# AN EXAMINATION OF THE RELATIONSHIP BETWEEN HIGH-SCHOOL CHOIR DIRECTORS' TEACHING-STYLE AND CHOIR STUDENTS' SENSE-OF-COMMUNITY

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ABSTRACT

Researchers agree that teachers are the single most influential school-related factor in a child's level of academic achievement. Teaching style may influence students' academic achievement as well as facilitate students' development of social skills and a sense-of-community within the classroom.

The purpose of this study was to examine the relationship between high-school choir directors' ($n$ = 42) teaching-style and their high-school choir students' ($n$ =1,108) psychological sense-of-community. Student participants in grades 9-12 within a mid-Atlantic state were members of a 9th-Grade Chorus ($n$ = 2), Men's Chorus ($n$ = 1), Women's Chorus ($n$ = 8), Select Ensemble ($n$ = 7), or Concert Choir ($n$ = 38). Results from students' scores on the Classroom Community Scale revealed that 9th-grade students reported lower levels of sense-of-community, connectedness, and learning than students in grades 10, 11, and 12. Students in Select Ensembles reported significantly higher levels of sense-of-community, connectedness, and learning than students in Concert Choirs, and students in choirs that performed five or more times per school year reported significantly higher levels of sense-of-community than students in choirs that performed four or less times per school year. Results revealed no main effect for gender, students' years-of-experience in high school choir, or choir-class length and frequency.

Teachers' scores on the Music Teaching Style Inventory revealed that teachers preferred the Assertive Teaching (M = 3.80), Nonverbal Motivation (M = 3.75), Time Efficiency (M = 4.33), and Positive Learning Environment (M = 4.27) teaching-styles that focus on teacher-led activities. Music Concept Learning (M = 3.48), Artistic Music

Performance (M = 3.46), Student Independence (M = 3.30), Group Dynamics (M = 2.84), teaching-styles with a focus on student-led activities were least preferred by the teachers in this study. Group Dynamics teaching style was a low or the lowest preferred teaching-style for 40 of the 42 participating teachers. Results revealed no main effect for teachers' gender or years-of-experience teaching.

Teaching-style preference was not a significant predictor for students' levels of sense-of-community or connectedness. Time Efficiency and Student Independence teaching-styles positively correlated with students' perceived level of learning while the Artistic Music Performance teaching-style negatively correlated with students' perceived level learning.

Within teachers' reports of observed student behaviors, teachers identified all four elements of sense-of-community: *membership, influence, integration and fulfillment of needs,* and *shared emotional connection*. Teachers also reported purposefully planning activities in order to facilitate their choir students' sense-of-community. Activities included teaching behaviors found within the Positive Learning Environment, Group Dynamics, Artistic Music Performance, and Student Independence teaching-styles. Teachers expressed that a sense-of-community has importance in that it effects students' musical expression; students' ability to achieve their potential for musical performance; students' retention within choir ensembles; teachers' advocacy for choir programs; and student's participation in musical ensembles beyond high school.

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to my students whose inspiration I try to return in kind on a daily basis

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# CHAPTER 1

## INTRODUCTION

With the goal of raising student achievement, educational policy-makers and researchers have focused on the single most influential school-related factor in a child's level of academic achievement: teachers. However, a child's comprehensive educational experience consists of a complex interaction of factors, many of which are not under the control of an educational institution. Researchers have not reached a consensus on just how much of a student's level of achievement can be attributed to teacher influence or any other single factor. Such contradictions can be seen in researchers attributing 30% and 13% of student achievement to teachers (Hattie, 2003; Marzano, 2003) while attributing 50% and 80% of student achievement to the student herself (Hattie, 2003; Marzano, 2003).

Student-achievement data typically consists of scores on standardized tests that most often assess students' knowledge in math, language arts, and science. This type of student data is even now being considered as evidence of teachers' effectiveness as part of teacher evaluations. Including student achievement as part of teacher evaluations has caused heated discussions between all parties involved. Proponents and opponents alike agree that student achievement is a complex phenomenon.

Part of this complexity is due to the fact that our children's education occurs in a social setting. Students' social-emotional skills within the educational setting are the un-tested factors of a student's level of academic achievement. Education policy-makers have expressed an increased interest in understanding, developing, and assessing

students' social-emotional skills. Students' observable interactions with others within an educational setting are indicators of not only their level of social-emotional development but also their level of a psychological sense-of-community with others in that same setting.

Recent federal and state legislative action demonstrates the importance that policy-makers have recently placed on social-emotional learning. On March 17, 2010, Secretary of Education Arne Duncan testified before the Senate Health, Education, Labor, and Pensions Committee and the House Education and Labor Committee on the Obama Administration's Blueprint for Reauthorizing the Elementary and Secondary Education Act (ESEA). As a part of the hearing, Ohio Congressman Tim Ryan asked Secretary Duncan how the ESEA was planning to support the additional social-emotional learning components as recommended by the proposed Academic, Social and Emotional Learning Act (H.R. 4223) introduced in December of 2009. Secretary Duncan replied

> We're proposing 1.8 billion dollars for a range of student supports including social and emotional learning. . . a 60% increase. So we are trying to put our money where our mouth is and say that we have to create climates in which students can be academically successful; and if we are not addressing those social emotional needs, quite frankly, we are kidding ourselves. (Ryan, 2010)

Secretary Duncan emphasized the importance of teaching social-emotional skills because

> children can have huge challenges, but if we help them learn how to handle those, and deal with them, then they have a chance. When you don't, then they can't get past those challenges, can't begin to think about what's going on in class. . . . If

we're not addressing this, then we're not in the game. (Ryan, 2010)

Though the Academic, Social, and Emotional Learning Act of 2009 was referred to the Subcommittee on Early Childhood Education and Secondary Education and eventually dropped from the books due to imposed time-limit rules (Govtrack, 2010), many states have moved forward to include social-emotional learning within the educational setting.

The National Council on School Climate suggests that social-emotional learning (SEL) programs "foster the environment which ensures all students have an equal opportunity to succeed and become socially conscious and ethical members of society" (National School Climate Council, 2010, p. 2). Proponents of SEL view these learned skills as necessary for the functioning of a democratic society (Cohen, 1999, 2006; Michelli & Keiser, 2005; Torney-Purta & Vermeer, 2004). Research connected to SEL has provided in-depth explanations for how social stress and emotional trauma effect areas of the brain and therefore interfere with learning (Freiberg, 1999; Goleman, 1998, 2006; Zins, Weissberg, Wang, & Walberg, 2004).

The Collaborative for Academic, Social, and Emotional Learning (CASEL) group leads research in SEL and was founded in 1994 by Daniel Goleman (author of *Emotional Intelligence*, 1995 and *Social Intelligence*, 2006) and Eileen Rockefeller Growald (CASEL, 2005). CASEL's meta-analysis of 213 studies of SEL programs involving a total of 270,034 students in various school settings from elementary through the secondary level, suggests that in addition to improved "social and emotional skills, school bonding, pro-social norms, self-perceptions, positive social behaviors . . . and significant

reductions in such areas as conduct problems, substance use, and internalizing symptoms," schools implementing SEL programs have seen an 11% increase in academic achievement (CASEL, 2010a, p. 2).

CASEL defines the five goals of social-emotional learning (SEL) as self-awareness, social-awareness, self-management, relationship skills, and responsible decision-making. Citing the vast collection of research compiled by CASEL, state-level Departments of Education in California, Idaho, Pennsylvania, Texas and Washington have adopted SEL standards for the preschool level; Idaho and Pennsylvania have adopted SEL standards for preschool through early elementary education; Illinois has implemented SEL standards for K-12 that are to be met within the Language Arts, Social Studies, and Health curriculum; Kansas, Oklahoma, Tennessee, Vermont and Washington have adopted K-12 standards that address one or more of the components of SEL (CASEL, 2010b). In 2007, social development was included as a goal in 31% of all mission statements for state-level Departments of Education (Doolittle, Horner, Bradley, Sugai, & Vincent, 2007).

In 2009, an online search of mission statements for local education agencies (LEAs) in Pennsylvania revealed that 50% of all LEA mission statements included language pronouncing students' social-development as a district goal. Since then, Pennsylvania has adopted preK-12 School Climate Standards and Student Interpersonal Skills Standards (PA Dept. of Ed., 2012).

A review of national, state, and local legislative documents addressing school-climate reveals that all documents are connected to a broader and all-encompassing

concept called a "psychological sense-of-community" (Chavis & McMillan, 1986). These documents include individual aspects of an overall sense-of-community through terms and phrases such as "participate positively and cooperatively as group members" (California); "interact effectively with adults and children" (Idaho); "consider civic, safety, and societal factors in making decisions" (Pennsylvania); "become integral members of a classroom community" (Texas); "use interpersonal skills to work collaboratively" (Washington); "assume leadership and be a team player in achieving group goals" (Illinois); "enhance interpersonal communication" (Kansas); "demonstrate positive interactions and respect for diversity" (Oklahoma); "exhibit civic, social, and team responsibility" (Tennessee); and "perform effectively on teams to work towards group decisions" (Vermont) (CASEL, 2010b).

The body of research on a psychological sense-of-community explains the interconnectedness of all elements contained in SEL. Understanding these connections allows us to measure and diagnose social-emotional issues more efficiently and effectively, and therefore, plan a prescriptive program. McCabe and Cohen (2006) state that terms such as *school-climate* and *school-culture* are too vague. A more specific term such as *sense-of-community*, "provide[s] clearer objectives and lead[s] to measurable outcomes for schools" (p. 3). A psychological sense-of-community within an educational setting is the "safe and supportive" (PA Dept. of Ed., 2012) environment that allows students to develop social and emotional awareness and grow as social beings. It follows that fostering a psychological sense-of-community within an educational context may be one strategy that provides the most comprehensive and strongest potential for addressing

students' social-emotional development needs, the result of which is a positive effect on student achievement.

Researchers claim that sense-of-community is important for the psychological wellbeing of the individual. Further, the level of sense-of-community affects how well a community functions (Chavis & McMillan, 1986). In their summary on school climate-related policies, McCabe and Cohen (2006) include "Sense of School Community (e.g. students/adults feel and demonstrate sense of community in the school)" as one of the "dimensions [that] essentially color and shape subjective experience in schools or school climate" (p. 2).

Along with the school as a whole, classrooms, co-curricular and extra-curricular activity groups also exist as communities. McCabe and Cohen (2006) quote Superintendent Jerry Tarnoff of West Orange Public School District, New Jersey as saying

> athletics go a long way to teach kids social and emotional skills that improve learning. They learn teamwork, they learn how to set goals, they learn how to deal with setbacks and reapply themselves, and they learn how important their individual contributions are to the total outcome. (p. 12)

Music educators also view their music ensembles and classroom music-making as requiring teamwork. Music educators also attempt to impress upon their students "how important their individual efforts are to the total outcome." Arts-education programs provide students with opportunities to develop a sense-of-community, improve their social-emotional skills, and meet the goals of SEL (Cohen, 2006). Social structures and

societies are outcomes of organized and collaborative human interaction (Martin, 2006; Morrione, 2004). Making music with others is an organized, collective (collaborative) action (Becker, 1974). Through "singing and playing instruments alone and with others" (NAfME, 2012), our students have the opportunity to experience membership within or even create their own social structures.

Music performance with others can take place within the general music classroom or the performance-based course involving a particular type of music ensemble. Music ensemble is a generalized description for a wide variety of combinations of students, voicing, instrumentation, and styles of music performed. The present study focused on high-school choir ensembles. The high school choir presents challenges in achieving musical potential and developing sense-of-community in that high-school choirs tend to consist of a student population with not only wide ranges of social-emotional and cognitive development, but also wide ranges in musical skills and knowledge. Many students within high-school instrumental programs have had instrumental instruction prior to high school, and many students have experience with participation in elementary- and middle-school instrumental ensembles in which they were performing with a relatively stable roster of peers. Membership within high-school choir does not usually require years of prior experience. The non-auditioned high-school choir presents an additional challenge in that students may find choir in their schedule as simply a solution to a scheduling problem. Membership of the non-auditioned choir can include students who have taken private vocal instruction as well as uncertain singers. But, a sense-of-

community still seems to be possible in high-school choirs even with their revolving membership.

