

2018

# A Q-sort comparison of student and teacher values concerning wind band music education in public secondary schools

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BOSTON UNIVERSITY  
COLLEGE OF FINE ARTS

Dissertation

**A Q-SORT COMPARISON OF STUDENT AND TEACHER VALUES CONCERNING  
WIND BAND MUSIC EDUCATION IN PUBLIC SECONDARY SCHOOLS**

by

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Submitted in partial fulfillment of the  
requirements for the degree of  
Doctor of Musical Arts

2018

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## **Acknowledgements**

I wish to express my sincere appreciation for the wide network of support I have had on this long journey. I would like to thank the faculty at Boston University's College of Fine Arts, Department of Music Education for their assistance throughout this process. I am grateful to my first Dissertation Advisor and Dissertation Supervisor, Dr. Roger Mantie, for his invaluable insight and intuitive direction as this study was formulated and conducted. I appreciate the editing my second Dissertation Supervisor, Dr. Stephen White, provided. I am thankful for Dr. Kos's injections of momentum, attention, and clear and concise direction at critical moments. I am grateful to Dr. Dansereau for her support and guidance through the statistical analysis which I could not have envisioned or completed without her.

I relied heavily on the expertise and support of two friends, Elson Oshman Blunt and Brian Waterhouse. Thank you, Brian, for the hours you willingly gave me in the first round of data analysis, pouring through the data, determining appropriate tests, and teaching me how to use R Studio in the process. Thank you, Elson, for allowing me to ambush you with statistical questions and clarifications in random places such as around dinner tables, in hallways, during car rides and on top of mountains in the middle of the wilderness. And thank you to both the Waterhouse and the Oshman Blunt families for the sacrifice of time you made allowing Brian and Elson to assist me.

I am thankful to all my friends and family for their steady support, interest, and positive encouragement throughout this process. My immediate family,

especially, is due thanks for their daily support and sacrifice: my son, Micah, who has patiently waited for me to finish working many times so that we can go off and create an adventure together and my daughter, Annsley, who was often told “just a few more minutes” in the midst of revisions. I am most grateful and profoundly indebted, however, to my wife Danica who has served as my Editor in Chief since our undergraduate years, who willingly gave deference countless times to the work I needed to complete, offered her unwavering support and appropriately timed pushes to keep forward momentum; Her love, support, and quiet spirit of giving has sustained me through this process. Thank you, Danica, for sharing this journey with me. This dissertation is as much yours as it is mine because it could not have happened without you.

SOLI DEO GLORIA!

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**ABSTRACT**

Public music education in the United States, including secondary wind band ensembles, has experienced a decades-long enrollment decline (Dembowski, Gay, & Owings, 1979; Elpus & Abril, 2011; Hartley, 1996, 1991; Hoffer, 1980; Music for All Foundation, 2004; Stewart, 1991; von Zastrow & Janc, 2004; Woodworth et al., 2007). Research has shown that students feel more ownership, membership, and attachment to an organization when it speaks to their values (Furrer & Skinner, 2003; Hurley, 1992, 1995; Mitra, 2003, 2004; Rudduck et al., 2003; Rudduck & Flutter 2000, 2004; Williams, 2011). With a more concerted effort by music educators to integrate student values, this enrollment trend could be stemmed. The purpose of this study was to investigate and compare student values of music education with those of their teachers.

I adopted the subjectivist viewpoint of value theory, positioned in the field of psychology, for the theoretical framework. From this perspective, values are guiding principles of a person that are revealed through evaluation. This was paired with Q methodology, which allowed participants' subjective values to be accessed through a sorting activity.

Data collection took place in two phases. First, values were identified through open-ended questions posed to 3 teachers and 188 students in wind band ensembles at three randomly selected public secondary schools in Chester County, PA. These statements formed the Q-set, which, during the second phase, the directors and 12 randomly selected students, four at each site, sorted into a unimodal distribution framework.

The Q-set was organized into seven categories and the data from the Q-sort were used to calculate various means to compare student and teacher responses as well as to calculate correlation coefficients. These data, combined with background information and post-sort interview responses, revealed that students and their teachers held different values for music education at each individual site as well as collectively.



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## Chapter 1

### Introduction

The percentage of students enrolled in public school music education classes in the United States has been declining at an alarming rate (Dembowski, Gay, & Owings, 1979; Elpus & Abril, 2011; Hartley, 1996, 1991; Hoffer, 1980; Music for All Foundation, 2004; Stewart, 1991; von Zastrow & Janc, 2004; Williams, 2011; Woodworth et al., 2007). This trend is multi-faceted and a complex issue to consider and understand. It is easy to place blame on recent, significant external pressures such as an increased emphasis on STEM disciplines, reduced funding for the arts, the implementation of the Common Core, and an emphasis on math and reading test results in *No Child Left Behind Act* and *Race to the Top*. It is important to recognize that although these pressures have likely contributed to a downward enrollment trend, overall enrollment in music classes has been declining about four decades demonstrating that the trend is not simply a consequence of contemporary pressures (Dembowski et al., 1979; Hartley, 1996, 1991; Hoffer, 1980; Music for All Foundation, 2004; von Zastrow & Janc, 2004; Woodworth et al., 2007).

Enrollment declines in music classes were noted as far back as the early 1980s (Dembowski et al., 1979; Hoffer, 1980). Studies since that time have shown similar trends. A long-term enrollment decline was noted in Florida secondary elective music classes with a net loss of 25% from 1985 to 2005 (Williams, 2011). Williams projected that, based on this trajectory, enrollment in music classes in Florida would be less than 7% by 2025. In California, there was a precipitous change

in enrollment levels with a decline of nearly 36% in choir and 21% in band between 2000 and 2004 (Woodworth et al., 2007).

Enrollment changes in Florida and California are not isolated cases but are representative states for a nationwide issue. Elpus and Abril (2011) analyzed national enrollments in secondary music ensembles and compared their results to Stewart's (1991) findings in order to understand the enrollment trajectory over a 20-year time period. The results indicated that the percentage of students who elected to take high school band, orchestra, or chorus declined by 10% between 1991 and 2001 (Elpus & Abril, 2011).

Although there appear to be many contributing factors to the enrollment decline in music education classes, scholars have suggested that the most notable factor may be music education itself: Educators are failing to reconcile curricula with contemporary culture resulting in increased irrelevancy to the very students they seek to educate (Kratz, 2007; Myers, 2005; Reimer, 2004; Williams, 2007). Myers (2005) wrote, "The discomfiting fact is that large numbers of school-age students do not believe that music education...is relevant to their needs and interests—even before the age of eleven, which is about the time performance programs take center stage" (p. 12).

One solution to stemming the enrollment decline in music education may be recognizing the needs and interests of students through their values. Students report they feel more attachment, ownership, and a stronger sense of membership to an organization when their values are understood and are given deference

(Furrer & Skinner, 2003; Hurley, 1995, 1992; Mitra, 2004, 2003; Rudduck et al., 2003; Rudduck & Flutter, 2004, 2000). If music educators make a concerted effort to understand and recognize their students' values of music education there could be a decisive impact on the enrollment decline.

### **Theoretical Framework: Subjectivist Value Theory**

At first glance, the term *value* seems to imbue simplicity, but hidden behind this modest word is a multifaceted concept that is layered with various applications, complexities, and shades of different understandings. It is used innocuously to describe culture, various communities, personal beliefs, and what is meaningful. Its ubiquitous use in the fields of axiology, economics, philosophy, sociology, and psychology creates a vagary of meanings. As 20<sup>th</sup> century American philosopher R. B. Perry (1968) observed, "There is no... established universal meaning for value" (p. 2) and this ambiguity creates difficulty when deconstructing the concept of value.

These multiple applications create confusion and misinterpretation because, depending on the syntax, *value* functions both as a noun and a verb. Adding to the term's indistinction is that the noun form (value, values, valuable) can be defined in two different ways: A *value* is an objective property of an object, concept or idea whereas *values* are guiding principles that inform daily decisions (Merriam-Webster.com, 2015). As a verb, *value* (value, values, valuing, valuation, evaluate) is tied to an act of judgment. An individual *values* an object, concept, or idea based on a personal, cultural, or societal standard.



**Value theory viewpoints.** Each grammatical function is manifested in the way values are understood in value theory. Most philosophers who have contributed to value theory adhere to, at least in part, the noun form. Dewey (1939) understood values to be a person's view of a good life whereas others held them to be terminal or desired goals that inform decisions (Feathers, 1999; Rokeach, 1969; Schwartz, 1992). Most agreed that values are the governing principles of a system that includes beliefs and attitudes and precede a person's action by determining what is desirable, preferable, and ought to be done (Dewey, 1939; Feathers, 1999; Rescher, 1969; Rokeach, 1969, 1973; Schwartz, 1992).

Philosophers' various contributions to value theory represent the interpretation of a relationship between a *subject*, an individual, and an *object*, an item, concept, or idea. There are two major viewpoints contained within value theory that are based on where values are believed to *live*. Objectivists believe that values live within an object, concept, or idea and are perceived by the subject (Dewey, 1939; Frondizi, 1963). Subjectivists, conversely, contend values live within the subject and are activated when that person comes into contact with an object, concept, or idea (Dewey, 1939; Frondizi, 1963; Raz, 2005; Rescher, 1969). I adopted the subjectivist viewpoint was for this study.

**Subjectivist viewpoint.** The subjectivist viewpoint began to fully emerge in value theory during the last century with Dewey's (1939) *Meta Theory of Valuation* (Frondizi, 1963, Rescher, 1969). Other philosophers followed Dewey with a subjectivist viewpoint including Frondizi (1963), Berleant (1967), Raz (2005), and,

to an extent, Brentano (1975). At the core of the subjectivist viewpoint is the assertion that values *live* within the subject causing them to be fluid and relative to the context, circumstances, and life experiences of the subject (Dewey, 1939; Dolfsma, 1999; Frondizi, 1963; Raz, 2005; Rokeach, 1973).

Another subjectivist assertion is that a person's *values* are expressed through an act of *evaluation* (Dewey, 1939; Frondizi, 1963; Raz, 2005; Rescher, 1969). Evaluation is often understood as the principle role of values in the subjectivist viewpoint because it is through evaluation that a person's internal standards are manifested into external action (Dewey, 1939; Frondizi, 1963; Rescher, 1969). This is why the title of Dewey's (1939) theory, *Meta Theory of Valuation*, encapsulated value's verb tense. The intertwining of these two grammatical functions in the concept of values is what Frondizi (1963) referred to as values' having "a subjective as well as an objective face" (p. 124) and what Berleant (1967) meant when writing that values are created from everyday experiences that connect the subjective to the objective.

Subjectivists also contend that a person's internal values are informed, shaped, and even dictated by external societal values including various social, religious, institutional, political, generational, cultural, and other communities (Dewey, 1939; Dolfsma, 1999; Raz, 2005; Rokeach, 1973). Values, therefore, are not completely relative to an individual as there are many other sources and influences that allow them to be shared.

In this study, I adopted the subjectivist viewpoint based on the

understanding that values are enduring or central principles of a person and are revealed through the evaluation of an object, idea or concept. It is through a study which identifies student and teacher values that the music education community will be able to ascertain where values between teachers and students are in alignment and where they are incongruent. Once this information is established, music educators may be able to give deference and recognition to their students' values in ensemble programs. This may lead to students finding their ensembles more relevant as their values are reflected and their agency is increased. Then, it could be possible for music educators to stem the enrollment decline in music education classes and ensembles.

### **Purpose and Research Questions**

The purpose of this study was to investigate and compare the values that students attribute to wind band education with those of their teachers:

1. What wind band participation values do students and teachers identify?
2. How do student sorts of wind band values at each site compare to their teacher's?
3. How does the entire sample of student sorts of wind band values compare to the three teachers'?
4. How do student and teacher values for wind band participation relate at each site and collectively?

### **Methodological Framework: Q Method**

Values are part of a person's internal discourse, or the *in foro interno*, of deliberation and decision-making (Rescher, 1969). This makes it exceedingly difficult to objectively quantify and examine the values of a person because said values reside in a "region beyond the range of scientific scrutiny, the realm of the numerals, [and] they derive from intangible, incommunicable subjectivity" (Berleant, 1967, p. 25). The inaccessibility of values is amplified when attempting to compare the values of one person to another; It is hard to recognize if two people share the same degrees of values (Dewey, 1939).

The difficulty of examining an individual's internal values poses a significant obstacle for any researcher. I adopted the theoretical framework of a subjectivist value theory for this study because it is based on the idea that a person's values are revealed through an act of evaluation. I chose to pair Q methodology with the subjectivist value theory because it allows a researcher to access a person's values through an evaluative process as well as determining the degree to which participants weigh various values.

The psychologist and physicist William Stephenson developed Q methodology in the 1930's allowing researchers to access and scientifically study the subjectivity of individuals (Brown, 1986; Goldman, 1999; McKeown & Thomas, 1988). The data set generated from Q methodology is unique because it is non-linear: Each piece of data can be examined in light of how it corresponds and connects to each other piece.

In Q methodology participants' subjective values are accessed through a unique sorting activity where individuals arrange a set of statements printed on cards into vertical columns with a predetermined number of cards allowed in each (Block, 1978; Brown, 1986; Stephenson, 1955). The vertical columns, called classes, are organized horizontally on a continuum from least agree to most agree. Participants examine and sort each statement into the class that best represents their level of agreement with it. As participants sort the cards, a complex series of decisions are made as they compare each statement with all others in order to place it in a way that most accurately reflects their values. Ordinal data are generated from each person's sort and are then analyzed and compared with other participants' data using factor or thematic analysis and either Pearson's  $r$  or Spearman's  $\rho$  (Brown, 1971, 1980).

### **Layout of Dissertation**

The next chapter of this dissertation contains a review of studies where researchers have examined values in various education settings and from a variety of perspectives as well as the study of values in research that directly relates to this study. In the third chapter I provide an overview of Q methodology in theory and practice as well as the methodological choices I made when constructing this study. I present the results from the study in the fourth chapter and then discuss and contextualize them with other research studies in the fifth chapter.

## **Chapter 2**

### **Review of Literature**

The purpose of this study was to investigate and compare the values that students attribute to wind band education with those of their teachers. Research has been conducted in different educational settings from a variety of perspectives to understand the diverse ways values influence the education process. Although these studies are few, the findings help to contextualize my study. In the following literature review, I examine the findings of these studies in terms of institutional values, educator values, student values, and comparisons of student and teacher values. The chapter concludes with studies pertaining to the role of values in music education.

#### **Findings Regarding Institutional Values**

Philosophers have suggested that various communities have their own values (Dewey, 1939; Dolfsma, 1999; Raz, 2005; Rokeach, 1973) and research has indicated that this is true for educational institutions. Fadzly (2010) demonstrated that institutions communicate values through various platforms. The communication of values at an Islamic and a secular university were examined using mixed methods including interviews with faculty and students as well as a survey instrument. At both universities, Fadzly found evidence that values were conveyed through curricula, faculty instruction, and the general environment of the institution.

Rice (2014) investigated the values present at three universities with teacher

preparation programs. Using a comparative case study research design, the author examined university documents and conducted interviews with faculty and students. Rice, like Fadzly (2010), found that institutions communicate values and, additionally, schools with comparable programs share similar values. The three universities communicated analogous values but described them with different language.

Holt (1992) examined the values communicated and present in secondary schools among students and teachers. Using both a survey instrument and interviews, Holt found that schools have implicit and explicit values that influence many aspects of the institution, and concluded that education is unavoidably linked to values. In addition, Holt found that educational institutions were more concerned with social and moral values than with academic values, whereas students placed a higher priority on personal and character values.

### **Findings Regarding Educator Values**

Research suggests that educators' values are fundamentally different than those of other adult professionals. Gallagher (1975) administered the Rokeach Value Survey to 110 educators in more than a dozen states at both public school and correctional facility institutions. Gallagher compared the results from these educators to the National Opinion Research Center's (NORC) administration of the same survey that was administered to adults ( $N = 1409$ ) in myriad fields. Gallagher also found that teachers, whether in correctional or public school institutions, emphasize humanistic and growth values more than non-educator adults.

Jordan's (2013) and Bouchard's (2011) findings were similar to Gallagher's (1975). Jordan (2013) ascertained the values of 31 secondary, alternative school teachers in North Carolina using the Life Values Inventory, which is based on the Rokeach Value Survey. The results of a cluster analysis suggested that educators in similar settings possess a common and even predictable group of values. Likewise, Bouchard (2011) found evidence for shared values among administrators and teachers in post-secondary nursing programs as eleven core values emerged from an analysis of survey data.

The shared values of teachers in various educational settings are informed and influenced by personal values. Raffel (1991) used the Braithwaite and Law Value Survey Inventory to understand the values of 152 middle and high school teachers. Raffel concluded that personal values inform a teacher's educational values and that the values of teachers correlated to their philosophy of education positions as outlined by the Rose Educational Philosophical Inventory.

Socioeconomic factors, in contrast, are not a predictor for teachers' values. O'Brien (1990) examined the implicit values of educators in one preschool class and how they were communicated. A qualitative approach was utilized combining observations, photos, document analysis, and interviews. One of O'Brien's hypotheses was that the teachers' values would be convergent when grouped by socioeconomic class; the data demonstrated that this was not the case.

The values of educators, as a whole population as well as individually, do not significantly change over time. Walker (1997) used General Social Survey data,



administered annually from 1973–1994, and determined that three examined groupings of teachers' values did not change during this time period. Dave (1985) examined the educational values and attitudes of student observers and compared them to those held by student teachers completing their practicums at the elementary school level. Results demonstrated no statistically significant changes in the educational values of student observers or student teachers.

### **Findings Regarding Student Values**

Researchers have found that student values are influenced by personality traits, personal experiences, gender, and race. Sun (2011) investigated the values of 385 college students in a two-part study that was both cross-sectional and longitudinal. Sun concluded that there were connections between students' values and their personality traits, goals, and interests.

Personal experiences, cultural background, and race have also been found to inform student values. Obamehinti (2014) examined character education values (honesty, kindness, patience, diligence, and others) of 45 immigrant high school students as related to their understanding of citizenship. Survey and data elicited from interviews suggest that the values held by immigrant students are influenced by their cultural backgrounds and personal experiences. In addition, race may shape students' values as found in Hunt-Binkley's (2006) research. In this study, the educational values of 139 high school students representing Native American, White, Black, and Other races were examined. Hunt-Binkley found that Native Americans, in particular, had a different set of educational values which suggests

that racial identity influences values.

Several factors seem to have little impact on the students' values, including age, parents' educational level, and economic status. Ozer (2009) surveyed 131 sophomore charter school students to investigate how various factors affect the values students. The results indicated that gender, income level, and achievement level did not influence the students' intrinsic work values. Hunt-Binkley (2006) found similar results in terms of the impact that age and gender had on students' educational values across racial identities.

High school, college, and adult student values are likely to change or even transform. Clower (1987) compared the values of college freshmen to the values student personnel administrators perceived them to possess. The data indicated a disparity existed between perceived student values and actual student values. Clower suggested that an educational environment is conducive for a shift of students' values. This shift occurs as students understand and evaluate the discrepancies between their values with those of their environment (Clower, 1987; Rokeach, 1969).

Goldschmidt (2015) examined changes in professional values among nursing students and reached a similar conclusion. Goldschmidt employed three different instruments in a single survey. More than a third of respondents (36%) had significant differences in their professional values following a transformative educational experience, which Goldschmidt defined as being challenged with a problem that led to critical thinking and action. Likewise, Grant (1993) examined

the work values of 241 secondary exchange students and found statistically significant differences between students' values before and after their international experiences.

### **Findings Regarding Comparisons of Student and Teacher Values**

In any educational setting, a diverse set of values exists among students, teachers, and administrators (Clower, 1987) and studies have shown that teacher and administrator perceptions of student values are often inaccurate. In addition, researchers have demonstrated that there are distinct and specific divergences between student and educator values. Even so, some of these differences are mitigated because students tend to gravitate towards teachers with similar values.

Several studies have illustrated the misperceptions of student values by administrators and teachers. Clower's (1987) comparison of college freshmen's values to the perceptions of their values by administrators revealed disparity. Clower found that the misinterpretation of student values led administrators to create academic programming they believed aligned well with student values when, in fact, they did not. Cothran (1996) had the same conclusion in a study comparing the values of secondary school physical education students and teachers.

Teachers are often erroneous in their perceptions of student values but are more accurate than administrators. Holt's (1992) survey instrument and interviews revealed general misperceptions of student values by secondary school faculty and administration, but teachers had a more accurate view of their students than administrators. Still, teaching faculty misperceived student values (Holt, 1992).

Bredfeldt (1991), too, found that teachers consistently miscalculated the student values in a study of nearly 1,300 Canadian, freshmen Bible college students.

Even when students and teachers articulate similar values, there may be a lack of alignment in the importance each assigns to these values. Holt (1992) found a difference in the way that students and faculty prioritized different values. Students placed a higher emphasis on personal and character values whereas teachers were concerned with social and moral values.

Several studies have found that relationship and social values are more important to students than to their teachers. Huang (1999) examined the values of 150 students and 64 teachers in college physical education programs in Taiwan and results showed that students favored social values, but their teachers favored discipline mastery and learning process values. Cothran (1996), too, found that physical education students favored social values over discipline mastery in a study at three secondary schools. Students and teachers may not agree on what is most important, but findings suggest they do agree on what is least important. In both Huang's (1990) and Holt's (1992) studies, students and teachers agreed on what the least important values examined were for each study: reconstruction, as in problem solving, and morals, respectively.

The differences between student and teacher values in these studies are somewhat mitigated even before research is conducted. Kollmeier (1980) investigated the values of 16 university faculty members and 137 of their students. Kollmeier concluded that students were prone to choosing teachers who had similar

values and that students constantly evaluated their classroom experience based on their teacher's values.

### **Values in Music Education**

Researchers that have explored the role of values in music education have focused on four different categories: values used to profile musicians, teachers, and administrators; values used to evaluate curricula and pedagogy; current and former students' music education values; and collective students' and teachers' music education values. Absent from these studies are analyses that directly compare students' values to their music teacher.

**Values used to profile music education stakeholders.** Loci of values, music aptitude tests, and demographic information have been paired to profile adult singers in choral ensembles. These studies have resulted in between three and eight different profiles of musicians, and five different philosophical approaches. Farrell (1972) broke ground on this type of research by asking each participant ( $N = 184$ ) in an adult choral ensemble a series of open-ended questions. The 67 different answers served as the Q-set that all participants sorted into a unimodal distribution framework. This data set was paired with background information and a music aptitude test to formulate eight singer profiles: integrative, spiritualistic, incidental, communication, music purist, social class, psychological, and collective.

Hinkle (1987) used Farrell's Q-set, a demographic information instrument, and two additional instruments to collect information about prior musical experiences for a study of the United Singers Federation of Pennsylvania

membership ( $N = 133$ ). Hinkle identified only three singer profiles compared with Farrell's (1972) eight: Down to Business Singer, Praise God Singer, and the Ethnic Heritage Singer. The discrepancy between the results of the two studies is mainly attributed to the fact that 2/3 of the statements in the Q-set (42) were identified as consensus statements, which were those that did not vary more than one standard deviation point for each subject. Farrell's (1972) results yielded only two.

Two other researchers, Hylton (1980) and Sugden (2005), did not use Q methodology but reached conclusions similar to Farrell's (1972). Hylton (1980) worked with high school choral students and directors ( $N = 673$ ) and, like Farrell, asked participants open-ended questions to create values statements. These statements were used to create the Choral Meaning Survey that was, like Farrell's study, coupled with both a music aptitude test and demographic information. Hylton identified seven singer profiles that bear significant resemblance to Farrell's eight: happy 'fella, music missionary, proud groupie, music addict, music achiever, earnest musician, and music actualizer.

Sugden (2005) used Hylton's (1980) Choral Meaning Survey, demographic information, and a Musical Self Perception Inventory to profile the values of middle and high school students ( $N = 835$ ) as well as to examine the effects different variables had on the perceived values of participation. Sugden replicated four of Hylton's profiles but factored the music achiever into three new categories: vocational direction, personal achievement, and musical achievement.

Hanley (1987) used loci of values to understand the attitudes of elementary

and high school educators, school board members, consultants, and principals towards four philosophical approaches to music education. It was determined that absolute expressionism was the ideal approach for most of the study participants. In addition, Hanley identified a new philosophical approach: subjectivist, a dichotomous philosophy where music is more than enjoyment but intellectual information may detract from the joy of participating in music.

**Values used to evaluate curricula and pedagogy.** The music education values of students and former students have been investigated through interview processes in order to understand the goals of music curricula as well as pedagogical approaches. In several studies, secondary students and graduates reported perceived differences between their values and their teacher's values, as understood through curricula and pedagogy (Bryce, 2003; Countryman, 2008; Moehle, 2005).

Countryman (2008) interviewed 32 former high school students and 7 experienced teachers in focus groups. These interviews were coupled with a critique of wind band, choral, and orchestral ensemble pedagogy gathered from text sources. Countryman reported that participants spoke about the pervasiveness of the rehearsal mode of teaching, a narrow selection of musical genres, and repertoire that rarely reflects or acknowledges students' musical identities.

Moehle (2005) interviewed high school juniors ( $N = 9$ ) participating in a wind band ensemble to understand what they believed the values of the wind band curricula were. Moehle's findings neatly mirror those of Countryman (2008) where participants articulated their disapproval of an emphasis on drill and practice, a

narrowness of music preference and appreciation, and a culture of reproducing, rather than expressing, music.

