor's transformational leadership process may enhance the artistic quality.

Symphonic music and group mood are collaborative, collective, and social in nature (Becker, 1974). The coordinated action needed in producing symphonic music is connected to a harmonized group mood (Hackman, 1992; Spoor & Kelly, 2004). Data from this study show that the cognitive and emotional harmony of the musicians does indeed have positive relationship to the perception of artistic quality. The importance of the collaborative, collective, and social nature of symphonic music is reinforced through the data analysis. If positive musician group mood is a significant component in artistic quality, how might American orchestral organizations create environments that promote and enhance group mood among musicians? What role might the conductor play in creating or enhancing this environment?

While the conductor's transformational leadership process may not show a significant relationship to group mood or artistic quality as an isolated or direct variable, the conductor does have a role in creating the artistic environment in rehearsals and performances. A conductor has a role in creating the group itself through the hiring and firing of musicians. A conductor has the

main role in artistic direction through selecting the repertoire to be played at the performances. A conductor has a role in creating the work conditions and advocating for the musicians through having a prominent voice in the board of directors meetings. Further consideration of these variables may assist in understanding the conductor's potential to positively or negatively impact the musician's individual and group moods, as well as the artistic quality.

### Relationship to Previous Research

The data gathered for this study show similar results to the Boerner and Von Streit (2007) study. The Boerner and Von Streit (2007) results showed that the conductor's transformational leadership style did not have a significant main effect on the artistic quality of the orchestra. Additionally, the Boerner and Von Streit (2007) study showed a significant main effect of musicians' positive group mood on the artistic quality.

The significant main effect of positive group mood on the artistic quality of the orchestra may reflect a well-known phenomenon: good orchestras-those with positive group mood, partly meaning that the members work extremely well together as a team-can attain high levels of artistic achievement regardless of the transformational leading conductor, sometimes largely ignoring a 'poor' one (p. 139).

However, the data from this study differed from the previous research of Atik (1994), as well as the research of Allmendinger, Hackman, and Lehman (1996). The research of Atik (1994) suggests that the conductor and musicians considered inspirational leadership, which is a component of the transformational leadership process, as a part of improving the musical performance. Allmendinger, Hackman, and Lehman (1996) suggest that the conductor's individual consideration, a component of the transformational leadership process, is a variable in over-performing orchestras and positive musical outcomes.

The research of Wood (2010a) showed a statistically significant and positive relationship between transformational leadership of the conductor and musicians' job satisfaction. It seems that job satisfaction may have a positive relationship to group mood. In relation to the results of this dissertation study, the Wood (2010a) research may assist in understanding the conductor's transformational leadership process as indirectly impacting musical outcomes through a positive impact on musician group mood.

#### Recommendations for Further Study

In order to better understand the role of the conductor's transformational leadership process, expanding the research to include more orchestras is recommended. Diversity of orchestra size, geographic locations within the United States, and diversity of orchestral leadership would provide further breadth and depth to the understanding of the transformational leadership process within this context. Additionally, the role of the conductor may be better understood through study of musicians' group mood. Components of musicians' group mood may have relationship to the role of conductor, including group creation, artistic direction, and work conditions.

Given the significant relationship between musicians' positive group mood and artistic quality, further study of the classical musical experience through the lens of Leader-Member Exchange Theory (Graen & Uhl-Bien, 1995) may enhance understanding of the leadership process within this context. Wang, Law, Hackett and Chen (2005) created a model combining Transformational Leadership Theory and Leader-Member Exchange as a basis for understanding the relationship between leadership, organizational citizenship behavior and task performance. This relationship is shown in Figure 6 below.

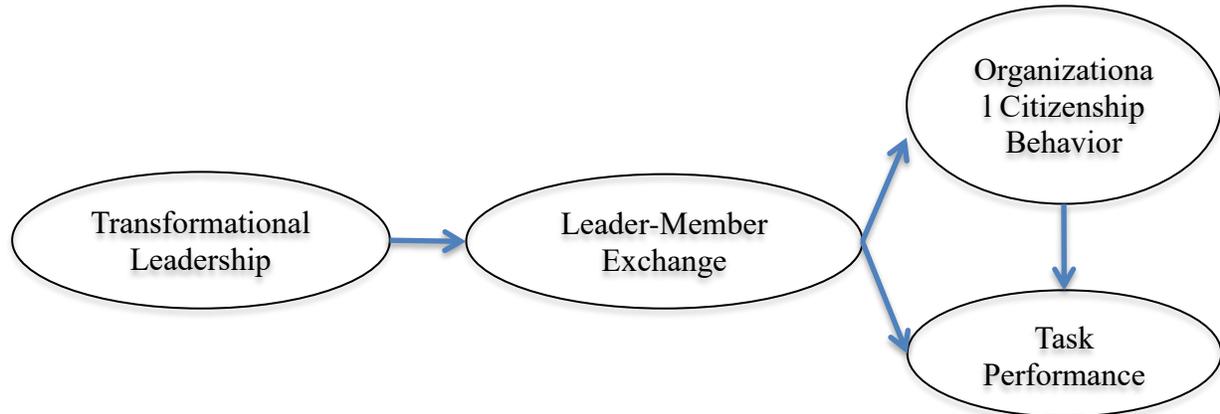


Figure 6 The integrated transformational leadership and leader-member exchange model

The theoretical interpretation of Transformational Leadership and Leader-Member Exchange in this model focuses on the relationship, including the nature and quality, between leader and follower and the implications of this relationship on task performance (Wang et al., 2005). Given the group context of the American orchestral setting, further study utilizing this combined Transformational Leadership and Leader-Member Exchange model may provide useful data in understanding leadership, group mood, artistic quality, and the classical music experience.