Students in non-auditioned high-school choirs report higher levels of sense-of-community (SOC) in choir than in their math and English classes (Anderson, 2009). Students' gender and years of high-school choir experience had no main effect on students' sense-of-community, connectedness, or learning. It is also remarkable, and worth closer investigation that such a diverse population of students in high school choir reported a narrow range of scores for SOC, indicating that students experienced similar levels of SOC.

To understand how this phenomenon develops within a classroom it may be helpful for researchers to focus on the classroom teacher. If teachers are the most influential factor within in the educational setting, then the choir directors may also be the most influential factor in establishing, facilitating, or inhibiting students' development of sense-of-community within their choir classrooms.

Researchers describe high school teachers in general as having the least amount of information, understanding, and participation in discussions on connections between students' social-emotional wellbeing and students' cognitive abilities as compared to teachers of any other level (Cohen, 2006). If developing a sense-of-community is not necessarily a direct focus or intent for high school teachers, perhaps an examination of teaching behaviors that describe a teacher's overall teaching-style may help us to understand how teachers—especially high school teachers—mediate the phenomenon of a sense-of-community within their classes.

Research in music education has described teaching style as the "stable, consistent, and pervasive approach to music teaching" (Gumm, 2003, p. 14). A high-school choir director's teaching-style may account for the greatest amount of variance in sense-of-community within the high school choir. The purpose of this study was to examine the relationship between high-school choir directors' teaching style and high-school choir students' psychological sense-of-community.

With a diverse student population and students reporting higher levels of sense-of-community in choir than in their math and English classes, the high-school choir classroom may be an optimal educational setting in which to explore the relationship between students' sense-of-community and their teachers' teaching style. Future investigations may suggest ways that this information could enhance students' ensemble experiences, raise student achievement, and may be applied or generalized to other school contexts.

Sense-of-community's effect on students' socio-psychological wellbeing and the teacher's role as a social agent within the classroom may contribute to our understanding of the complex interactions as a part of student achievement. Student-achievement test scores have a prominent place in the center of educational policy. They affect federal, state, and local decision-making processes, school governing, funding, and teacher evaluations. It is therefore important that researchers continue to explore all elements of the educational context.

Through the combination of using best teaching practices and understanding how sense-of-community is formed within school classrooms, all teachers can provide their

students with the academic knowledge, thinking skills, and “safe and supportive” (PA Dept. of Ed., 2012) school-climate needed for our students to achieve their potential within and beyond the educational setting.

# CHAPTER 2

## REVIEW OF RELATED LITERATURE

Choir students perceive the social aspect of participation in choir as valuable and rich in meaning. High-school students' participation within choral ensembles includes six meaningful dimensions: achievement, spiritualistic, musical-artistic, communicative, psychological, and integrative (Hylton, 1981). The integrative dimension includes social aspects of participation in ensembles and interacting with others within a choral ensemble. Social interaction within a choral group is a motivating factor for participation in choral ensembles (Adderley, Kennedy, & Berz, 2003; Conway & Borst, 2001; Kennedy, 2002; Neill, 1998); a significant factor in higher retention of high-school African-American students in choral ensembles (Horn, 2007); and provides a therapeutic benefit for adjudicated at-risk adolescent males, with Asian and Hispanic males showing the greatest improvement (Nelson, 1997).

Choral students' anecdotal comments reflect the importance and influence they attach to the social dimension of choral ensembles. High school students identified the "social climate as a pervasive element" (Adderley, et. al., 2003, p. 190) when asked to describe the positive benefits of participation in music ensembles and their motivation for participating in ensembles. Students have also expressed the social dimension using words like "team" and "family" (Parker, 2009).

The social dimension of a music ensemble exhibits the characteristics of a culture (Morrison, 2001). With the "[recognition of] school music programs as real musical

cultures, educators may better articulate the value of performance in students' development, better understand the program qualities that students value, and better choose future directions for an ensemble program's structure and content" (Morrison, 2001, p. 1). Common cultural themes manifested within school music ensembles include identity, transmission, social dimension, practical and personal boundaries, organizational hierarchy, traditional song, traditional performance practices, the diaspora, indoctrination, and lore (Morrison, 2001).

The "*value* of performance in students' development" (emphasis added) may include meeting students' deeper social-emotional needs as they are related to academic learning. Neuroscience and SEL research has helped us to understand the plasticity of the brain and how cognitive brain-functioning is impaired when social or emotional stresses are present (Borovoy, 2007; Goleman, 1998, 2006; Shallice & Burgess, 1996). Students' positive feelings of connectedness to other students and adults within the school setting highly correlate with a decrease in risk-taking behaviors such as smoking, alcohol abuse, illegal drug use, violent behaviors, sexual behaviors, suicide, and aggression (McNeely & Falci, 2004; Wilson, 2004). Through further research we may be able to determine the extent to which meeting students' social-emotional needs within an individual class, such as a music ensemble, carries over into other parts of students' school experiences. A psychological sense-of-community also explains how a community (school, neighborhood, classroom, ensemble) functions. It is in understanding the functionality of a community that we can then understand the effect that a sense-of-community has on academic learning.

## Psychological Sense-of-community

At the root of research on sense-of-community is the work begun in the 1960s at Yale University by American psychologist Seymor Sarason. In the 1960s, Sarason believed that a new type of psychologist was needed. This new psychologist would go into the community of the individual who desired help instead of the individual going to the psychologist's office. He believed that the context of an event or the environment in which the individual exists has an effect on the behavior of the individual. Sarason also believed that individuals may experience difficulty in transferring the psychotherapy session out of the office and into the real-life environment (Sarason, 1974, 1988). It was for these reasons that Sarason founded the Yale Psycho-Educational Clinic in 1962.

Psychologists from the Yale Clinic, referred to as *community psychologists*, left the confines of the clinic in order to treat the individual within their natural environment.

> Thus, for example, the goal of a community consultant in a school would be to offer assistance to a teacher to enable him or her to help a child within the confines of the classroom. The generalized message was that all contexts—family, work, school, recreation, neighborhood—were meaningful and community psychologists should be doing their interventions and research in these contexts. (Repucci, 1990, p. 355)

Sarason viewed the historical and cultural contexts of the setting to be very important for the community psychologist to consider. He also questioned why some settings were often resistant to change and saw this as an important direction for future research (Sarason, 1978). Since Sarason believed that humans have a basic need for a

sense of belonging to a highly connected set of relationships (Sarason, 1978), he felt that the field of community psychology should have spent more energy toward defining the term *community* (Reppuci, 1990), which is exactly what McMillan and Chavis set out to do.

McMillan and Chavis (1986) developed a definition of community that researchers still use today. "Sense of community is a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9). Their definition incorporates four elements that they believe to be fundamental requirements in forming a sense-of-community: *membership, influence, integration and fulfillment of needs,* and *shared emotional connection*. Each of the four elements is further defined by its components.

*Membership's* general definition is "the feeling of belonging or of sharing a sense of personal relatedness" (McMillan & Chavis, 1986, p. 9). The five components of *membership* are boundaries, emotional safety, a sense-of-belonging and identification, personal investment, and a common symbol system. Table 1 provides explanations for each component as it may be described within the context of the choral ensemble.

Table 1

*Membership Components and the Choral Ensemble*

| Membership Component | Description within the context of the choral ensemble |
|---|---|
| 1. Boundaries | The label "choir" becomes a boundary. Students are either in choir or not. A more subtle form of a boundary would be the recognition of a particular piece of music outside the walls of the classroom or auditorium. Those who can identify the song by name or sing a phrase would be considered "in" the group. |
| 2. Emotional safety | Boundaries help to establish a place where members feel safe to express themselves. Within the choir, students may be singing alone and with others. In order to feel safe, they need to know that their attempts to sing will not result in humiliation even if they make a mistake. Further, that the group will not expose their mistake to ridicule outside the group. |
| 3. A sense of belonging and identification | A feeling and belief that one has a place within the choir and is accepted. Students may express "I am in choir" or "I'm a member of the choir." Students identify themselves as being a part of the group, the opposite of which would be to deny participation in the group. |
| 4. Personal investment | Choir students who fully participate will feel that they have earned a place within the group. The more the personal investment, the more meaningful and valuable membership becomes. |
| 5. A common symbol system | Many choirs perform wearing choir robes. The robe is another form of boundary. Those wearing the robe share in knowledge and experience that those who are not wearing a robe do not have access to. |

*Note.* Membership components adapted from "Sense of Community: A Definition and Theory," by D. McMillan and D. Chavis, 1986, *Journal of Community Psychology, 14,* p. 9. Descriptions within the choral context include definitions as provided by McMillan and Chavis. Interpretations within the choral ensemble are my own application.

The second element of community, *influence*, is a reciprocal process: the individual influences the community and the community influences the individual. For

example, within a choir, students who sing with a high degree of skill may positively influence the other choir members sitting near them to sing with greater accuracy. An upper-class choir member may influence a freshman by demonstrating appropriate and expected behaviors. Interestingly, those members who deviate from the expectations of the group are using the group to exert their individualism. Consequently, the community uses those who do not conform to the expectations of the community to further define the boundaries as discussed in the *membership* element (McMillan & Chavis, 1986).

*Integration and fulfillment of needs* can be simplified by substituting the term reinforcement. Members of a particular community are positively reinforced for their participation in the community. Reinforcement is the motivation for a person to want to have membership within a particular community, and positive reinforcement fulfills the needs of each member. The difficulty associated with this element of community is that not all members may have the same motivation for wanting to belong to a community. Status and competence (seeking others who can be of benefit to a member) are two possible reinforcements for membership. Even though members of a community may value differing reinforcements, it is a shared value that becomes the strongest unifying principal of a community (McMillan & Chavis, 1986). Within choral ensembles, most directors would like to have a membership who seeks fulfillment in producing a highly musical performance. Realistically, some students may not describe a performance well-executed as their motivation for membership. Some students may be choosing or finding choir as beneficial due to reasons that have very little to do with musical performance. It becomes the work of the community to reconcile members' differing needs.

A *shared emotional connection* is especially relevant to choral ensembles (and music ensembles in general). Persons in communities, by virtue of their membership, share a history in which not all of its members may have participated. For example, if a choir has a history of receiving high ratings at adjudications or a choir previously performed at a special event, current members may identify with or feel connected to the ensemble's history. Membership becomes desirable when the history of the community is that in which potential members can find an emotional connection. "It is not necessary that group members have participated in the history in order to share it, but they must identify with it" (McMillan & Chavis, 1986, p. 13). Histories do not always contain positive experiences. Members of communities that experience a crisis can realize a shared emotional connection through tragic events. Participation in shared events "may facilitate or inhibit the strength of the community" (McMillan and Chavis, 1986, p. 13). Table 2 provides a closer look at the components of *shared emotional connection* and describes how they become salient for choral ensembles.

The four basic elements of a psychological sense-of-community interact in a circular manner (see Figure 1). Interactions between individuals and the community take place within membership, which leads to influence, which meets the needs of members who then share an emotional connection; and the whole process results in reinforcing membership. Within Figure 1, McMillan and Chavis provide formulas to describe and define these interactions further.