Bryce's (2003) findings, like Countryman (2008) and Moehle (2005), followed the same trajectory but included a more scathing examination of music education pedagogy. Bryce (2003) interviewed eight professional musicians and found that, as students, they had felt forced to identify with the values of the director and put aside their own individuality. In addition, participants reported the focus of rehearsals were centered on analysis for perfection with performances a product rather than artistic expression. These participants' values, instead, were collaboration with other musicians, learning about and performing music from other cultures, and engaging in improvisation or composition activities. These aspects of music education were missing from their secondary ensemble experiences.

**Music education values of students and graduates.** Interviews, surveys, and background information have been used to understand students' and graduates' values of music education. Essentially, researchers have suggested three different loci of values: musical values, personal values, and social values. Social values, which include the cultivation of close friendships, meeting a variety of people, feeling connected with others, a sense of community, and a sense of belonging, are most often cited by high school students, college music majors, and graduates as the most important.

Social values were highlighted as more important than musical values in a



music education setting among adults and non-music major college students. Arasi (2006) interviewed eight adults from a high school music program who did not pursue a career in music. Participants' experiences were analyzed to determine what aspects of their music education carried over into adulthood and what their values for music education were. Arasi concluded that the values of social relationships and peer community heavily outweighed musical values such as exposure to a wide variety of music.

Bures (2008) interviewed undergraduate, non-music majors ( $N = 12$ ) to investigate what the music education values of this population were and found three categories: musical values, personal values, and social values. Contained within the musical values category were stress reduction, imagination and creativity, and the enjoyment of music. Personal values included a sense of accomplishment or pride, self-esteem, and perseverance, among others. Social values included close friendships, meeting a variety of people, feeling connected with others, and a sense of belonging. It was the latter category that was most important among undergraduate, non-music majors.

Social values are just as important among high school students as they are among adults and college age students. Cape's (2012) qualitative study of high school students' ( $N = 17$ ) values of music education revealed similar findings to Countryman's (2008). Cape found values of achievement, social relationships, identity, expression and communication across all types of instrumental ensembles.

Eckel (1994) investigated student justifications for a high school music

program to enhance advocacy efforts. The survey instrument, administered to 30 students, was coupled with follow-up interviews and revealed the importance of social interactions with friends. This was followed in importance by the enjoyment of large group performance activities, relationships with the teacher/conductor, and fun.

In contrast, two researchers found that social values were not the most important values to students. Mills (1988) examined the high school wind band experience and its relationship to marching activities by asking students ( $n = 243$ ) open-ended survey questions from which 71 values statements were gleaned. A second group of subjects ( $N = 1,140$ ) rated them using a Likert scale. Mills discovered five dimensions of meaning: personal development, social enrichment, musical growth, group identity, and re-creative activity with musical growth values being the most important to students.

Wayman (2005) used 50 statements, which were created from the responses of middle school general music students ( $N = 178$ ) to an open-ended question, to construct a survey instrument. The results of this Music Meaning Survey illustrated that student music education values were centered on academic values—those that specifically pertain to music theory and history—followed by vocation preparation, social belonging, self-image, motivation, and emotional development.

**Comparisons of student and teacher values of music education.** Studies that have examined the dynamic relationship between student and teacher values of music education are limited to two, both of which lack direct comparisons between

students and teachers. Piekarz (2006) interviewed senior members of a high school choral program ( $N = 39$ ) in focus groups and found five groupings of values: musical growth and appreciation, performance skill development, personal emotional growth, social growth, and contact with excellent teachers. Curriculum documents were then examined and it was concluded that the values stated by students aligned well with the course materials, which were created by the director. Absent from the study was an analysis of the teacher's values and how they might have directly compared to the students' because they were inferred from the course materials.

Betancourt (2008) examined the values of high school marching band students and directors using five predetermined categories embedded in a survey instrument: responsibility, critical thinking, respect, music, and negative expectations. The responses of 1,111 students and 20 directors were compared. Betancourt's findings parallel the findings of Mills (1998) and Wayman (2005) who concluded musical outcomes outweighed non-musical outcomes according to the values of the participants. This result is in direct contrast to other studies including Arasi (2006), Bures (2008), Cape (2012), Countryman (2008), and Eckel (1994). Betancourt did not directly compare students' values with their directors'.

### **Literature Review Summary**

The role of values in educational settings has been investigated from a variety of perspectives. It has been established that institutions communicate values (Fadzly, 2010; Holt, 1992; Rice, 2014), can share similar values profiles (Rice, 2014), and, in general, are more concerned with social and moral values than academic

ones (Holt, 1992). Educators also share similar overarching values (Bouchard, 2011; Gallagher, 1975; Jordan, 2013), which are informed and influenced by personal values (Raffel, 1991) and not by socioeconomic status (O'Brien, 1990). Teacher values have not demonstrated a proclivity to change significantly over time (Dave, 1985; Walker, 1997).

Student values, by comparison, are influenced by personal experiences, gender, and race (Hunt-Binkley, 2006; Obamehinti, 2014; Sun, 2001) but not by age, parents' educational levels, or economic status (Hunt-Binkley, 2006; Ozer, 2009). High school and college student values have shown evidence of change and even transformation (Clower, 1987; Goldschmidt, 2015; Grant, 1993).

Divergences in values between administrators and students, as well as teachers and students, are evident. Research has shown that administrators and teachers believe they understand student values but are often erroneous in their assumptions (Clower, 1987; Cothran, 1996). Educators, in particular, possess a better understanding of their students' values (Bredfeldt, 1991; Holt, 1992); however, both overarching and specific educational values differences exist (Bredfeldt, 1991; Clower, 1987; Cothran, 1996; Holt, 1992; Huang, 1999).

The music education values of students and teachers have been used to determine between five and eight profiles of singers in various age brackets (Farrell, 1972; Hinkle, 1987; Hylton, 1980; Sugden, 2005) and five philosophical approaches of music education favored by various stakeholders of music programs (Hanley, 1987). The values of current students and graduates have also been identified to

understand curricula and pedagogical approaches (Bryce, 2003; Countryman, 2008; Moehle, 2005) as well as to distinguish overarching values (Arasi, 2006; Bures, 2008; Cape, 2012; Countryman, 2008; Eckel, 1994; Mills, 1988; Wayman, 2005)

Two researchers examined both teacher and student values of music education and both found a different set of five values (Betancourt, 2008; Piekarz, 2006); however, neither directly compared student values to their teachers'. Piekarz (2006) compared student values to curricula documents while Betancourt (2008) compared students to teachers that were part of aggregate groupings only.

Researchers have sought to understand the role of values in various education settings, including music education; however, I have not found any direct comparisons of students' values and their teachers'. In this study, with Q methodology from a subjectivist value theory approach, I investigated the specific and overarching values present in wind band ensembles, how students and teachers weigh these values, and how these participant groups compare to one another. The results of this study continue the discourse on the role of values in music education settings.

## **Chapter 3**

### **Methodology**

In this study, I investigated the music education values of high school wind band students and teachers to understand and compare what is important to each group. The theoretical framework for the study is based on a subjectivist value theory. In this approach, values are enduring principles that guide a person towards desired end results and are revealed through evaluations of an object, issue, or concept (Dewey, 1939; Frondizi, 1963; Rescher, 1969).

The methodological framework adopted for the study was Q, developed by psychologist and physicist William Stephenson. This methodology is best positioned for accessing a person's internal and subjective values because it is centered on complex acts of evaluation contained within a sorting activity. In Q methodology, a participant arranges a set of statements into a sort, usually with a predetermined shape, called a distribution framework (Figure 1). Each statement is placed in the vertical class representing a participant's level of agreement with that statement as compared with all the other statements.

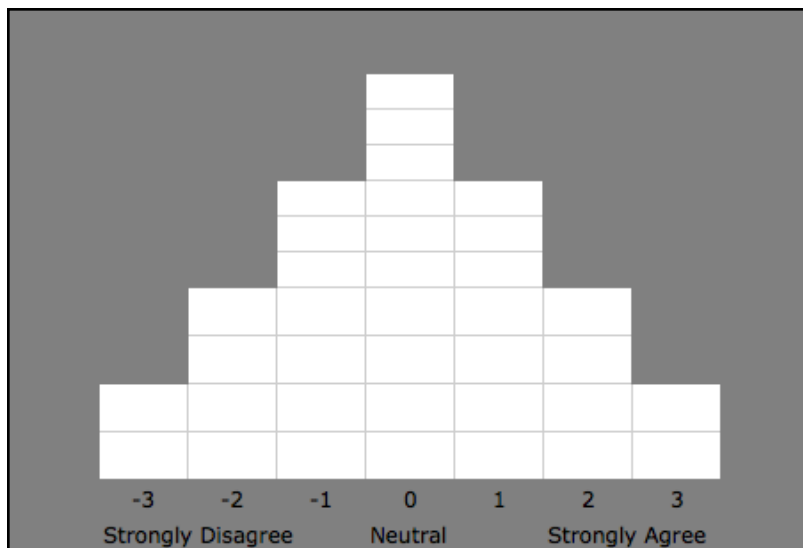


Figure 1. Example of a Q-sort distribution template.

As a participant places each statement within the distribution framework a series of decisions occurs as one statement is compared with all others. The completed sort is a representation of the subjective values of a participant in response to all the statements. Ordinal data are generated from the class values—the numeric value assigned to each vertical column—which then can be compared with other sorts allowing for consensus cards to be noted and correlations between individuals and groups to be drawn. Other researchers have investigated the role of values in educational settings using Q methodology (Bay, 2002; Cothran, 1996; Hanley, 1987; Jara, 2010; Jobes, 2010; Johnson, 2003), and in music ensembles (Buehner, 2009; Edgington, 2005; Farrell, 1972; Hinkle, 1987; Wayman, 2005). Brown (1980) summed the Q-sort process for a participant:

A Q-sort, in essence, reflects the impact of a mind in operation, of a person thinking, evaluating, and interpreting in relation to the array of stimuli brought to his [*sic*] focus of attention in the form of a Q sample. (p. 44)

In the remainder of this chapter an overview of the sequence of study procedures is detailed including rationale for the decisions made based on the use of Q methodology in theory and in practice. The chapter concludes with details regarding how the Q-sorts were quantitatively analyzed as well as how background information and post-sort data elicited from interviews were utilized in the results of the study.

### **Phase 1: Site Selection, Concourse, and Distribution Framework**

I decided to use four sites for this study to gain a breadth of values among students and teachers, as well as an understanding of how student and teacher values compare at different schools. Phase 1 of the study began in March of 2014 with site selection and the administration of the questionnaire. It contained four open-ended questions for students enrolled in wind band programs and their teacher. The responses to the questionnaire were pulled together to form the study concourse, upon which I then performed structured sampling as part of Block's (1978) California Q-Set Treatment process. After a review of Q methodology theory and practice, I decided on a forced-sort condition with a unimodal distribution framework.

**Site selection and identification of teacher participants.** I decided to use the geographic area of Chester County, Pennsylvania for this study. Chester County is located in the southeastern corner of the state between the urban areas of Philadelphia, PA and Wilmington, DE and the rural areas of neighboring Lancaster and Berks Counties. I live and work near the center of Chester County and the



densely populated area has 17 public high schools from which I was confident I would be able to garner agreement from four administrators and directors. Public secondary school sites were selected at random, from a hat, with no more than four total invitations sent out at one time. As schools confirmed participation in the study only invitations for the remaining number of vacancies were sent. Each invitation included letters to the building principal and the wind band director (Appendices A and B) to ensure that school administration and policies would allow the study to take place. If no response was immediately given to the letter of invitation, a follow-up phone call was made. If there was still no response, one final contact was made via email or telephone before another site was randomly selected.

Invitations were sent to 11 schools and their administrators before four sites were confirmed and the study commenced. Several weeks into the study, one site withdrew when the superintendent informed the principal that it was necessary for the school board to give permission for the study. Because the board was not convening until after the end of the academic year it was impossible to use this site or find a replacement prior to summer vacation.

I refer to the three sites as High School 1 (HS1), High School 2 (HS2), and High School 3 (HS3). HS1 had an enrollment of about 1,200 students populated from six communities located in a rural area of Chester County. This school was about 80% White with 40% of all students enrolled in the National School Lunch Program (US News & World Report L. P., 2018). The wind band program had a total of 84 students enrolled during the 2013–2014 academic year. HS2 had an enrollment of

nearly 800 students with a total of 86 students enrolled in the wind band program. It, too, is located in a rural area of Chester County and is comprised of students from eight municipalities. The school had less than 20% minority students and more than a third of all students enrolled in the National School Lunch Program (US News & World Report L. P., 2018). HS3 is in a suburban area of Chester County and had 1,300 students drawn from four townships. Students were more than 80% White with about 15% of all students enrolled in the National School Lunch Program (US News & World Report L. P., 2018). There were 45 students enrolled in the wind band program during 2013–2014. Given the sum of wind band students at these three high schools the total possible pool of student study participants for the first phase of the study was  $N = 215$  and three music teachers.

**Concourse development.** Phase 1 continued after site selection with concourse development. In Q methodology, a concourse is the material from which all possible statements for the sorting activity are drawn. Concourses have been created from texts, participant responses to open-ended survey questions, musical examples, photographs, and even textbook pages. Stephenson (1955) and Gorlow (1968) found that a successful concourse comprises responses to open-ended questions by the population being investigated. A number of researchers have adopted this approach (Bay, 2002; Farrell, 1972; Fluckinger, 2010; Hinkle, 1987; Lyon, 2010; Partin, 2011; Wacholtz, 1992). The concourse for this study was developed using four open-ended questions on two different questionnaires: one tailored for the role of the student and one for the director. The design allowed for a

variety of responses from students and teachers to gain a wide cross-section of values. Students responded to the following questions:

1. What are the reasons that you participate in this ensemble?
2. What aspects of being in this ensemble do you value the most?
3. What do you personally gain from participating in this ensemble?
4. What do you feel you have learned from being in this ensemble?

The directors responded to similar questions:

1. Why do you think students should participate in your ensemble?
2. What aspects of ensemble participation do you value the most?
3. What are the most important lessons and skills that your students learn in this ensemble?
4. What are your pedagogical goals for your students?

The Institutional Review Board approved a Waiver/Alteration of Consent for the questionnaire. For students under the age of 18, an informational letter was sent home to parents (Appendix C) accompanied by a waived written informed consent form (Appendix E) no fewer than 3 academic days in advance of the site visit.

Students over the age of 18 were given a letter of invitation (Appendix D) as well as a copy of the consent form (Appendix E). On the first day of data collection at each site, I introduced the study to the students during their wind band rehearsal using a script (Appendix F) that included approved consent and assent language. Consent forms were signed and collected from those students over the age of 18 and the director. Then, the questionnaires (Appendices G and H) were distributed.

Accompanying the questionnaires was the contact information form (Appendix I), which I developed to solicit students who were interested in participating in Phase 2, the Q-sort. This form, like the questionnaire, was optional for students to

complete. It asked for the student's name, grade, email, and phone number and was on a separate piece of paper to protect the anonymity of participant questionnaire responses. The total class time for the administration of these instruments was less than 20 minutes at each site.

HS1 yielded 66 student questionnaires and 62 contact information forms from a total of 84 students present for the rehearsal. HS2 students returned 79 questionnaires and 62 contact information forms out of the 86 students present for rehearsal. At HS3 one student was withdrawn from the study by a parent, leaving a total of 44 students for the first day of data collection. Of the 44 students, 40 questionnaires and 35 contact information forms were obtained. The discrepancy at each site between the number of returned questionnaires as compared with the contact information is likely due to students either being unwilling to share their names, phone numbers, and email or they were not interested in participating in Phase 2. A total of 185 questionnaires were collected from students at all three sites and 156 contact information forms; therefore, the sample comprised 185 students and 3 directors.

**Analysis of questionnaire responses.** The responses from each of the 185 student questionnaires and 3 director questionnaires were extracted verbatim to form the concourse: a large group of statements that are representative of student and teacher values. The transition of a concourse to a Q-set involves sampling and treating the collected statements. There are two theoretical approaches to sampling the statements in a concourse that impact both the character and make-up of the Q-

set which, in turn, affect the results of the Q-sort: *unstructured* and *structured* sampling.

In unstructured sampling, the dominant viewpoints are selected based on the number of statements in a concourse. The rationale for employing unstructured sampling is that it would represent the various viewpoints of the general population by weighting the presence of dominant opinions (Kerlinger, 1972; McKeown & Thomas, 1988). At the same time, fringe or marginalized opinions are not given equal, or sometimes any, representation. This approach results in plants a degree of bias towards dominant opinions within the Q-set affecting the manner participants interact with it.

In structured sampling, all viewpoints are represented in the Q-set as equally as possible (Kerlinger, 1972; McKeown & Thomas, 1988). The strength of structured sampling is that bias in the Q-set is reduced but, at the same time, the Q-set does not accurately represent the frequency of opinions found in the larger group (Kerlinger, 1972; McKeown & Thomas, 1988). The reduction of bias and a full representation of all viewpoints from the concourse make structured sampling the preferred approach and it has been used overwhelmingly in related studies (Alley, 2003; Buehner, 2009; Edgington, 2005; Farrell, 1972; Fluckinger, 2010; Hanley, 1987; Hinkle, 1987; Jara, 2010; Jobes, 2010; Johnson, 2003; Lyon, 2010; Partin, 2011; Wacholtz, 1992).

The treatment of the concourse, a process during which statements are parsed into singular ideas and prepared for use as a Q-set, is often incorporated

within structured sampling. One widely used process is Block's (1978) California Q-Set Treatment, which allows a Q-set to be created that is easily understood with minimized bias (Block, 1978). In this procedure, each statement in the concourse is parsed into singular ideas to be clear and simple. If two viewpoints are contained in one statement it can cause participants to grapple with where to place it during the Q-sort (Block, 1978). Statements are written in neutral language without any hint of evaluation to reduce bias. Finally, each statement is written to suggest a continuum of agree/disagree on which the participant can decide. Applying Block's (1978) California Q-Set Treatment process to the concourse allows the resulting Q-set to align with the guidelines set by Stephenson (1955) and Brown (1980, 1986), which suggest that statements should be opinions, rather than facts, and should be constructed in a way that allows participants to easily understand each statement without revealing the researcher's bias. In this way, participants are free to create their own subjective sort (Brown, 1980, 1986; Stephenson, 1955).

For this study, I decided to use structured sampling on the concourse as part of Block's (1978) California Q-Set Treatment process. The responses from each questionnaire were extracted verbatim and statements with multiple ideas were broken up to express singularity. For example, the statement "I learned how to play my instrument and lead a section" was parsed into two values statements: "learned how to play my instrument" and "learned to lead a section." At HS1 the 67 questionnaires yielded 608 parsed statements, a mean of 9 per questionnaire. From the 80 collected questionnaires at HS2 there were 664 parsed statements, a mean of

8.3 per questionnaire. HS3 returned 41 questionnaires and contributed 428 parsed statements for a mean of 10 per questionnaire. In total, there were 1,700 parsed statements for a mean of 9.04 per questionnaire.

Each of the parsed values statements was then grouped with other similar statements to facilitate structured sampling of the concourse. For example, the “learned to lead a section” was grouped with similar statements:

I’m starting to develop more leadership skills  
 Gained leadership skills  
*Learned to lead a section*  
 Learning to be a leader for younger members  
 Leadership experience  
 Being a section leader  
 How to lead/not to lead

Once I finished grouping similar statements, mitigating much of the redundancy, I either wrote a neutral headline statement that best reflected the character and meaning of the statements or drew it from within the grouping in accordance with Block’s (1978) California Q-Set Treatment process. In this case the headline statement is in bold:

**I develop leadership skills.**  
 I’m starting to develop more leadership skills  
 Gained leadership skills  
*Learned to lead a section*  
 Learning to be a leader for younger members  
 Leadership experience  
 Being a section leader  
 How to lead/not to lead

Then, the groupings of the parsed statements and their headline statements were peer-reviewed by a music educator to ensure that the statements within each

group expressed a similar idea, the headline statement reflected the statements in the group, and that the headline statement itself was easily understood with minimized bias; minor adjustments were made. The result was a Q-set with 77 statements, written in neutral language, expressing singular values, with minimized redundancy (Appendix M).

The number of statements for this study falls within the boundaries of 70–150 statements prescribed by Stephenson (1955). Over time, smaller collections of statements have been used among researchers: closer to 50 (Alley, 2003; Brown, 1980; Fluckinger, 2010; Hanley, 1987; Jobes, 2010) and as few as 15 statements (Johnson, 2003; Wacholtz, 1992). There has been debate over whether the total number of statements should be an evenly divisible number or not. Stephenson (1955) and Brown (1980, 1986) prescribed an even number of statements so as to not have a middle card in the sort and even composite numbers of statements been used in related studies (Buehner, 2009; Edgington, 2005; Fluckinger, 2010; Hanley, 1987; Jobes, 2010; Lyon, 2010; Partin, 2011); however, researchers have also used prime or odd composite numbered Q-sets with seemingly no negative impact on the data (Bay, 2002; Farrell, 1972; Hinkle, 1987; Jara, 2010; Johnson, 2003; Wacholtz, 1992).

**Distribution framework.** The distribution framework is the predetermined shape that the Q-set statements are filtered into and it plays a key role in the resulting data. The framework contains a number of vertical classes that is dependent on the number of statements in the Q-set as well as the shape of the



distribution framework chosen by the researcher. Regardless, each vertical class is built on a horizontal plane representing a continuum of disagreement to agreement. The middle class is assigned a value of 0, suggesting neutrality. Classes to the left of 0 are assigned sequential negative numbers, representing levels of disagreement, and classes to the right are assigned sequential positive numbers indicating levels of agreement. Participants sort the Q-set statements into the distribution framework based on their level of agreement or disagreement with each statement as compared with all other statements. These class values generate ordinal data about each statement that is then used to compare participants' sorts, determine consensus statements among participants, and to calculate correlations between individuals and groups.

There are two theoretical approaches to the Q-sort distribution framework: forced-free distinction and forced-sort condition. The forced-free distinction allows the participant to place any statement into any given class usually resulting in an asymmetrical shape. This type of sort may seem advantageous because participants are given unilateral freedom to place cards anywhere they choose. Johnson (2003) adopted the forced-free distinction because participants in that study were categorizing musical examples rather than sorting them based on their preferences.

There are inherent problems in a forced-free distinction that has limited its use to only a few related studies. Kerlinger (1973) noted that if participants are placing statements on a continuum of agree to disagree, unlike Johnson's (2003) study, the data produced from a forced-free distinction framework becomes nothing

more than an extended Likert scale. This dilution of the data occurs because participants make a fewer number of discriminations, bypassing most of the comparisons made between statements as they are placed in classes (Block, 1976; Stephenson, 1955). Block (1976) and Stephenson (1955) also pointed out that the resulting data from a forced-free distinction framework become too unwieldy to compare between participants because there is no common form on which to base the results.

In the forced-sort condition, the most widely used approach in related studies, participants are required to place a specific number of statements into each class. Visually, the distribution framework can be any shape, such as a rectangle, triangle, or others, though symmetrical shapes are preferred (Stephenson, 1955). Stephenson (1955) and Block (1978) both recommended the forced-sort condition because it maximizes the number of discriminations participants must make in the Q-sort yielding data that is more easily compared between participants (Block, 1978; Stephenson, 1955).

The most important advantage to the forced-sort condition is that it allows for the Fisherian principle of randomization where bias is reduced through random selection (Fisher, 1960). This is manifested in the sorting process as participants examine each of the statements in the Q-set and make discriminating decisions about where each will be placed. One individual may compare statement #1 with #2 while another may compare #1 to #3 and place #2 in such a way that it may never be compared with either of the others (Brown, 1986). The randomization principle

is evident in that no two people will interact, compare, or perceive the same relationships between the same statements resulting in different sorts (Brown, 1986). Brown (1980) calculated that with only 33 statements in a Q-set there are about the same number of ways to sort the Q-set as there are people in the world.

The two distribution shapes most widely used in a symmetrical, forced-sort condition are the rectangle and the unimodal. The unimodal shape (Figure 2) resembles a standard deviation graph and is preferred by participants (Block, 1978) and was most widely used in related research studies (Alley, 2003; Buehner, 2009; Edgington, 2005; Farrell, 1972; Fluckinger, 2010; Hanley, 1987; Hinkle, 1987; Jara, 2010; Jobes, 2010; Lyon, 2010; Partin, 2011). The statements with which participants strongly agree or strongly disagree are filtered into the outermost classes whereas statements that are considered least important are placed in the middle.