Additionally, further study of perceptions of artistic quality may assist in better understanding the classical music experience. The four stages of listening (Sessions, 1962) include hearing, reacting, understanding, and differentiating. In this study artistic quality was considered from the perspective of the orchestral musician. Further study may include perceptions of artistic quality by members of the audience and how those perceptions may be similar or different to those of the musicians. Consideration of the four stages of listening, how orchestral musicians and audience members move through these four stages similarly or

differently, and the relationship these four stages of listening may have to perceptions of artistic quality may provide opportunities for future study.

### Conclusions of the Study

The purpose of this study was to examine the relationship between the variables of transformational leadership, group mood, and artistic quality as perceived by members of the orchestra in order to better understand the live orchestral performance experience.

Transformational leadership as a process that can change performance and relationships lends itself to the context of the American orchestra, the conductor, the musicians, and the artistic performance outcome.

Musicians from the Chattanooga Symphony & Opera participated in this study through completion of the 135-item research instrument (Boerner, 2007). A quantitative design using simple correlation analysis was utilized to examine the data. The data analysis shows a relationship of significance between musician group mood and artistic quality. The data analysis did not show a relationship of significance between the conductor's transformational leadership and perception of artistic quality or between the conductor's transformational leadership and musician group mood.

This study showed a significant relationship between musicians' positive group mood and artistic quality. Symphonic music and group mood are collaborative, collective, and social in nature (Becker, 1974). Data from this study show that a harmonized group mood of the musicians has a positive relationship to the perception of artistic quality. The conductor's transformational leadership did not show a relationship of significance to artistic quality or group mood. However, further study of these three variables through the lens of the Integrated

Transformational Leadership and Leader Member Exchange model (Wang, Law, Hackett, and Chen, 2005) may provide insights into transformational leadership, artistic quality, group mood and the classical music experience.

## REFERENCES

- Abbott, L. (1955). *Quality and competition*. New York: Columbia University Press.
- Allmendinger, J., & Hackman, J. R. (1996). Organizations in changing environments: The case of East German symphony orchestras. *Administrative Science Quarterly*, 41(3), 337-369.
- Allmendinger, J., Hackman, R. J., & Lehman, E. V. (1996). Life and work in symphony orchestras. *The Musical Quarterly*, 80(2), 194-219.
- Atik, Y. (1994). The conductor and the orchestra: Interactive aspects of the leadership process. *Leadership & Organization Development Journal*, 15(1), 22-28.
- Avolio, B. J., Bass, B. M., & Jung, D. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership. *Journal of Occupational and Organizational Psychology*, 72(4), 441-462.
- Ayer, J. (2005). *More than meets the ear: How symphony musicians made labor history*. Minneapolis, MN: Syren Book Company.
- Bales, R. F. (1950). Interaction process analysis; a method for the study of small groups.
- Barsade, S. G. (2000). The ripple effect: Emotional contagion in groups.
- Bartel, C. A., & Saavedra, R. (2000). The collective construction of work group moods. *Administrative Science Quarterly*, 45(2), 197-231.
- Bass, B. M. (1960). Leadership, psychology, and organizational behavior.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*: Collier Macmillan.
- Bass, B. M., & Avolio, B. J. (1994). Improving organizational effectiveness through transformational leadership. In: Thousand Oaks, CA: Sage Publications.
- Bass, B. M., & Stogdill, R. M. (1990). Handbook of leadership. *Theory, Research & Managerial Applications*, 3.
- Bates, G. W., Thompson, J. C., & Flanagan, C. (1999). The effectiveness of individual versus group induction of depressed mood. *The Journal of Psychology*, 133(3), 245-252.
- Bathurst, R., Williams, L., & Rodda, A. (2007). Letting go of the reins: Paradoxes and puzzles in leading an artistic enterprise. *International Journal of Arts Management*, 9(2), 29-38.

- Becker, H. S. (1974). Art as collective action. *American sociological review*, 767-776.
- Bittman, B., Bruhn, K. T., Stevens, C., Westengard, J., & Umbach, P. O. (2003). Recreational music-making: a cost-effective group interdisciplinary strategy for reducing burnout and improving mood states in long-term care workers. *Advances in Mind Body Medicine*, 19(3/4), 4-15.
- Boerner, S. (2004). Artistic quality in an opera company: Toward the development of a concept. *Nonprofit Manage Leadership Nonprofit Management & Leadership*, 14(4), 425-436.
- Boerner, S., Eisenbeiss, S., & Griesser, D. (2007). Follower behavior and organizational performance: The impact of transformational leaders. *Journal of Leadership & Organizational Studies*, 13(3), 15-26.
- Boerner, S., & Freiherr, v. S. C. (2005). Transformational leadership and group climate-empirical results from symphony orchestras. *Journal of Leadership & Organizational Studies*, 12(2), 31-41.
- Boerner, S., & Gebert, D. (2012). Fostering artistic ensemble performance: Exploring the role of transformational leadership. *NML Nonprofit Management and Leadership*, 22(3), 347-365.
- Boerner, S., Krause, D., & Gebert, D. (2004). Leadership and co-operation in orchestras. *Human Resource Development International*, 7(4), 465-479.
- Boerner, S., & Renz, S. (2008). Performance measurement in opera companies: Comparing the subjective quality judgements of experts and non-experts. *International Journal of Arts Management*, 10(3), 21-37.
- Boerner, S., & Von Streit, C. (2007). Promoting orchestral performance: the interplay between musicians' mood and a conductor's leadership style. *Psychology of Music*, 35(1), 132-143.
- Boyle, S. (2007). Impact of Changes in Organisational Structure on Selected Key Performance Indicators for Cultural Organisations. *International Journal of Cultural Policy*, 13(3), 319-334. doi:10.1080/10286630701556506
- Bramesfeld, K. D., & Gasper, K. (2008). Happily putting the pieces together: A test of two explanations for the effects of mood on group-level information processing. *British Journal of Social Psychology*, 47(2), 285-309.
- Budiansky, S., & Foley, T. W. (2005). The quality of repertoire in school music programs: Literature review, analysis, and discussion. *Journal of the World Association for Symphonic Bands and Ensembles*, 12, 17-39.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Chiaravalloti, F. (2005). *Performance management for performing arts—a framework for the evaluation of artistic quality in public professional opera houses*. Paper presented at the