Table 2

*Shared Emotional Connection Components and the Choral Ensemble*

| Shared Emotional Connection | Description within the context of the choral ensemble |
|---|---|
| 1. Contact hypothesis | The more interaction between people, the higher the likelihood that they will become close. A choir that meets more frequently may develop stronger bonds. |
| 2. Quality of interaction | The more positive the experience, the greater the bond. Choir students who leave the rehearsal or the concert with a feeling of positive accomplishment may feel a greater bond to the group. |
| 3. Closure to events | A clear direction for the group facilitates bonding. Successfully completing work on a musical piece or the ability to apply the skills taught in choir constitutes a closure. |
| 4. Shared valent event hypothesis | The higher the degree of importance of a given event for a group, the greater the sense-of-community. Concert performances would be one example of a valent event. |
| 5. Investment | Personal investment in the form of time, money, energy, and emotion contribute to the importance placed on membership within the community. The more a student becomes involved in participating, the more important membership becomes. This is a cyclical process. |
| 6. Effect of honor or humiliation on community members | The community's honoring or humiliation of the individual has respectively a positive or negative effect on the desire of the individual to participate. A choir member who is an experienced singer may feel honored and respected by the choir. Whereas, the uncertain singer may potentially feel humiliated if other members react negatively to the uncertain singer's attempt to participate. |
| 7. Spiritual bond | A spiritual bond is not attached to a particular moment or location. McMillan & Chavis struggle to provide a detailed definition. One example pertaining to choir communities may be that within the community there exists an overarching spirit, tone, mind-set, and emotional bond. Even outside the choral room or auditorium, members take with them this sense of spirit connected to the choir. |

*Note.* Membership components adapted from "Sense of Community: A Definition and Theory," by D. McMillan and D. Chavis, 1986, *Journal of Community Psychology, 14,* p. 13. Descriptions within the choral context include definitions as provided by McMillan and Chavis. Interpretations within the choral ensemble are my own application.

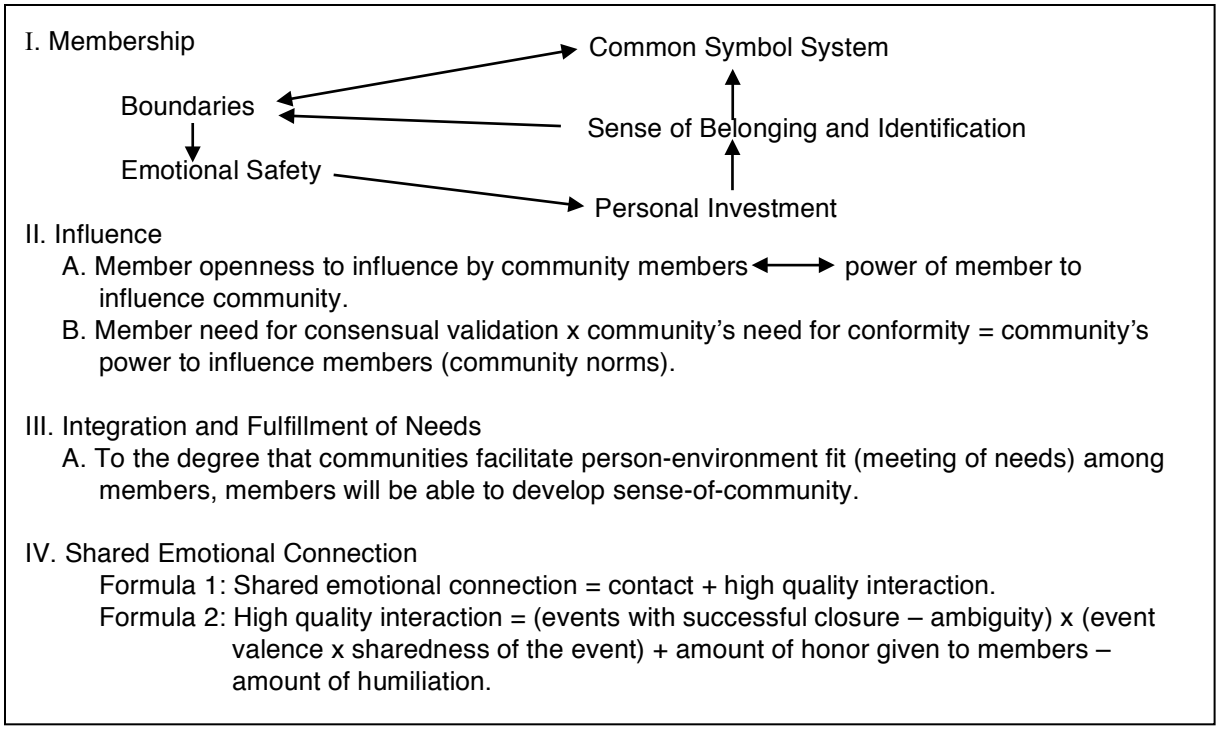


*Figure 1*. Adapted from "Sense of community: A definition and theory," by D. McMillan and D. Chavis, 1986, *Journal of Community Psychology 14,* p.15.

The end of this seminal work by McMillan and Chavis (1986) includes brief descriptions of the interactions that occur within the youth gang, kibbutz, neighborhood, and university communities. With McMillan and Chavis's working definition in place, researchers then proceeded to develop a measurement for assessing the level of a psychological sense-of-community within a variety of contexts.

## Measuring Sense-of-Community

The Sense of Community Index (SCI) was the first measure to be developed for the purpose of assessing a person's level of a sense-of-community within a particular context (Chavis, Hogge, McMillan, & Wandersman, 1986). From surveying people living

in an established neighborhood, researchers compiled 40 open-ended questions to measure the level of each of the four elements of sense-of-community. Following piloting, the final measure was shortened to 12 closed statements, half of which are negatively worded, and to which subjects were to respond with either true or false (Chipuer & Pretty, 1999).

Researchers continued to develop the measure by adding other questions designed for specific contexts (Chavis & Pretty, 1999). Along with using the measure to examine the individual's level of sense-of-community, it was also used to evaluate the relationship between sense-of-community and history, attachment, identity, and to further the cause of social justice.

Though the SCI became the preferred instrument for measuring sense-of-community, questions remained regarding its reliability and validity. Factor analysis of the SCI led researchers to suggest that the longer version of the SCI was a more reliable measure and that future work on sense-of-community measures need to maintain a theoretical foundation upon which to build such measures (Chipuer & Pretty, 1999). A study in which adults and adolescents were asked to respond regarding their sense-of-community either in their workplace or their neighborhood resulted in poor reliability and validity for the adolescents on the *influence* element. Chipuer and Pretty (1999) suggested that adolescents might not feel that they have any influence on where they live. They recommended a longitudinal study to examine how this element is developed in adolescents.

Researchers put the SCI through several more factor analyses which led to changes that included shortening the SCI to an 8-item, three factor, true and false measure (Long & Perkins, 2003); changing the true and false format to a 5-point Likert-type format (Long & Perkins, 2003); reassigning certain items of the SCI to different factors (Obst & White, 2004); and creating new items, all stated positively, and retaining a 5-point Likert-type scale (Peterson, Speer, & McMillan, 2008). Common to all of the studies which resulted in suggesting changes to the Sense of Community Index was researchers' beliefs that any existing controversy was due to flaws in the design of the measures and not flaws within the original theory of McMillan and Chavis, and that more testing and development of the measure was needed before the test's results could be generalized across multiple contexts.

## Sense-of-Community in Educational Contexts

Sense-of-community within an educational context was framed by a further refining of the definition of community. In 1996, based upon 20-years of empirical research and reflection on the theory of sense-of-community, McMillan expanded his earlier work by regrouping the four elements of "community" (*membership, influence, integration and fulfillment of needs,* and *shared emotional connection*). He renamed the elements *spirit*, *trust*, *trade*, and *art*. McMillan redefined community as

> a *spirit* of belonging together, a feeling that there is an authority structure that can be *trusted*, an awareness that *trade*, and mutual benefit come from being

together, and a spirit that comes from shared experiences that are preserved as *art*. (McMillan, 1996, p. 315)

*Spirit* now included *membership*, emotional safety, boundaries, and a sense of belonging. *Trust* is the new name for *influence*. The components of *trust* are (McMillan, 1996 p. 320)

1. order,
2. decision making capacity (i.e. authority),
3. authority based on principle rather than person, and
4. group norms that allow members and authority to influence each other reciprocally.

*Trade* is aligned most closely with *integration and fulfillment of needs*. McMillan notes that he had considerably changed his views regarding the homogeneity of needs expressed in his original definition. In his revision, he discusses the interesting development of members' interactions, which often begin with similarities of needs and then, once trust is established, progress to a willingness to express differing emotions, thoughts, and a *trading* within the community.

*Art* is drawn from the original element labeled *shared emotional connection*. McMillan contends that the "shared dramatic events" (a change to his original "shared valent events") of a community become part of its history. From this history, the community constructs cultural artifacts such as symbols, signs, language, and art. *Art*, in turn, then reinforces *spirit* and the result is, again, a self-reinforcing circle.

McMillan's revised definition of community provides deeper explanations for connections between the elements of community. Because *membership, influence, integration and fulfillment, and shared emotional connection* remain as the core elements within sense-of-community theory, I will refer to these labels in my analyses of sense-of-community data for this study.

As technology became a more viable way for people to connect with one another, and its use in education expanded, researchers became interested in understanding sense-of-community for students enrolled in online courses. Using the terminology presented in the revised definition of community, a measure designed for *classroom* community was piloted by Rovai (2001). Factor analyses suggested that *spirit, trade,* and *art,* are part of one construct that would be collectively labeled as *spirit*, leaving *trust* as an identifiable separate element. From research on student interactions, Rovai (2001) included interaction and learning as part of his measure for a sense of classroom community. Therefore, Rovai's (2001) Sense of Classroom Community Index (SCCI) resulted in measuring *spirit* (membership, integration and fulfillment of needs, and shared emotional connections)*, trust* (influence)*, interaction,* and *learning*.

The SCCI consisted of 40 statements, half of which were negatively worded, and subjects responded using a 5-point Likert-type scale (strongly agree, agree, neutral, disagree, strongly disagree). Subjects of Rovai's 2001 study were adult, university students enrolled in an online course. His participants reported significant differences in sense-of-community with respect to gender. Females reported a positive helpful voice,

higher frequency of interaction, and higher score on the SCCI than males. The male voice was more critical, assertive, and impersonal.

Rovai (2002) revised the SCCI resulting in a 20-statement survey, half of the statements negatively worded, also using a 5-point Likert-type scale. The new measure was called the Classroom Community Scale (CCS) and is the measure I used in the present study. Rovai (2002) used the CCS with 375 university students enrolled in 28 on-line courses. Upon completion of a detailed statistical analysis of the CCS in connection with his study, he reported that the CCS consists of high reliability, validity, and internal consistency in measuring overall sense-of-community (membership, integration and fulfillment of needs, and shared emotional connections) *connectedness* (this term replaces *interaction* which is also influence) and *learning*. The Cronbach's *alpha* for the overall scale was reported as 0.93. Reliability coefficients for connectedness (social community) and learning (learning community) were 0.92 and 0.87 respectively. Interestingly, consistent with his earlier study (2001), Rovai found differences for gender: females reporting a higher sense-of-community than males.

Further development of the CCS (Rovai, Wighting, & Lucking, 2004) added a section to measure school-community. This newest measure was called the Classroom and School Community Inventory (CSCI). Rovai, et. al., reported that differences in sense-of-community could be detected between traditional and non-traditional classroom settings and between school communities such as middle school, high school, and the university. Rovai, et. al., shortened the portion of the CSCI measuring classroom-community to 10 statements, 3 of which are negatively worded, and all require responses

using a 5-point Likert-type scale. Rovai, et. al, caution that

> sense of community should not be examined in isolation. Studies that draw from a theoretical framework and evaluate relationships among several variables are more powerful than those that only focus on a single variable because findings that appear significant may indeed be spurious when considering other relevant variables in a properly specified model. Consequently, other aspects of the school climate construct also need to be examined, such as quality of teaching and academic leadership. (p. 277)

With an interest in specifically the *connectedness* component of classroom-community, Dawson (2006) used the CCS along with other quantitative data to determine if the number of interactions between students and between students and instructors correlated to a sense of classroom-community. He reported that the number of interactions positively correlated to a sense of classroom-community. He suggests using this type of measure as a formative assessment for instructors so that adjustments can be made in a course's structure to meet the needs of students better.