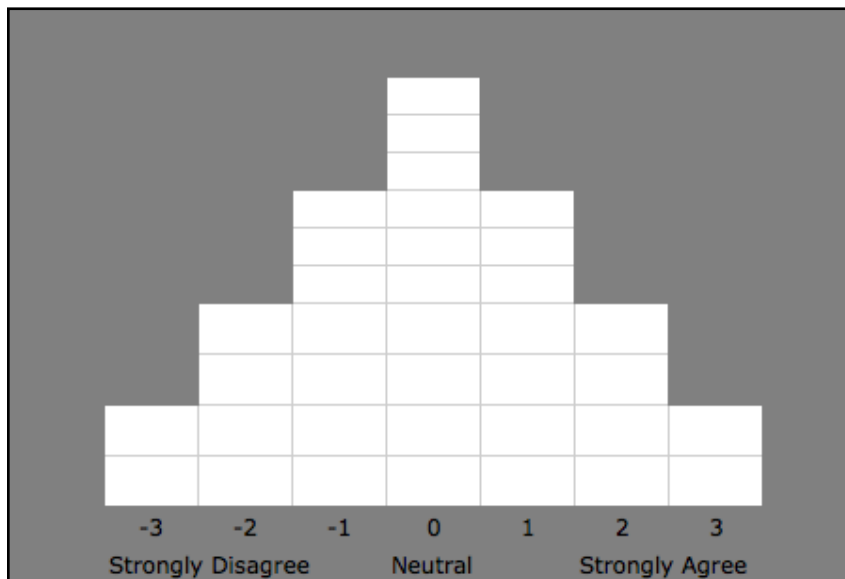
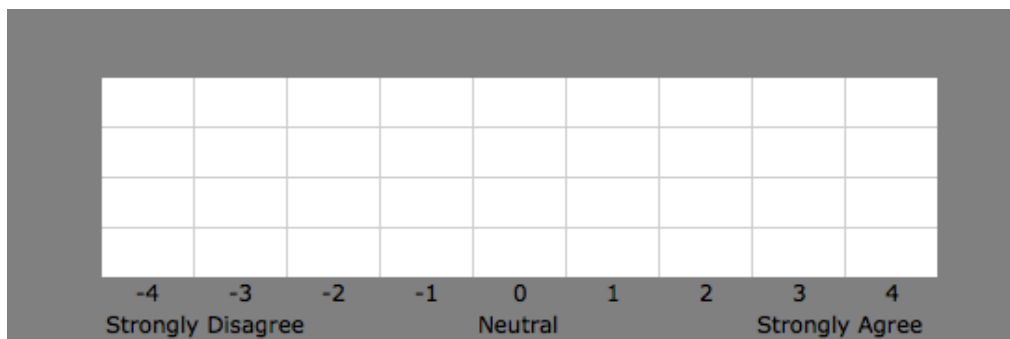


Figure 2. Q-sort unimodal distribution framework.

The rectangular distribution framework (Figure 3), recommended by prominent Q method researchers Hess & Hink (1959), requires an equal number of Q statements to be placed in each class. Hess & Hink (1959), as well as Q method architect Stephenson (1955), pointed out that the rectangular shape forces participants to maximize the number of possible discriminations; however, Block (1978) calculated Stephenson's claim and found that the number of distinctions a participant makes when using a rectangular shape compared to a unimodal is negligible, <1%. Block (1978) also contended that rectangular distributions create difficulties for participants because it is easier for them to place statements into extreme agree/disagree classes and more time consuming and difficult to place statements that are least important to them. By forcing these statements into a broader number of classes, as the rectangular shape would mandate, it remains probable that the study data would be skewed.



*Figure 3.* Q-sort rectangular distribution framework.

I decided to use the forced-sort condition with a unimodal distribution framework for this study to maximize the number of distinctions each participant must make, for ease of comparing participants' Q-sorts, and to allow for the

Fisherian principle of randomization to reduce bias (Fisher, 1960). With 77 statements, an 11-class unimodal design with a value range of -5 to 5 was constructed. An 11-class design aligns with Stephenson's (1955) recommendation of a composite number of classes with no fewer than 10. Researchers have begun using prime or odd composite numbers of classes to allow space for participants to be impartial and researchers have used 11 classes in related studies (Alley, 2003; Bay, 2002; Farrell, 1972, Hanley, 1987; Hinkle, 1987).

I decided that the number of statements per class, in keeping with the unimodal design, would be 3, 4, 6, 8, 11, 13, 11, 8, 6, 4, 3 (Figure 4). The Q-set statements were printed on halved index cards and numbered from 1-77 on the reverse side for ease of data coding. Finally, the entire Q-sort process was tested with two music educators, who were not study participants, to ensure the process was smooth, directions were clear, and sessions stayed within the parameters of the estimated interview time.

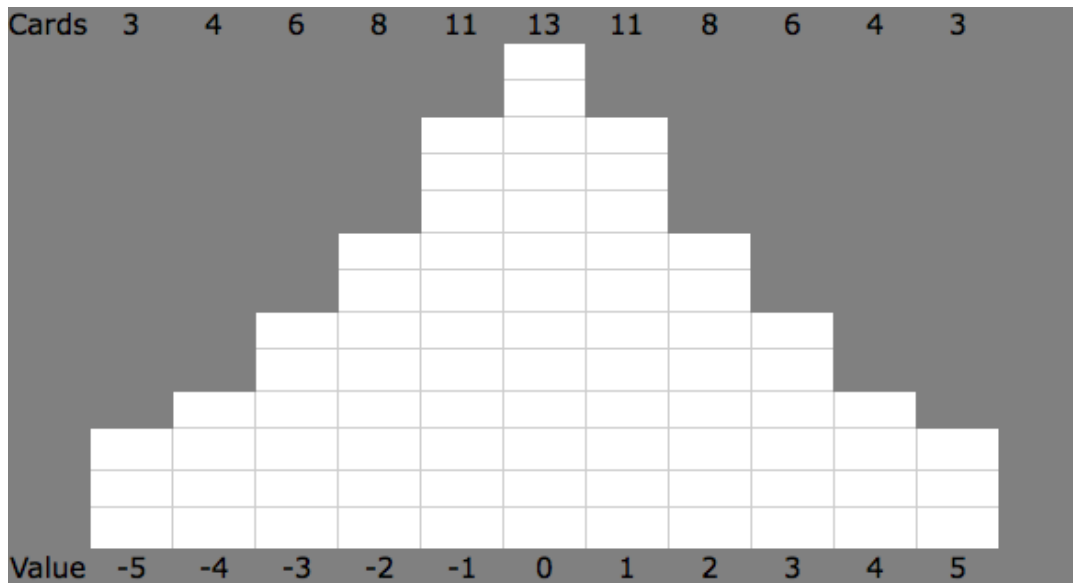


Figure 4. Q-sort template for this study.

## Phase 2: Student Participants and Q-Sort Data Collection

The second phase of the study began with the random selection of student participants. The study's purpose and research questions call for two different participant groups from which comparisons will be made: students and their teachers. A total of 20 participants comprising four students and one teacher from each site were to have been chosen to ensure a rich set of data without becoming too stratified or noisy; however, one site withdrew immediately prior to the initial site visit leaving 15 total possible participants. Even with this reduced number of participants, it was acceptable to continue with the study because in Q methodology it is the subject matter, not the participants, that is under investigation (Brown, 1980). This means a high number of participants is not necessary to have workable data (Brown, 1980; Stephenson, 1955). An extensive participant set in Q

methodology is 50 (Brown, 1986) and studies have been conducted with 14 (Partin, 2011), 8 (Johnson, 2003) and as few as 5 (Jara, 2010).

**Identification of Phase 2 student participants.** Students were selected from the 159 that completed the Contact Information Form (CIF, Appendix I) during Phase 1 using stratified random sampling. One student per grade at each of the three sites was randomly selected from a hat to create a cross-section of wind band education experience. A breakdown of the students that completed the CIF by grade and by site is reported in Table 1. The selected students were contacted by email to set up a 30- to 45-minute session.

Table 1  
*Contact Information Form Returns by Site and Grade*

Site	Grade				Total
	9	10	11	12	
HS1	22	12	12	16	62
HS2	22	18	12	10	62
HS3	15	10	5	5	35
All	59	40	29	31	159

Of the 12 students, 8 readily agreed to participate while the other four were not interested or did not respond. Additional random selections were necessary to have one student per grade at each of the three sites. This meant at HS1 two other students were randomly selected and at HS2 and HS3 one additional student was drawn. The overall student composition was one-third male participants and two-thirds female with at least one male student per site.

Prior to the sessions, I assigned a code to each study participant to maintain

confidentiality in all collected data. I used these codes to identify students by grade and by site in the following chapters. Codes were created by using the participant's site number and year in school. For example, HS1-12 refers to the senior at the first school and HS2-10 refers to the sophomore at the second site. Teachers were noted simply by using their site number followed by a T; HS2-T refers to the teacher at the second site. Once students were coded, appointments were made with each student in the afternoons following the academic day in late May and early June 2014 with each session lasting between 30–45 minutes.

**Q-sort data collection.** I collected three different sets of data from study participants during Phase 2 (Appendix L): background information, the Q-sort, and responses from the follow-up interview that took place immediately after the Q-sort. The total pool of students and teachers ( $N = 15$ ), five per site, each made an appointment with me outside of the academic day. At the appointments, I reviewed consent/assent forms, garnered necessary signatures, and then gathered basic background information from each participant. Background information for students included age, instrument(s) played, years of experience on the instrument(s), private lesson experience, participation in community music organizations, number of years playing for their teacher, and ensembles participated in at school. Background information collected from teachers included age, main instrument(s), years of experience on main instrument(s), participation in area ensembles; years, types, and locations of teaching experience, degrees earned, and ensembles directed both at school and outside of school. Background



information was gathered to contextualize the participants' Q-sorts, understand if similar backgrounds might lead to similar values of music education, and, by extension, if this might impact the findings of this study.

After I reviewed the instructions for the Q-sort process (Appendix L), I shuffled the Q-set cards and gave them to the participant to sort. Students were asked to sort the cards based on the question "why do you participate in this ensemble" while the teachers sorted based on "why do you think students should participate in your ensemble?" All participants were asked to sort on a continuum from strongly disagree to strongly agree with the middle column representing neutrality or uncertainty. Most of the allotted time, about twenty minutes, was spent completing the sorting exercise. None of the students or teachers asked any questions pertaining to the meaning of the statements during the sort.

I also used a follow-up interview to understand participants' reasons for their personal organization of the statements. Brown (1996) indicated that the follow-up interview is an often-overlooked important step for the administration of the Q method as it allows further information to be obtained about how the participants thought through their individual sorts. In this way, the Q-sort functions as the skeletal structure of an individual's values that can be used to reveal logic or thought processes that the researcher would not otherwise have been able to perceive (Brown, 1996). The interview also serves as an opportunity to test assumptions about the sorting activity with the participant as well as a framework to ask if anything was missing from the Q-set (Brown, 1996). Follow-up interviews

have been used in a number of related studies (Alley, 2003; Bay, 2002; Buehner, 2009; Edgington, 2005; Hanley, 1987; Jara, 2010; Jobes, 2010; Johnson, 2003). The question and answer session was audio recorded and included six questions:

1. Are there any cards you found confusing or that you didn't understand? If so, which ones and why?
2. Which cards did you have difficulty placing? Why?
3. Are there any reasons for participating in an ensemble that you feel are missing from the cards?
4. What experiences or influences in your life do you feel have shaped the way you have placed some of these cards?
5. How differently do you think you would have placed these cards 4 years ago? Why?
6. Are there any cards that you might place differently in a few days? Why?

Each participant consented to have the follow-up interview audio recorded.

Participant responses the first three questions were used to determine any revisions to the Q-set for replication of this study. Responses to the last three questions were used to help understand participants' values, whether or not they feel they changed over time, and were used in conjunction with background information to understand the overall composition of the participant group. The entire session concluded by turning over each statement to note the location using the Q-set identification number printed on the backs of the cards. Once this was done participants checked the number coding of their sort.

### **Data Analysis**

Q-sorts were initially analyzed with a PCA (Principle Components Analysis) called PQMethod version 2.35, an application specifically developed to process Q methodology data by Peter Schmolck (2014). The data became problematic upon

further analysis because the final item on the student questionnaire resulted in responses that represented what participants had learned from their wind band program, rather than their personal values, skewing their responses from the purpose of the study. After reexamining the completed questionnaires, 36 parsed statements were removed bringing the total number of questionnaire statements from 1,700 to 1,664. Six statements had been created from these 36 parsed statements and these were subsequently removed from the Q-set:

- I have learned the importance of practice.
- I have learned to pay attention to detail.
- I have learned a better work ethic.
- I have learned better organizational skills.
- I have learned the ability to work independently.
- I have learned how to adapt to new situations.

The removal of these six statements undermined the integrity of the remaining Q-sort data and made factor analysis processes unreliable. In Q methodology, participants place each statement while making numerous complex decisions. One individual may compare statement #1 with #2 while another may compare #1 with #3 and place #2 in such a way that it may not ever be compared with either of the others (Brown, 1986). The principle of randomization is evident in the sorting process because no two people will interact, compare, or perceive the same relationships between the same group of statements resulting in different sorts (Brown, 1986). This means that simply removing the six statements from all participants' Q-sorts would create disingenuous data because participants would, undoubtedly, have sorted the remaining statements in a different fashion. Further,

having six fewer statements in the Q-set would have necessitated changing the number of statements in each class to maintain a unimodal distribution framework. As a result, it was impossible to remove the six statements from participants' Q-sorts and reliably analyze the remaining data with PQMethod's factor analysis.

Instead, I decided to harvest the ordinal data attached to the remaining 71 statements in each of the participants' Q-sorts. I coded the 71 statements qualitatively into seven emergent categories that were peer-reviewed by two music educators (see Appendix S for a full listing of statements by category). Categorical analysis, rather than factor, has been used by other researchers (Farrell, 1972; Fluckinger, 2010; Hylton, 1980; Johnson, 2012). The seven categories include:

- A: Relational community
- B: Cooperative responsibility
- C: Personal skill cultivation
- D: Musical skill development
- E: Self-expression
- F: Tangential rationale
- G: Unique academic experience

The values statements in the first two categories speak to various types of relationships and the interdependence of an ensemble. The statements in relational community include statements about finding new friends, deepening existing friendships, the quality of the director-student relationship, a sense of familial belonging, and feeling safe and supported. The statements in cooperative responsibility contrast by expressing collaboration, teamwork, and the process of improving as a group, learning from peers, and belonging to a group.

The next three categories are focused on individual growth and expression. Personal skill cultivation statements are centered around the developing of skills such as time management, leadership, focus, discipline, problem solving, motivation, and patience, among others. The musical skill development category contains statements about personal improvement on an instrument, learning new instruments, gaining musical knowledge, improving performance and marching skills, and the uniqueness of developing musical talent. The statements in the self-expression category also reflect the individual with the ability to emote through music, demonstrate school spirit and feeling successful when performing.

The final two categories are concentrated on personal aspects to being in band. The statements in tangential rationale address extemporaneous benefits of ensemble participation including meeting a type of graduation credit, festival participation, travel opportunities, filling out high school experiences for college applications, and others. Unique academic experience statements are about band being fun, a break from other classes, being able to rest, relax, or escape, and the unique challenges of being in band.

These seven categories were used as the basis for an analysis of the cleaned Q-sort response data. I took participants' ordinal data and, using the class values for each column, treated it as an extended Likert-type scale. I adjusted the class values from a -5 to 5 scale to a 0 to 10 scale for readability and clarity. Class values were used to reliably covert ordinal data from the Q-sorts in order to apply two quantitative data analysis processes: mean score comparisons and correlation

coefficients. This is a process that has been used in other studies and has proven reliable by statisticians (Boone & Boone, 2012; Carifio & Perla, 2007; Dabrowska, 2010; Labovitz, 1967; Miricioiu & Atkinson, 2017).

To compare mean scores, a score was calculated in each category for every participant by averaging the class values of the statements. Then, for each category the means of the four student participants at each site were averaged to create a mean student score. Mean student scores were used to rank the categories and were then compared to the teacher's categorical means, referred to as the teacher score. Finally, an average for each category of the 12 student means was compared to the average of the three teacher means. Categories were then ranked by their mean scores for both teachers and students.

Correlation coefficients were calculated for each category as well. To determine site level correlations between students and their teacher, a mean score for each statement in a category was calculated for the students at each site. To determine whether there was a relationship between student values and teacher values, the mean student score for each statement in a category was paired with the teacher's responses and Pearson's correlation coefficient (Pearson's  $r$ ) was calculated. A probability value was then calculated for each correlation and categories with significant  $p$  values ( $< .05$ ) were extracted for discussion.

I compared the entire sample of students and the three teachers in a similar manner. A mean score of all student responses for each of the statements in a category was calculated as well as a mean score for the three teachers' responses.

The mean student scores for each statement in a category were paired with the mean teacher scores and Pearson's  $r$  was calculated. Probability values were then calculated for each correlation and categories with significant  $p$  values ( $< .05$ ) were extracted for further discussion.

The Q-set revisions, comparisons of category scores by site and for the entire participant sample, and correlation coefficients by site and across sites were used to identify emerging patterns among participant groupings. These patterns were contextualized with participants' background information and post-sort interview responses. This conglomeration of data was used to thoroughly address the research questions, which is detailed in Chapter 4.

## Chapter 4

### Results

In this chapter, I provide an analysis of the data from both phases of the study. The chapter is organized by the four research questions that address the purpose of this study, which was to investigate and compare the values that students attribute to wind band education with those of their teachers:

1. What wind band participation values do students and teachers identify?
2. How do student sorts of wind band values at each site compare to their teacher's?
3. How does the entire sample of student sorts of wind band values compare to the three teachers'?
4. How do student and teacher values for wind band participation relate at each site and collectively?

The data used to answer the first research question include the Q-set, which was generated from the questionnaires administered in Phase 1, and the Phase 2 post-sort interview responses. The second research question was informed by the participants' background information, follow-up interviews, and the Q-sort responses by site. The cleaned Q-sort responses were treated as an extended Likert-type scale (0–10) based on where participants had placed each statement in the Q-sort distribution framework. A mean score was calculated for each category for every participant using the class values (0–10) of the statements in the category for that participant. Then, for every category, the means of the four student



participants' scores at each site were averaged to create a mean student score. The categories were ranked based on the mean student scores and the teachers' score. Those rankings, in conjunction with the post-sort interview responses and participant background information, were used to understand how student and teacher values of wind band education compared at each of the three sites.

The third research question was answered in a similar fashion: for each category, the mean of the 12 student scores was calculated to determine the mean student score for the entire sample, and the three teachers scores were averaged to determine the mean teacher score. Categories were ranked by mean scores for both teachers and students. These sets of rankings were compared in concert with the background information and post-sort interview responses to understand how the students' and teachers' values of wind band education compared.

### **Values of Wind Band Participation**

The data used to answer this research question were the 1,700 parsed statements drawn from 188 questionnaires completed by the students and teachers. The statements were processed using Block's (1978) California Q-Set Treatment (described in Chapter 3). Structured sampling resulted in 77 individual values statements. Further analysis revealed that the final item on the questionnaire resulted in responses that represented what the participants had learned from their wind band program, rather than the students' and teachers' values. After reexamining the completed questionnaires, 36 parsed statements were removed bringing the total parsed statements from 1,700 to 1,664. The six statements that

were created from these 36 parsed statements were removed from the Q-set bringing the total from 77 to 71.

During the post-sort interview in Phase 2, all participants responded to questions regarding the clarity and completeness of the Q-set. Although most participants, including the three teachers, indicated that they found the statements easy to understand, four students—HS1-12, HS2-11, HS2-12, and HS3-10—recommended revisions to three statements found in the personal skill cultivation category. These statements alluded to the personal skills of time management, focus, and discipline. The four students indicated that these statements were worded in a way that implied these skills were learned solely through their wind band experience. Participants did affirm that their participation in wind band helped to develop these traits, but they believed they possessed these skills prior to their wind band participation. These statements were revised from, for example, “I have learned greater focus” to “Band has helped me to develop my ability to focus” to reflect this belief. These edits are reflected in the Revised Study Q-Set and could be used for Q-sorts in other studies (see Appendix S).

Two participants also indicated there was a statement missing from the Q-set. HS1-12 suggested that the statement “My teacher pressured me to be in the ensemble” be added to the Q-set and HS1-11 recommended “My friends pressured me to participate in the ensemble.” Both statements would fall under the first category, relational community, and are included in the Revised Study Q-Set.

The Revised Study Q-Set (see Appendix S) reflects the removal of the six

statements resulting from cleaning the data, recommended revisions, and additions. This set of 73 statements was qualitatively coded into seven emergent categories representing the values of music education according to students and teachers. A complete breakdown of parsed questionnaire responses by statement, site, and frequency by site as well as the total body of statements is available in Appendix K.

### **Comparison of Values of Students and their Teachers at each Site**

The data used to answer the second research question include participants' Q-sorts, participant background information and post-sort interview responses. Because the six invalid statements in the Q-sort were removed after the participants performed the sort, the data generated from the Q-sorts could not be analyzed with traditional processes such as PQMethod. Instead, the class values (-5 to +5) of the remaining 71 statements in each sort were reliably converted from ordinal data into an 11 point Likert-type scale and recoded 0 to 10 in order to quantitatively analyze the data. For each participant, I calculated seven scores by averaging the class values of all of the statements in each category. Then, the scores of the four student participants at each site were averaged to create a mean student score. These mean scores were used to rank the categories and were then compared to the teacher's scores.

**High school 1.** The wind band director at HS1 (HS1-T) is White, in her 30s, has attained a Master of Music degree and has more than 15 years of teaching experience. She has been teaching at this school for about a decade and is active as a performer and educator outside of her program. Each of the four students was

White and plays a different instrument in the wind band program; one also participated in the jazz ensemble. No one in the group, comprising two males and two females, takes private lessons. One student participates in a peer-run ensemble, but the three students' entire instrumental music experience lies solely within the framework of the high school music program.

After participants sorted the statements, several questions were asked to better understand their values of wind band education. Students articulated different overarching values. HS1-9's sort was reflective of the importance of music as an emotional experience. He reported that he struggled with placing most of the cards because he felt many were selfish reasons for participating in wind band. HS1-12 stated that his sort emphasized an enjoyment of music. His responses regarding the importance of personal expression were similar to HS1-9's.

HS1-10 was succinct with every response but expressed that her music teachers had significant impact on her. She stated that different areas in her sort reflected the things her various music teachers had emphasized with her current teacher positioned in the positive side of the sort. HS1-11 also focused on strong relationships with her teacher in the post-sort discussion. She discussed at length her desire to develop a close-knit, family-like group in both the flute section and the ensemble. Her sort aligned with the comments she made in the discussion: The statements centering on the cultivation of relationships and building community were placed in the positive side of the sort.

HS1-T's responses to the post-sort interview questions contrasted with those

of the students. She emphasized a particular set of skills that she had learned as a student through participation in ensembles including time management, responsibility, and working as a team, among others. These skills seemed to be highly important to HS1-T, and the corresponding statements were placed in her sort accordingly. These same skills were not emphasized by the students in either their post-sort interviews or their sorts; they tended to emphasize relationships, personal expression, and the enjoyment of a musical experience. A similar pattern emerged from the ranking of category scores (Table 2), but the ranking also suggested some consistency in values statement sorting between the teacher and her students.

Table 2  
*HS1 Q-Sort Analysis: Student and Teacher Category Score Comparison*

<b>Category</b>	<b>Student</b>		<b>Teacher</b>
	<b><i>M</i></b>	<b><i>SD</i></b>	
Self-expression	5.75	2.84	4.40
Musical skill development	5.73	2.32	4.17
Unique academic experience	5.53	2.30	3.40
Relational community	5.50	2.44	5.27
Cooperative responsibility	5.45	2.33	5.30
Personal skill cultivation	4.53	2.02	7.31
Tangential rationale	3.53	2.80	3.20

The data suggest that students agreed most strongly with the statements in the self-expression and musical skill development categories (5.75 and 5.73 respectively), but that the teacher did not agree as strongly (4.40 and 4.17, respectively). The teacher agreed most strongly with the personal skill cultivation

category (7.31); however, it was the sixth (of seven) in terms of student agreement (4.53). The statements in personal skill cultivation are the skills that the teacher spoke at length about during her post-sort interview as the focus of the music education experience she was providing her students. Both the teacher and the students showed the lowest level of agreement for tangential rationale (3.20 and 3.53 respectively).

**High school 2.** The wind band director at HS2 (HS2-T) is in his 30s with more than a decade of teaching experience, most of which has been at HS2, has attained a Master of Music degree, and is an active performer in various ensembles. All four students at HS2, one male and three females, were involved in music activities outside the framework of their high school such as music lessons, church ensembles, community ensembles, and community musicals. Each of the four student participants plays a different instrument in the ensemble.

The students highlighted similar themes in their post-sort interviews, with strong similarities found among HS2-9, HS2-10, and HS2-11. These students stated that the statements regarding time management, motivation, and responsibility were the hardest to place in their Q-sorts. All three felt that they had these skills prior to being in band and, for HS2-9, were developed more through other experiences. Both HS2-11 and HS2-12 spoke eloquently about how they had learned and grown as leaders in their ensemble. HS2-12 stated that being a leader allowed her to connect with the teacher while spending time with friends.

The same skills spoken about by three of the four students were important to

their teacher, too. HS2-T felt these traits were instilled in him through ensemble music education experiences and his desire was to have his students learn them through the instrumental music program. HS2-T said that teaching these skills is a high priority because he sees applications for them in aspects of life outside of the wind band program; however, the stated importance of these skills was not reflected in his sort (Table 3).