- Proceedings of the 8th International Conference on Arts & Cultural Management”,  
Montréal.
- Clark. (2007). From bravo to bravissimo: Is it starry conductors, beautiful venues or just good timing that mark out the finest orchestras from the rest of the pack? *Financial Times*.
- Cochrane, T. (2010). A simulation theory of musical expressivity. *Australasian journal of Philosophy*, 88(2), 191-207.
- Courter, B. (2013, September 23). Future uncertain for Chattanooga arts groups as ways of funding change. *Chattanooga Times Free Press*. Retrieved from <http://www.timesfreepress.com/news/2013/sep/29/arts-in-chattanooga-the-funding-questionchanges/>
- Crosby, P. B. (1979). *Quality is free: The art of making quality certain*. New York: New American Library.
- CSO. (2015). Chattanooga Symphony & Opera Website. Retrieved from <http://chattanoogasympphony.org/about/#tabs-about-tab-1>
- Downton, J. V. (1973). *Rebel leadership: commitment and charisma in the revolutionary process*. New York: Free Press.
- Dudamel, G. (2010) *Gustavo Dudamel: Making classical cool in L.A. /Interviewer: R. Montagne*. National Public Radio.
- Evans, J. R., & Lindsay, W. M. (1999). *The management and control of quality*. Cincinnati: OH: South-Western.
- Faulkner, R. R. (1973). Orchestra interaction: Some features of communication and authority in an artistic organization. *TSQ Sociological Quarterly*, 14(2), 147-157.
- Feigenbaum, A. V. (1951). *Quality control: Principles, practice, and administration*. New York: McGraw-Hill.
- Fetter, D. (1993). Life in the orchestra. *Maryland medical journal (Baltimore, Md.: 1985)*, 42(3), 289-292.
- Field, A. (2009). *Discovering statistics using SPSS: (and sex and drugs and rock 'n' roll)* (Third ed.). London, England: SAGE.
- Fishman, J. J., & Schwartz, S. (2006). *Nonprofit organizations: Cases and materials* (Third ed.). New York, New York: Foundation Press.
- Forgas, J. P., & George, J. M. (2001). Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational behavior and human decision processes*, 86(1), 3-34.

- Freud, S. (1922). The unconscious. *The Journal of Nervous and Mental Disease*, 56(3), 291-294.
- George, J. M., & Brief, A. P. (1992). Feeling good-doing good: a conceptual analysis of the mood at work-organizational spontaneity relationship. *Psychological bulletin*, 112(2), 310.
- Gilmore, H. L. (1974). Product conformance cost. *Quality progress*, 7(5), 16-19.
- Gliner, J. A., Morgan, G. A., & Leech, N. L. (2009). *Research methods in applied settings: An integrated approach to design and analysis*. New York, NY: Taylor and Francis Group.
- Glynn, M. A. (2000). When cymbals become symbols: Conflict over organizational identity within a symphony orchestra. *Organization Science*, 11(3), 285-298.
- Goldschmidt, H., & Goldschmidt, H. (2001). How generic is the EFQM model? Art and quality: the EFQM model applied to the field of art. *Accreditation and quality assurance*, 6(9-10), 435-439.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219-247.  
doi:[https://doi.org/10.1016/1048-9843\(95\)90036-5](https://doi.org/10.1016/1048-9843(95)90036-5)
- Gronroos, C. (1983). *Strategic management and marketing in the service sector*. Cambridge, MA: Marketing Science Institute.
- Grove, J. R., & Prapavessis, H. (1992). Preliminary evidence for the reliability and validity of an abbreviated Profile of Mood States. *International Journal of Sport Psychology*.
- Hackman, J. R. (1992). *Group influences on individuals in organizations*: Consulting Psychologists Press.
- Harrington, H. J. (1987). *Poor Quality Cost*. New York, NY: Marcel Dekker.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional contagion*: Cambridge university press.
- Hubbard, W. L. (1908). *History of American music*. Toledo: I. Squire.
- Hunt, J. G., Stelluto, G. E., & Hooijberg, R. (2004). Toward new-wave organization creativity: Beyond romance and analogy in the relationship between orchestra-conductor leadership and musician creativity. *LEAQUA* *The Leadership Quarterly*, 15(1), 145-162.
- Ivey, B. (2005). America needs a new system for supporting the arts. *Chronicle of Higher Education*, 51(22), B6-B9.
- Juran, J. M. (1951). *Quality Control Handbook*. New York, NY: McGraw-Hill.

- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: Measures that drive performance. *Harvard business review*, 70(1), 71-79.
- Kelly, J. R., & Barsade, S. G. (2001). Mood and emotions in small groups and work teams. *Organizational behavior and human decision processes*, 86(1), 99-130.
- Kennicott, P. (2013). Americas Orchestras are in crisis: How an effort to popularize music undermines what makes orchestra great. *The New Republic*.
- Kerres, B. (2012). PERFORMING LEADERSHIP. *Business Strategy Review*, 23(1), 56-59.
- kushner, R., & Poole, P. (1996). Exploring structure-effectiveness relationships in nonprofit arts organizations. *Nonprofit Manage Leadership Nonprofit Management & Leadership*, 7(2), 119-136.
- Kushner, R. J., & Brooks, A. C. (2000). The one-man band by the quick lunch stand: Modeling audience response to street performance. *Journal of Cultural Economics*, 24(1), 65-77.
- La Placa Cohen. (2011). *Culture Track 2011*. Retrieved from [http://www.laplacacohen.com/studies/research/LaPlacaCohen\\_CultureTrack\\_2011\\_Report.pdf](http://www.laplacacohen.com/studies/research/LaPlacaCohen_CultureTrack_2011_Report.pdf)
- Lang, P. H. (1961). *One hundred years of music in America*. New York: G. Schirmer; distributor to the book trade: Grosset & Dunlap.
- Lange, M. D., & Luksetich, W. A. (1984). Demand elasticities for symphony orchestras. *Journal of Cultural Economics*, 8(1), 29-47.
- Langendörfer, F. (2008). Personality differences among orchestra instrumental groups: Just a stereotype? *Personality and Individual Differences*, 44(3), 610-620.
- Lazarus, R. S. (1991). *Emotion and adaptation*: Oxford University Press.
- League of American Orchestras. (2013). *Quick orchestra facts*. Retrieved from [http://www.americanorchestras.org/images/stories/adv\\_gov\\_pdf/QuickOrchestraFacts2013.pdf](http://www.americanorchestras.org/images/stories/adv_gov_pdf/QuickOrchestraFacts2013.pdf)
- Lehmann-Willenbrock, N., Meyers, R. A., Kauffeld, S., Neining, A., & Henschel, A. (2011). Verbal Interaction Sequences and Group Mood Exploring the Role of Team Planning Communication. *Small Group Research*, 42(6), 639-668.
- Levinson, J. (1980). What a Musical Work Is. *The Journal of Philosophy*, 77(1), 5-28.  
doi:10.2307/2025596
- Levitt, T. (1972). Production-line approach to service. *Harvard business review*, 50(5), 41-52.
- Lull, J. (1987). *Popular music and communication*. Newbury Park, CA: Sage Publications.
- Lunden, L. E. (1969). Bargaining in major symphony orchestras. *Monthly Labor Review*, 15-19.

- Mackay, C., Cox, T., Burrows, G., & Lazzarini, T. (1978). An inventory for the measurement of self-reported stress and arousal. *British Journal of Social & Clinical Psychology*.
- Maitlis, S., & Ozcelik, H. (2004). Toxic decision processes: A study of emotion and organizational decision making. *Organization Science*, 15(4), 375-393.
- Matthews, G., Jones, D. M., & Chamberlain, A. G. (1990). Refining the measurement of mood: The UWIST mood adjective checklist. *British journal of psychology*, 81(1), 17-42.
- Mauskopf, M. (2013). The Perilous Life of Symphony Orchestras: Artistic Triumphs and Economic Challenges by Robert J. Flanagan (review). *Notes*, 69(3), 559-562.
- McNair, D., Lorr, M., & DroppLemn, L. (1971). EITS manual for the profile of mood states (POMS). *Educational and industrial testing service*.
- McPherson, G. E., & Schubert, E. (2011). Measuring performance enhancement in music. In A. Williamon (Ed.), *Musical excellence: Strategies and techniques to enhance performance* (pp. 61-84). New York: Oxford University Press.
- Meyer, L. B. (1957). *Emotion and meaning in music*. Chicago, IL: The University of Chicago Press.
- Mintzberg, H. (1998). Covert leadership: notes on managing professionals. *Harvard business review*, 76, 140-148.
- Mueller, J. H. (1951). *The American symphony orchestra ; a social history of musical taste*. Bloomington: Indiana University Press.
- Myerscough, J. (1988). *The economic importance of the arts in Britain*: Policy Studies Institute.
- National Endowment for the Arts. (2009). *Survey of public participation of the arts* (49). Retrieved from <http://www.nea.gov/research/research.php?type=R>
- Northouse, P. G. (2010). *Leadership : theory and practice* (5th ed.). Thousand Oaks, Calif.: Sage.
- Owen, V. L. (1979). The effects of mass markets on artistic quality. *Journal of Cultural Economics*, 3(2), 23-39.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 4(4), 41-50.
- Parasuraman, S., & Purohit, Y. (2000). Distress and boredom among orchestra musicians: the two faces of stress. *Journal of Occupational Health Psychology*, 5(1), 74.
- Pignataro, G. (2011). 46 Performance indicators. *A handbook of cultural economics*, 332.