So far, most of the studies described have been concerned with higher education and generally focused on online courses. Some of these studies combined the CCS or SCCI with other measures or observation tools to obtain a more complete picture of the complicated structure of a sense-of-community (Dawson, 2006; Rovai, et.al, 2004; Wright, 2004). Researchers' use of the CCS and SCCI within the elementary, middle, and high school population has been limited, and most have made adaptations for specific contexts.

One example of a contextual adaptation is Summers's work (2006), in which she examined the influence of collaborative learning on students' social and academic goals in middle-school math classes. She used a modified form of the Goals Inventory Instrument as developed by Roedel, Schraw, and Plake (1994). In earlier research Summers, Schallert, and Ritter (2003) had modified the measure for math classes. Their work was based on the Self-Evaluation Maintenance (SEM) model as defined by the work of Tesser and Smith (1980). Questions measured two factors: shared achievement-goals and shared social-goals. Results of her study suggest that not all outcomes of collaborative work were positive with regard to students' motivation, specifically referring to the finding that students became more performance-avoidant over time as a function of group membership. Questions included on Summers's measure were closely related to those of the CCS but were not an exact replication.

Within the context of the high-school technology classroom, another study used both quantitative and qualitative data to examine how high school students describe classroom community, its importance in learning, and how the use of technology affects students' learning within the classroom community (Wighting, 2006). Using the Computer Attitude Questionnaire, the older version of the SCCI, and semi-structured interviews with questions focused on the domains of the two other quantitative measures, Whiting reported that students believe connectedness with peers to be most important in developing a sense-of-community; and that the use of computers may add to the sense of classroom-community. His findings regarding connectedness are consistent with Dawson (2006).

Student interviews were also part of a study designed to measure sense-of-community in junior-high students transitioning from primary school to junior-high school (Fyson, 2008). The results of the first-year of the three-year-longitudinal study indicated that through analysis of student discussions, categories affecting the strengthening or weakening of a sense-of-community differ from those presented in other research. Fyson attributed some of this difference to the age of the students studied and the acculturation to the educational setting that students have experienced thus far in their schooling. He concluded that further research is needed to understand these dimensions.

Researchers have used the term "community" in association with music ensembles but not in the same sense as McMillan and Chavis. One example is the work of Sharlow (2006) who surveyed 295 choral directors regarding the community of choral ensembles in terms of trust, communication, relationships, commitment, and accountability within the ensemble. He was particularly interested in describing directors' practices that focused on these four elements of community as well as any significant differences in directors' approaches as compared to their years-of-experience. Sharlow developed his study from the body of literature that addresses "interconnectedness and the advancement of organizations" (p.8). His definition of the term "community," therefore, comes from a different body of literature than the present study. Sharlow's four elements of community have similar parallels in the work of McMillan and Chavis (1986) but differ in the perspective from which they are viewed. Sharlow was interested in the functioning of the group: the processes and organization of the community. The field of community psychology, however, is interested in how the *individual* functions

*within* the group.

The term "community" has also been attached to musical ensembles as in community bands, community choirs, and community orchestras. The International Society of Music Education (ISME) established a commission in 1982 that has come to be called Community Music Activity. The commission focuses on all facets of music-making that involve organizations comprised of multi-generational, multi-cultural, professional, or amateur musicians. They encourage music-making beyond the classroom as a lifetime activity (ISME, 2010). As with the previously cited research, their valuable and considerable research approaches a sense-of-community from a different perspective than that of the present study.

The New Horizons International Music Association (NHIMA) is another organization focused on bringing people together in the form of community music-ensembles. NHIMA states their purpose as "provid[ing] entry points to music-making for adults, including those with no musical experience at all and those who were active in school music programs but have been inactive for a long time" (New Horizons, 2012, par. 1). Results from the growing body of research involving New Horizons bands suggest that participants' psychological needs of autonomy, competence, and relatedness as described in self-determination theory (Deci & Ryan, 1985) are being met through music-making in New Horizons' ensembles (Douglas, 2011). While self-determination theory is concerned with human motivation, its relatedness component shares similarities to sense-of-community.

Results from a study using a combination of qualitative data (online, open-ended

survey questions) and an adapted version of the older, 12-item Sense of Community Index developed by Chavis (1986), revealed that the reasons why people join or leave community bands and orchestras are as varied as the members of the ensembles (Kandziolka, 2007). Table 3 lists in *italics* the changes in wording between Chavis's SCI and Kandziolka's measure and represents the most common type of instrument adaptation researchers have made to the CCS to account for context.

Table 3

*Kandziolka's Adaptation of Chavis's Sense of Community Index (SCI)*

| SCI (Chavis, 1986) | SCI (Kandziolka, 2007) |
|---|---|
| I think my *block* is a good place for me to live. | I think my *ensemble* is a good place for me to *play*. |
| People on this *block* do not share the same values. | People in this *ensemble* do not share the same values. |
| My *neighbors* and I want the same things from the *block*. | My *ensemble-mates* and I want the same things from the *ensemble*. |
| I can recognize most of the people who live on my *block*. | I can recognize most of the people who play in my *ensemble*. |
| I feel at home on this *block*. | I feel at home in this *ensemble*. |
| Very few of my *neighbors* know me. | Very few of my *ensemble-mates* know me. |
| I care about what my *neighbors* think of my actions. | I care about what my *ensemble-mates* think of my actions. |
| I have almost no influence over what this *block* is like. | I have no influence over what this *ensemble* is like. |
| If there is a problem on this *block people who live here* can get it solved. | If there is a problem in this *ensemble*, *members of the ensemble* can get it solved. |
| It is very important to me to *live* on this particular *block*. | It is very important to me to *play* in this particular *ensemble*. |
| People on this *block* generally don't get along with each other. | People in this *ensemble* generally don't get along with each other. |
| I expect to *live* on this *block* a long time. | I expect to *play* in this *ensemble* for a long time |

*Note*. Changes are shown in italics. Ordering of statements remains the same.

While Kandziolka's study did stem from the body of research on a psychological sense-of-community and it focused on a musical "community," it did not focus on a

classroom-community of musicians. Community music programs, as described by the ISME and NHIMA and assessed in Kandziolka's study, may have a more difficult task in building sense-of-community than do school music programs due to participants entering ensembles with such widely varying musical experiences and from differing social contexts. School ensembles may have an advantage in that all students share the context of the school in which they attend. A gap remains in the literature with the absence of research on sense-of-community within school music ensembles and music classrooms in general. Further investigation of this phenomenon could yield important information for understanding the psychological- and social-functioning of school music classes and ensembles; the value that students may place on this phenomenon; the process of constructing sense-of-community within school music classes and ensembles; the extent sense-of-community contributes to higher levels of academic achievement; and the effect that a higher level of sense-of-community in one class may have on students' academic achievement in their other classes or on their functioning within the wider community beyond school.

## Teacher Influence on Students' Academic Achievement

The Classroom Community Scale used in this study measures not only students' sense-of-community but also students' perceived level of learning. What follows in this section of the literature review is an examination of research regarding the influence of a teacher on students' learning. The succeeding section explores research on the influence of a teacher on students' social-emotional skills development.

"Great Teachers and Great Leaders" (U.S. Department of Education, 2010), a companion document to the Blueprint for Reform (2010), cites research to support the statement that "of all the work that occurs at every level of our education system, the interaction between teacher and student is the primary determinant of student success" (p. 3).

Researchers often describe teacher influence as *teacher effectiveness,* which refers to the "variability in the relationship between teacher instructional strategies, behavior, or effects and student outcomes" (Heck, 2009, p. 230). A vast majority of studies focusing on the teacher's ability to impact or effect change in student achievement conclude that it is the teacher who has the greatest significance in a child's education; and most studies involve measuring teacher effects as revealed in measures of specific student outcomes (Darling-Hammond & Youngs, 2002; Hanushek, 2009; Sanders & Rivers, 1996; Schönwetter, Clifton, & Perry, 2002; Scrivner, 2009; Weisberg, Sexton, Mulhern, & Keeling, 2009; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Factors that influence student achievement and the connections between these factors consists of four larger components: school (resources, professional development, principal instructional leadership, professional community, and cultural climate); teacher effects (such as college degree, and years of experience); teacher effectiveness (working with individual students, personalities, content covered, instructional practices, and grouping strategies); and the student (socio-economic variables, personal variables such as motivation and engagement, and achievement measures) (Ding & Sherman, 2006). An investigation concerning student achievement should be an investigation of the

interactions between all of the components of the model. We can best help a low achieving student by identifying the component in which the student demonstrates the most need and then plan ways to address the elements of that specific component (Ding & Sherman, 2006). Teacher effectiveness remains highly correlated to student achievement even when considering student socio-economic status, ethnic background, class size, student grouping, and social relationships (Heck, 2009).

Lower-achieving students respond more quickly to effective teachers (Sanders and Rivers, 1996). Additionally, teachers receiving students previously taught by ineffective teachers can raise student achievement for that year. However, the residual effects of the year spent with an ineffective teacher remain evident within the student's academic progress (Sanders and Rivers, 1996).

Researchers do not agree on how much variance in student achievement can be attributed to the teacher. The System for Teacher and Student Advancement (TAP ™, 2011) states that 49% of the variance in student achievement can be attributed to home and family, 43% of the variance in student achievement can be attributed to teacher qualifications, and 8% to class size. They also claim "the most effective teachers produce as much as five times the learning gains of the least effective teachers" (par. 5). Marzano's (2000) meta-analysis conducted for Mid-continent Research for Education and Learning (McREL) as cited by Miller (2003) states that 80% of the variance in student achievement can be assigned to student characteristics such as "home environment, learned intelligence/background knowledge, and motivation" (p.1); 13% to teacher impact; and 7% to school effect. Upon synthesizing the data from 500,000

studies, Hattie (2003) assigns 50% variance to student characteristics, 30% to teachers, 5-10% to the student's home, 5-10% to the school (school size, class size and physical space), and 5-10% to peer effects.

Hattie lists teacher feedback as the top influence on student achievement with an effect size of 1.13. His list continues with the following influences attributed to the *teacher* in order from highest to lowest effect size: feedback (1.13); instructional quality (1.00); direct instruction (.82); remediation/feedback (.65); class environment (.56); challenge of goals (.52); peer tutoring (.50); mastery learning (.50); homework (.43); teacher style (.42); questioning (.41); advance organizers (.37); simulation and games (.34); computer-assisted instruction (.31); testing (.30); instructional media (.30); programmed instruction (.18); audio-visual aids (.16); individualization (.14); behavioral objectives (.12); and team teaching (.06).

The influences on student achievement attributed to *students* are students' prior cognitive ability (1.04); disposition to learn (.61); affective attributes (.24); and physical attributes (.21). Of special interest to the present study are Hattie's inclusion of class environment, teacher style, and students' affective attributes. These three influences represent small to medium effect sizes (Coe, 2002) on student achievement. Hattie (2003) does not provide definitions for each of the influences he lists.

Researchers' investigations of factors influencing student achievement include examining the correlation between teacher certification and student achievement. No Child Left Behind mandates that all teachers be highly qualified. Several researchers report that National Board Certification correlates positively with student achievement

(Cavalluzzo, 2004, Vandervoort, Amrein-Beardsley, & Berliner, 2004). Conversely, other researchers conclude that highly qualified teachers and National Board Certified teachers did not contribute to higher student achievement (Gardner, 2010; Kane, 2010; Nye, Konstantopoulos, & Hedges, 2004; Parlardy & Rumberger, 2008; Stronge, Ward, Tucker, Hindman, McColsky, & Howard, 2007).

While the amount of variance for student achievement attributed to the teacher differs from study to study, the teacher remains the highest contributing factor among studies. The majority of contradictory research findings in student achievement stems from the universal agreement that student achievement consists of a complex interaction of factors. One of those factors is students' social-emotional wellbeing that affects and can be affected by a sense-of-community within the educational setting. Teachers significantly influence student achievement and may also significantly influence students' social-emotional development.