Table 3  
*HS2 Q-Sort Analysis: Student and Teacher Category Score Comparison*

<b>Category</b>	<b>Student</b>		<b>Teacher</b>
	<i>M</i>	<i>SD</i>	
Relational community	5.89	2.75	4.55
Unique academic experience	5.53	2.31	5.40
Personal skill cultivation	5.31	2.43	4.38
Musical skill development	5.13	1.93	5.92
Cooperative responsibility	4.60	1.79	6.90
Self-expression	4.30	2.60	6.00
Tangential rationale	3.88	3.20	2.10

Personal skill cultivation, which was spoken of highly by the teacher in the post-sort interview, was not reflected in the teacher's score (4.38); it is his second lowest. The mean student score for the same category (5.31) suggests that students place a higher value on these collection of statements than their teacher. It is ironic that students, who found the statements in personal skill cultivation to be the hardest to place, generally placed them higher than the teacher who, in the post-sort interview, espoused the importance of them.

A distinct divergence between the students and the teacher was evident in

the relational community, cooperative responsibility, and self-expression categories. Relational community had the highest mean student score (5.89) but the third lowest for the teacher (4.55). Similarly, cooperative responsibility was the highest teacher score (6.90) but the third lowest of mean student scores (4.60). Finally, self-expression had the second highest score for the teacher (6.00) compared with the second lowest mean student score (4.30). Both the teacher and the students showed the lowest level of agreement for tangential rationale (2.10 and 3.88 respectively).

**High school 3.** The wind band director at HS3 (HS3-T) is in her 30s, has eight years of teaching experience, including six at her current site, and has earned a Master of Music degree. The four students at HS3, three females and one male, all play different instruments in the two school wind band ensembles that meet during the academic day. Three out of the four students at HS3 are involved in various music activities outside of the school music program including private lessons, community ensembles, and even learning other instruments on their own.

A general disconnect between the teacher and the student participants was evident in the post-sort interview process. HS3-T emphasized the personal skill cultivation category in her interview. She found this collection of statements to be the most difficult to place because she wanted to place all of them in the most agree side of the sort, but they could not all fit due to the unimodal distribution framework. For HS3-T, these statements represented the characteristics that distinguish wind band from other academic classes and she stated a strong sense of mission to instill these skills in her students to help foster better citizenship.



Of the four students, HS3-9's post-sort interview most closely resembled her teacher's. This student noted the positive impact the skills she learned in wind band had in her other classes. HS3-9 specifically noted learning to be patient, as well as general personal growth in responsibility and time management, that she credited to her wind band experience; all of these statements are in the personal skill cultivation category.

The remainder of HS3 student participants struggled when placing this same group of statements. These students stated that this collection of skills was already internalized and that they were simply enhanced in—rather than being organic to—wind band. Additionally, HS3-10 and HS3-11 reflected on the importance of peer relationships in their ensemble experience. HS3-10 spoke about the family aspect of the ensemble and HS3-11 noted how her leadership role helped her to be a part of the community. HS3-12 discussed a straightforward perspective to his sort: the sheer enjoyment of playing music at a high level of musicianship. For this student, everything else was secondary. An analysis of the Q-sorts at HS3 (Table 4) also suggests a pattern of disconnect between students and their teacher.

Table 4  
*HS3 Q-Sort Analysis: Student and Teacher Category Score Comparison*

<b>Category</b>	<b>Student</b>		<b>Teacher</b>
	<i>M</i>	<i>SD</i>	
Musical skill development	5.73	2.40	3.83
Unique academic experience	5.63	2.13	4.10
Relational community	5.52	2.31	4.45
Self-expression	5.35	2.35	4.00
Personal skill cultivation	5.13	2.36	7.46
Cooperative responsibility	5.00	2.24	5.50
Tangential rationale	2.73	2.64	2.90

Musical skill development had the highest mean student score (5.73) but the second lowest for the teacher (3.83). It is interesting to note that there might be an assumption that the music teacher would place a higher value on the statements in this category, but the data suggest otherwise. The teacher agreed more strongly with the statements in personal skill cultivation (7.46) than the students (5.13). The teacher spoke highly of these statements in her post-sort interview and it is also represented in the analysis as her highest score. Self-expression had a notable difference between the mean student score (5.35) and the teacher score (4.00) demonstrating that students generally agreed more strongly with these statements than the teacher. Both the teacher and the students showed the lowest level of agreement for tangential rationale (2.90 and 2.73 respectively).

#### **Comparison of Students' and Teachers' Values Across all Sites**

To answer the third research question, the Q-sort data were examined in a similar way to Question 2. For each of the seven categories the average of the 12

student means were compared to the average of the three teacher scores. These averages, the participants's background information, and their post-sort interview responses were used to understand how the students' values compare to teachers'.

The 12 students selected to participate in this study embody a wide range of experiences and interests. There were three students in each secondary grade with a total of eight females and four males. Seven of the students experienced playing an instrument solely within their high school wind band program. The other five students had a broader array of musical activities with private instruction, participation in community ensembles, peer run groups, or learning additional instruments on their own. Collectively, each instrument family of the wind band happened to be represented among the students. Mean student scores from each site are shown in Table 5.

Table 5  
*Student Participants Q-Sort Analysis: Category Score Comparison*

<b>Category</b>	<b>HS1</b>		<b>HS2</b>		<b>HS3</b>	
	<b><i>M</i></b>	<b><i>SD</i></b>	<b><i>M</i></b>	<b><i>SD</i></b>	<b><i>M</i></b>	<b><i>SD</i></b>
Relational community	5.50	2.44	5.89	2.75	5.52	2.31
Unique academic experience	5.53	2.30	5.53	2.31	5.63	2.13
Musical skill development	5.73	2.32	5.13	1.93	5.73	2.40
Self-expression	5.75	2.84	4.30	2.60	5.35	2.35
Cooperative responsibility	5.45	2.33	4.60	1.79	5.00	2.24
Personal skill cultivation	4.53	2.02	5.31	2.43	5.13	2.36
Tangential rationale	3.53	2.80	3.88	3.20	2.73	2.90

The three teachers participating in this study share similar backgrounds.

They have similar education backgrounds, having all earned Bachelor of Music and

Master of Music degrees. All three teachers have a comparable number of years in the teaching profession (8–15), in their current positions (6–12), and all work with established wind band programs. In addition, all live in geographic proximity to each other and play regularly with various semi-professional and professional music ensembles. Teacher scores from each site are shown in Table 6 and an analysis of both teacher and student Q-sort data (Table 7) demonstrate that these two participant groups have distinct differences.

Table 6

*Teacher Participants Q-Sort Analysis: Category Score Comparison*

<b>Category</b>	<b>HS1-T</b>	<b>HS2-T</b>	<b>HS3-T</b>
Personal skill cultivation	7.31	4.38	7.46
Cooperative responsibility	5.30	6.90	5.50
Self-expression	4.40	6.00	4.00
Relational community	5.27	4.55	4.45
Musical skill development	4.17	5.92	3.83
Unique academic experience	3.40	5.40	4.10
Tangential rationale	3.20	2.10	2.90

Table 7

*All Participants Q-Sort Analysis: Student and Teacher Category Score Comparison*

<b>Category</b>	<b>Student</b>		<b>Teacher</b>	
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>
Relational community	5.64	2.30	4.75	2.07
Unique academic experience	5.56	2.23	4.30	2.45
Musical skill development	5.53	2.23	4.64	2.33
Self-expression	5.13	2.63	4.80	2.04
Cooperative responsibility	5.02	2.15	5.90	1.99
Personal skill cultivation	4.99	2.29	6.38	2.28
Tangential rationale	3.38	2.91	2.73	2.21

There were wide differences between the mean student score and the mean teacher scores for several categories. Unique academic experience had a mean student score (5.56) that was significantly higher than the mean teacher score (4.30) indicating that students agreed more strongly with these statements; it was also the second highest for students but the second lowest for teachers. Conversely, teachers highly agreed (6.38) with the statements in personal skill cultivation but students did not agree as strongly (4.99). This was the highest mean teacher score and the second lowest for the students. Both the teachers and the students showed the lowest level of agreement for the statements in tangential rationale (3.38 and 2.73 respectively).

### **Relationships Between Students' and Teachers' Values**

The final research question was addressed by calculating correlation coefficients between student scores and teacher scores for each category at the site level as well as across sites. At the site level, a mean score for each statement in a category was calculated for the students. These mean scores were paired with the teacher statement responses and Pearson's  $r$  was calculated. This process was repeated for the entire sample of students and the three teachers. A probability value was calculated for all resulting correlations and categories for which  $p < .05$  were extracted for discussion. Evans (1996) provided guidelines for describing the strength of these correlations (Table 8).

Table 8  
*Descriptors for Strength of Correlation Coefficients*

<i>r</i>	Strength
.00–.19	Very weak
.20–.39	Weak
.40–.59	Moderate
.60–.79	Strong
.80–1.00	Very strong

At the site level, four categories had significant correlations between students and their teacher. At HS1, Pearson's  $r$  revealed a moderate negative correlation for the personal skill cultivation category ( $r = -.59, p = .03$ ). It had the highest teacher score, (7.31) but the second lowest mean student score (4.53).

At HS2, relational community had a strong negative correlation between the students and their teacher ( $r = -.74, p = .009$ ). The statements in relational community were the most important category to the students with a mean score of 5.89 but, for the teacher, it had the third lowest score (4.55). The correlation and corresponding  $p$  value indicate that the students' and their teacher's values for music education have a strong negative association in the relational community category.

The musical skill development category yielded two nearly identical sets of data at the site level. It had the same mean student score (5.73) at both HS1 and HS3; it was the highest mean score for HS3 and the second highest at HS1, differing from the highest categorical mean by 0.02. Conversely, musical skill development was the third lowest score for HS1-T (4.40) and the second lowest for HS3-T (3.83).

Pearson's  $r$  revealed nearly identical strong, significant positive correlations between teacher and student scores in the musical skill development category at HS1 ( $r = .67, p = .017$ ) and HS3 ( $r = .66, p = .02$ ).

The presence of these data points—two strong and significant correlations at two different sites with opposing categorical means between the students and their teachers—are not in opposition to one another. These data points indicate that, as teachers and students sorted the statements, a parallel and predictable relationship emerged. This resulted in strong positive correlations for the statements in the musical skill development category even as disparate means reveal disagreement in their values for the collection of statements that make up this category.

An analysis of the data across all three sites revealed a significant relationship between student and teacher responses in only one category. Personal skill cultivation had a strong negative correlation between the mean teacher score and mean student score ( $r = -.63, p = .028$ ). It had the highest mean teacher score (6.38) but it was the second lowest mean student score (4.99). This large difference in means demonstrates that students' values for music education in personal skill cultivation differ from the three teachers. Further, the strong correlation and corresponding  $p$  value indicate that there is a negative relationship between student and teacher values for the statements in this category: the higher value the teachers gave a statement, the lower the students did, and conversely.

## Summary

The first research question was addressed with the Revised Study Q-set. Questionnaire responses from 185 students and three teachers were extracted and parsed into 1,700 statements. These were processed using Block's (1978) California Q-Set Treatment. Structured sampling resulting in 77 individual values statements. Further scrutiny of the Q-set resulted in the removal of six statements. The remaining 71 statements were then organized into seven categories for quantitative analysis. Following participant post-sort interviews, four statements were revised and two were added to the Q-set. The final Q-set consisted of 73 statements qualitatively coded into seven emergent categories representing student and teacher values for wind band music education.

Participants' Q-sorts, participant background information, and post-sort interview responses were used to answer the second research question. These were compiled in order to understand how students' values for wind band experience compared to their teacher's at each of the three sites. Several patterns emerged in the data at all three sites. Students and their teacher showed the lowest level of agreement for the category tangential rationale. In addition, the categories with the highest mean scores for the students at each site were generally the ones with a low score from their teacher. The converse was also true: The categories with the highest teacher score were ones that generally corresponded with lower mean student scores.

The Q-sort student data was pooled and compared to the combined teacher



data in order to understand how the values of the entire sample of students and the three teachers compared. Again, both the teachers and students showed the lowest level of agreement for the statements in tangential rationale. For the students, relational community and unique academic experience were the categories with the highest mean scores while the teachers had the highest mean scores for personal skill cultivation and cooperative responsibility. Each category with a high mean score from one participant grouping was generally found to have a low mean score from the other.

The final research question was answered by calculating correlation coefficients to determine the relationship between the mean student scores and the teacher scores for each category at the three sites as well as between the entire sample of students and the three teachers. At the site level, four significant relationships ( $p < .05$ ) were found including relational community at HS2 ( $r = .74, p = .009$ ), personal skill cultivation at HS1 ( $r = -.59, p = .03$ ), and musical skill development at HS1 ( $r = .67, p = .017$ ) as well as HS3 ( $r = .66, p = .02$ ). An analysis of the data across the three sites revealed only one significant relationship, a strong, negative correlation between the student and teacher mean scores for personal skill cultivation ( $r = -.63, p = .028$ ).

## Chapter 5

### Study Discussion and Conclusions

The percentage of students enrolled in music education classes has been declining in the United States over many decades (Dembowski et al., 1979; Elpus & Abril, 2011; Hartley, 1996, 1991; Hoffer, 1980; Music for All Foundation, 2004; Stewart, 1991; von Zastrow & Janc, 2004; Williams, 2011; Woodworth et al., 2007) due in part to the inability of the music education system to reconcile with contemporary culture (Kratus, 2007; Myers, 2005; Reimer, 2004; Williams, 2007). One way to begin reversing this trend is to recognize student values of music education in both curriculum and pedagogy in order to create greater attachment, ownership, and membership (Furrer & Skinner, 2003; Hurley, 1992, 1995; Mitra, 2003, 2004; Rudduck et al., 2003; Rudduck & Flutter 2000, 2004). The findings from this study help to continue the discourse regarding the role of values in education by investigating and comparing student and teacher values of wind band education.

I adopted the subjectivist viewpoint of value theory, positioned in the field of psychology, to serve as the theoretical framework. From this perspective values are understood as the enduring or central principles used to guide a person towards a desired end through constant assessment of actions, attitudes, and beliefs (Dewey, 1939; Frondizi, 1963; Rescher, 1969; Raz, 2005; Rokeach, 1973). I paired value theory with Q methodology, which allows participants' subjective values to be observed because the act of evaluation is inherent in the unique sorting activity.

This study was conducted in two phases during the spring of 2014 at three

randomly selected public secondary school sites in Chester County, Pennsylvania. Phase 1 procedures included the administration of a questionnaire with four open-ended questions to students enrolled in wind band programs ( $N = 188$ ) and their teachers ( $N = 3$ ). I performed structured sampling on the responses to the questionnaire as part of Block's (1978) California Q-Set Treatment process. Through this process, statements were extracted verbatim to form the concourse, parsed for singularity, grouped for structured sampling, and assigned neutral headlines. The result was a Q-set of 77 statements.

In Phase 2, four student participants, one per grade, were randomly selected from each site. During a one-on-one session, these participants and their teachers provided background information, sorted the Q-set into a forced-sort, 11 class, unimodal distribution framework, and responded to follow-up interview questions. The Q-sorts from these sessions were initially analyzed with PQMethod version 2.35; however, following the initial analysis, a problem with the validity of the Q-set was discovered. Student responses to the final item on the questionnaire skewed the data away from their values and, instead, towards what they had learned from their wind band experience. Questionnaires were reexamined and six statements that had been created from the responses to this prompt were removed from the Q-set. The removal of these statements collapsed the integrity of a standard Q-sort analysis, requiring a revised data analysis processes.

I harvested the ordinal data from the remaining 71 statements by converting the class values into an extended Likert-type scale. This allowed quantitative data

analysis processes to be used and has been shown to be reliable by statisticians (Boone & Boone, 2012; Carifio & Perla, 2007; Dabrowska, 2010; Labovitz, 1967; Miricioiu & Atkinson, 2017). The remaining statements were qualitatively coded into seven emergent categories that were used as the basis for analysis. A score was determined in each category for every participant by calculating the mean of the class values of the statements for that category. At each site, the categorical scores for the student participants were averaged to calculate a mean student score that was then used to rank and compare students' responses with their teacher's. An average of the 12 student means was also compared to the average of the three teacher means to understand how categories compared across sites.

Correlation coefficients were calculated for each of the categories in order to understand the relationship between teacher and student values. A mean score for each statement in a category was calculated for the students at each site. These were paired with their teacher's responses and Pearson's  $r$  was calculated. Probability values were calculated for each correlation; statistical significance was defined as probability value of less than 5% ( $p < .05$ ).

A similar process was followed to compare the entire sample of students and the three teachers. The mean of the class values that the students assigned to each statement in a category were paired with the mean of the three teachers' responses. Pearson's  $r$  was computed as well as a probability value. Categories with significant correlation coefficients ( $p < .05$ ) were extracted for discussion.

## **Discussion of the Findings**

The study findings are summarized below by research question. The revised Q-set and post-sort interview responses were used to answer the first research question. A comparison of categorical means from students and their teachers at each site provides the basis for the second research question and are contextualized with participant background information and post-sort interview responses. The third research question was addressed in a similar manner, but with categorical means from across the sites. Significant correlation coefficients, resulting from a comparison of student and teacher responses to each statement in a category, provided the data for the final research question. All findings are contextualized with results from other research studies.

**Values of wind band participation.** The data used to answer this research question were derived from the questionnaire responses by students and teachers during Phase 1. The 1,700 responses from the 188 questionnaires were processed using Block's (1978) California Q-Set Treatment. Structured sampling resulted in 77 individual values statements that were then used for Phase 2 processes. Revisions were made to four statements and two were added based on feedback from participants during post-sort interviews. An additional six statements were removed because they had been generated from a questionnaire prompt that skewed from the purpose of the study.

**Findings.** The revised study Q-set comprises 73 statements and represents student and teacher values of wind band participation. It reflects the original 77-

statements, revisions and additions recommended by the participants in post-sort interviews, and the statements deleted to address concerns regarding the validity of the Q-set. I qualitatively coded these 73 statements into seven emerging categories for analysis (see Appendix S for the full revised Q-set):

- A: Relational community
- B: Cooperative responsibility
- C: Personal skill cultivation
- D: Musical skill development
- E: Self-expression
- F: Tangential rationale
- G: Unique academic experience

The values statements in the first two categories speak to various types of relationships and the interdependence of an ensemble. The statements in relational community include statements about various friendships, the relationship with the director, a sense of family, and feeling safe and supported. The statements in cooperative responsibility express collaboration, teamwork, and the process of improving from and as a group.

The next three categories are focused on individual growth and expression. Personal skill cultivation statements are centered around developing skills such as time management, leadership, focus, discipline, and others. The musical skill development category contains statements about personal improvement on an instrument, gaining musical knowledge, and developing musical talent. Statements in self-expression reflect emoting through music, school spirit and feeling successful when performing.

The final two categories are concentrated on personal benefits to being in

band. The statements in tangential rationale address extemporaneous aspects of ensemble participation including meeting a type of graduation credit, festival participation, travel opportunities, and others. Unique academic experience statements are about band being fun, a break from other classes, being able to rest, relax, and the unique challenges of being in band.

**Discussion.** The Q-set developed for this study has similarities to the collections of values statements used in two related studies, which were also created using data from participants in music ensembles. Farrell's (1972) Q-set was the product of open-ended questions answered by members of an adult choral ensemble. Eight different profiles were formulated from that Q-set: Integrative, Spiritualistic, Incidental, Communication, Social Status, Music Purist, Psychological, and Collective. Fifteen of the statements in Farrell's Q-set resemble statements used in this study (see Appendix T for a complete comparison). An important difference between this study and Farrell's is the population that was studied: Farrell drew solely from a population of adults who had been involved in choral programs for a number of years.

Hylton's (1980) values statements share several similarities to the Q-set for this study. Hylton gathered responses from open-ended questions posed to high school choral students and directors. Responses were used to construct a Choral Meaning Survey, which contained 70 values statements, about the same number as the Q-set for this study. Nearly half of the statements in Hylton's survey have a corresponding statement in this study's Q-set (see Appendix T for a complete

comparison). The percentage of similar statements increases to 57% when the 10 statements with a spiritual dimension, such as “to praise God for all His blessings” or “to bring people to Christ,” are removed from Hylton’s list of values. Only the tangential rationale category had a low occurrence of near matches to Hylton’s study with just one shared statement.

The composition of this study’s Q-set aligns with the findings for most related research studies. Various studies examining the values of music education held by stakeholders have found that non-musical outcomes outweighed musical outcomes in importance (Arasi, 2006; Bures, 2008; Cape, 2012; Countryman, 2008; Eckel, 1994). The Q-set for this particular study also has a greater number of statements reflecting non-musical outcomes. The revised Q-set is comprised of 47 non-musical outcome statements (64%) compared to 26 musical outcome statements (36%). Six of the seven categories contained non-musical outcome statements; the statements comprising musical skill development reflected purely musical outcomes.

**Comparison of students’ and teacher’s values at each site.** The data used to answer the second research question includes participants’ Q-sorts, participant background information, and post-sort interview responses. The class values of all statements in each category were averaged together for each participant. The scores of the four student participants at each site were averaged to create a mean student score for each category. These mean scores were then compared with their teacher’s scores with parametric statistical analysis findings and discussion later in this chapter.



**Findings.** At HS1, the data suggest a distinct contrast between the four students and their teacher with the exception of one category. Tangential rationale had the lowest mean student score and the lowest score for their teacher (3.53 and 3.20, respectively). Aside from this alignment, students and their teacher emphasized opposing values in their Q-sorts and post-sort interviews. For the teacher, the statements found in personal skill cultivation were the most important. HS1-T discussed these skills in the post-sort interview and it had the highest score (7.31); however, it was the lowest mean student score (4.53) after tangential rationale. Students, conversely, emphasized the categories of self-expression, musical skill development, and unique academic experience in their Q-sorts and post-sort interviews. These categories received their highest mean scores (5.75, 5.73, and 5.53 respectively); however, these were the three lowest scores after tangential rationale for the teacher.

At HS2, a similar pattern of divergence between the students and their teacher was evident in the data, with the exception, again, of tangential rationale, which received the lowest mean student score and the lowest score from their teacher (3.88 and 2.10, respectively). For the students, relational community had the highest mean score (5.89), but it was the second lowest for the teacher (4.55) after tangential rationale. Cooperative responsibility and self-expression were the two highest means for the teacher (6.90 and 6.00, respectively) but were the two lowest mean student scores (4.60 and 4.30) after tangential rationale.

At HS3, the same lack of alignment between student and teacher categorical

means was present, again with the exception of tangential rationale, which had the lowest mean student score (3.88) and the lowest teacher score (2.10). HS3-T emphasized personal skill cultivation in the post-sort interview and the Q-sort (7.46) but students did not; it was their second lowest mean score (5.13) after tangential rationale. The mean student scores were higher in almost every category indicating stronger agreement with the statements compared to the teacher. The two categories with the statements most important to the students were musical skill development (5.73) and unique academic experience (5.63). For HS3-T, these categories had the second lowest and middle scores (3.83 and 4.10, respectively).

**Discussion.** The data suggest that at each of the sites, there is a distinct lack of alignment between the students' values and those of their teacher. The categories with the highest teacher scores were, across sites, the categories that had some of the lowest mean student scores. The converse was also true: the categories with the highest mean student scores were the ones that generally had the lowest teacher scores. The exception at all three sites was tangential rationale. It had the lowest mean student score and teacher score at all sites suggesting that the statements in tangential rationale were the least important to nearly every participant.

Previous researchers have found that current and former student and teacher values do not, in general, align with each other (Arasi, 2006; Bredfeldt, 1991; Bures, 2008; Cape, 2012; Clower, 1987; Cothran, 1996; Countryman, 2008; Eckel, 1994; Holt, 1992; Huang, 1999; Mills, 1998) and their findings are echoed in the site level examination of student and teacher music education values in this

study. Although other researchers have demonstrated strong agreement between students and teachers (Betancourt, 2008; Piekarz, 2006), their results seem to be outliers. This study indicates a lack of agreement between students and their teachers and is affirmed by the majority of similar studies.

**Comparison of students' and teachers' values across all sites.** The data used to answer the third research question includes participants' Q-sorts, participant background information, and post-sort interview responses. Data was compiled based on two participant groupings, the 12 students and the 3 teachers. Q-sort data was compared by averaging the 12 student means and the three teacher scores for each category. The resulting means and their rankings were compared to understand, collectively, student and teacher values with parametric statistical analysis findings and discussion later in the next section of this chapter.

**Findings.** A similar pattern to that found in the second research question data emerged in collective participant data. Students and teachers shared their lowest categorical means for tangential rationale (3.38 and 2.73, respectively). Aside from this alignment, students consistently rated categories very differently than their teachers did. Teachers demonstrated their highest level of agreement with the statements in personal skill cultivation (6.38) and cooperative responsibility (5.90); however, these were the lowest and second lowest, after tangential rationale, for the students (4.99 and 5.02, respectively). The highest student categorical means were relational community (5.64) and unique academic experience (5.56) but these categories had the third lowest and lowest means for the teachers after tangential

rationale (4.75 and 4.30, respectively).

**Discussion.** Researchers have found that the values of current and former students do not align with their teachers (Arasi, 2006; Bredfeldt, 1991; Bures, 2008; Cape, 2012; Clower, 1987; Cothran, 1996; Countryman, 2008; Eckel, 1994; Holt, 1992; Huang, 1999; Mills, 1998). Student and teacher values differ in regards to the importance of relationships (Arasi, 2006; Bures, 2008; Cape, 2012; Countryman, 2008; Eckel, 1994; Huang, 1999; Mills, 1998), self-oriented values (Cothran, 1996; Holt, 1992), and personal values (Bures, 2008; Cape, 2012; Eckel, 1994). These differences are present in an examination of the category data in this study.