- Pompe, J., Tamburri, L., & Munn, J. (2013). Symphony Concert Demand: Does Programming Matter? *The Journal of Arts Management, Law, and Society*, 43(4), 215-228. doi:10.1080/10632921.2013.818085
- Poon, J. M. (2001). Mood: A review of its antecedents and consequences. *International Journal Organization Theory and Behavior*, 4(3-4), 357-388.
- Quinn, R. E., & McGrath, M. R. (1982). Moving beyond the single-solution perspective: The competing values approach as a diagnostic tool. *The Journal of Applied Behavioral Science*, 18(4), 463-472.
- Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis. *Management science*, 29(3), 363-377.
- Radbourne, J., Johanson, K., Glow, H., & White, T. (2009). The audience experience: measuring quality in the performing arts. *International Journal of Arts Management*, 16-29.
- Rauscher, F. H., Shaw, G. L., & Ky, K. N. (1995). Listening to Mozart enhances spatial-temporal reasoning: towards a neurophysiological basis. *Neuroscience letters*, 185(1), 44-47.
- Reeves, C. A., & Bednar, D. A. (1994). Defining Quality: Alternatives and Implications. *The Academy of Management Review*, 19(3), 419-445. doi:10.2307/258934
- Ropo, A., & Sauer, E. (2007). The success of Finnish conductors: Grand narratives and small stories about global leadership. *International Journal of Arts Management*, 9(3), 4-15.
- Rosenfeld, J. (2001). Lead softly, but carry a big baton. *Fast Company*, 46-55.
- Ruud, G. (2000). The symphony: Organizational discourse and the symbolic tensions between artistic and business ideologies.
- Schuster, J. M. (1996). The performance of performance indicators in the arts. *Nonprofit Management and Leadership*, 7(3), 253-269.
- Schwarz, N., & Clore, G. L. (1996). Feelings and phenomenal experiences. *Social psychology: Handbook of basic principles*, 2, 385-407.
- Seifter, H., & Economy, P. (2001). *Leadership Ensemble: Lessons in collaborative management from the world-famous conductorless orchestra*. New York: Henry Holt and Company.
- Sessions, R. (1962). *The musical experience of composer, performer, listener*. New York: Atheneum.
- Shacham, S. (1983). A shortened version of the Profile of Mood States. *Journal of personality assessment*, 47(3), 305-306.

- Spoor, J. R., & Kelly, J. R. (2004). The evolutionary significance of affect in groups: Communication and group bonding. *Group processes & intergroup relations*, 7(4), 398-412.
- Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *The Journal of Psychology*, 25(1), 35-71.
- Teasdale, J. D., & Dent, J. (1987). Cognitive vulnerability to depression: An investigation of two hypotheses. *British Journal of Clinical Psychology*, 26(2), 113-126.
- Terry, P. C., Carron, A. V., Pink, M. J., Lane, A. M., Jones, G. J., & Hall, M. P. (2000). Perceptions of group cohesion and mood in sport teams. *Group Dynamics: Theory, Research, and Practice*, 4(3), 244.
- Thayer, R. E. (1978). Toward a psychological theory of multidimensional activation (arousal). *Motivation and Emotion*, 2(1), 1-34.
- Thompson, W. F., Schellenberg, E. G., & Husain, G. (2001). Arousal, mood, and the Mozart effect. *Psychological science*, 12(3), 248-251.
- Totterdell, P. (2000). Catching moods and hitting runs: mood linkage and subjective performance in professional sport teams. *Journal of Applied Psychology*, 85(6), 848.
- Totterdell, P., Kellett, S., Teuchmann, K., & Briner, R. B. (1998). Evidence of mood linkage in work groups. *Journal of Personality and Social Psychology*, 74(6), 1504.
- Tuchman, B. W. (1980). The decline of quality. *New York Times Magazine*, 38-41.
- Turbide, J., & Laurin, C. (2009). Performance measurement in the arts sector: the case of the performing arts. *International Journal of Arts Management*, 56-70.
- Velten, E. (1968). A laboratory task for induction of mood states. *Behaviour research and therapy*, 6(4), 473-482.
- Wang, H., Law, K. S., Hackett, R. D., Wang, D., & Chen, Z. X. (2005). Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Academy of management Journal*, 48(3), 420-432.
- Watson, D. (2000). *Mood and temperament*: Guilford Press.
- Watson, D., & Tellegen, A. (1985). Toward a consensual structure of mood. *Psychological bulletin*, 98(2), 219.
- Weisinger, J. Y., Daily, B. F., & Holman, N. (2006). The application of manufacturing cost of quality elements to arts and cultural organizations: an exploratory study. *Journal of Managerial Issues*, 129-147.

- Widmeyer, W. N., Brawley, L. R., & Carron, A. V. (1985). *The measurement of cohesion in sport teams: The group environment questionnaire*: Sports dynamics.
- Williams, S., & Shiaw, W. T. (1999). Mood and Organizational Citizenship Behavior: The Effects of Positive Affect on Employee Organizational Citizenship Behavior Intentions. *The Journal of Psychology*, 133(6), 656-668. doi:10.1080/00223989909599771
- Wood. (2010a). *Correlation of conductor leadership style, musician employment status, organizational participation to orchestra musician job satisfaction*.
- Wood. (2010b). *Correlation of conductor leadership style, musician employment status, organizational participation to orchestra musician job satisfaction*
- Wood, J. V., Saltzberg, J. A., & Goldsamt, L. A. . (1990). Does affect induce self-focused attention? . *Journal of Personality and Social Psychology*, 58, 899-908.
- Woodbury, W. (1955). Leadership in orchestral conducting. *Journal of Research in Music Education*, 3(2), 119-130.
- Yukl, G. A. (2006). *Leadership in organizations*. Englewood Cliffs, N.J.: Prentice-Hall.

APPENDIX A

IDENTIFICATION AND ANALYSIS OF VARIABLES

	<b>Variable Label</b>	<b>Level of the Variable</b>	<b>Scale of Measurement</b>
<b>Dependent Variable</b>	Artistic Quality	1 to 7	Ordinal
<b>Independent Variable(s)</b>	Conductor's Transformational Leadership (charisma, inspirational motivation, and intellectual stimulation)	1 to 7	Ordinal
	Positive Group Mood (likeable, incapable, hold to each other well, pleasant, lazy, tensions between sections, various groups in the orchestra hold to each other well)	1 to 7	Ordinal
<b>Extraneous Variable (s)</b>	Musical Instrument (section within the orchestra)	1=Violin 2=Viola 3= Cello, etc.	Nominal
	Musician Function	1= Section Leader 2= Tutti Player	Nominal
	Length of professional orchestral experience in years		Ratio
	Gender	1=Male 2=Female	Nominal
	Age		Ratio

APPENDIX B

EMAIL CORRESPONDENCE TO DR. SABINE BOERNER

4/30/13

Dear Dr. Boerner:

I am currently a doctoral student at the University of Tennessee at Chattanooga. After working as a professional administrator at the Chattanooga Symphony & Opera for eleven years, I am now hoping to impact American orchestral organizations through academic research.