## Teacher Influence on Students' Social-Emotional Development

Learning can be described as an "*inter*personal process transformed into an *intra*personal one. Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (*inter*psychological), and then inside the child (*intra*psychological)" (Vygotsky, 1978, p. 17). Within educational research, interpersonal relationships between teacher and student, and between a student and her peers are the most frequently examined types of relationships.

High quality teacher-student relationships have a significant effect on student achievement; and high quality teacher-student relationships may be one form of intervention for students identified as being at-risk for low academic-achievement (Pianta, 1999; Pianta, La Paro, & Payne, Cox, & Bradley, 2002; Pianta & Stuhlman, 2004). Pianta and Walsh (1996) combined systems theory and psychological studies to develop their Contextual Systems Model (CSM). Their model described student development as taking place within four systems: the individual child, family, classroom, and culture. Based upon their model and their own research involving at-risk students in primary grades, Walsh and Pianta theorized that changes within one system effects the other three systems.

Since students move between these systems throughout their day, it is difficult to separate the effects of each. Seldom has the classroom system been examined in terms of effect size of teacher influence on students' social-emotional development, However, one such study included teacher effect on the social and behavioral skills of kindergarten children (Jennings & DiPrete, 2010). The sample population included 5,380 children taught by 1,050 teachers in 420 schools. The five issues forming the study were 1) the impact of social and behavioral skills on academic achievement; 2) the teacher effect on social and behavioral development with a comparison on teacher effect on math and reading achievement; 3) the correlation between teacher effect on social and behavioral development and teacher effect on academic achievement to determine if the two effects are coupled; 4) the impact of social and behavioral development on academic achievement; 5) and the indirect effect on student achievement through teacher impact on

social and behavioral development. Researchers concluded that: 1) social-and behavioral-skill development was positively correlated with academic achievement; 2) teacher effect on social and behavioral development is at least as large as teacher effects on academic achievement; 3) social and behavioral skills instruction is a distinct teaching skill from reading or math instruction; instructional method is not a predictor of teacher effectiveness in teaching social and behavioral skills; 4) good social- and behavioral-teaching raises academic achievement by as much as 25% of the gain from good academic teaching; 5) the indirect effect of teaching social and behavioral skills is smaller than the direct effect of good academic teaching. Teachers with higher levels of certification and years-of-experience are more proficient at teaching social and behavioral skills.

For children to become acculturated into the school setting, teachers of preschool and elementary children more often explicitly teach social skills than teachers of older children (Pech, 2010). Issues related to social skills change focus for the older student. In the middle school years, students' relationships with other students take on a heightened level of importance. Research on middle-school students' social and behavioral issues focuses on examining students' adjustments to physically being moved to another school building (Birch & Ladd, 1996), disruptive behaviors as a sign of social-skill deficit (Eddy, Reid, & Curry, 2002; Gresham, Elliott, & Kettler, 2010; Lempers & Clark-Lempers, 1992; Maag, 2006; Walker, Ramsay, & Gresham, 2005), and risk-taking behaviors resulting from social maladjustment or peer pressure (Battistich & Hom, 1997).

In his discussion of teaching-styles and students' adjustment to middle school,

Wentzel (2002) made comparisons to Baumrind's (1971) parenting-styles. Baumrind describes parenting-styles as differing in terms of the amount of control exerted by parents, the level of maturity that parents demand of their children, the type of communication between parent and child, and the amount of parent nurturing. Wentzel (2002) identified teaching dimensions that best demonstrated each of Baumrind's parenting-styles. Rule-setting was the teacher correlate with parental control; high expectations with maturity demands; negative feedback with lack of nurturance; and fairness with democratic communication. Adolescents perceive "that teachers [who] care about them related positively to [students'] pursuit of social and academic goals, mastery orientations toward learning, and academic interest" (Wentzel, 1997, p. 288). Middle school students defined "caring and supportive teachers as those who promote democratic and respectful interactions, set expectations for performance based on individual differences, and provide constructive, nurture[e] feedback-characteristics that reflect Baumrind's (1971, 1991) parenting dimensions" (Wentzel, 1997, p. 288). A teacher's high expectations for students, positively correlates to young adolescents' social-behavior development, and negative feedback negatively correlates to young adolescents' social-behavior development (Wentzel, 1997, 1998). Support from teachers is a predictor of the level of "prosocial goal pursuit and academic effort across the middle school years" (Wentzel, 1997, p. 297) as well as changes in adolescents' prosocial-behavior and academic effort.

Gresham, Elliott, and Kettler (2010) analyzed data on 4,550 students in three age groups: 3-5 years of age, 5-12 years of age, 13-18 years of age. They designed surveys

for students, their teachers, and parents to provide a base rate for deficit-levels of students' ability to acquire social-skills (learn the skills); deficit-levels of students' ability to perform social-skills (given a situation or context); students' social-skill strengths, and students' problem behaviors. Students aged 5-12 reported having fewer performance deficits, higher problem behaviors, and they were unable to identify their strengths regarding social-skills. Students aged 13-18 were able to identify social-skill strengths as well as problem behaviors. All three age groups reported no deficiencies in the acquisition of social-skills. The researchers concluded that students aged 5-12 might be unreliable when self-reporting social-skill behaviors. Their results were the most inconsistent with the teacher and parent results for the same age group. It may be that as a student moves into the middle school years, they experience some uncertainty about the appropriateness of certain social behaviors that would lead them to being unable to identify positive skills and over-report problem behaviors. The older age group of 13-18 self-reported levels more consistent with the teacher and parent results for the same age group. This may indicate that the older students navigate their social worlds a little more confidently, have a better working definition of what constitutes appropriate social-skill performance, and know what types of behaviors are problems.

Middle-school students' desire for social acceptance also affects their participation within performance-based music classes. Sixth-grade students may initially choose to participate in band based upon the influences of friends, family members, and teachers who encouraged them to do so. If students feel accepted within the band and perceive that they receive affirmation for their ability to carry out their role within the

band, then they are more likely to choose to remain in the band program. Rejections from others are the main cause for sixth-grade band students to withdraw from a band program (Hoffman, 2008).

Male and female eighth-grade general music students have reported differences in their perceptions of their current and future musical possible-selves. Males reported lower perceptions of their musical-selves than females, and females were more likely to view themselves as participating in singing activities. Teacher feedback is important in forming students' perception of their musical ability and musical self-identity (Campbell, 2009), thus supporting the premise that a teacher may have influence on a student's social-emotional development.

Social dimensions are meaningful for seventh- through twelfth- grade choir students. Through responses to the Choral Meanings Survey (Hylton, 1981), students reported that the categories of musical-artistic, communicative, psychological, integrative, and achievement emerged as the ways in which students ascribe meaning to being a member of a choir (Sugden, 2005). Student responses indicate no effect for gender, years-of-experience in choir, or private music study. Choir experiences for students in the middle-school through high-school years consists of multiple dimensions of meaning, and three of these dimensions—communicative, psychological, and integrative—are social dimensions.

For thirty-six high-school choir students in an auditioned, mixed-voice choir, the dominant theme that emerged from student interviews was their perception of choir as a team (Parker, 2009). Factors contributing to a team concept included the amount of

rehearsal time, the intensity of rehearsals and performances, and size of the group. Using language that mimics elements of a sense-of-community, students expressed the team concept as a group focusing on a single purpose (*shared emotional connection*), having togetherness, and being members of a family. Social factors such as individual egos and cliques were elements that caused disruptions within the team. As students felt their efforts and talents were acknowledged and as they were achieving their goals, they developed a sense of pride (*integration and fulfillment of needs*) attached to their choir membership. This sense of pride fostered a positive self-concept that provided motivation for this select group of students to take on leadership roles.

For middle school through high school, musical performance within the group setting becomes an educational context in which students explore their social identity. Each year of positive experience becomes motivation to remain within a music program. A high level of sense-of-community within a music program may promote an individual student's social-emotional development, resulting in a positive self-concept. Positive experiences result in a more positive self-identity, that may then promote academic achievement.

Not all middle and high school students choose to participate in music classes, or even have access to music courses. School and social factors sometimes limit student access to high-school music courses (Stewart, 1991). Socially and academically advanced students and students with music instruction prior to high school are more likely to elect high-school music courses. Schools with a strong focus on academics appear to discourage music-course enrollment. African-American and Hispanic students have a

higher level of restricted access to music courses because schools with higher percentages of non-White students tend to be schools in which these courses are just not offered, and these students may also have a lower social and academic advantage. It is the at-risk urban adolescent for whom participation in music could provide much-needed support for improved social and academic achievement (Goss-Shields, 1997). Robinson's (2004) interviews with six master music-educators representing elementary, middle, and high school music education programs resulted in agreement between the interviewees in their ability to help the at-risk student assimilate into the larger school population. One teacher's statement supporting this premise follows:

> One of the primary benefits [of music] is the element of human contact. I don't think they get that in a lot of their academic classes. The requirement of their participation as well as everybody else's makes them feel that they are, in some way, more important than just another seat in the class. (p.41)

At-risk students reported a lower level of membership within their high schools, and they are the students who could benefit most from a sense of belonging (Smerdon, 2002). High school students who attend a homeroom period within the school day report higher levels of membership because the homeroom time may be an opportunity for positive interaction between students and adults (Smerdon, 2002).

The student who is passive within the classroom also requires extra attention from educators. These students need specially designed instruction to provide opportunities for positive peer-support and a classroom environment in which they feel safe to make contributions (Murberg, 2010).

Upon examination of alternative school programs for middle- and high-school at-risk students, Wengler (2010) concluded that the alternative-school setting is beneficial for this population of students because the programs are student-centered. Alternative-school environments are designed to promote higher levels of student engagement (level of concentration and effort) and membership (perception that education is valuable) that in turn promote a more positive academic self-concept (students' attitudes and beliefs about their academic and intellectual abilities).

The quality of teacher-student relationships, rather than the direct teaching of social skills, appears to be the dominant factor for affecting secondary students' social-emotional states that, in turn, affects academic achievement and matriculation into the workplace or higher education. Several researchers propose that a democratic environment is a strong predictor of students' sense-of-community. In a democratic classroom environment, students take some of the responsibility for creating a positive environment through their participation in shared decision-making (Davidson, Lickona, & Khmelkov, 2004). Vieno, Perkins, Smith, and Santinello (2005) analyzed survey data from 4,092 students ages 10-18 within 248 classes across 134 schools in the Veneto region of Italy (the approximate equivalent in the United States would be grades 6, 8, and 10). The Italian school system is such that students remain with the same peer-group and teacher throughout their elementary years and then change schools for middle school. Students then remain with their adolescent peers and same teacher until possibly the second year of secondary school. Thus, the researchers thought that evaluating a sense-of-community within the Italian school concept would yield salient results. They reported

that the highest predictors of a high level of a sense-of-community were a democratic classroom environment for all grade levels; less parental-control and more parental-monitoring for the older students; and that socio-economic status, school size, extra-curricular activities, facilities, relationship with the community, and the designation of public and private schools were all non-predictors of a sense-of-community. These findings reinforce the position that teacher-student interactions on the classroom level are important for developing a positive, social construct within the educational setting.

In higher education, the instructor-student relationship slightly changes focus. While still purposefully constructing the social dimension, the instructor becomes more of a facilitator to students' learning. At three campuses of a national university, Anderson and Carta-Falsa (2002) conducted a study involving 400 graduate and undergraduate students with a median student age of 35.4, and 24 instructors with a median age of 47.6. Both students and faculty reported a preference for " an open, supportive, comfortable, respectful, safe or non-threatening, and enjoyable *interpersonal* climate" (p. 136, emphasis added). The researchers labeled this as the "teaching/learning theme." Under the theme of "exchange of information," students expressed an interest in working, interacting, and sharing with other students, but not the same level of interest in working with the instructor. Students were also more interested in developing collaborative relationships with peers, whereas instructors did not express a strong desire to collaborate with students. The researchers recommended that instructors explore ways to collaborate with students in order to create a more personal learning environment for not only the student but also the instructor.