Across all three sites, students prioritized different categories than the teachers. Relational community had the highest mean student score (5.64) but was the middle scoring category for the teachers (4.75). A number of researchers have found that both current and former students place greater importance of the social aspect of the classroom experience than teachers in secondary and college music education settings, as well as in other contexts (Arasi, 2006; Bures, 2008; Cape, 2012; Countryman, 2008; Eckel, 1994; Hunt-Binkley, 2006; Mills, 1998; Obamehinti, 2014). The findings from this study are consistent with previous research.

Researchers have also found that for students, social values outweigh both music education and personal values (Bures, 2008; Cape, 2012; Eckel, 1994). Musical skill development and personal skill cultivation were the third and sixth categories when ranked by collective mean student scores, whereas relational community was first. This study affirms the finding that social values outweigh

music education and personal values for students.

Collectively, the teachers demonstrated a strong sense of shared values for music education as evidenced in their post-sort interviews and categorical means. Personal skill cultivation had the highest mean teacher score (6.38) indicating strong agreement with these statements. In addition, all three teachers spoke of the importance of the skills encapsulated in this category during their post-sort interviews. These pieces of evidence suggest that there are shared values among the three educators regarding the importance of teaching personal skills in the wind band curricula. The existence of shared educator values aligns with Holt's (1992) finding that teachers place a higher priority on the development of character than academic content. In addition, it affirms studies that have concluded there are shared values among educational professionals (Bouchard, 2011; Gallagher, 1975; Jordan, 2013).

**Relationships between student and teacher values.** Correlation coefficients for each category were calculated to answer the fourth research question in two different ways: by site to compare students' and their teacher as well as across sites to compare the entire sample of students to the three teachers.

**Findings.** Four correlations were significant ( $p < .05$ ) at the site level. A lack of agreement between students and their teacher was present with the presence of a strong negative correlation ( $r = -.74, p = 0.009$ ) for relational community at HS2 and a moderate negative correlation ( $r = -.59, p = 0.030$ ) at HS1 for personal skill development. At HS2, relational community had the highest mean student score

(5.89) but was the third lowest for their teachers (4.55). Personal skill development had the highest teacher score at HS1 (7.31) but was the second lowest mean student score (4.53). These correlations and the opposing rankings of categorical means between the students and their teacher demonstrate negative associations for the values represented in these categories.

Even the presence of two nearly identical strong positive correlations at HS1 ( $r = .67, p = 0.017$ ) and HS3 ( $r = .66, p = 0.020$ ) for musical skill development indicated a lack of agreement between the teachers and their students. At HS1, it had the second highest mean student score (5.73) but was the second lowest score for the teacher (4.17). The HS3 mean student score (5.73) was the highest but, for the teacher, it was the second lowest (3.83). These data points demonstrate that there is a consistent relationship between the way the students and the teacher at these sites sorted these statements. Although there are strong positive correlations between the students' and teachers' responses at the statement level, their means demonstrate disagreement in their values for the musical skill development category.

The lack of student and teacher alignment for their music education values was also present among data across sites. Only one significant correlation emerged, personal skill cultivation ( $r = -.63, p = 0.028$ ). This correlation, along with a large difference between the mean teacher score (6.38, the highest) and the mean student score (4.99, the second lowest), indicate a strong, negative relationship between their values on the statement level.

**Discussion.** Research comparing the music education values of students and teachers has not been extensively investigated. In related studies, two researchers compared the values of students to the values of music teachers (Betancourt, 2008; Piekarz, 2006). Key differences exist between Betancourt's and Piekarz's studies and the present study. For instance, students and teachers were not consistently drawn from the same sites in Betancourt's study, and Piekarz inferred teacher values from curricula documents. These processes resulted in conclusions that lack direct comparisons between students and their teachers. The general results of these studies indicated that music teacher and student values aligned but the correlations found in this study indicate the opposite.

Although the findings from this study are inconsistent with Betancourt's (2008) and Piekarz's (2006), they are consistent with other researchers. Comparisons of current and former student and teacher values have demonstrated students and their teachers lack values alignment in both music education settings (Arasi, 2006; Bures, 2008; Cape, 2012; Countryman, 2008; Eckel, 1994; Mills, 1998) as well as other contexts (Bredfeldt, 1991; Clower, 1987; Cothran, 1996; Holt, 1992; Huang, 1999).

### **Limitations of the Study**

There are several limitations to the generalizability of this study that are related to the study's framework and approach. First, the geographic area from which the participants were drawn may have been restrictive. Participants were all from one predominantly affluent and White area of the United States and, because of

this, these students have well-funded music education experiences, different backgrounds, and lower levels of diversity in socioeconomic status, ethnicity, cultural experiences, and life experiences than students in other counties, states, or regions of the country. This may have led to the generation of different values statements, Q-sorts, and, by extension, study findings than in other locations.

Another limitation of this study is that student participants were drawn from those enrolled in wind band programs. As a result, the findings may not be reflective of the wider student population because they are insular to a group of participants who have chosen to participate in wind band programs. For example, the relational community category emerged as the most important to their wind band experience but the values statements in this category may not be as important to students outside wind band programs, including those who have left ensembles. Or, it could be that students have found other organizations or experiences that meet the import of relationships.

The most pronounced limitations of this study stem from the subjectivity present in the creation of the Q-set and categories, the Q-sort, and the findings resulting from the data. It is probable that other researchers might transcribe and parse the questionnaire responses in a similar manner that I have; however, each step afterwards becomes increasingly more subjective. Other researchers may have organized the parsed statements into slightly different groupings, selected or composed headline statements that vary from mine, and grouped the headline statements into alternate categories. Any deviation from what I have constructed



would result in a different Q-set which, in turn, would affect how each participant understood and sorted the statements. Different sorts would result in different mean student scores, teacher scores, and correlation coefficients, all of which affect the study results.

The Q-sort itself can be considered a limitation. HS3-12, for example, stated in his post-sort interview that the sheer enjoyment of playing music at a high level of musicianship was the most important aspect of wind band and everything else was secondary. I don't believe that he approached the remainder of the other statements haphazardly but, on some level, there is no way to know for certain the thought processes and resulting decisions in any of the participants' minds during the Q-sort. It is only a representation of a person's values at one moment in time and, therefore, remains subjective even as thematic and statistical analyses are applied to the resulting data.

Another limitation is the small number of participants coupled with the type of analysis that I used for the study. Typically, factor analysis would be applied to the Q-sort results with a small number of participants. With the removal of six statements, the integrity of the sorts was undermined making factor analysis processes unreliable. The results from parametric statistical analysis processes would have been richer with more than 15 participants.

Finally, the differences in values between students and teachers may be more subjective and nuanced than the scope of this study. There were notable differences in the weight students and teachers gave the relational community category. This

may mean, on some level, that the students' wind band experiences are indicative of strong relationships, possibly facilitated by curricula and pedagogy, even as the teachers placed less import on them. Kollmeier (1980) notes that students are prone to choose teachers who they believe have similar values.

### **Implications of the Study**

Findings from this study and others indicate misalignment between student and teacher values in both music education and other secondary classrooms (Arasi, 2006; Bredfeldt, 1991; Bures, 2008; Cape, 2012; Clower, 1987; Cothran, 1996; Countryman, 2008; Eckel, 1994; Holt, 1992; Huang, 1999; Mills, 1998). This underscores an important opportunity for educators: teachers have opportunity to shape the values of their students as well as to allow student values to influence curriculum and pedagogy. Researchers have noted that education environments with divergent student and teacher values are conducive for a shift in students' values (Clower, 1987; Goldschmidt, 2015; Grant, 1993). Music educators, therefore, are able to mold and shape the music education values of their students.

Music educators' opportunity to shape students' values is in concert with a second implication of this study: the importance of advocacy inside the music classroom. Many educators recognize the importance of undertaking advocacy efforts with peer faculty, administrators, school boards, and community members as well as on the state and national level. Advocacy within the context of an ensemble, however, may very well be as important. Teachers may be able to influence students' values by discussing the importance of music education, sharing the

results of studies that document its impact, and highlighting the uniqueness of a wind band ensemble. Advocacy within the classroom may help to mold and shape students' values towards music education at a time when those values may be most malleable (Clower, 1987; Goldschmidt, 2015; Grant, 1993) and foster a new generation of students committed to the importance of music education.

A third implication from this study addresses the decline in music class enrollment (Dembowski et al., 1979; Elpus & Abril, 2011; Hartley, 1996, 1991; Hoffer, 1980; Music for All Foundation, 2004; Stewart, 1991; von Zastrow & Janc, 2004; Williams, 2011; Woodworth et al., 2007). One method to begin reversing this trend is to create space for students' values in music classes in order to create greater attachment, ownership, and membership (Furrer & Skinner, 2003; Hurley, 1992, 1995; Mitra, 2003, 2004; Rudduck et al., 2003; Rudduck & Flutter 2000, 2004). The three categories with the highest means for the entire sample of students were relational community, unique academic experience, and musical skill development. In many ways, ensemble experiences meet the values statements found in the latter two categories rather naturally. It is the category relational community, the most important category to the students in this study, which needs more attention if music educators are to address enrollment declines.

One approach to capitalize on the importance of relational community to our students is to construct pedagogical approaches where students can engage in discussions within the context of a rehearsal. These could include: student discussions on current or proposed concert repertoire, student presentations

and/or discussions of music that is unfamiliar to them, peer critiques of sections within the ensemble or corporate ensemble performance, and student driven objectives for upcoming rehearsals, among others. From this study it is clear that relationships are most important to students. By creating opportunities to strengthen these inter-ensemble relationships students will recognize tangible ways their values and voices are heard which could lead to greater attachment and ownership to their ensemble programs.

Although relational community may be unique to the student participants in this study, those enrolled in wind band, this implication may also be applied outside of music education contexts. Secondary classrooms can seek to emphasize the importance of relationships among their students by creating space for classroom discussion, Socratic method, or other pedagogical approaches. Student agency in the classroom will result in greater attachment, ownership, and membership (Furrer & Skinner, 2003; Hurley, 1995, 1992; Mitra, 2004, 2003; Rudduck et al., 2003; Rudduck & Flutter, 2000, 2004) and this is certainly a goal to which all educators should aspire.

Educators do need to be careful that, in the process of highlighting relationship values, curricular goals are not superseded. Cothran (1996) demonstrated that when teachers gave deference to the relationship values of students by removing the curricular goals it confirmed students' belief that the class had nominal educational relevance. After all, students desire rich curricular experiences rather than control of the classroom (Butroyd, 2007; Cothran, 1996).

### **Suggestions for Future Research**

In this study I identified the values of music education for students and teachers at three secondary schools in Southeastern Pennsylvania. The location from which participants were drawn limits the generalizability of the study. Therefore, it would be important to conduct further research utilizing the Phase 2 processes with the revised Q-set in areas that represent a diversity of socioeconomic status, race and ethnicity, school size, geographic area, as well as other school contexts such as independent, charter, or public-private institutions. Such a study would allow the music education community to understand how the results of this study data compare in different secondary school settings.

The organizations that were included in this study were all high school wind bands, which limits the generalizability of the study results to other grade levels and contexts. Phase 2 processes with the revised Q-set could be applied at the middle school and collegiate levels in wind band ensembles. In addition, it could be used to understand the music education values of students and teachers in the general music classroom, orchestra, jazz, or choir ensembles, as well as guitar and piano classes, among others.

In this study, I found that students' and teachers' values were not in agreement. This finding corroborated previous research (Arasi, 2006; Bredfeldt, 1991; Bures, 2008; Cape, 2012; Clower, 1987; Cothran, 1996; Countryman, 2008; Eckel, 1994; Holt, 1992; Huang, 1999; Mills, 1998). In this study, students favored the relational community category, one of the lowest for the teachers, while

teachers favored the personal skill cultivation category, one of the lowest for students. Other studies have demonstrated that student values change over time (Clower, 1987; Cobb, 1998; Goldschmidt, 2015; Grant, 1993) but this study captured student values at one point in their high school career. Longitudinal studies could be conducted where students and teachers complete Q-sorts at various or multiple points to determine the plasticity of their values. Researchers could conduct Q-sorts among students at the beginning of the school year and compare them to the results at the end. Studies could also be conducted at the beginning of an academic level (middle school, high school, or college) and then compare them with the results at the end of that educational division.

This study and others have found a disconnect between teacher values and both current and former student values (Arasi, 2006; Bredfeldt, 1991; Bures, 2008; Cape, 2012; Clower, 1987; Cothran, 1996; Countryman, 2008; Eckel, 1994; Holt, 1992; Huang, 1999; Mills, 1998). A final suggestion for future research is for teachers to have their own students complete Q-sorts using the revised Q-set. Educators would then have a better understanding of their own students' values, which could lead to enriched interactions, relationships, and a broader understanding of the many individuals that comprise their classes and ensembles.

## **Conclusion**

This study represents the first steps towards a better understanding of the various values that students and teachers hold, and how each group's values compare to the other. The data suggest that the students' values were, in general,

not aligned with their teachers' values. Through music educator efforts to create space in their curricula and pedagogy to recognize student values, build inter-ensemble relationships and community, and advocate for music education within the context of the classroom, it may be possible to stem the decades-long enrollment decline of secondary wind bands. By incorporating these strategies, teachers can help students feel more ownership, membership, and attachment to their secondary wind band programs, which might boost student enrollment.

## Appendix A

### Administrator Introduction Letter

Dear (school principal name),

I teach instrumental music at nearby Westtown School and I am beginning a research study as part of my Doctor of Musical Arts program at Boston University that investigates and compares the values of music education identified by high school band students and teachers. This study was recently approved by BU's Institutional Review Board and your school was one of the four sites randomly selected in our county. I am seeking your permission to work with (director name) and your students. The commitment is nominal: I only require 15 minutes with the ensemble, during a regular or called rehearsal, and 30–45 minutes in one-on-one sessions with your instrumental music teacher and four students after the academic day. Within four weeks after my last visit I will provide (name of director) with collated data that will include all of the different value statements students identified as well as how students' values thematically compare with (name of director).

There are potential benefits for (director name) and his/her students. I piloted this study with my own students and my small ensemble identified 53 different reasons they participate in Symphonic Band! I also learned my students gradually change their value emphasis on musicianship, personal fulfillment, and the academic study of music to resemble my own. Conversely, my pilot study revealed that my students and I assign different levels of value to personal skills, social benefits, overall enjoyment, and musical skills. Finally, I learned that we all equally place little import on continuing with the ensemble for the sake of the investment of time or finances.

No study is ever 'risk free' but the risks for this study are minimal. One risk is the loss of confidentiality and I recognize that the sharing of one's thoughts and opinions represent a small loss of privacy. Also, during the interview process subjects could become tired. I will work hard to reduce all of these possible risks by putting students at ease through the process, storing any information shared in password protected files, using codes rather than names, by not making public who is participating in these one-on-one sessions, and allowing for breaks if necessary during the interview process.

This study has been fully vetted by Boston University's Institutional Review Board and all procedures, consent and assent is in full compliance with their policies as well as Pennsylvania law. Further, please also know that I have all of the appropriate clearances, fingerprinting, and background checks as required by PA law as well as additional checks mandated by my own employer.



Having an independent researcher come and work with (director name) and his/her students has educational value for the instrumental music program. At the end of the process (director name) will have a number of reasons why students participate in band, a definitive understanding of where the director and students have similar values of music education, where they differ, and (director name) will have unique insight into his/her students' minds that could help him/her with curricula and pedagogy. I am seeking your permission to work with your students. I will be in touch in three academic days to answer any questions you might have. If you are not interested in your students and director participating in this study, please contact me either via email or by phone. Thank you for your consideration!

Sincerely,

Robert Frazier

## Appendix B

### Director Introduction Letter

Dear (music teacher),

As Chester County music teachers, we understand that there are many values inherent in a quality music education program. But have you ever wondered if your students perceive the same values for music education as you? I'm sure you can articulate at least a handful of reasons why your students are in your ensemble, but do you know the *exact* reasons why, how they compare to your own, and how their values change over their four years? Wouldn't this information be of keen value for you for evaluating ensemble activities, pedagogy, curricula and even be helpful for advocacy efforts? As an independent researcher I can provide just that information through a unique educational opportunity for you and your students.

I teach secondary instrumental music at nearby Westtown School and I am beginning a research study as part of my dissertation for Boston University. My study investigates and compares the values of music education identified by high school band students and their teachers. The commitment is nominal: I only require 15 minutes with your ensemble, during a regular or called rehearsal, and 30–45 minutes in a one-on-one session with you and four of your students after the academic day at your school. Within four weeks after my last visit I will provide you with collated data that will include all of the different value statements and the frequency at which they were identified by students in all of the schools, the value statements and frequency at which they were identified in your own school, and how your particular students' values thematically compare with your own.

I think this data will be beneficial to you. I piloted this study with my own students and my small ensemble of 25 identified 53 different reasons why they value music education. When I examined our value sorts I learned my students gradually change their value emphasis on musicianship, personal fulfillment, and the academic study of music to resemble my own. Conversely, my pilot study revealed that my students and I assign different levels of value to personal skills, social benefits, overall enjoyment, and musical skills. Finally, I learned that we all equally place little import on continuing with the ensemble for the sake of the investment of time or finances.

If you choose to participate in this research study, and even though the risks are minimal, it is important to understand that no study is ever 'risk free.' One risk is the loss of confidentiality and I recognize that the sharing of your thoughts and opinions represent a small loss of privacy. Also, during the interview process you may become tired. I will work hard to reduce all of these possible risks by putting you at ease through the process, storing any information you share in password protected

files, by using a code instead of your name, by not making public who is participating in these one-on-one sessions, and allowing for breaks, if necessary, during the interview process.

Having an independent researcher come and work with you and your students has educational value for your program. At the end of the process you will have a number of reasons why students participate in band which is useful for advocacy efforts, a definitive understanding of where you and your students have similar values of music education, where you differ, and you will have unique insight into your students' values systems that could help you with curricula and pedagogy. I am seeking your consent, permission, and assistance to work with you and your ensemble. I will be in touch in three academic days to answer any questions you might have. If you are not interested in participating in this study, please contact me either via email or by phone. Thank you for your consideration!

Sincerely,

Robert Frazier

## Appendix C

### Parent Introduction Letter

Dear Music Family,

I teach instrumental music at nearby Westtown School and I am beginning a research study as part of my Doctor of Musical Arts program at Boston University that investigates and compares the values of music education identified by high school band students and teachers. This study was recently approved by BU's Institutional Review Board and your student's school was one of the four sites randomly selected in our county. I have met with (principal name) and (director name) and both have agreed to allow this study to take place in your student's school. There are two phases for this study. In the first phase I will be surveying (director name) and the students in (name of ensemble) about why they participate in high school band on (day and date). This questionnaire will take about fifteen minutes and students' responses will be anonymous. In the second phase of the study I will take the reasons articulated in your student's ensemble and, combined with other students from four other schools, have (name of the director) and four randomly selected students sort these values as well as to answer some basic questions. Your student may not be selected for the second phase of the study.

There are potential benefits for (director name) and the students in (name of ensemble). I piloted this study with my own students and my small ensemble identified 53 different reasons they participate in Symphonic Band! I also learned my students gradually change their value emphasis on musicianship, personal fulfillment, and the academic study of music to resemble my own. Conversely, my pilot study revealed that my students and I assign different levels of value to personal skills, social benefits, overall enjoyment, and musical skills. Finally, I learned that we all equally place little import on continuing with the ensemble for the sake of the investment of time or finances.

Please know that no one is required to participate in this study and the completion of the questionnaire or the sorting of value statements is voluntary. Further, your student's grade is not dependent on participation. All responses to the questionnaire will be completely anonymous and the information from the sorting activity will be confidential. No study is ever 'risk free' and I recognize that students sharing their thoughts and opinions do represent a small loss of privacy.

This study has been fully vetted by Boston University's Institutional Review Board and all procedures, consent and assent is in full compliance with their policies as well as Pennsylvania law. I also have all of the appropriate clearances,

fingerprinting, and background checks required by PA law as well as additional checks mandated by my own institution.

Having an independent researcher come and work with (director name) and the students in (name of ensemble) has educational value for the instrumental music program. At the end of the process (director name) will have a number of reasons why their students and students in other schools participate in band, a definitive understanding of where the director and students have similar values of music education, where they differ, and (director name) will have unique insight into his/her students. Please review the attached Parent Informed Consent Form and if you have any questions or concerns about the study please contact me, my information is below. I am more than happy to talk with you!

Sincerely,

Robert Frazier

## Appendix D

### Student Introduction Letter

Dear Music Student,

I teach instrumental music at nearby Westtown School and I am beginning a research study as part of my Doctor of Musical Arts program at Boston University that investigates and compares the values of music education identified by high school band students and teachers. This study was recently approved by BU's Institutional Review Board and your school was one of the four sites randomly selected in our county. I have met with (principal name) and (director name) and both have agreed to allow this study to take place in your school. There are two phases for this study. In the first phase I will be surveying (director name) and the students in (name of ensemble) about why they participate in high school band on (day and date). This questionnaire will take about fifteen minutes and students' responses will be anonymous. In the second phase of the study I will take the reasons articulated in your ensemble and, combined with other students from four other schools, have (name of the director) and four randomly selected students sort these values as well as to answer some basic questions. You may not be selected for the second phase of the study.

There are potential benefits for (director name) and the students in (name of ensemble). I piloted this study with my own students and my small ensemble identified 53 different reasons they participate in Symphonic Band! I also learned my students gradually change their value emphasis on musicianship, personal fulfillment, and the academic study of music to resemble my own. Conversely, my pilot study revealed that my students and I assign different levels of value to personal skills, social benefits, overall enjoyment, and musical skills. Finally, I learned that we all equally place little import on continuing with the ensemble for the sake of the investment of time or finances.

Please know that you are not required to participate in this study and the completion of the questionnaire or the sorting of value statements is voluntary. Further, your grade is not dependent on participation. All responses to the questionnaire will be completely anonymous and the information from the sorting activity will be confidential. No study is ever 'risk free' and I recognize that the sharing of your thoughts and opinions do represent a small loss of privacy.

This study has been fully vetted by Boston University's Institutional Review Board and all procedures, consent and assent is in full compliance with their policies as well as Pennsylvania law. I also have all of the appropriate clearances,

fingerprinting, and background checks required by PA law as well as additional checks mandated by my own institution.

Having an independent researcher come and work with (director name) and the students in (name of ensemble) has educational value for the instrumental music program. At the end of the process (director name) will have a number of reasons why their students and students in other schools participate in band, a definitive understanding of where the director and students have similar values of music education, where they differ, and (director name) will have unique insight into his/her students. Please review the attached Student Informed Consent Form and if you have any questions or concerns about the study please contact me, my information is below. I am more than happy to talk with you!

Sincerely,

Robert Frazier

## Appendix E

### Informed Consent Form

Protocol Title: <b>A Q-Sort Comparison of Student and Teacher Values Concerning Music Education in Public Secondary School Wind Band Ensembles</b>
Principal Investigator: Robert Frazier
Description of Subject Population: Music Students and Music Teachers
Version Date: 02-2014

#### **Introduction**

Please read this form carefully. The purpose of this form is to provide you with important information about your child taking part in a research study. If any of the statements or words in this form is unclear, please let us know. We would be happy to answer any questions.

If you have any questions about the research or any portion of this form, please ask us. Taking part in this research study is up to you and your child. If you decide you do not want your child participating in this study please contact Robert Frazier, the person in charge of this study. Robert Frazier can be reached at 484-350-9404 or [robert.frazier@westtown.edu](mailto:robert.frazier@westtown.edu)

We will refer to this person as the “researcher” throughout this form.

#### **Why is this study being done?**

The purpose of this study is to investigate and compare the values of music education, as identified by high school wind band students and their teachers, in order to enable music educators to construct curriculum and pedagogy that validates what students find meaningful.

We are asking your child to take part in this study because he/she is a student in the ensemble that is taking part in the study.

There are two phases in this research study. The first phase will involve students in Wind Band ensembles at four Chester County high schools. The second phase of the study will involve twenty subjects selected from participants in the first phase.



**How long will my child take part in this research study?**

We expect that your child will be in this research study for one day. If your child is randomly selected to participate in the second phase of the study your child will be asked to participate an additional day no more than four weeks after the initial date. At this time, we will ask your child to make a visit to his/her high school after the academic day.

**What will happen if my child takes part in this research study?**

There are two phases to this research study. In the first phase students in your child's wind band ensemble will be introduced to the study during a regular or called rehearsal. Following an introduction to the study students will be asked to complete a questionnaire as well as an accompanying contact information form. The questionnaire contains a series of questions centered on why your student participates in the high school wind band program. Completion of the questionnaire and the contact information form will take approximately fifteen minutes.

Four students from your child's high school wind band will be randomly selected from the students who participate in the first phase of the study and fill out the contact information form. Those students will be contacted via email and then with a follow-up phone call. If your child is randomly selected a one-on-one interview is requested at school following the academic day.

During your child's visit, which will be 30–45 minutes, there will be three different tasks to complete. First, we will ask your child some general information about him/herself including, for example, age, how long your child has been playing his/her instrument, etc. Next, we will have your child complete what is called a 'Q-sort,' based on Q methodology where the activity is an interesting sorting exercise where your child will be asked to put a number of statements about participation in the high school wind band program in an order that your child chooses. Then, we will ask your child some questions about your child's completed sort in order to understand a little more about the decisions your child made when he/she was sorting the statements.