I am emailing to request a copy of the questionnaire that was utilized in your study "Promoting orchestral performance: the interplay between musicians' mood and a conductor's leadership style." I am considering using this questionnaire for my dissertation research. Please let me know if I may provide further information.

Thank you for your consideration.

Sincerely,

Katie Wilson

APPENDIX C

FOLLOW-UP EMAIL CORRESPONDENCE TO DR. SABINE BOERNER

6/1/2013

Dear Dr. Boerner,

This is a follow-up note to support Ms. Wilson's request for more information on (and hopefully a copy of) the questionnaire that you and your colleagues used in your fascinating study. I have agreed to chair Ms. Wilson's doctoral research in this field primarily because of my interest in the relationship between music and learning and leadership. My background is in the psychology of learning, but my interest in application of music to learning extends to my childhood, where I first learned to appreciate and perform. The connection to leadership has come more recently, and putting all of these interests together seems to provide a dynamic platform for integrated learning experiences on the part of both the performers and those who enjoy their performance. Ms. Wilson's background with our local music community combined with her doctoral studies in learning and leadership provide an ideal context within which to pursue one or more of the elements of such interests.

Reviewing your research and published positions have provided us with an appreciation for your perspective, and we would greatly appreciate any information or thoughts that you might have as we proceed. To begin with, of course, we would like very much to entertain the possibility of using your questionnaire. We would also like to have a bibliography of your published works related to subject of leadership as it relates to orchestral production and performance.

Thank you so much for your support,

Most Sincerely,

James A. Tucker, Ph.D.  
Professor and McKee Chair of Excellence in Learning

College of Health, Education, and Professional Studies  
102-D Hooper Hall, Dept. 4154  
University of Tennessee at Chattanooga  
615 McCallie Avenue  
Chattanooga, TN 37403-2598

APPENDIX D

EMAIL CORRESPONDENCE FROM DR. SABINE BOENER

6/3/2013

Dear Dr. Tucker, dear Katie Wilson,

Thank you very much for your interest in our research. I think you refer to our paper in Psychology of Music (see attachment).

Since our study was conducted in German orchestras, we used a German questionnaire. Unfortunately, we never created a translation into English. So, all I can do is send the original questionnaire as attachment (a short version and a long version).

I hope you will be able to use this questionnaire in your research.

With kind regards

Sabine Boerner

APPENDIX E

RESEARCH INSTRUMENT FROM DR. SABINE BOERNER

Dear Musician,

Thank you for your interest and participation in this study! Before you answer the following questions, here is some background information about the research project.

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**Purpose of this Research Project**

The workplace of orchestral musicians is unique and different in many ways from other occupational contexts.

Therefore, this survey focuses on researching the work environment in professional orchestras considering the specific work conditions and particularities.

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**IMPORTANT NOTES  
On Answering the Questions**

You will receive statements about different aspects of your day-to-day work life. Please respond to them, using the provided options.

Please always choose the option, which, from your point of view, best represents the opinion of your colleagues about the respective aspects of your day-to-day work life.

We have made every effort to express the questions as clear and comprehensive as possible. In case there should still be any ambiguities, please don't hesitate to contact us at any time.

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**Contact**

Email: [christian.v.streit@gmx.de](mailto:christian.v.streit@gmx.de)

Mail: Christian v. Streit • c/o TU Berlin  
Uhlandstr. 4-5 • 10623 Berlin

Phone: 0174 - 332 81 72

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**Confidentiality / Privacy**

Of course all the information you provide will be treated strictly confidential and only evaluated from a scientific point of view. The publication of the results will be done in a way that will not reveal the identity of any individuals or orchestras involved. We warrant the evaluation of the questionnaires according to legal privacy regulations!

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**Results of the Study**

In case you are interested, we would be more than happy to share the results of this study with you upon its completion. In case you are

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interested, please send a postcard or email – separate from the questionnaire! – to the address provided above under **Contact**.

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**... One More Thing:**

Obviously, there are positive and negative aspects to working in an orchestra. Please respond according to your overall view of the orchestra. Don't think too long before you answer – most of the time your initial response will be the best. Please do not skip any lines and check one of the provided options for each line.

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**... and One Last Thing:**

From our perspective the readability of a questionnaire like this is reduced significantly if addressing female and male musicians separately on every occasion. Therefore, we have not followed through with this on a few occasions, which is obviously NOT meant to discriminate against female musicians.

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**Please answer the following questions.**

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We would like to know, how your colleagues assess and experience different circumstances and aspects of their workplace from your perspective.

**Task and Occupation as an Orchestral Musician**

⇒ Please indicate in the following how your colleagues assess the occupation as an orchestral musician in their orchestra from your perspective. Please do not refer to any activity outside of your or your colleagues' professional work within the orchestra. The following questions refer exclusively to the musical activity within the orchestra.

	<b>Yes</b>					<b>No</b>	
Creative	<input type="checkbox"/>						
Artistically inspiring	<input type="checkbox"/>						
Ambitious	<input type="checkbox"/>						
Boring	<input type="checkbox"/>						
We like it	<input type="checkbox"/>						
Deadlocked	<input type="checkbox"/>						
Dependent	<input type="checkbox"/>						
Pointless	<input type="checkbox"/>						
Prestigious	<input type="checkbox"/>						
Disappointing	<input type="checkbox"/>						
We are not being challenged enough	<input type="checkbox"/>						
Responsible	<input type="checkbox"/>						
There are recognizable results	<input type="checkbox"/>						
We can use our abilities	<input type="checkbox"/>						
We can realize our ideas	<input type="checkbox"/>						
We are overwhelmed	<input type="checkbox"/>						

## **Your Fellow Musicians**

⇒ Please indicate in the following how the colleagues within your orchestra assess each other from your perspective.