Within adult musical groups, tensions emerge due to conflicting motivations for participation within these groups. Adults in community choirs find commonalities in their high school music experiences, such as having access to insider language; experiencing a sense-of-community; working with perceived effective teachers and a desire to seek other effective teachers; having peak musical experiences; and increasing involvement in high-school music programs that was progressive throughout their high school years. A positive carry-over effect beyond high school exists with respect to adult participation in community choir (Holmquist, 1995). However, these same adults appear less interested in group achievement and more interested in their own musical development; or they are motivated to participate for their own pleasure and are not so interested in attaining a desired level of musical skill (Joyce, 2003; Rensink-Hoff, 2009). When both motivations are evident amongst choir members, the director needs to mediate rehearsal intensities carefully to ease frustration for either type of adult.

In summary, social-emotional development from early childhood through adulthood, the social context changes in terms of focus. For the young child, social acculturation is explicitly taught within the classroom, and learning is highly dependent upon interaction with an other. Throughout the middle school years, students begin to focus more on viewing themselves in comparison to one another, causing adolescents to experiment with their own self-identity within the social context. The role of the adolescent teacher should be one of modeling appropriate social interaction, creating a safe environment for self-expression, and establishing activities to promote positive social-interaction among students. High school students are particularly aware of teacher-

student relationships. High school teachers as role models are even more important for this age group. High school students perceive these relationships as having importance for their understanding of how to negotiate their years beyond high school in either the workplace or higher education. Within higher education the student begins to take more ownership for their social relationships. They have a strong desire to connect and work with their peers in the educational context. Educators become like facilitators for students' social negotiation attached to learning.

Throughout all levels of human development, a teacher's understanding of the role of social contexts remains important for facilitating students' social-emotional health, and providing a setting in which students are able to achieve their potential in terms of learning. Results from investigations on the effects that high-school choir directors have on creating classroom climates in which students develop a sense-of-community, may be able to provide direction for teachers that will contribute to students' sense-of-community not only within classrooms, but also across disciplines in comprehensive educational settings.

## Teacher Social-Emotional Skills

Teachers are directly and indirectly involved in students' social-skills development and are expected to interact professionally with colleagues, administration, and parents. Within this section, I present a review of the literature regarding expectations for teachers' intra- and inter-personal skills, along with definitions of social-emotional intelligence and their application to teachers' roles as social agents within the

classroom. Effective social interactions lead to greater efficacy and ultimately job satisfaction for educators.

The quality of teachers' interactions is one criterion within formative and summative teacher evaluations. High levels of professional knowledge, interpersonal knowledge, and intrapersonal knowledge are characteristics of effective teachers (Collinson, 1999). The Pennsylvania Department of Education (PDE) evaluation forms for teachers (forms PDE-426 for Instruction I certified teachers; PDE-428 for Instructional II certified teachers; PDE-430 for student teachers) include four categories: Planning and Preparation; Classroom Environment; Instructional Delivery; and Professionalism.[1] As shown in Table 4, three of the four categories include language that describes the teacher as a social agent.

Social capital is a sociological field that focuses on social networks and the quality of social interactions. The work of Bourdieu (1971, 1977), Coleman (1988, 1990) and Woolcock (2001) are most often the focus of research and discussions on social capital. For Bourdieu (1971), social capital consists of a "network of connections" (Dika & Singh, 2002, p. 33) that serves to maintain the hegemony of a dominant class of people. Coleman (1988) also defines social capital as consisting of a network of relationships, and his perspective is more often associated with educational contexts (Dika & Singh, 2002). He differs from Bourdieu in that social capital for Coleman is more a means of maintaining control and order within a society, and it includes trust, means of communicating, and established "norms and sanctions that promote the

[1] As of June 2012, PDE has adopted a revised system for teacher evaluation that includes student achievement, however, these current four domains remain in the observation component.

common good over self-interest" (Dika & Singh, 2002, p.33). Woolcock's (2001) definition is closely aligned with Coleman's in that social capital involves connections or networks as well as the established norms that allow groups of people to function.

Table 4

*Interaction Terminology within Teacher Evaluation Forms*

| Category | Description | Descriptors |
|---|---|---|
| Classroom Environment | Teachers establish and maintain a purposeful and *equitable environment for learning*, in which *students feel safe, valued, and respected* by instituting routines and by setting clear expectations for student behavior. | • Appropriate and *highly respectful interactions* between teacher and students and among students. |
| Instructional Delivery | Teachers, through their knowledge of content and their pedagogy and skill in delivering instruction, *engage students* in learning by using a variety of instructional strategies. | • *Clear and appropriate communication* of procedures and high quality explanations of content.<br>• Highly effective use of *questioning and discussion strategies that encourage many students to participate.*<br>• High-level *engagement of students* in learning and adequate pacing of instruction.<br>• Equitable, accurate and constructive *feedback to students* on their learning. |
| Professionalism | Professionalism is demonstrated through qualities that characterize a professional person in aspects that occur in and beyond the classroom/building. | • Full knowledge of Professional Code of Conduct and full commitment to professional standards.<br>• Full and active compliance with district requirements for *communicating with families* regarding student needs/improvement.<br>• Full and frequent participation in professional development events/opportunities, consistent application of new learning in the classroom, and *sharing of learning with colleagues*. |

*Note*. Interaction terminology in *italics*. *Adapted* from the "PDE-426" form, the "PDE-428" form, and the "PDE-430" form developed by the Pennsylvania Department of Education.

Interest in social capital within an educational context has dramatically increased in the past 10-years. Dika and Singh (2002) report that as of 2001, a keyword search for *social capital* in the Educational Resources Information Center (ERIC) database returned 166 records. The same keyword search on the ERIC database in 2012 returned 4,559 documents. The dramatic rise in interest in social capital may be researchers' interests in possible connections between advances in technology and concerns for a person's sense of alienation or isolation—an interesting topic for research but one that exists outside the scope of this study.

Social capital is a result of the agent's experience within a field (Bourdieu, 1977) or horizon (Merleau-Ponty, 2002) such as work, home, school, friends, and neighborhood. *Interpersonal* relationships affect the agent in that these experiences are internalized to form an *intrapersonal* meaning (Bourdieu, 1977). For Bourdieu as well as phenomenologist Merleau-Ponty, experiences become sedimented. Thus, each experience remains part of all future experiences. Repeated experiences then become part of what is normal (Bourdieu, 1977) and habit (Merleau-Ponty, 2002).

Sociologists (Bourdieu, 1971; Coleman, 1988; Woolcock, 2001) explain the development of social skills as being highly dependent on context and categorize interpersonal skills as tacit knowledge (Elliott, Stemler, Sternberg, Grigorenko, & Hoffman, 2011). This portends difficulty in attempting to teach interpersonal skills within teacher education programs.

Based upon the theories of Bourdieu (1977) and Merleau-Ponty (2002), it would

be important for pre-service teachers to have multiple experiences within the social "fields" associated with the profession of education such as the classroom, interactions with other teachers, administrators, and parents. The more experiences the pre-service teacher has within the social contexts related to teaching, the more skilled and comfortable the pre-service teacher may be upon entering the teaching profession.

From under the umbrella of social capital, social intelligence and emotional intelligence have emerged as fields of interest in education. As cited earlier, the work of Daniel Goleman (author of *Emotional Intelligence*, 1995 and *Social Intelligence*, 2006) has become a foundation upon which many states have built their student social-emotional learning programs. This same body of knowledge can aid us in understanding the social domain of teachers as well. Emotional intelligence "includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (Mayer, Salovey, & Caruso, 2004, p. 197). Social intelligence includes one's ability to be empathetic, sense and understand what other people are feeling, and have "smooth, effective interactions" (Goleman, 2006).

Five elements of emotional intelligence perceived as important for teachers are knowing oneself, keeping emotions in check, exercising empathy, getting motivated and setting goals, having good social skills, and managing behavior (Reissman, 1999; Ross, Hubbard, & Seaborn, 2003). Of the ten measures for emotional intelligence as listed by The Consortium for Research on Emotional Intelligence in Organizations (2010),

researchers have used the EQ-i (Bar-On, 2006) in studies involving teachers. The EQ-i measures five scales and fifteen subscales, and the test includes 133 items (see Table 5).

Ogrenir (2008) administered the EQ-i and the Teacher Effectiveness Belief Scale (TEBS) created by Ganser (1996) to 99 elementary and kindergarten education majors at Penn State University. The TEBS measure asks participants to rank 100 factors in order of their importance for overall teacher effectiveness. The three broad categories within the TEBS are teacher-related factors (intelligence, personality, background, education), student-related factors (student intelligence, personality, background), and other adults in the school (other teachers, principals, other professionals such as guidance counselors). Pre-service teachers perceived the teacher factors to be of highest importance followed by student factors, and finally, other adults (Ogrenir, 2008). From the results of the EQ-i, pre-service teachers scored in the average range for emotional intelligence; and emotional intelligence, stress management, and adaptability accounted for some of the variance in pre-service teachers' GPA scores.

While pre-service teachers scored in the average range for emotional intelligence, survey and interview data suggest that they have an unclear definition of emotional intelligence, believe that they are aware of their own level of emotional intelligence, and perceive a relationship between emotional intelligence and a person's level of confidence (Ross, Hubbard, & Seaborn, 2003). Pre-service teachers identify emotional intelligence as important for understanding themselves, and as an important factor in a teacher's ability to be an effective classroom manager.

Table 5

*EQ-i Scales and Subscales*

| Scale | Subscale | Description |
|---|---|---|
| Intrapersonal (self-awareness and self-expression) | • Self-Regard | • To be aware of and understand one's emotions |
| | • Emotional Self-Awareness | • To effectively and constructively express one's emotions and oneself |
| | • Assertiveness | • To be self-reliant and free of emotional dependency on others |
| | • Independence | • To strive to achieve personal goals and actualize one's potential |
| | • Self-Actualization | • To accurately perceive, understand and accept oneself |
| Interpersonal (social awareness and interpersonal relationship) | • Empathy | • To be aware of and understand how others feel |
| | • Social Responsibility | • To identify with one's social group and cooperate with others |
| | • Interpersonal Relationship | • To establish mutually satisfying relationships and relate well with others |
| Stress Management (emotional management and regulation) | • Stress Tolerance | • To effectively and constructively manage emotions |
| | • Impulse Control | • To effectively and constructively control emotions |
| Adaptability (change management) | • Reality-Testing | • To objectively validate one's feelings and thinking with external reality |
| | • Flexibility: | • To adapt and adjust one's feelings and thinking to new situations |
| | • Problem-Solving | • To effectively solve problems of a personal and interpersonal nature |
| General Mood (self-motivation) | • Optimism | • To be positive and look at the brighter side of life |
| | • Happiness | • To feel content with oneself, others and life in general |

*Note.* Adapted from the "EQ-i" by R. Bar-On, 2006. Retrieved from http://www.eiconsortium.org/measures/eq i.html

EQ-i results comparing emotional intelligence levels of general education teachers and special education teachers who were certified in emotional and behavioral

disorders revealed that emotional intelligent scores were not significantly different between the two teacher groups (Robitaille, 2007). This implies that special education teachers who had more training on the emotional domain of student behavior did not acquire any higher levels of their own emotional-intelligence levels than teachers who work with the general student population.

It is difficult, if not impossible, to assign rules for mediating interpersonal relationships on the part of the teacher. Teacher education programs include student teaching or practical teaching experiences for pre-service teachers to gain the type of knowledge that can only be gained from experience—tacit knowledge. Tacit knowledge is learned with little explicit input from others, based on a context, and connected to our own goals (Elliott, et al., 2011). How a teacher responds to a student behavior is based upon experience with that behavior, the conditions in which the student presented the behavior, and the teacher's desired outcome in mediating the student behavior.