Please know that the information collected in the first phase of the study is anonymous. Also, please know that your child's contact information in the first phase will be kept confidential. In the second phase all information, including demographic data, the Q-sort results, and the answers your child gives to the follow-up questions, will also be completely confidential.

## **Audio Recording**

If your child is selected for the second phase of the study, we would like to audio record your child during the interview. If your child is audio recorded it will not be possible to identify your child. We will store these tapes in a locked cabinet and only approved study staff will be able to review the tapes. We will label these tapes with a code instead of your child's name.

## **How will you keep my child's study records confidential?**

We will keep the second phase records of this study confidential by using a code instead of your child's name. We will make every effort to keep your child's records confidential. However, there are times when federal or state law requires the disclosure of your child's records.

The following people or groups may review your child's study records for purposes such as quality control or safety:

- The Researcher and any member of his research team
- The Institutional Review Board at Boston University. The Institutional Review Board is a group of people who review human research studies for safety and protection of people who take part in the studies.

The study data will be stored in password-protected files on the researcher's computer.

The results of this research study may be published or used for teaching. We will not put identifiable information on data that are used for these purposes.

## **Study Participation and Early Withdrawal**

Taking part in this study is you and your child's choice. Your child is free not to take part or to withdraw at any time for any reason. No matter what you or your child decides, there will be no penalty or loss of benefit to which you or your child is entitled. If your child decides to withdraw from this study, the information that your child has already provided will be kept confidential.

Your child may choose not to be in the study or to stop being in the study before it is over at any time. This will not affect your child's class standing or your child's grades. Your child will not be offered or receive any special consideration if your child takes part in this research study.

**What are the risks of taking part in this research study?****Risks of Completing Tasks**

No study is ever 'risk free.' One risk is the loss of confidentiality and I recognize that the sharing of your child's thoughts and opinions represent a small loss of privacy. Your child may get tired during the tasks. Your child can rest at any time.

**Interview Risks**

Your child may tell the interviewer at any time if a break is needed or to stop the interview. Your child does not have to answer any questions that your child does not want to.

**Loss of Confidentiality**

The main risk of allowing us to use and store your child's information for research is a potential loss of privacy. We will protect your privacy by labeling your child's information with a code, rather than your child's name, and storing all coded data in a password-protected computer.

**Are there any benefits from being in this research study?**

There are no benefits to your child for taking part in this research.

**What alternatives are available?**

You or your child may choose not to take part in this research study.

**Will my child get paid for taking part in this research study?**

We will not pay your child for taking part in this study.

**What will it cost me or my child to take part in this research study?**

There are no costs to you or your child for taking part in this research study.

## **Appendix F**

### **Questionnaire Introduction Script**

Hello and thank you for your time. My name is Robert Frazier and I teach instrumental music at nearby Westtown School in West Chester and I am beginning a research study as part of dissertation at Boston University. The purpose of my study is to compare what students value about music education to what teachers value about music education. There are three other Chester County high schools, along with yours, that are participating in this study and I am here today to invite you to join with those music students.

In a moment you will have in front of you a survey with four questions to answer that will help me to understand why you are participating in your band program. I am asking for fifteen minutes of your time to respond to each of the four questions. In your responses you do not need to use complete sentences but include enough information to make your response clear to me. You may find your responses to a few of the questions are similar to one another. That is OK and you do not need to repeat any ideas you already expressed.

In addition to the survey there is an accompanying contact information form. I will be randomly selecting four of you from those who fill out this form for the second phase of the study, which is to sort the values identified today. You are not required to fill this form out but I would really appreciate it if you would. Providing me with your contact information does not obligate you to participate in the second phase if you are one of those who are randomly selected. Please also know that none

of this information will be shared.

The completion of this survey and the accompanying contact information form is voluntary, your grade for this class is not dependent on your participation, and you may stop answering questions at any time and you may skip questions you are not comfortable answering. In addition, please also know that your survey responses will be completely anonymous so don't put your name at the top of the survey question paper. If you choose not to participate please sit quietly while others complete the survey.

There are no direct benefits to answering these questions today and there is no compensation for your time; responding to the four questions and the contact information form is completely voluntary. I will later share with your director the various reasons why students here at all of the four high schools participate in band and you may use them to discuss the value you see in music education at a later date. There is minimal risk to you in answering these questions as they will be anonymous, but I recognize that the sharing of your thoughts and opinions represent a small loss of privacy.

I really appreciate your input for this study and I thank you for your time and thoughtfulness today. If you have any questions, please feel free to write down my or my advisor's contact information that is listed on the survey as well as posted in your classroom (location).

## Appendix G

### Student Questionnaire

Dear Fellow Musician,

As I have just mentioned to you in my presentation I would like you to participate in my research study by answering the four questions on the other side about why you participate in your school's instrumental program. This survey is an important step to help me complete my dissertation work as a student at Boston University. The purpose of my study is to compare what students value to what teachers value about music education and the responses to this survey will help me to identify those values. For each question you answer please be as detailed as possible, though you do not need to use complete sentences. You may find, as you answer the questions, that some of your ideas in one response may be the same as another. That is OK, and you do not need to re-write those ideas. You may also skip any questions you are uncomfortable with. This survey will take you no more than 10 minutes.

Your confidentiality will be maintained in two different ways. First, the responses to these questions are anonymous (again, please do not put your name on the survey). Secondly, I will be extracting all of the responses from your ensemble's surveys, combining them, and then destroying the hard copies of the survey. No identifiable private information from the study will be shared with other persons.

Please know that the completion of this survey is voluntary, it is not tied to your grade for this class and you may stop answering questions at any time. There are no direct benefits for you in answering these questions today and there is no compensation for your time. There is minimal risk to you in answering these questions because they will be anonymous, but I recognize that the sharing of your thoughts and opinions represent a small loss of privacy. If you have any questions about this survey you may contact me at [robert.frazier@westtown.edu](mailto:robert.frazier@westtown.edu). You may also contact my advisor, Dr. Roger Mantie, at [rmantie@bu.edu](mailto:rmantie@bu.edu). You may obtain further information about your rights as a research subject by calling the BU CRC IRB office at 617.358.6115. This contact information is posted in your classroom should you need to refer to it at a later time.

Thank-you very much!

- Robert Frazier



## **Appendix H**

### **Director Questionnaire**

Dear Fellow Educator,

As I have just mentioned to you in my presentation I would like you to participate in my research study by answering the four questions about what you value about music education. This survey is an important step to help me complete my dissertation work as a student at Boston University. The purpose of my study is to compare what students value to what teachers value about music education and the responses to this survey will help me to identify those values. For each question you answer please be as detailed as possible, though you do not need to use complete sentences. You may find, as you answer the questions, that some of your ideas in one response may be the same as another. That is OK, and you do not need to re-write those ideas. You may also skip any questions you are uncomfortable with. This survey will take you no more than 10 minutes.

Your confidentiality will be maintained in several different ways. All study data, including the responses to the following survey, will be stored electronically in a password-protected folder on a password-protected cloud accessible by only one password-protected computer. The code key sheet for the subjects will be stored only on paper and will be kept in a locked filing cabinet that only the PI has access; it will be separate from all the rest of the study data. Finally, no identifiable private information from the study will be shared with other persons.

Please know that the completion of this survey is voluntary and you may stop answering questions at any time. There are no direct benefits for you in answering these questions today and there is no compensation for your time. There is minimal risk to you in answering these questions, but I recognize that the sharing of your



thoughts and opinions represent a small loss of privacy. If you have any questions about this survey you may contact me at [robert.frazier@westtown.edu](mailto:robert.frazier@westtown.edu). You may also contact my advisor, Dr. Roger Mantie, at [rmantie@bu.edu](mailto:rmantie@bu.edu). You may obtain further information about your rights as a research subject by calling the BU CRC IRB office at 617.358.6115. This contact information is posted in your classroom should you need to refer to it at a later time.

Thank-you very much!

- Robert Frazier

### **Statement of Consent**

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in this study.

### **SIGNATURE**

\_\_\_\_\_  
Name of Subject

\_\_\_\_\_  
Signature of Subject

\_\_\_\_\_  
Date

I have explained the research to the subject and answered all his/her questions. I will give a copy of the signed consent form to the subject.

\_\_\_\_\_  
Name of Person Obtaining Consent

\_\_\_\_\_  
Signature of Person Obtaining Consent

\_\_\_\_\_  
Date



## Appendix I

### Contact Information Form

Dear Fellow Musician,

I am seeking some basic contact information in order to contact you to participate in the second phase of this study if you happen to be one of the four students from your school randomly selected. The second phase of this study is a one-on-one session after school that will be between 30-45 minutes with three different tasks to complete. First, I will ask you some general information about yourself (age, how long you have been playing your instrument, etc.). Next, I will ask you to sort the statements that are collected today and at other schools based on your level of agreement. It's a pretty fun and interesting process that I have done with my own students. Finally, I will ask you some questions about the way you have completed the sort to understand what you value about music.

I would love for you to provide me with your contact information below. As I mentioned in the introduction, completing this form is optional, it does not obligate you in any way to participate in the second phase of the study, and your grade for this class is not dependent on whether or not you provide this information. Please know that if you complete this form I will not share the information on it with anyone.

Thanks for considering and please print neatly!

- Robert Frazier

Name	Grade	9	10	11	12
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email address

phone number

## Appendix J

### Student Email Script

Dear \_\_\_\_\_,

A few weeks ago, I visited your school and students in (name of the ensemble) filled out a short survey about why they participated in band to help me with my dissertation at Boston University. I am contacting you because you are one of four students in your school who have been randomly selected to participate in the second phase of the study. I hope you agree to help me by meeting with me at your school once the school day is finished for between 30 and 45 minutes. During that time, I will ask you some basic questions about yourself (your age, how long you have been playing your instrument, etc.). Then, I will have you complete what is called a 'Q-sort' where you will take the reasons why students participate in band (from the survey questions a few weeks ago) and sort them based on how true each statement is for you. Finally, I will ask you some questions about your completed sort in order to understand a little more about your decision process.

There are no direct benefits for you if you choose to participate in the study and even though the risks for this study are minimal it is important to know that no study is ever 'risk free.' One risk is the loss of confidentiality and I recognize that the sharing of your thoughts and opinions represent a small loss of privacy. I will work hard to reduce these possible risks by storing any information you share in password protected files, by using a code to identify your data instead of your name, and by not making public who is participating in these one-on-one sessions.

Please confirm with me that you are interested in completing this important part of my study by replying to this email or by phone (my number is listed below). If you have any questions about this phase of the study that you would like answered before you agree to participate simply reply to this email or give me a call. If you would prefer not to participate in this phase of the study, please also reply to this email or give me a call.

Thank you for your time and I hope you will agree to help me out!

Sincerely,

Robert Frazier

## Appendix K

### Phase 1 Data by Site

<b>Q-Set Statements Organized by Category</b>	<b>HS1 N = 597</b>	<b>HS2 N = 653</b>	<b>HS3 N = 414</b>	<b>All N = 1,664</b>
<b>A: Relational community</b>	<b>22.86%</b>	<b>19.86%</b>	<b>16.29%</b>	<b>20.80%</b>
I enjoy meeting new people every year.	1.32%	0.75%	1.27%	1.15%
I enjoy the people who are in band.	0.82%	1.05%	1.27%	1.10%
As a result of being in band I have gained new friends.	4.77%	2.41%	3.84%	3.69%
I have close friends in band I like to spend time with.	8.39%	7.38%	5.01%	7.21%
The teacher is great.	1.32%	2.41%	1.27%	1.81%
I have a closer relationship with my band teacher than other teachers.	0.16%	0.75%	0.33%	0.45%
In band I feel like I belong to a quirky family.	3.13%	3.61%	0.80%	2.81%
I feel safe and supported here.	0.49%	0.00%	0.33%	0.34%
I have learned how to better interact with others.	1.64%	0.05%	1.27%	1.04%
Band creates great memories.	0.66%	0.75%	0.33%	0.57%
When we create music, we communicate and connect on a different level.	0.16%	0.75%	0.80%	0.63%
<b>B: Cooperative responsibility</b>	<b>10.69%</b>	<b>9.23%</b>	<b>11.41%</b>	<b>9.93%</b>
I like being in a group of like-minded people.	0.82%	0.00%	1.03%	0.63%
I can help my classmates improve and flourish.	0.66%	0.75%	0.00%	0.39%
It's exciting to be a talented musician that younger students are aspiring to be like.	0.66%	0.00%	0.33%	0.28%
We have learned how to work together as part of a team.	5.10%	3.77%	3.14%	4.06%
I love the chance to collaboratively create music.	1.48%	1.66%	1.74%	1.59%
I enjoy the rehearsal process of working on a piece to make it sound better each day.	0.49%	0.75%	0.80%	0.75%
I love how so many different parts come together as a whole.	0.49%	1.20%	0.80%	0.93%
I like being part of a group where I can positively contribute.	0.99%	1.05%	1.97%	0.88%
I enjoy hearing, over the course of a year, how much everyone improves.	0.00%	0.05%	0.80%	0.24%
I like learning to be a better musician from my peers.	0.00%	0.00%	0.80%	0.18%
<b>C: Personal skill cultivation</b>	<b>6.73%</b>	<b>8.72%</b>	<b>14.18%</b>	<b>9.17%</b>
I develop leadership skills.	1.15%	0.60%	0.33%	0.71%
I learn how to become a better teacher myself.	0.16%	0.00%	0.57%	0.68%
The skills I learn here are applicable outside of the music classroom.	0.33%	0.60%	2.67%	1.00%
Band has helped me to develop my ability to focus.	0.00%	0.60%	0.80%	0.51%
Band has helped me to be even more disciplined.	0.82%	0.45%	0.57%	0.59%
Band has helped me to develop my time management skills.	0.82%	1.66%	0.80%	0.71%
I have learned to be more responsible for myself.	0.33%	1.66%	1.27%	1.06%
I have learned to solve problems differently than other students.	0.00%	0.30%	0.57%	0.34%
My self-confidence grows in this group.	1.64%	0.45%	2.47%	1.35%
Being in band helps me to grow as a person.	1.15%	1.05%	2.90%	1.53%
Being in band helps to motivate me.	0.00%	0.45%	0.33%	0.34%
Band has helped me to be more patient.	0.33%	0.90%	0.33%	0.53%
Band helps me to be a more well-rounded person.	0.00%	0.00%	0.57%	0.22%

<b>Q-Set Statements Organized by Category</b>	<b>HS1 N = 597</b>	<b>HS2 N = 653</b>	<b>HS3 N = 414</b>	<b>All N = 1,664</b>
<b>D: Musical skill development</b>	<b>27.96%</b>	<b>27.25%</b>	<b>24.92%</b>	<b>26.21%</b>
I improve on my instrument.	6.41%	3.92%	0.00%	3.92%
I learn how to read music better.	1.81%	2.86%	1.97%	2.34%
I learn how to listen to the group that surrounds me.	0.82%	1.20%	0.57%	0.98%
I get to improve my musical talent.	1.32%	0.75%	2.90%	1.57%
I learn how to play new instruments.	0.66%	0.60%	1.03%	0.81%
I have gained musical knowledge.	8.88%	7.98%	6.41%	7.98%
I have learned to appreciate music of all types.	0.33%	1.05%	1.50%	0.98%
I have learned how to be a better musician.	3.13%	4.22%	4.77%	3.94%
We get to play a wide variety of quality music.	2.96%	1.66%	2.67%	2.45%
I have learned how to be a better performer.	0.16%	0.60%	1.27%	0.57%
I improve my marching skills.	0.33%	0.75%	0.33%	0.57%
I love that I get to work on a skill that most kids don't have.	0.82%	1.66%	1.50%	1.39%
<b>E: Self-expression</b>	<b>4.28%</b>	<b>5.58%</b>	<b>5.11%</b>	<b>5.18%</b>
Music is a great way to express myself.	0.00%	1.66%	1.97%	1.18%
I love expressing emotion in music.	0.99%	1.51%	1.97%	1.39%
I can show my school spirit by playing at games.	0.99%	0.00%	0.00%	0.45%
I enjoy marching band and/or pep band performances.	0.82%	1.05%	0.00%	0.71%
I love the success I feel when I perform for an audience.	1.48%	1.36%	1.17%	1.45%
<b>F: Tangential rationale</b>	<b>7.54%</b>	<b>6.67%</b>	<b>8.14%</b>	<b>7.57%</b>
Participating in band will help me get into college.	0.49%	0.75%	1.27%	0.86%
My band grade helps to boost my GPA.	0.49%	1.36%	1.27%	1.10%
Band is a type of graduation credit I need.	0.16%	0.45%	1.27%	0.51%
Band helps prepare me for a career in music.	1.15%	0.45%	0.33%	0.75%
Band prepares me for playing my instrument after high school.	0.82%	0.75%	0.57%	0.81%
Band has helped me to be selected for festivals.	0.16%	0.05%	0.57%	0.34%
I gain leadership experience.	1.15%	1.36%	0.00%	0.66%
I like the fun travel opportunities.	0.66%	0.00%	0.33%	0.28%
I have been in band for so long I don't want to stop.	1.15%	1.05%	1.50%	1.28%
<b>G: Unique academic experience</b>	<b>19.91%</b>	<b>22.28%</b>	<b>18.56%</b>	<b>21.09%</b>
I love the fun and entertaining atmosphere.	4.11%	8.28%	2.20%	5.33%
Band is a nice break from other classes.	0.82%	1.96%	2.47%	1.69%
Being in band helps me to rest or relax.	1.64%	1.96%	1.27%	1.69%
For me, band is an escape.	0.00%	0.45%	0.33%	0.11%
I just really love music.	4.77%	0.00%	2.90%	2.51%
I love playing music with my instrument.	4.61%	7.08%	6.41%	6.10%
I love the new experiences being in band allows me.	0.66%	1.05%	0.57%	0.86%
I learn something new every day.	1.32%	0.90%	0.57%	0.94%
I enjoy the challenge of being in band.	0.66%	0.30%	1.27%	1.75%
I love the feeling of accomplishment I get from being in band.	1.32%	0.30%	0.57%	0.81%

## **Appendix L**

### **Phase 2 Protocol**

The following is the loose script that was used for the second phase of the research study, which occurred after the consent/assent forms were signed:

Now that you have signed your forms let's get started! There are three different parts to our session today. During the first part I will ask you some basic questions about yourself. Then, you will do what is called a 'Q-sort activity' where you will organize a series of statements based on your level of agreement with each. Finally, after the Q-sort, I will ask you some questions about the way that you have placed the statements. During the time I ask you some basic questions about yourself and during the questions I will ask you after the Q-sort I would like to record your answers for ease of transcription later on. Do you have any questions before we begin?

#### **Background Data**

Let's begin the first part will begin now. I have some questions to ask you about yourself that will provide me with important information:

#### Student Questions

1. How old are you?
2. What year in school are you (freshman, sophomore, etc.)?

3. What is your main instrument?
4. How many years have you been playing this instrument?
5. Do you or have you taken private lessons on this instrument? How many years?
6. How many years have you been playing for your current director?
7. Do you play any other instruments and, if so, have you taken private lessons on them? How many years?
8. Do you play in other ensembles in school that are not conducted by your director?
9. What are they? How long have you played with them?
10. Do you participate in other musical activities outside of school (community or other student ensembles, church choir, etc.)? What are they? How long have you played with them?

### Teacher Questions

1. How old are you?
2. What is your main instrument?
3. How many years have you been playing this instrument?
4. Do you currently play in any ensembles? What are they? How long have you played with them?
5. What degree or degrees have you earned?
6. How long have you been teaching in general?
7. How long have you been in your present teaching assignment?



8. What other schools, levels, years, and positions have you held prior to this position?
9. What other ensembles do you direct in your school(s)?
10. Do you direct any other ensembles outside of the school?

### **Q-sort Activity**

When I came and visited your school a few weeks ago I also visited three other schools. Together, the four schools generated X statements about why each participates in band. Those X statements were collapsed into XX statements, as some were the same, and one statement is printed on each of the cards in front of you. Your task is to sort these cards based on the question: Why do you participate in this ensemble (teacher question: Why do you think students should participate in your ensemble?)? You will carefully place each card based on your level of agreement with the statement or how the cards speak to what you value on the diagram in front of you.

Looking at the diagram in front of you, you will notice that there are X columns. Think of each column as a different level of agreement with the left column being strongly disagree moving over to the right column being strongly agree. The middle column represents cards that you either don't understand or statements that you have neutral meaning for you. Notice that there are X spaces in the far left and far right columns, X spaces in the second column in on each side, X spaces in the third column in on each side (continue for total number of symmetrical classes) and in the

middle column there are X spaces. You may only place one card in each space and you may move them around as many times as it is necessary to have them placed in a way that speaks to your values. You may find that there are some cards that are not placed in the 'right' column. For example, you may find there are X cards that you strongly agree with but there are only (X-1) spaces to put them in. That is OK, decide which ones are the *most* important to you and place the one that is left out in the next column.

In order to get to the diagram lets first pre-sort the cards. Go through the cards, read each one, and sort them into three piles: agree, neutral, and disagree. This will help us put them into the Q-sort diagram. Please know that I cannot answer any questions you might have about any of the statements printed on the cards; just do the best you can and if you don't understand a card place it in the middle. Before you begin, do you have any questions?

After sort: Please go through and double check each of the cards and make sure they are in the appropriate column.

### **Follow-Up Interview**

Thank you for your effort with the Q-sort. I have six follow-up questions for you about the way you have sorted as well as about your experience:

1. Are there any cards you found confusing or that you didn't understand? If so, which ones and why?

2. Which cards did you have difficulty placing? Why?
3. Are there any reasons for participating in an ensemble that you feel are missing from the cards?
4. What experiences or influences in your life do you feel have shaped the way you have placed some of these cards?
5. How differently do you think you would have placed these cards four years ago? Why?
6. Are there any cards that you might place differently in a few days? Why?

Thank you very much for your time and your thoughtfulness with your responses. I would like to take a moment and have you review the material you have provided me with today to make sure that I have all of the information correct. (member check of all data sets).

Do you have any other questions for me about the research, the process, or the results that I can answer before we close?

## Appendix M

### Original Phase 2 Q-Set Statements

1. I love the fun and entertaining atmosphere.
2. Band is a nice break from other classes.
3. Being in band helps me to rest or relax.
4. For me, band is an escape.
5. Participating in band will help me get into college.
6. My band grade helps to boost my GPA.
7. Band is a type of graduation credit I need.
8. Band helps prepare me for a career in music.
9. Band prepares me for playing my instrument after high school.
10. Band has helped me to be selected for festivals.
11. I enjoy meeting new people every year.
12. I enjoy the people who are in band.
13. As a result of being in band I have gained new friends.
14. I have close friends in band I like to spend time with.
15. The teacher is great.
16. I have a closer relationship with my band teacher than other teachers.
17. I like being in a group of like-minded people.
18. In band I feel like I belong to a quirky family.
19. I feel safe and supported here.
20. I gain leadership experience.
21. I develop leadership skills.
22. I can help my classmates improve and flourish.
23. I learn how to become a better teacher myself.
24. I just really love music.
25. I love playing music with my instrument.
26. I have learned the importance of practice.
27. I improve on my instrument.
28. I learn how to read music better.
29. I learn how to listen to the group that surrounds me.
30. I get to improve my musical talent.
31. I learn how to play new instruments.
32. I improve my marching skills.
33. I have gained musical knowledge.
34. I have learned to appreciate music of all types.
35. I have learned how to be a better musician.
36. The skills I learn here are applicable outside of the music classroom.
37. I have learned greater focus.
38. I have learned to pay attention to detail.
39. I have learned to be more disciplined.

40. I have learned how to manage my time better.
41. I have learned a better work ethic.
42. I have learned to be more responsible for myself.
43. I have learned better organizational skills.
44. I have developed the ability to work independently.
45. I have learned to solve problems differently than other students.
46. My self-confidence grows in this group.
47. I have learned how to adapt to new situations.
48. Being in band helps me to grow as a person.
49. Being in band helps to motivate me.
50. I have learned how to better interact with others.
51. Band has helped me to be more patient.
52. Band helps me to be a more well-rounded person.
53. Music is a great way to express myself.
54. I love expressing emotion in music.
55. I can show my school spirit by playing at games.
56. I love the new experiences being in band allows me.
57. I learn something new every day.
58. I enjoy the challenge of being in band.
59. I like the fun travel opportunities.
60. I love the feeling of accomplishment I get from being in band.
61. I love that I get to work on a skill that most kids don't have.
62. Band creates great memories.
63. It's exciting to be a talented musician that younger students are aspiring to be like.
64. We have learned how to work together as part of a team.
65. I love the chance to collaboratively create music.
66. I enjoy the rehearsal process of working on a piece to make it sound better each day.
67. I love how so many different parts come together as a whole.
68. When we create music, we communicate and connect on a different level.
69. We get to play a wide variety of quality music
70. I like being part of a group where I can positively contribute.
71. I enjoy hearing, over the course of a year, how much everyone improves.
72. I like learning to be a better musician from my peers.
73. I enjoy marching band and/or pep band performances.
74. I love the success I feel when I perform for an audience.
75. I have learned how to be a better performer.
76. I have been in band for so long I don't want to stop.
77. My family has pressured me to be in band.