	<b>Yes</b>					<b>No</b>	
Stubborn	<input type="checkbox"/>						
Willing to help	<input type="checkbox"/>						
Quarreling	<input type="checkbox"/>						
Likeable	<input type="checkbox"/>						
Incompetent	<input type="checkbox"/>						
Stick together	<input type="checkbox"/>						
Lazy	<input type="checkbox"/>						
Enjoyable	<input type="checkbox"/>						
The different groups within the orchestra stick together	<input type="checkbox"/>						
There is rivalry among colleagues	<input type="checkbox"/>						
There is tension between the different groups of instruments	<input type="checkbox"/>						

## **Section Leaders and Soloists**

⇒ Please indicate in the following how your colleagues assess their respective section leaders or soloists and their substitutes from your perspective.

	<b>Yes</b>					<b>No</b>	
Unfair	<input type="checkbox"/>						
Active	<input type="checkbox"/>						
Considerate	<input type="checkbox"/>						
Impolite	<input type="checkbox"/>						
Knows what he/she is doing	<input type="checkbox"/>						
Does not advocate for us	<input type="checkbox"/>						
Fair	<input type="checkbox"/>						
Unpopular	<input type="checkbox"/>						
Trust him her	<input type="checkbox"/>						
Informs us poorly	<input type="checkbox"/>						
Invites us to speak into what he/she is doing	<input type="checkbox"/>						
Grumpy	<input type="checkbox"/>						
Conciliates between us and the conductor	<input type="checkbox"/>						
He/she coordinates the individual musicians well	<input type="checkbox"/>						

## **Work Conditions**

⇒ We would like to know how your colleagues assess the conditions in which they work as orchestral musicians from your perspective (e.g, rehearsal room and performance space, sheet music, seating, lighting, visibility ...).

	<b>Yes</b>						<b>No</b>
Comfortable	<input type="checkbox"/>						
Poor	<input type="checkbox"/>						
Clean	<input type="checkbox"/>						
Enjoyable	<input type="checkbox"/>						
Strenuous	<input type="checkbox"/>						
Turbulent	<input type="checkbox"/>						
Noise level to high	<input type="checkbox"/>						
Spacious	<input type="checkbox"/>						
Hazardous to health	<input type="checkbox"/>						
Enjoyable temperature	<input type="checkbox"/>						
Refreshing	<input type="checkbox"/>						
Too many different rehearsal and performance locations	<input type="checkbox"/>						
Too many projects per season	<input type="checkbox"/>						
Not enough tours per season	<input type="checkbox"/>						
Too many projects going on at the same time	<input type="checkbox"/>						

## **Scheduling / Work Hours**

⇒ We would like to know how your colleagues assess their work hours and the scheduling process from your perspective.

	<b>Yes</b>						<b>No</b>
The shifts are usually at a good time for us.	<input type="checkbox"/>						
We feel like the duration of the respective shifts is disagreeable.	<input type="checkbox"/>						
During our shifts we often have to sit around without playing.	<input type="checkbox"/>						
We are usually happy with the way we are scheduled.	<input type="checkbox"/>						

## **Security of Employment**

The risk of losing employment is high.	<input type="checkbox"/>						
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## **Administration**

⇒ We would like to know how your colleagues assess the administrative leadership of your orchestra from your perspective.

	<b>Yes</b>						<b>No</b>
Poor	<input type="checkbox"/>						
Interested in the perspective of the musicians	<input type="checkbox"/>						
Gives insufficient information	<input type="checkbox"/>						
Is progressive	<input type="checkbox"/>						
Complicates things	<input type="checkbox"/>						
Creates a poor work atmosphere	<input type="checkbox"/>						
Causes a mess	<input type="checkbox"/>						
We are proud of them	<input type="checkbox"/>						
We are comfortable here	<input type="checkbox"/>						
We have a say in what's going on	<input type="checkbox"/>						
Poor Strategy	<input type="checkbox"/>						
Does very little for the musicians	<input type="checkbox"/>						
Is high-capacity	<input type="checkbox"/>						

## **Your Remuneration**

⇒ Please indicate in the following how your colleagues assess the amount of remuneration they receive for their occupation at the orchestra including all bonuses, allocations, etc. from your perspective.

	<b>Yes</b>						<b>No</b>
Poor	<input type="checkbox"/>						
Fair	<input type="checkbox"/>						
Satisfactory	<input type="checkbox"/>						
Inappropriate	<input type="checkbox"/>						
Unfair	<input type="checkbox"/>						
Fair, based on our performance	<input type="checkbox"/>						
Consistent with our level of responsibility	<input type="checkbox"/>						

## **Additional Questions About the Occupation as an Orchestral Musician**

⇒ The following statements refer to the question how you and your colleagues feel from your perspective while playing music.