Elliott et al., asked senior (more than 5-years experience), junior (3-years or less experience) and novice (less than 1-year of experience) teachers to complete the Tacit Knowledge Inventory—High School (TKI-HS), a measure designed by the researchers. They asked all subjects to read 15 scenarios that would be commonly experienced by teachers and then rate the possible teacher response options using a 5-point Likert-type scale. The novice teachers completed the TKI-HS in the first week of professional training (equivalent to student teaching) and again in the last week of their professional training. All other teachers completed the inventory one time during the data collection period. Response options included the following strategies: comply, consult, confer,

avoid, delegate, legislate, and retaliate. The researchers found no significant difference between the options chosen by any of the three teacher groups. One explanation of the results is that the inventory is a paper-pencil measure and subjects may have responded by drawing on an intellectual processing of the scenario to arrive at the best option. Elliott et al., state that placing the teacher within the actual situation may have yielded very different results, making a distinction between choosing the best option and having the ability to carry out the chosen option successfully.

> Thus, it is conceivable that, in addition to selecting a good course of action and avoiding a crass strategy, what most characterises the expert teacher is the ability to undertake a selected course of action with a high level of interpersonal competence, and to adjust one's own behaviour in accordance with the unfolding nature of the situation. (Elliott et al., 2011, p. 99)

Programs exist to teach or enhance teachers' social-emotional skills (Jennings & Greenberg, 2009). The Emotionally Intelligent Teacher program designed by Brackett and Caruso (2006) is a program designed in conjunction with the Emotionally Intelligent Classroom (Brackett & Katulak, 2006) program to support students' social-emotional development. The teacher training includes "recognizing and labeling emotions, understanding emotions, and expressing and regulating emotion in response to situations commonly encountered by teachers in classroom situations" (p. 510). Ekman's Emotion Awareness Training System (1993) is another program with similar objectives.

Another approach to social-emotional competence for teachers is through programs designed to raise teachers' commitment to teaching. Courage to Teach and the

Inner Resilience Program are described as *renewal* programs. Low teacher social-emotional competency is connected with teacher burnout (Jennings & Greenburg, 2009). If students present challenges of a social or emotional nature, and the teacher is not able to de-escalate the situation, then frustration and guilt set in for the teacher. "Emotionally exhausted teachers are at risk of becoming cynical and callous and may eventually feel they have little to offer or gain from continuing, and so drop out of the teaching workforce" (Jennings & Greenberg, 2009, p. 492).

Jennings and Greenberg (2009) suggest a model for understanding teachers' social-emotional competency in which school/community factors, effective implementation of SEL programs, effective classroom management, healthy teacher-student relationships, and a healthy classroom-climate share a reciprocal relationship. Ransford (2007) had previously reported a necessity for considering the whole teacher when implementing new programs, and concluded that a teachers' perceived high-level of self-efficacy was the key factor shared by teachers who did not report experiencing burnout.

Teacher personality is closely related to teachers' social-emotional competency. In fact, isolating personality from social intelligence is a difficult research task. Výrost and Kyšel'ová (2006) administered four measures to 44 college undergraduates. The four measures and their targeted variables were the Tromso Social Intelligence Scale (Silvera, Martinussen, & Dahl, 2001) to measure social information processing, social skills, and social awareness; the short version of the Schwartz Value Survey: Basic Human Value Scale to identify preferences for the values of power, achievement, hedonism,

stimulation, self-direction, universalism, benevolence, tradition, conformity, and security; the J.S. Wiggins Interpersonal Adjective Scales (1991), in which respondents rated 64 adjectives describing the traits of assured-dominant, arrogant-calculating, cold-hearted/warm-hearted, aloof-introverted, unassured-submissive, unassuming-ingenious, warm-agreeable, and gregarious-extraverted; and a measure in which subjects were asked to respond verbally to five situations that consisted of knowledge of facts, procedures, qualities of life that are contextual and dynamic, values and tolerance, and uncertainties (with respect to an awareness of and managing uncertainties). Výrost and Kyšel'ová reported a positive correlation between levels of knowledge and social skills, and levels of knowledge and the values of benevolence, universalism, and conformity. However, social intelligence was positively correlated with a more diverse number of values. The personality traits of dominance and extraversion appear to "create some kind of a background to socially intelligent behavior" (p. 212). The personality trait of "warm relations to people, without calculation and cold-heartedness constitute more significant correlates of wisdom" (p. 212). Výrost and Kyšel'ová postulate, "relations of personality traits to social intelligence and wisdom seem to be less straight-forward" (p. 212).

A review of social-emotional intelligence research includes few studies involving music educators. In a study examining the influence of social intelligence on effective music teaching, participants included 40 music educators representing band, choir, and orchestra directors, and general music teachers who were classified by a panel of experts as teaching within exemplary ($n$ = 20) or challenged ($n$ = 20) programs (Juchniewicz, 2010). The teachers completed the Interpersonal Task-15 measure (IPT-15) (Costanzo &

Archer, 1993, 1994), which consists of a DVD of 15 scenes and a multiple-choice answer sheet. Scores on the IPT-15 represent the subjects' ability to interpret expressive behavior in others. From the group of 40 teachers, the researcher selected 12 for videotaping (seven exemplary teachers and five challenged teachers) and compiled a master tape using 30-seconds of a teaching episode beginning at the 10-minute point within each videotaped lesson. Forty-two music educators and forty-two pre-service music educators viewed the tape and scored each teaching episode for teacher effectiveness using a 7-point Likert-type scale. Subjects identified the main attribute for their basis of scoring for each episode. No significant difference emerged in the IPT-15 scores of exemplary and challenged teachers. Teachers' comments included social attributes (85.71%), non-social attributes (10.71%), and miscellaneous attributes (3.58%) (Juchniewicz, 2010). On the surface, results may appear contradictory. However, the IPT-15 video scenarios each involve only one person within a given context, and the music educator respondents were not situated within the video scenario. It may have been easier for challenged teachers to interpret emotional behavior when they were situated as a viewer, but once situated within a teaching context, they may experience difficulty in negotiating the social context of the classroom. As researchers lead us toward a clearer definition of the features of social-emotional intelligence, we may find that previous research on personal traits or characteristics of teachers was the beginning of this very complicated research agenda.

Social intelligence involves the ability of the agent to form networks and relationships with others. For teachers of multiple levels of students, as is often the case for itinerant music teachers, this may require an ability to navigate a wide range of

students' social needs. For example, a young child's first instrumental-teacher's highest priority should be to establish "a relaxed and friendly relationship" (Davidson, Moore, Sloboda, & Howe, 1998, p. 156), but with older or more musically-advanced students it is more important for the teacher to gain the student's respect for the teacher's musical ability. The cross-level music teacher would need to be adept at negotiating both types of relationships.

In a survey of 201 members ages 17-70 within seven semiprofessional choirs, factors affecting members' performance anxiety, in order of priority were difficulty of music, memorization of the music, importance of the performance, the *conductor*, members' physical health, stature of the audience, members' mood, and size of audience (emphasis added) (Ryan & Andrews, 2009). The conductor's anxiety was rated by 84% of participants as being a factor for all to some of the member's level of anxiety. Other conductor factors that heightened anxiety for members was the conductor's *negative mood*; weak conducting/rehearsing skills; *disrespectful attitude*; poor preparation/disorganization; negative body language; *lack of confidence*; high degree of *perfectionism*; inattention to musical detail; rushed pace; tendency to make last-minute changes; and *arrogance*. (Emphasized factors are those that may be connected to interpersonal skills.)

Musical experiences inherently contain an emotional component; therefore, music classrooms have great potential as an educational setting for students' social-emotional growth. Emotional intelligence is an important trait for music teachers as they guide their students through sentient experiences. A teacher lacking in emotional intelligence will

not be able to accurately perceive his students' emotional responses nor engage or promote students' emotional and intellectual growth. As teacher-education programs and teacher professional-development programs help teachers to understand their own social-emotional intelligences and the complicated structure of social interactions within the teaching-learning process, music educators will become more skilled at helping young musicians to navigate and explore their emotional responses to music and their relationships with others.

## Teaching Style

A teacher's overall approach within the classroom could be referred to as their teaching style. A review of the literature on teaching style yields that researchers do not share a common definition of *teaching style*. Researchers use teaching style interchangeably with teaching behaviors or techniques in studies in which their foci were use of class time (Blocher, Greenwood, & Shellahamer, 1997; Brendell, 1996; Cox, 1989; Duke, Prickett, & Jellison, 1998; Strauser, 2008; Yarbrough & Madsen, 1998; Yarbrough & Price, 1981), sequential teaching patterns (Arnold, 1995; Hendel, 1995; Yarbrough, 1988; Yarbrough & Price, 1989), conducting (Bergee, 1992; Davis, 1998; Gleason, 1992; Yu, 1999) and verbal praise and student feedback (Ashworth, 1984; Taylor, 1997). Other researchers considered teaching methods as teaching styles in such studies that addressed formal versus informal methods (Aitkin, Anderson, Hinde, 1981; Enseki & Hancock, 1979), dominative and integrative styles (Hutchens, 1985; Murphy & Brown, 1970), and best practices to help pre-service teachers develop teaching skills

(Gonzo & Forsythe, 1976; Hunt & Joyce, 1967; Teachout, 1997).

Teacher personality is connected to teaching style in much of the literature. Researchers have described teacher's style as being related to a teacher's emotional expressivity (Hamann, Lineburgh, & Paul, 1998; Winemiller, 2006); test results on the Myers-Briggs Type Indicator (Fedoruk, 1992; Kyunghee, 1993; Schmidt, 1989); intensity, which Colwell (1995) describes as enthusiasm, timing in classroom management, and effective subject presentation and delivery (Colwell, 1995; Madsen, Standley, & Cassidy, 1989; Nelson & Ratzlaff, 1983); personality and its effect on student motivation (Mudrick, 1997); and reward and punishment histories as a child (Cohen & Amidon, 2004). Finally, researchers have compared teaching style to parenting styles (Wentzel, 2002; Smith, 1978).

Researchers have described teaching style as consisting of multiple variables: direction, control, and participation (Enseki & Hancock, 1979); reciprocal interactions (the degree to which students are allowed to respond), extraneous elements (events that are not directly related to academic achievement), and performance standards set by the teacher (Schwartz, Merten, & Bursik, 1987); pre-impact, impact, and post-impact decisions of a teacher (Williams, 1980). None of these tripartite descriptions take into consideration a specific curriculum, but subject specific content may play a role in forming teaching styles.

Other researchers have grouped teaching behaviors into families or models: the social-interaction model, information-processing models, personal models, and behavior-modification and cybernetic models (Joyce & Weil, 1972); and within the expert, formal

authority, and personal model, facilitator and delegator teaching styles are expressed as ranges (Grasha, 1994).

The literature on teaching style presents differing views on its stability. Several researchers suggest that teachers change teaching styles to accommodate students' learning styles (Cutietta, 1990; Doyle & Rutherford, 1984; Farkas, 2003; Friedman & Alley, 1984), while others suggest that all teachers possess the same qualities but in varying degrees (Grasha, 1994); or that teaching behaviors change, but teaching style remains constant (Henry, 1970).

Cullingford (1987) stresses the importance of consistency in teaching-style for student understanding. Elementary students can be successful with having multiple classes taught by teachers using differing teaching-styles but in which each teacher's style remained consistent. A consistent teaching-style allowed students to have a better understanding of what was expected of them in each teacher's classroom (Cullingford, 1987).

Changes in teaching style could be a sign of a phenomenological progression in a teacher's change in philosophy (Snyder, 2006). Evertson and Weade (1989) describe the stability and variability of two junior-high English teachers as a "dynamic phenomenon signaled and re-signaled within and across lesson events and activities" (p. 380). They make a strong case for the need for administrators and supervisors to conduct frequent observations over a period of time in order to gauge a teacher's style accurately and, therefore, diagnose skills in need of improvement. A teacher's stable and variable

characteristics correlates highly with student success or lack of success respectively (Erlich & Shavelson, 1978).