## Appendix N

### Participant Q-Sort Response by Statement

Category	High school 1					High school 2					High school 3				
	9	10	11	12	T	9	10	11	12	T	9	10	11	12	T
<b>Category A: Relational community</b>															
I enjoy meeting new people every year.	0	1	0	0	-1	-1	-1	0	-2	0	0	2	0	-2	-3
I enjoy the people who are in band.	4	4	1	-3	-1	4	0	-1	3	0	2	-1	2	0	-1
As a result of being in band I have gained new friends.	0	5	-3	-2	-1	-1	-4	2	3	0	-3	1	0	3	0
I have close friends in band I like to spend time with.	3	3	1	-1	-2	1	1	5	5	-3	2	4	-3	2	-2
The teacher is great.	4	3	-1	2	-3	4	3	5	4	-2	4	1	0	-1	0
I have a closer relationship with my band teacher than other teachers.	0	0	-3	0	2	3	0	-3	5	-2	-3	1	-4	-2	0
In band I feel like I belong to a quirky family.	4	3	-4	-4	-2	0	-5	-1	3	0	0	3	-3	4	-3
I feel safe and supported here.	5	1	0	-2	5	1	0	-5	2	3	3	4	0	-3	0
I have learned how to better interact with others.	-1	-1	0	-2	3	-2	2	-1	-1	-1	-2	3	0	1	2
Band creates great memories.	3	4	-1	1	1	5	2	2	5	-3	-1	5	-1	3	-1
When we create music, we communicate and connect on a different level.	2	-1	-1	4	2	-2	0	0	-1	3	-1	2	1	0	2
<b>Category B: Cooperative responsibility</b>															
I like being in a group of like-minded people.	-1	4	-2	1	0	-2	1	-1	0	0	-4	-3	2	2	0
I can help my classmates improve and flourish.	5	-3	0	-1	-3	-2	-1	-2	0	3	-2	-3	0	-1	0
It's exciting to be a talented musician that younger students are aspiring to be like.	4	0	1	0	-1	0	-1	-1	-3	2	-2	1	1	0	-1
We have learned how to work together as part of a team.	2	1	0	1	4	-1	2	0	-1	0	3	-1	0	-1	2
I love the chance to collaboratively create music.	0	0	-1	3	2	1	-2	-3	-1	1	-3	-1	1	2	4
I enjoy the rehearsal process of working on a piece to make it sound better each day.	-5	2	5	1	-1	-1	-1	4	-2	3	3	-3	1	-1	1
I love how so many different parts come together as a whole.	2	-1	-1	1	1	0	1	2	-1	-1	5	0	5	1	0
I like being part of a group where I can positively contribute.	1	-2	-2	1	2	2	3	3	0	2	1	0	0	0	1
I enjoy hearing, over the course of a year, how much everyone improves.	0	2	-3	0	-1	-3	-1	3	-2	4	0	2	4	-1	1
I like learning to be a better musician from my peers.	-2	1	3	-4	0	0	-2	-2	-2	5	-2	-4	0	-2	-3

Category	High school 1					High school 2					High school 3				
	9	10	11	12	T	9	10	11	12	T	9	10	11	12	T
<b>Category C: Personal skill cultivation</b>															
I develop leadership skills.	2	-1	0	-1	3	2	2	1	4	-2	-3	-1	-3	3	2
I learn how to become a better teacher myself.	-2	-1	2	-2	0	-4	1	3	-3	-1	-4	2	-2	5	3
The skills I learn here are applicable outside of the music classroom.	1	-1	1	3	-2	1	5	-1	1	-3	2	3	1	0	4
I have learned greater focus.	0	-3	2	-3	4	1	4	1	0	-2	1	-1	-2	-1	5
I have learned to be more disciplined.	2	-3	0	-1	3	-3	4	-3	1	-1	2	0	-1	-2	3
I have learned how to manage my time better.	-3	-5	1	-1	5	-3	2	-3	-1	0	0	-1	-1	-3	2
I have learned to be more responsible for myself.	-2	-2	2	-2	5	-2	1	1	-2	-1	-1	2	-1	-1	3
I have learned to solve problems differently than other students.	3	-4	-1	0	3	-4	1	-1	-3	1	-1	-2	0	-2	4
My self-confidence grows in this group.	2	0	1	-5	2	1	0	1	2	0	-2	3	3	4	3
Being in band helps me to grow as a person.	1	-1	3	2	1	-1	3	-1	2	1	0	0	3	2	1
Being in band helps to motivate me.	1	-2	0	0	4	-2	4	-2	2	2	-1	-2	-2	-1	-3
Band has helped me to be more patient.	-3	-3	0	1	1	-3	4	0	-2	-1	3	-4	-1	-1	3
Band helps me to be a more well-rounded person.	0	-2	1	-1	1	-1	5	1	0	-1	3	5	4	1	2
<b>Category D: Musical skill development</b>															
I improve on my instrument.	-1	2	3	1	0	0	-2	4	1	1	0	0	1	1	-2
I learn how to read music better.	0	1	-2	3	0	2	-1	2	-2	1	1	-2	-1	5	-1
I learn how to listen to the group that surrounds me.	3	0	-1	0	1	0	-2	2	-3	5	0	0	4	0	4
I get to improve my musical talent.	-2	0	5	4	-1	4	0	2	1	1	0	1	3	2	-2
I learn how to play new instruments.	-4	0	3	3	-3	-1	-1	-3	-1	-2	-5	2	-1	0	-4
I have gained musical knowledge.	2	2	-2	4	0	0	-1	3	0	1	4	-1	4	2	-1
I have learned to appreciate music of all types.	-1	0	0	2	-1	0	0	-1	0	0	1	-2	3	1	-1
I have learned how to be a better musician.	0	2	2	5	1	2	-3	2	1	1	-1	0	2	4	-2
We get to play a wide variety of quality music.	-5	1	4	0	0	1	0	0	0	4	1	-3	-2	0	-2
I have learned how to be a better performer.	1	1	1	2	0	1	-4	3	1	3	0	4	2	2	1
I improve my marching skills.	1	1	-5	-1	-5	2	-4	0	1	-4	-4	-1	-5	3	-5
I love that I get to work on a skill that most kids don't have.	1	-2	3	-2	-2	3	-2	0	-1	0	4	1	5	0	1

Category	High school 1					High school 2					High school 3				
	9	10	11	12	T	9	10	11	12	T	9	10	11	12	T
<b>Category E: Self-expression</b>															
Music is a great way to express myself.	-4	0	4	5	1	3	-1	-2	-1	2	1	0	-1	1	1
I love expressing emotion in music.	-1	0	2	4	2	2	-4	1	-1	2	-1	5	2	1	1
I can show my school spirit by playing at games.	5	2	2	-5	-3	-1	-2	-4	-4	0	-2	0	-3	2	-3
I enjoy marching band and/or pep band performances.	3	3	1	-1	-2	3	-5	-2	2	-1	-1	-1	-3	5	-4
I love the success I feel when I perform for an audience.	-1	0	-2	-2	-1	0	-3	3	2	2	-1	3	1	3	0
<b>Category F: Tangential rationale</b>															
Participating in band will help me get into college.	2	-2	-4	0	-3	-2	-1	2	-4	-4	2	-2	0	-5	0
My band grade helps to boost my GPA.	-1	4	-4	-4	-4	-5	1	4	-5	-5	1	-4	-5	-5	-4
Band is a type of graduation credit I need.	-2	-4	-3	-1	-4	-5	1	0	-5	-5	1	-2	-4	-5	-4
Band helps prepare me for a career in music.	-4	-2	1	5	0	5	-3	-5	-4	1	-3	-5	-4	-3	0
Band prepares me for playing my instrument after high school.	-4	-1	-1	2	-2	-1	-2	-4	0	1	-5	-2	0	0	-3
Band has helped me to be selected for festivals.	-5	0	-5	-2	-2	-4	-2	-5	-4	-4	-4	-5	-4	-4	0
I gain leadership experience.	1	-3	-3	-1	3	2	5	0	3	-3	-3	4	-2	3	1
I like the fun travel opportunities.	3	1	-3	-1	-3	2	3	-1	4	-3	1	1	-3	-3	-5
I have been in band for so long I don't want to stop.	1	5	-4	-4	-1	3	-3	-2	1	-2	1	-3	2	-4	-1
My family has pressured me to be in band.	-2	-4	-5	-5	-2	-5	-3	-1	-5	-5	-5	-5	-5	-3	-5
<b>Category G: Unique academic experience</b>															
I love the fun and entertaining atmosphere.	0	2	0	2	-4	3	0	4	4	-2	5	1	0	0	-2
Band is a nice break from other classes.	-1	3	0	-3	-5	1	0	5	2	-4	1	1	1	1	-1
Being in band helps me to rest or relax.	-3	1	2	1	-4	-3	-3	1	-1	-3	2	1	3	0	-1
For me, band is an escape.	-2	-4	-2	2	-5	0	-5	-4	0	2	4	0	-2	0	0
I just really love music.	-1	2	4	3	-1	5	0	-3	2	2	5	-4	1	1	-2
I love playing music with my instrument.	-2	5	5	1	0	4	0	0	0	0	0	3	5	2	-2
I love the new experiences being in band allows me.	1	1	2	0	0	1	2	0	3	4	-2	0	-1	1	1
I learn something new every day.	-3	-1	-1	0	1	-1	1	-2	0	-2	0	-3	-1	-4	-1
I enjoy the challenge of being in band.	0	3	4	-3	0	0	-1	1	1	4	-1	0	2	-2	-1
I love the feeling of accomplishment I get from being in band.	1	0	-1	3	2	1	0	0	3	3	2	1	1	1	0



## Appendix O

### Response Analysis by Site

High school 1	Student		Teacher
	<i>M</i>	<i>SD</i>	<i>M</i>
<b>Category A: Relational community</b>	<b>5.50</b>	<b>2.44</b>	<b>5.27</b>
I enjoy meeting new people every year.	6.25	1.89	4.00
I enjoy the people who are in band.	5.50	2.89	4.00
As a result of being in band I have gained new friends.	5.75	3.86	4.00
I have close friends in band I like to spend time with.	6.75	2.21	3.00
The teacher is great.	6.00	1.85	2.00
I have a closer relationship with my band teacher than other teachers.	4.00	1.41	7.00
In band I feel like I belong to a quirky family.	5.00	4.69	3.00
I feel safe and supported here.	4.50	1.29	10.00
I have learned how to better interact with others.	4.00	0.82	8.00
Band creates great memories.	6.75	2.22	6.00
When we create music, we communicate and connect on a different level.	6.00	2.45	7.00
<b>Category B: Cooperative responsibility</b>	<b>5.45</b>	<b>2.33</b>	<b>5.30</b>
I like being in a group of like-minded people.	6.75	2.87	5.00
I can help my classmates improve and flourish.	5.25	3.40	2.00
It's exciting to be a talented musician that younger students are aspiring to be like.	6.25	1.89	4.00
We have learned how to work together as part of a team.	6.00	0.82	9.00
I love the chance to collaboratively create music.	5.50	1.73	7.00
I enjoy the rehearsal process of working on a piece to make it sound better each day.	5.75	4.19	4.00
I love how so many different parts come together as a whole.	5.25	1.50	6.00
I like being part of a group where I can positively contribute.	4.50	1.73	7.00
I enjoy hearing, over the course of a year, how much everyone improves.	4.75	2.06	4.00
I like learning to be a better musician from my peers.	4.50	3.11	5.00
<b>Category C: Personal skill cultivation</b>	<b>4.53</b>	<b>2.02</b>	<b>7.31</b>
I develop leadership	5.00	1.41	8.00
I learn how to become a better teacher myself.	4.25	1.89	5.00
The skills I learn here are applicable outside of the music classroom.	6.00	1.63	3.00
I have learned greater focus.	4.00	2.45	9.00
I have learned to be more disciplined.	4.50	2.08	8.00
I have learned how to manage my time better.	3.00	2.58	10.00
I have learned to be more responsible for myself.	4.00	2.00	10.00
I have learned to solve problems differently than other students.	4.50	2.89	8.00
My self-confidence grows in this group.	4.50	3.11	7.00
Being in band helps me to grow as a person.	6.25	1.71	6.00
Being in band helps to motivate me.	4.75	1.26	9.00
Band has helped me to be more patient.	3.75	2.06	6.00
Band helps me to be a more well-rounded person.	4.50	1.29	6.00

High school 1	Student		Teacher
	<i>M</i>	<i>SD</i>	<i>M</i>
<b>Category D: Musical skill development</b>	<b>5.73</b>	<b>2.32</b>	<b>4.17</b>
I improve on my instrument.	6.25	1.71	5.00
I learn how to read music better.	5.50	2.08	5.00
I learn how to listen to the group that surrounds me.	5.50	1.73	6.00
I get to improve my musical talent.	6.75	3.30	4.00
I learn how to play new instruments.	5.50	3.32	2.00
I have gained musical knowledge.	6.50	1.91	5.00
I have learned to appreciate music of all types.	5.25	1.26	4.00
I have learned how to be a better musician.	4.00	2.06	0.00
I like learning to be a better musician from my peers.	7.25	1.00	6.00
We get to play a wide variety of quality music.	5.00	3.74	3.00
I improve my marching skills.	5.00	2.59	5.00
I have learned how to be a better performer.	6.25	0.50	5.00
<b>Category E: Self-expression</b>	<b>5.75</b>	<b>2.84</b>	<b>4.40</b>
Music is a great way to express myself.	6.25	4.11	6.00
I love expressing emotion in music.	6.25	2.22	7.00
I can show my school spirit by playing at games.	6.00	4.24	2.00
I enjoy marching band and/or pep band performances.	6.50	1.91	3.00
I love the success I feel when I perform for an audience.	3.75	0.96	4.00
<b>Category F: Tangential rationale</b>	<b>3.53</b>	<b>2.80</b>	<b>3.20</b>
Participating in band will help me get into college.	4.00	2.58	2.00
My band grade helps to boost my GPA.	3.75	3.77	1.00
Band is a type of graduation credit I need.	2.50	1.29	1.00
Band helps prepare me for a career in music.	5.00	3.92	5.00
Band prepares me for playing my instrument after high school.	4.00	2.45	3.00
Band has helped me to be selected for festivals.	2.00	2.45	3.00
I gain leadership experience.	3.50	1.91	8.00
I like the fun travel opportunities.	5.00	2.58	2.00
I have been in band for so long I don't want to stop.	4.50	1.35	4.00
My family has pressured me to be in band.	1.00	1.41	3.00
<b>Category G: Unique academic experience</b>	<b>5.53</b>	<b>2.84</b>	<b>3.40</b>
I love the fun and entertaining atmosphere.	6.00	1.15	1.00
Band is a nice break from other classes.	4.75	2.50	0.00
Being in band helps me to rest or relax.	5.25	2.21	1.00
For me, band is an escape.	3.50	2.52	0.00
I just really love music.	7.00	2.16	4.00
I love playing music with my instrument.	7.25	3.40	5.00
I love the new experiences being in band allows me.	6.00	0.82	5.00
I learn something new every day.	3.75	1.26	6.00
I enjoy the challenge of being in band.	6.00	3.16	5.00
I love the feeling of accomplishment I get from being in band.	5.75	1.71	7.00

High school 2	Student		Teacher
	<i>M</i>	<i>SD</i>	<i>M</i>
<b>Category A: Relational community</b>	<b>5.89</b>	<b>2.75</b>	<b>4.55</b>
I enjoy meeting new people every year.	4.00	0.81	5.00
I enjoy the people who are in band.	6.50	2.38	5.00
As a result of being in band I have gained new friends.	5.00	3.16	5.00
I have close friends in band I like to spend time with.	8.00	2.31	2.00
The teacher is great.	9.00	0.82	3.00
I have a closer relationship with my band teacher than other teachers.	6.25	3.50	3.00
In band I feel like I belong to a quirky family.	4.25	3.30	5.00
I feel safe and supported here.	4.50	3.11	8.00
I have learned how to better interact with others.	4.50	1.73	4.00
Band creates great memories.	8.50	1.73	2.00
When we create music, we communicate and connect on a different level.	4.25	0.96	8.00
<b>Category B: Cooperative responsibility</b>	<b>4.60</b>	<b>1.79</b>	<b>6.90</b>
I like being in a group of like-minded people.	4.50	1.29	5.00
I can help my classmates improve and flourish.	3.75	0.96	8.00
It's exciting to be a talented musician that younger students are aspiring to be like.	3.75	1.26	7.00
We have learned how to work together as part of a team.	5.00	1.41	5.00
I love the chance to collaboratively create music.	3.75	1.71	6.00
I enjoy the rehearsal process of working on a piece to make it sound better each day.	5.00	2.71	8.00
I love how so many different parts come together as a whole.	5.50	1.29	4.00
I like being part of a group where I can positively contribute.	7.00	1.41	7.00
I enjoy hearing, over the course of a year, how much everyone improves.	4.25	2.63	9.00
I like learning to be a better musician from my peers.	3.50	1.00	10.00
<b>Category C: Personal skill cultivation</b>	<b>5.31</b>	<b>2.43</b>	<b>4.38</b>
I develop leadership skills.	7.25	1.26	3.00
I learn how to become a better teacher myself.	4.25	3.30	4.00
The skills I learn here are applicable outside of the music classroom.	6.50	2.51	2.00
I have learned greater focus.	6.50	1.73	3.00
I have learned to be more disciplined.	4.75	3.40	4.00
I have learned how to manage my time better.	3.75	2.36	5.00
I have learned to be more responsible for myself.	4.50	1.73	4.00
I have learned to solve problems differently than other students.	3.25	2.22	6.00
My self-confidence grows in this group.	6.00	0.82	5.00
Being in band helps me to grow as a person.	5.75	2.06	6.00
Being in band helps to motivate me.	5.50	3.00	7.00
Band has helped me to be more patient.	4.75	3.10	4.00
Band helps me to be a more well-rounded person.	6.25	2.63	4.00

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<b>Category D: Musical skill development</b>	<b>5.13</b>	<b>1.93</b>	<b>5.92</b>
I improve on my instrument.	5.75	2.50	6.00
I learn how to read music better.	5.25	2.06	6.00
I learn how to listen to the group that surrounds me.	4.25	2.21	10.00
I get to improve my musical talent.	6.75	1.71	6.00
I learn how to play new instruments.	3.50	1.00	3.00
I have gained musical knowledge.	5.50	1.73	6.00
I have learned to appreciate music of all types.	4.75	0.50	5.00
I have learned how to be a better musician.	4.75	2.38	1.00
We get to play a wide variety of quality music.	5.50	0.50	6.00
I have learned how to be a better performer.	5.00	2.99	5.00
I improve my marching skills.	5.25	2.63	9.00
I love that I get to work on a skill that most kids don't have.	5.25	2.16	8.00
<b>Category E: Self-expression</b>	<b>4.30</b>	<b>2.60</b>	<b>6.00</b>
Music is a great way to express myself.	4.75	2.21	7.00
I love expressing emotion in music.	4.50	2.65	7.00
I can show my school spirit by playing at games.	2.25	1.50	5.00
I enjoy marching band and/or pep band performances.	4.50	3.70	4.00
I love the success I feel when I perform for an audience.	5.50	2.65	7.00
<b>Category F: Tangential rationale</b>	<b>3.88</b>	<b>3.20</b>	<b>2.10</b>
Participating in band will help me get into college.	3.75	2.50	1.00
My band grade helps to boost my GPA.	3.75	4.50	0.00
Band is a type of graduation credit I need.	2.75	3.20	0.00
Band helps prepare me for a career in music.	3.25	4.57	6.00
Band prepares me for playing my instrument after high school.	3.25	1.71	6.00
Band has helped me to be selected for festivals.	1.25	1.26	1.00
I gain leadership experience.	7.50	2.08	2.00
I like the fun travel opportunities.	7.00	2.16	2.00
I have been in band for so long I don't want to stop.	4.75	2.75	3.00
My family has pressured me to be in band.	1.50	1.91	0.00
<b>Category G: Unique academic experience</b>	<b>5.53</b>	<b>2.31</b>	<b>5.40</b>
I love the fun and entertaining atmosphere.	7.75	1.89	3.00
Band is a nice break from other classes.	7.00	2.16	1.00
Being in band helps me to rest or relax.	3.50	1.91	2.00
For me, band is an escape.	2.75	2.63	7.00
I just really love music.	6.00	3.37	7.00
I love playing music with my instrument.	6.00	2.00	5.00
I love the new experiences being in band allows me.	6.50	1.29	9.00
I learn something new every day.	4.50	1.29	3.00
I enjoy the challenge of being in band.	5.25	0.96	9.00
I love the feeling of accomplishment I get from being in band.	6.00	1.41	8.00

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High school 3	Student		Teacher
	<i>M</i>	<i>SD</i>	<i>M</i>
<b>Category A: Relational community</b>	<b>5.52</b>	<b>2.31</b>	<b>4.45</b>
I enjoy meeting new people every year.	5.00	1.63	2.00
I enjoy the people who are in band.	5.75	1.50	4.00
As a result of being in band I have gained new friends.	5.25	2.50	5.00
I have close friends in band I like to spend time with.	6.25	2.99	3.00
The teacher is great.	6.00	2.16	5.00
I have a closer relationship with my band teacher than other teachers.	3.00	2.16	5.00
In band I feel like I belong to a quirky family.	6.00	3.16	2.00
I feel safe and supported here.	6.00	3.16	5.00
I have learned how to better interact with others.	5.50	2.08	7.00
Band creates great memories.	6.50	3.00	4.00
When we create music, we communicate and connect on a different level.	5.50	1.29	7.00
<b>Category B: Cooperative responsibility</b>	<b>5.00</b>	<b>2.24</b>	<b>5.50</b>
I like being in a group of like-minded people.	4.25	3.20	5.00
I can help my classmates improve and flourish.	3.50	1.29	5.00
It's exciting to be a talented musician that younger students are aspiring to be like.	5.00	1.41	4.00
We have learned how to work together as part of a team.	5.25	1.89	7.00
I love the chance to collaboratively create music.	4.75	2.22	9.00
I enjoy the rehearsal process of working on a piece to make it sound better each day.	5.00	2.58	6.00
I love how so many different parts come together as a whole.	7.75	2.63	5.00
I like being part of a group where I can positively contribute.	5.25	0.50	6.00
I enjoy hearing, over the course of a year, how much everyone improves.	6.25	2.22	6.00
I like learning to be a better musician from my peers.	3.00	1.63	2.00
<b>Category C: Personal skill cultivation</b>	<b>5.13</b>	<b>2.36</b>	<b>7.46</b>
I develop leadership skills.	4.00	2.83	7.00
I learn how to become a better teacher myself.	5.25	4.03	8.00
The skills I learn here are applicable outside of the music classroom.	6.50	1.29	9.00
I have learned greater focus.	4.25	1.26	10.00
I have learned to be more disciplined.	4.75	1.71	8.00
I have learned how to manage my time better.	3.75	1.26	7.00
I have learned to be more responsible for myself.	4.75	1.50	8.00
I have learned to solve problems differently than other students.	3.75	0.96	9.00
My self-confidence grows in this group.	7.00	2.71	8.00
Being in band helps me to grow as a person.	6.75	2.06	6.00
Being in band helps to motivate me.	3.50	0.56	2.00
Band has helped me to be more patient.	4.25	2.87	8.00
Band helps me to be a more well-rounded person.	8.25	1.71	7.00

High school 3	Student		Teacher
	<i>M</i>	<i>SD</i>	<i>M</i>
<b>Category D: Musical skill development</b>	<b>5.73</b>	<b>2.40</b>	<b>3.83</b>
I improve on my instrument.	5.50	0.58	3.00
I learn how to read music better.	5.75	3.10	4.00
I learn how to listen to the group that surrounds me.	6.00	2.00	9.00
I get to improve my musical talent.	6.50	1.29	3.00
I learn how to play new instruments.	4.00	2.94	1.00
I have gained musical knowledge.	7.25	2.36	4.00
I have learned to appreciate music of all types.	5.75	2.06	4.00
I have learned how to be a better musician.	3.25	2.22	0.00
We get to play a wide variety of quality music.	6.25	1.83	3.00
I have learned how to be a better performer.	7.50	1.63	6.00
I improve my marching skills.	4.00	2.59	3.00
I love that I get to work on a skill that most kids don't have.	7.00	2.38	6.00
<b>Category E: Self-expression</b>	<b>5.35</b>	<b>2.35</b>	<b>4.00</b>
Music is a great way to express myself.	5.25	0.96	6.00
I love expressing emotion in music.	6.75	2.50	6.00
I can show my school spirit by playing at games.	3.25	1.26	2.00
I enjoy marching band and/or pep band performances.	5.00	3.46	1.00
I love the success I feel when I perform for an audience.	6.50	1.91	5.00
<b>Category F: Tangential rationale</b>	<b>2.73</b>	<b>2.64</b>	<b>2.90</b>
Participating in band will help me get into college.	3.75	2.99	5.00
My band grade helps to boost my GPA.	1.75	2.87	1.00
Band is a type of graduation credit I need.	2.50	2.65	1.00
Band helps prepare me for a career in music.	1.25	0.96	5.00
Band prepares me for playing my instrument after high school.	3.25	2.36	2.00
Band has helped me to be selected for festivals.	0.75	0.50	5.00
I gain leadership experience.	5.50	3.51	6.00
I like the fun travel opportunities.	4.00	2.31	0.00
I have been in band for so long I don't want to stop.	4.00	2.94	4.00
My family has pressured me to be in band.	0.50	1.00	0.00
<b>Category G: Unique academic experience</b>	<b>5.63</b>	<b>2.13</b>	<b>4.10</b>
I love the fun and entertaining atmosphere.	6.50	2.38	3.00
Band is a nice break from other classes.	6.00	0.00	4.00
Being in band helps me to rest or relax.	6.50	1.29	4.00
For me, band is an escape.	5.50	2.52	5.00
I just really love music.	5.75	3.69	3.00
I love playing music with my instrument.	7.50	2.08	3.00
I love the new experiences being in band allows me.	4.50	1.29	6.00
I learn something new every day.	3.00	1.83	4.00
I enjoy the challenge of being in band.	4.75	1.71	4.00
I love the feeling of accomplishment I get from being in band.	6.25	0.50	5.00