	<b>Yes</b>						<b>No</b>
Everyone here thoroughly enjoys playing music.	<input type="checkbox"/>						

We often inspire each other in the moment of a public performance.	<input type="checkbox"/>						
Most of the colleagues here put their heart and soul into their work.	<input type="checkbox"/>						
There are moments when we are so focused on playing music that we forget about everything else.	<input type="checkbox"/>						
There are a number of colleagues who take their work for the orchestra too lightly.	<input type="checkbox"/>						
On occasion, we think about other things while playing music (e.g., the worries of day-to-day life).	<input type="checkbox"/>						
There are a lot of musicians in our orchestra who could be more invested.	<input type="checkbox"/>						
There are several moments here in which playing music happens by itself.	<input type="checkbox"/>						
	<b>True</b>			<b>False</b>			
At the end of the day you can't expect too much as a musician, regarding your own needs being met in the day-to-day life of an orchestra.	<input type="checkbox"/>						
It was possible to improve the standards of our workplace over time.	<input type="checkbox"/>						
Most colleagues have found exactly what they were dreaming of when they were studying.	<input type="checkbox"/>						
Most of the musicians here are content with their work – after all, we know it could be a lot worse.	<input type="checkbox"/>						
We are not happy with a lot of things here, but it's not like we can change anything.	<input type="checkbox"/>						

## **Artistic Quality**

⇒ It is a well-known fact that the artistic quality of an orchestra is hard to define and is usually assessed differently by different people.

We are interested how you, from your personal perspective, assess the artistic quality of your orchestra based on the majority of its performances.

	<b>Very low</b>					<b>Very high</b>
The <b>audience</b> usually judges the quality of our orchestra as ...	<input type="checkbox"/>					
Other <b>performers involved</b> (e.g., soloists) usually judge the quality of our orchestra as ...	<input type="checkbox"/>					
The <b>press</b> (critics) usually judges the quality of our orchestra as ...	<input type="checkbox"/>					
The <b>respective guest-conductors</b> usually judge the quality of our orchestra as ...	<input type="checkbox"/>					
The artistic quality of our orchestra compared to other orchestras in the same pay-scale category is ...	<input type="checkbox"/>					

## **Conductor**

⇒ Please indicate in the following how your colleagues assess the head conductor of the orchestra from your perspective.

	<b>Yes</b>					<b>No</b>	
Unfair	<input type="checkbox"/>						
Active	<input type="checkbox"/>						
Considerate	<input type="checkbox"/>						
Impolite	<input type="checkbox"/>						
Knows what he / she is doing	<input type="checkbox"/>						
Gives us clear feedback	<input type="checkbox"/>						
Does not advocate for us	<input type="checkbox"/>						
Fair	<input type="checkbox"/>						
Unpopular	<input type="checkbox"/>						
We trust him / her	<input type="checkbox"/>						
Clarifies his / her goals with images and gestures	<input type="checkbox"/>						
Informs us poorly	<input type="checkbox"/>						
We are proud to work together with him / her	<input type="checkbox"/>						
Allows us to speak into what he / she is doing	<input type="checkbox"/>						
Often suggests completely new, convincing ways of interpreting music.	<input type="checkbox"/>						
Grumpy	<input type="checkbox"/>						
Enables us to see well known works in a new light	<input type="checkbox"/>						
Capable of motivating us	<input type="checkbox"/>						
Is clear and coherent in communicating his / her expectations	<input type="checkbox"/>						
Has charisma	<input type="checkbox"/>						
Inspires the musicians	<input type="checkbox"/>						
Not very structured	<input type="checkbox"/>						

## **Final Question**

We would like to know if orchestral musicians are voluntarily involved in other musical projects beyond their professional obligations.

Therefore, our question is:

Are you personally involved in any musical projects beyond your professional obligations as an orchestral musician and / or your instrument? If yes, how so?

- No, I am not doing that.
- I am teaching.
- I am composing.
- I am writing about music-related subjects.
- I am playing in other ensembles, for instance I am playing chamber music or I am part of a specialized ensemble.
- Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

	<b>A lot less</b>							<b>A lot more</b>
How much time does this involvement require <b>approximately</b> compared to your primary occupation as an orchestral musician.	<input type="checkbox"/>							

	<b>Very important</b>							<b>Not important</b>
How important is this additional, voluntary occupation to you?	<input type="checkbox"/>							

## **Personal Information**

Finally, we would like to ask you to provide some personal information so that we are able to compare your answers with the results from other research about work environments.

At this point, we would like to re-assure you that all personal information is kept strictly confidential. None of your colleagues or managers will ever see this questionnaire!

In order to return the completed questionnaire please put it in the provided envelope and seal it.

Age: \_\_\_\_\_ years old | Sex:  female  male

For how many years have you been working as an orchestral musician? \_\_\_\_\_ years

For how many years have you been working in **this particular** orchestra? \_\_\_\_\_ years

Which **group of instruments** do you belong to?

<input type="checkbox"/> String section  <input type="checkbox"/> Section leader <input type="checkbox"/> Tutti-strings	<input type="checkbox"/> Wind section  <input type="checkbox"/> Soloist <input type="checkbox"/> Other	<input type="checkbox"/> Timbale / Percussion
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I am working in this orchestra ...  as a full-time employee  
 as a temporary help

Do you have an administrative function in the orchestra as well?  No  
 Yes

If yes, which one? \_\_\_\_\_  
\_\_\_\_\_

Which pay-scale category does your orchestra belong to? \_\_\_\_\_

**Thank you for participating!**

## VITA

Katie Engels seeks to be a passionate student of life. Adventures in learning have been rooted in love of understanding people and places through the lens of music. A Bachelors of Music degree in Music Composition, a Masters of Business Administration degree, and the pursuit of the doctorate in Learning and Leadership have allowed a variety of knowledge bases to inform and encourage a continual desire to learn, grow, and understand. Engels has directed the United States operations for the Royals Society of the Arts, had an extensive career with the Chattanooga Symphony & Opera, and taught nonprofit management courses in the Department of Political Science, Public Administration & Nonprofit Management at the University of Tennessee at Chattanooga. She loves Jesus, her husband, and her family and is excited about the gift of each day to love more, learn more, and journey through this amazing life.