## Appendix P

### Combined Participant Response Analysis

Category	Student		Teacher	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Category A: Relational community</b>	<b>5.64</b>	<b>2.30</b>	<b>4.75</b>	<b>2.07</b>
I enjoy meeting new people every year.	5.08	1.68	3.67	1.53
I enjoy the people who are in band.	5.91	4.33	4.00	0.58
As a result of being in band I have gained new friends.	5.33	2.93	4.67	0.58
I have close friends in band I like to spend time with.	7.00	2.41	2.67	0.58
The teacher is great.	7.00	2.13	3.33	1.53
I have a closer relationship with my band teacher than other teachers.	4.42	2.68	5.00	2.00
In band I feel like I belong to a quirky family.	5.08	3.50	3.33	1.53
I feel safe and supported here.	5.00	2.52	7.67	2.52
I have learned how to better interact with others.	4.67	1.61	6.33	2.08
Band creates great memories.	7.25	1.76	4.00	2.00
When we create music, we communicate and connect on a different level.	5.25	2.26	7.33	0.58
<b>Category B: Cooperative responsibility</b>	<b>5.02</b>	<b>2.15</b>	<b>5.90</b>	<b>1.99</b>
I like being in a group of like-minded people.	5.17	2.62	5.00	0.00
I can help my classmates improve and flourish.	4.17	2.12	5.00	3.00
It's exciting to be a talented musician that younger students are aspiring to be like.	5.00	1.38	5.00	1.73
We have learned how to work together as part of a team.	5.42	1.87	7.00	2.00
I love the chance to collaboratively create music.	4.67	2.96	7.33	1.53
I enjoy the rehearsal process of working on a piece to make it sound better each day.	5.25	2.08	6.00	2.00
I love how so many different parts come together as a whole.	6.17	1.71	5.00	1.00
I like being part of a group where I can positively contribute.	5.58	2.27	6.67	0.58
I enjoy hearing, over the course of a year, how much everyone improves.	5.08	2.02	6.33	2.52
I like learning to be a better musician from my peers.	3.67	2.96	5.67	4.04
<b>Category C: Personal skill cultivation</b>	<b>4.99</b>	<b>2.29</b>	<b>6.38</b>	<b>2.28</b>
I develop leadership skills.	5.42	2.27	6.00	2.65
I learn how to become a better teacher myself.	4.58	2.93	5.67	2.08
The skills I learn here are applicable outside of the music classroom.	6.33	1.72	4.67	3.79
I have learned greater focus.	4.92	2.07	7.33	3.79
I have learned to be more disciplined.	4.67	2.27	6.67	2.31
I have learned how to manage my time better.	3.50	1.98	7.33	2.52
I have learned to be more responsible for myself.	4.42	1.62	7.33	3.06
I have learned to solve problems differently than other students.	3.83	2.04	7.67	1.53
My self-confidence grows in this group.	5.83	2.44	6.67	1.53
Being in band helps me to grow as a person.	6.25	1.82	6.00	0.00
Being in band helps to motivate me.	4.58	1.93	6.00	3.61
Band has helped me to be more patient.	4.25	2.49	6.00	2.00
Band helps me to be a more well-rounded person.	3.67	2.39	5.67	1.53

Category	Student		Teacher	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Category D: Musical skill development</b>	<b>5.53</b>	<b>2.23</b>	<b>4.64</b>	<b>2.33</b>
I improve on my instrument.	5.83	1.64	4.67	1.53
I learn how to read music better.	5.50	2.37	5.00	1.00
I learn how to listen to the group that surrounds me.	5.25	1.96	8.33	2.08
I get to improve my musical talent.	6.67	2.06	4.33	1.53
I learn how to play new instruments.	4.33	2.53	2.00	1.00
I have gained musical knowledge.	6.42	2.15	5.00	1.00
I have learned to appreciate music of all types.	5.25	1.36	4.33	0.58
I have learned how to be a better musician.	4.00	2.14	0.33	1.73
We get to play a wide variety of quality music.	6.33	1.62	5.00	3.06
I have learned how to be a better performer.	5.83	1.63	4.67	1.53
I improve my marching skills.	4.75	2.82	5.67	0.58
I love that I get to work on a skill that most kids don't have.	6.17	2.34	6.33	1.53
<b>Category E: Self-expression</b>	<b>5.13</b>	<b>2.63</b>	<b>4.80</b>	<b>2.04</b>
Music is a great way to express myself.	5.42	2.57	6.33	0.58
I love expressing emotion in music.	5.83	2.44	6.67	0.58
I can show my school spirit by playing at games.	3.83	2.95	3.00	1.73
I enjoy marching band and/or pep band performances.	5.33	2.14	2.67	1.53
I love the success I feel when I perform for an audience.	5.25	1.95	5.33	1.53
<b>Category F: Tangential rationale</b>	<b>3.38</b>	<b>2.91</b>	<b>2.73</b>	<b>2.21</b>
Participating in band will help me get into college.	3.83	2.44	2.67	2.08
My band grade helps to boost my GPA.	3.08	3.55	0.67	0.58
Band is a type of graduation credit I need.	2.58	2.27	0.67	0.58
Band helps prepare me for a career in music.	3.17	3.56	5.33	0.57
Band prepares me for playing my instrument after high school.	3.50	2.02	3.67	2.08
Band has helped me to be selected for festivals.	1.33	1.56	3.00	2.00
I gain leadership experience.	5.50	2.91	5.33	3.06
I like the fun travel opportunities.	5.33	2.50	1.33	1.15
I have been in band for so long I don't want to stop.	4.42	3.12	3.67	0.58
My family has pressured me to be in band.	1.00	1.41	1.00	1.73
<b>Category G: Unique academic experience</b>	<b>5.56</b>	<b>2.23</b>	<b>4.30</b>	<b>2.45</b>
I love the fun and entertaining atmosphere.	6.75	1.86	2.33	1.15
Band is a nice break from other classes.	5.92	1.98	1.67	2.08
Being in band helps me to rest or relax.	5.08	2.11	2.33	1.53
For me, band is an escape.	3.92	2.61	4.00	3.60
I just really love music.	6.25	2.90	4.67	2.08
I love playing music with my instrument.	6.92	2.43	4.33	1.15
I love the new experiences being in band allows me.	5.67	1.37	6.67	2.08
I learn something new every day.	3.75	1.48	4.33	1.53
I enjoy the challenge of being in band.	5.33	2.02	6.00	2.65
I love the feeling of accomplishment I get from being in band.	6.00	2.44	6.67	1.53



## Appendix Q

### Correlation Workbook by Category and Site

#### Category A: Relational Community

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
11	6.25	4.00	4.00	5.00	5.00	2.00
12	5.50	4.00	6.50	5.00	5.75	4.00
13	5.75	4.00	5.00	5.00	5.25	5.00
14	6.75	3.00	8.00	2.00	6.25	3.00
15	6.00	2.00	9.00	3.00	6.00	5.00
16	4.00	7.00	6.25	3.00	3.00	5.00
18	5.00	3.00	4.25	5.00	6.00	2.00
19	4.50	10.00	4.50	8.00	6.00	5.00
50	4.00	8.00	4.50	4.00	5.50	7.00
62	6.75	6.00	8.50	2.00	6.50	4.00
68	6.00	7.00	4.25	8.00	5.50	7.00
<b>Pearson <i>r</i></b>	<b>-0.5714</b>		<b>-0.7447</b>		<b>-0.1631</b>	
<b><i>p</i> value</b>	<b>0.06713</b>		<b>0.00922</b>		<b>0.63840</b>	

#### Category B: Cooperative Responsibility

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
17	6.75	5.00	4.50	5.00	4.25	5.00
22	5.25	2.00	3.75	8.00	3.50	5.00
63	6.25	4.00	3.75	7.00	5.00	4.00
64	6.00	9.00	5.00	5.00	5.25	7.00
65	5.50	7.00	3.75	6.00	4.75	9.00
66	5.75	4.00	5.00	8.00	5.00	6.00
67	5.25	6.00	5.50	4.00	7.75	5.00
70	4.50	7.00	7.00	7.00	5.25	6.00
71	4.75	4.00	4.25	9.00	6.25	6.00
72	4.50	5.00	3.50	10.00	3.00	2.00
<b>Pearson <i>r</i></b>	<b>0.0294</b>		<b>-0.3730</b>		<b>0.1315</b>	
<b><i>p</i> value</b>	<b>0.95626</b>		<b>0.29263</b>		<b>0.38337</b>	

**Category C: Personal Skill Cultivation**

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
21	5.00	8	7.25	3	4.00	7
23	4.25	5	4.25	4	5.25	8
36	6.00	3	6.50	2	6.50	9
37	4.00	9	6.50	3	4.25	10
39	4.50	8	4.75	4	4.75	8
40	3.00	10	3.75	5	3.75	7
42	4.00	10	4.50	4	4.75	8
45	4.50	8	3.25	6	3.75	9
46	4.50	7	6.00	5	7.00	8
48	6.25	6	5.75	6	6.75	6
49	4.75	9	5.50	7	3.50	2
51	3.75	6	4.75	4	4.25	8
52	4.50	6	6.25	4	8.25	7
<b>Pearson <i>r</i></b>	<b>-0.5926</b>		<b>-0.4527</b>		<b>0.1192</b>	
<b><i>p</i> value</b>	<b>0.03017</b>		<b>0.12284</b>		<b>0.69617</b>	

**Category D: Musical Skill Development**

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
27	6.25	5	5.75	6	5.50	3
28	5.50	5	5.25	6	5.75	4
29	5.50	6	4.25	10	6.00	9
30	6.75	4	6.75	6	6.50	3
31	5.50	2	3.50	3	4.00	1
32	4.00	0	4.75	1	3.25	0
33	6.50	5	5.50	6	7.25	4
34	5.25	4	4.75	5	5.75	4
35	7.25	6	5.50	6	6.25	3
61	5.00	3	5.00	5	7.50	6
69	5.00	5	5.25	9	4.00	3
75	6.25	5	5.25	8	7.00	6
<b>Pearson <i>r</i></b>	<b>0.6655</b>		<b>0.2043</b>		<b>0.6578</b>	
<b><i>p</i> value</b>	<b>0.01713</b>		<b>0.53313</b>		<b>0.01951</b>	

**Category E: Self-Expression**

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
53	6.25	6	4.75	7	5.25	6
54	6.25	7	4.50	7	6.75	6
55	6.00	2	2.25	5	3.25	2
73	6.50	3	4.50	4	5.00	1
74	3.75	4	5.50	7	6.50	5
<b>Pearson <i>r</i></b>	<b>0.1331</b>		<b>0.5083</b>		<b>0.6859</b>	
<b><i>p</i> value</b>	<b>0.83494</b>		<b>0.38001</b>		<b>0.19727</b>	

**Category F: Tangential Rationale**

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
5	4.00	2	3.75	1	3.75	5
6	3.75	1	3.75	0	1.75	1
7	2.50	1	2.75	0	2.50	1
8	5.00	5	3.25	6	1.25	5
9	4.00	3	3.25	6	3.25	2
10	2.00	3	1.25	1	0.75	5
20	3.50	8	7.50	2	5.50	6
59	5.00	2	7.00	2	4.00	0
76	4.50	4	4.75	3	4.00	4
77	1.00	3	1.50	0	0.50	0
<b>Pearson <i>r</i></b>	<b>0.1390</b>		<b>.01386</b>		<b>0.2748</b>	
<b><i>p</i> value</b>	<b>0.69968</b>		<b>0.69968</b>		<b>0.45058</b>	

**Category G: Unique Academic Experience**

Statement	HS1 Student <i>M</i>	HS1 Teacher	HS2 Student <i>M</i>	HS2 Teacher	HS3 Student <i>M</i>	HS3 Teacher
1	6.00	1	7.75	3	6.50	3
2	4.75	0	7.00	1	6.00	4
3	5.25	1	3.50	2	6.50	4
4	3.50	0	2.75	7	5.50	5
24	7.00	4	6.00	7	5.75	3
25	7.25	5	6.00	5	7.50	3
56	6.00	5	6.50	9	4.50	6
57	3.75	6	4.50	3	3.00	4
58	6.00	5	5.25	9	4.75	4
60	5.75	7	6.00	8	6.25	5
<b>Pearson <i>r</i></b>	<b>0.3543</b>		<b>-0.0622</b>		<b>-0.4066</b>	
<b><i>p</i> value</b>	<b>0.32147</b>		<b>0.86922</b>		<b>0.23929</b>	

## Appendix R

### Correlation Workbook for All Participants

#### Category A: Relational Community

Statement	Student <i>M</i>	Teacher <i>M</i>
11	5.08	3.67
12	5.91	4.33
13	5.33	4.67
14	7.00	2.67
15	7.00	3.33
16	4.42	5.00
18	5.08	3.33
19	5.00	7.67
50	4.66	6.33
62	7.25	4.00
68	5.25	7.33
<b>Pearson <i>r</i></b>	<b>-0.5583</b>	
<b><i>p</i> value</b>	<b>0.07319</b>	

#### Category B: Cooperative Responsibility

Statement	Student <i>M</i>	Teacher <i>M</i>
17	5.17	5.00
22	4.17	5.00
63	5.00	5.00
64	5.42	7.00
65	4.67	7.33
66	5.25	6.00
67	6.17	5.00
70	5.58	6.67
71	5.08	6.33
72	3.67	5.67
<b>Pearson <i>r</i></b>	<b>0.0605</b>	
<b><i>p</i> value</b>	<b>0.8692</b>	

#### Category C: Personal Skill Cultivation

Statement	Student <i>M</i>	Teacher <i>M</i>
21	5.42	6.00
23	4.58	5.67
36	6.33	4.67
37	4.92	7.33
39	4.67	6.67
40	3.50	7.33
42	4.42	7.33
45	3.83	7.67
46	5.83	6.67
48	6.25	6.00
49	4.58	6.00
51	4.25	6.00
<b>Pearson <i>r</i></b>	<b>-0.6284</b>	
<b><i>p</i> value</b>	<b>0.02811</b>	

#### Category D: Musical Skill Development

Statement	Student <i>M</i>	Teacher <i>M</i>
27	5.83	4.67
28	5.50	5.00
29	5.25	8.33
30	6.67	4.33
31	4.33	2.00
32	6.42	5.00
33	5.25	4.33
34	4.00	0.33
35	6.33	5.00
61	5.83	4.67
69	4.75	5.67
75	6.17	6.33
<b>Pearson <i>r</i></b>	<b>0.5046</b>	
<b><i>p</i> value</b>	<b>0.55420</b>	

**Category E: Self-Expression**

Statement	Student <i>M</i>	Teacher <i>M</i>
53	5.42	6.33
54	5.83	6.67
55	3.83	3.00
73	5.33	2.67
74	5.25	5.33
<b>Pearson <i>r</i></b>	<b>0.6550</b>	
<b><i>p</i> value</b>	<b>0.22545</b>	

**Category F: Tangential Rationale**

Statement	Student <i>M</i>	Teacher <i>M</i>
5	3.83	2.67
6	3.08	0.67
7	2.58	0.67
8	3.17	5.33
9	3.50	3.67
10	1.33	3.00
20	5.50	5.33
59	5.33	1.33
76	4.42	3.67
77	1.00	1.00
<b>Pearson <i>r</i></b>	<b>0.3772</b>	
<b><i>p</i> value</b>	<b>0.27874</b>	

**Category G: Unique Academic Experience**

Statement	Student <i>M</i>	Teacher <i>M</i>
1	6.75	2.33
2	5.92	1.67
3	5.08	2.33
4	3.92	4.00
24	6.25	4.67
25	6.92	4.33
56	5.67	6.67
57	3.75	4.33
58	5.33	6.00
60	6.00	6.67
<b>Pearson <i>r</i></b>	<b>-0.0406</b>	
<b><i>p</i> value</b>	<b>0.91263</b>	

## Appendix S

### Revised Q-Set Statements

#### Category A: Relational Community

I enjoy meeting new people every year.

I enjoy the people who are in band.

As a result of being in band I have gained new friends.

I have close friends in band I like to spend time with.

The teacher is great.

I have a closer relationship with my band teacher than other teachers.

In band I feel like I belong to a quirky family.

I feel safe and supported here.

I have learned how to better interact with others.

Band creates great memories.

When we create music, we communicate and connect on a different level.

My teacher pressured me to continue in band.

My classmates pressured me to participate in band.

#### Category B: Cooperative Responsibility

I like being in a group of like-minded people.

I can help my classmates improve and flourish.

It's exciting to be a talented musician that younger students are aspiring to be like.

We have learned how to work together as part of a team.

I love the chance to collaboratively create music.

I enjoy the rehearsal process of working on a piece to make it sound better each day.

I love how so many different parts come together as a whole.

I like being part of a group where I can positively contribute.

I enjoy hearing, over the course of a year, how much everyone improves.

I like learning to be a better musician from my peers.

**Category C: Personal Skill Cultivation**

I develop leadership skills.  
I learn how to become a better teacher myself.  
The skills I learn here are applicable outside of the music classroom.  
Band has helped me to develop my ability to focus.  
Band has helped me to be even more disciplined.  
Band has helped me to develop my time management skills.  
I learn to be more responsible for myself.  
I have learned to solve problems differently than other students.  
My self-confidence grows in this group.  
Being in band helps me to grow as a person.  
Being in band helps to motivate me.  
Band has helped me to be more patient.  
Band helps me to be a more well-rounded person.

**Category D: Musical Skill Development**

I improve on my instrument.  
I learn how to read music better.  
I learn how to listen to the group that surrounds me.  
I get to improve my musical talent.  
I learn how to play new instruments.  
I have gained musical knowledge.  
I have learned to appreciate music of all types.  
I have learned how to be a better musician.  
We get to play a wide variety of quality music.  
I have learned how to be a better performer.  
I improve my marching skills.  
I love that I get to work on a skill that most kids don't have.

**Category E: Self-Expression**

Music is a great way to express myself.  
I love expressing emotion in music.  
I can show my school spirit by playing at games.  
I enjoy marching band and/or pep band performances.  
I love the success I feel when I perform for an audience.

**Category F: Tangential Rationale**

Participating in band will help me get into college.  
My band grade helps to boost my GPA.  
Band is a type of graduation credit I need.  
Band helps prepare me for a career in music.  
Band prepares me for playing my instrument after high school.  
Band has helped me to be selected for festivals.  
I gain leadership experience.  
I like the fun travel opportunities.  
I have been in band for so long I don't want to stop.  
My family has pressured me to be in band.

**Category G: Unique Academic Experience**

I love the fun and entertaining atmosphere.  
Band is a nice break from other classes.  
Being in band helps me to rest or relax.  
For me, band is an escape.  
I just really love music.  
I love playing music with my instrument.  
I love the new experiences being in band allows me.  
I learn something new every day.  
I enjoy the challenge of being in band.  
I love the feeling of accomplishment I get from being in band.



## Appendix T

### Study Q-Set Statement Comparison to Other Studies

Current Study	Farrell (1972)	Hylton (1980)
<b>Relational Community</b>		
I enjoy the people who are in band.	To joke and kid with friends	To make and enjoy good friends
I enjoy meeting new people every year.		To meet new people
As a result of being in band I have gained new friends.	To enjoy the fellowship of people not normally met	To make and enjoy good friends
The teacher is great.	To sing under a particular director	
I have close friends in band I like to spend time with.		To be part of a very close group of friends
In band I feel like I belong to a quirky family.		To be with a great group of people
I feel safe and supported here.		To feel more at ease
When we create music, we communicate and connect on a different level.		To communicate so well with an audience that they applaud
<b>Cooperative Responsibility</b>		
I like being in a group of like-minded people.	To share a common bond with others like me	To be with chorus people
We have learned how to work together as part of a team.		To work together to achieve a goal
I enjoy the rehearsal process of working on a piece to make it sound better each day.		To feel the satisfaction of practicing long hours and getting results
I love how so many different parts come together as a whole.		To enjoy being part of the sounds of many voices blending together
I like being part of a group where I can positively contribute.		To contribute to a group effort
<b>Personal Skill Cultivation</b>		
My self-confidence grows in this group.		To get out in front of a crowd and sing
Being in band helps me to grow as a person.		To find out who I am
Band has helped me to be even more disciplined.		To develop my self-discipline

<b>Current Study</b>	<b>Farrell (1972)</b>	<b>Hylton (1980)</b>
<b>Musical Skill Development</b>		
I get to improve my musical talent.	To continue my musical training	To develop my musical talent
I have learned to appreciate music of all types.	To enlarge my choral music repertoire	To learn to appreciate all kinds of music
I improve on my instrument.		To learn how to control my voice
I learn how to read music better.		To learn how to read music
I learn how to listen to the group that surrounds me.		To train my ear
I have gained musical knowledge.		To enrich my musical knowledge
I have learned how to be a better performer.		To sing well for others
We get to play a wide variety of quality music.		To sing many different kinds of music
<b>Self-Expression</b>		
Music is a great way to express myself.	To express myself and who I am	
I love expressing emotion in music.	To share my innermost feelings	To express a composer's words and thoughts contained in his music
I can show my school spirit by playing at games.		To give others a message through my singing
I love the success I feel when I perform for an audience.		To present good concerts
<b>Tangential Rationale</b>		
Band helps prepare me for a career in music.		To prepare for a musical career
<b>Unique Academic Experience</b>		
I love the fun and entertaining atmosphere.	To have fun singing with others	To have a good time with the rest of the group
Band is a nice break from other classes.	To brighten my day	To help make life go by easier
Being in band helps to rest or relax.	To relax	To relax and forget my problems for a while
For me, band is an escape.	To escape daily stress and strains	
I just really love music.	To enjoy the music	
I love playing music with my instrument.	To make good music	
I love the feeling of accomplishment I get from being in band.		To get a sense of accomplishment
I love that I get to work on a skill that most kids don't have.		To show off the potential God gave me

## Appendix U

### IRB Approval Letter

Boston University Charles River Campus Institutional Review Board

25 Buick Street  
Room 157  
Boston, Massachusetts 02215  
T 617-358-6115  
[www.bu.edu/irb](http://www.bu.edu/irb)



### Notification of IRB Approval: Initial Review

February 21, 2014

R. Robert Frazier, II  
College of Fine Arts  
Department of Music Education

**Protocol Title:** A Q Sort Comparison of Student and Teacher Values Concerning Music Education in Public Secondary School Wind Band Ensembles  
**Protocol #:** 3404E  
**Funding Agencies:** n/a  
**IRB Review Type:** Expedited (6) (7)

Dear Mr. Frazier:

On 2/21/14, after review of your initial application received on 12/18/13 and your response to subsequent modification requests, the IRB has approved the above-referenced protocol in accordance with 45 CFR 46.111. Approval for this study is effective from 2/21/14 to 2/20/15.

In accordance with 45 CFR 46.404 and 46 CFR 46.408, the IRB determined that the research did not involve greater than minimal risk, that assent would be obtained from the child, and that the permission of one parent is sufficient. Verbal assent will be obtained from minors in Phase I. Written assent will be obtained from minors in Phase II.

This approval includes a waiver of written informed consent for Parents in accordance with 45 CFR 46.117(c) (2).

This approval includes the following:

1. IRB Application, approval to enroll 420 subjects.
2. Four Informed Consent Forms – Parents, Teacher – Phase I, Teacher – Phase II, Adult students
3. Two Assent Documents – Assent Form, Assent Script
4. Two Phase I surveys – Teacher, Student
5. Contact Information Form
6. Introductory Script
7. Four Recruitment Letters – Parents, Teachers, School Principal, Adult students
8. Recruitment E-Mail - Student
9. Phase II Protocol

This approval is valid for one year, and will expire on **2/20/15**. Please submit a Progress Report, which is located on our website (<http://www.bu.edu/irb/>), six weeks prior to the expiration of your study.

As the Principal Investigator, you are responsible for ensuring that studies are conducted in accordance with federal regulations, state laws, and institutional policies.

Please note:

- No subjects may be involved in study procedures prior to the IRB approval date or after the expiration date.
- All unanticipated problems or serious adverse events must be reported to the IRB immediately.
- All protocol modifications must be approved by the IRB prior to implementation unless they are necessary to eliminate immediate hazard to subjects.
- All protocol deviations must be reported to the IRB.
- All recruitment materials and methods must be approved by the IRB prior to use.

If you have any questions, please contact me at 617-358-6117.

Sincerely,



Ed Szkutak  
Senior IRB Analyst  
Charles River Campus IRB

Enclosures

cc: Professor Roger Mantie, CFA

## References

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**Vita**