Phenomenological studies describe teaching style as a way of being in the world (Reinsmith, 1994). Elements of style can be viewed as "whole systems of thought, and peculiar qualities of the mind which an individual uses to establish links with reality" (Gregorc, 1984, p. 51). Teaching style consists of the outward signs of deeper "underlying psychological forces that help guide a person's interactions with existential realities" (Gregorc, 1984, p. 54). While Eble (1976) also describes teaching style in terms of the outer representation of the inner character of a teacher, Reinsmith (1994) places these observable behaviors on a developmental continuum.

The observable, "outward signs" of teaching style are teaching behaviors. As cited earlier, many researchers in general education and music education have investigated the effects of teaching behaviors or groups of teaching behaviors on specific student outcomes. While researchers have developed differing names for these groups of teaching behaviors, and may disagree on their level of influence, they do agree that teaching style involves a global look at how a teacher functions within her classroom. Currently, the leading global perspective on music teaching-style is represented in the work of Alan Gumm.

## Music Teaching Style

Gumm (2003) defines teaching style as "the focus, intention, orientation, or priority underlying the entire pattern of interaction between the teacher, students, and

subject matter. As a result it is also the stable, consistent, and pervasive approach to music teaching" (p. 14). For Gumm, teaching style does not focus solely on the teacher but involves interactions between three components: teacher, student, and subject matter. Gumm's definition of teaching style and the progressive development of teaching style over a teacher's career is central to the present study for the following reasons: 1) his definition considers the subject—specifically music—as an important part of teaching style; 2) he accounts for the interaction between teacher and student (as opposed to looking at the teacher as a singular entity); 3) he identifies specifically music teacher behaviors; 4) which contribute to a global look at the role of the teacher; 5) his research on music teaching styles incorporates the larger body of research on teaching styles in general; 6) his Music Teaching Style Inventory yields high reliability; 7) and he accounts for the growth and development of the teacher over time and experience. Finally, while Gumm's test instrument has been used widely in music education research, recent studies involving this instrument have produced results that suggest music educators of all levels of experience and from differing geographical areas prefer the same cluster of teaching-style dimensions. Results from this study will add to that body of knowledge.

It was important to this study that the subject of music is one of the three elements that Gumm includes as contributing to teaching style. Music may present a unique contribution to a choir's development of sense-of-community. Since sense-of-community involves interaction amongst all members of the community, it is important that Gumm's (2003) description of teaching style examines the quality of these interactions. Examples of teacher behaviors that include a quality component are: "verbally demand sharp

attention to tasks" (p. 29); "be sensitive and accommodating to student fatigue or frustration" (p. 52); and "highlight your teaching by being emotionally involved" (p. 89).

Gumm suggests that teaching style consists of three levels of meaning. The first level is comprised of teaching behaviors such as "use eye contact as a nonverbal way to communicate to students" (Gumm, 2003, p. 165); "praise students whenever you see them do a good job" (p. 166); "describe musical events by comparing to feelingful terms" (p. 167); and "help students to rate and characterize how they feel about music" (p. 168). Gumm's Music Teaching Style Inventory (MTSI) is a measure that contains a list of 57 teaching behaviors that teachers are directed to rate according to the frequency with which they use each behavior. Rating consists of a five-point Likert-type scale composed of rarely, never, sometimes, often, and always. The teaching behaviors included in the MTSI are those that have been identified in research as effective teaching behaviors (Gumm, 2003, p. 15). The MTSI is the product of extensive research, testing, and re-testing. Cronbach's alpha for the MTSI is 0.96, and the split-half reliability score is 0.91.

The teacher behaviors on the MTSI combine to form larger dimensions of teaching. Gumm groups teacher behaviors into eight dimensions that range from "traditional" to "progressive" (Gumm, 2003, p. 15): Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment, Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence.

Gumm divides the eight dimensions into two higher-order factors: Breadth of Activities focusing on teacher-led and active behavioral-learning (Assertive Teaching,

Nonverbal Motivation, Time Efficiency, and Positive Learning Environment teaching styles); and Depth of Student Learning, focusing on student-oriented and reflective learning (Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence teaching styles) (Gumm, 2004).

Based on self-reported scores on the MTSI, teachers create a prioritized list of the eight dimensions. The eight teaching dimensions, as described by Gumm, are not disparate entities. Rather, teachers use one or two dimensions as their primary way of functioning in the classroom. A teacher may shift from one dimension to another but not necessarily from one end of the spectrum of styles to the other (i.e. traditional to progressive). This leads us to the third level in understanding teaching style: the priority or focus of a teacher's preferred teaching dimensions.

The priority or focus of each of a teacher's highest-priority dimensions becomes central to their teaching style. Gumm asserts that teaching styles remain stable while they shift between dimensions. The focus remains the same, while the cluster of behaviors may change.

Gumm's model includes the possibility for the development of teaching relative to years of teaching experience. He explains that

> changes occur over long periods of time. Change in music teaching style occurs in stages, each stage representing a new awareness that comes through years of experience. . . . Music teaching remains stable within each stage, then with new awareness and a refocus of priorities shifts into a new stage. (Gumm, 2003, p. 108)

Rather than a situational change in teaching style, Gumm proposes that a teacher's style changes along with deeper phenomenological shifts.

According to Gumm, teachers with 0-2 years-of-experience are in the Self-Reflective Stage. In this stage, enthusiastic teachers are focused on sorting out their strengths and weaknesses. Gumm suggests that beginning teachers would find Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence to be low-priority dimensions of their teaching style. Assertive Teaching, Nonverbal Motivation, and Positive Learning Environment dimensions are weak due to the novice's inability to monitor student behavior and feedback clearly and consistently. Time Efficiency is also weak because beginning teachers may not be able to manage more than one activity at a time or accurately predict the length of time needed for a given activity.

The Broadening Stage is that which can occur with 3-7 years-of-experience and shows an increase in Time Efficiency. Some teaching behaviors now become habit and, therefore, the teacher can put more effort into developing other teaching skills. Gumm cautions that while Assertive Teaching, Nonverbal Motivation, and Positive Learning Environment may also improve, teachers in this stage may take sole responsibility for student learning. Teachers in the Broadening Stage may not feel comfortable with allowing students to share the responsibility for learning.

The next stage, Independent Transition (8-10 years of experience), is one in which the teacher feels more comfortable allowing students to have more influence and control

in classroom management and activities. An increase in the skills of Group Dynamics allows interdependence between student and teacher to take place.

The Deepening Stages, the final stages described by Gumm, develop in two steps: 10-20 years-of-experience and then 20+ years-of-experience. Teachers with 10-20 years-of-experience (Deepening Stage I) tend to demonstrate a shift in focus to Music Concept Learning, Artistic Music Performance, and Student Independence. Also present would be higher levels of Group Dynamics and Positive Learning Environment skills, demonstrating a deeper interest in student learning and a focus on students in general. With 20+ years-of-experience (Deepening Stage II) teachers make more use of critical thinking skills and act increasingly as a facilitator for student learning.

Like other researchers on teaching style, Gumm does not promote one teaching style over another. All teaching styles are effective in either varying contexts or in connection with the focus of a particular lesson or activity. In most cases, any researcher's pronouncement of one particular style demonstrating benefits above other styles is usually tied to the teaching style's positive correlation with a desired dependent variable.

Researchers have used the Music Teaching Style Inventory (MTSI) in multiple music-education contexts. The MTSI was the primary measure in Brakel's (1997) investigation of the relationship between high-school band director's teaching-styles and the attrition rates for instrumental students. Through factor analysis, Brakel identified the following salient teacher-style variables: Student Independence, Positive Learning Environment, Nonverbal Motivation, Music Concept Learning, and Aesthetic Music

Performance. Brakel's results suggest no significant correlation between individual teaching styles and student attrition or retention. Significant two-way interactions resulted between teaching-styles and school characteristics, such as school size, band size, as well as teacher characteristics, such as gender, and years-of-experience teaching.

The MTSI was one of several measures in a study to describe the connections between successful high-school choir-directors' philosophies about warm-ups and their musical background, conducting training, and teaching-styles (Olesen, 2010). Olesen reported that choral directors with 11-or-more years-of-experience and more-successful choral directors showed a higher preference for the teaching dimensions of Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence than teachers with 10-or-fewer years-of-experience and less-successful choral directors. Successful choral directors are able to function better within the domain of Student Independence and place more of a focus on the content of their warm-ups; and Assertive Teaching negatively impacts the success of a choral director.

Research examining the relationship between students' musical achievements and teaching-style has also involved the MTSI. In a study designed to describe the predominant teaching-styles of Taiwanese piano teachers at colleges and universities (Ching-Jung, 2000). MTSI results suggest that the prevalent styles labeled as performance-outcome oriented, content oriented and discriminatory, enlightened student-centered, and teacher-centered formed the basis on which future piano-teacher education should be developed.

A two-stage study in which middle-school band directors were the focus (Bazan,

2007) also involved the MTSI. In the first stage, teachers completed the MTSI in order for the researcher to identify those directors who were most student-centered. In the second stage, the researcher reviewed video footage, observations, and responses to interview questions to discover the challenges and benefits of student-directed activities as part of the middle-school band program. The data revealed that middle-school band directors engage in teacher-directed rather than student-directed instruction. Some directors discussed student-directed strategies within the stage-two interviews but presented these strategies as being very difficult to implement.

Groulx (2010) compared high-school band directors' results from the MTSI, and the International Personality Item Pool: Neuroticism-Extroversion-Openness (IPIP-NEO: McCrae & John, 1992) with directors' concert- and marching-band ratings. Common across all four domains of the study was the effect of the Time Efficiency teaching-style. Groulx reported that the teaching dimensions of assertiveness, immoderation, adventurousness, and emotionalism were significant predictors of directors who participated in both concert-band evaluations and marching-band competitions and directors who participated only in concert-band evaluations.

Gumm has suggested that teachers of a particular geographic area may tend to prefer similar teaching styles. Gumm's 2004 study involved 273 middle- and high-school choir directors from central and eastern Michigan, also with varying years-of-experience. Interestingly, the teachers involved in both studies report the same preferences for the "traditional" (Gumm, 2003) or Breadth-of-Activities grouping of styles (Time Efficiency, Assertive Teaching, Nonverbal Motivation, and Positive Learning Environment

dimensions). However, Groulx's 2010 study involved 176 band directors with teaching experience ranging from 1-40 years within the state of Florida. Gumm's hypothesis regarding geographical differences in teaching-style is not supported with the more recent research results.

The same study by Gumm (2004) and a study by Basilicato (2010) involved band students in grades 6-8 and the student version of the MTSI (Gumm, 2004). The student version asks students to respond to 57-statements using a 5-point Likert-type response regarding their perception of their music teacher's teaching-style. Choir students in middle- and high-school choirs (Gumm, 2004) and band students in grades 6-8 (Basilicato, 2010) closely identified their music teachers' teaching-style preferences as reported by their teachers on the teacher version of the MTSI.

Using the Kolb Learning Style Inventory in combination with the student version of the MTSI, researchers have attempted to identify students' preferences for teaching styles. Bands and choirs like all other classes consist of students of varying learning-style preferences, but results do not indicate a clear connection between student learning-style and student preference for a particular teaching-style or grouping of styles (Gumm, 2007; Gumm & Essmann-Paulson, 2001).

Music educators place high importance on the foci of Music Concept Learning, Artistic Music Performance, and Student Independence teaching-style dimensions (Kazee, 2010). Music educators across grade levels value the teaching of expressive qualities (Kazee, 2010). However, high-stakes testing mandates in educational policy do not focus on expressive elements, thereby creating tension for the music educator (Kazee,

2010). Music educators feel pressured to demonstrate they are teaching quantifiable knowledge to support educational policy while feeling that the less-quantifiable, expressive qualities are more important within music education. Teachers also perceive that they just do not have the time to devote to the more expressive elements or commit to using the more student-oriented teaching styles. Future research may lead to a deeper understanding of how high levels of student musical-achievement could be reached through a teacher's focus on Music Concept Learning, Artistic Music Performance, Student Independence, or Group Dynamics teaching-styles within the limits of imposed time constraints.

Tensions and pressures within the teaching profession not only affect teaching style, but can also lead to teachers exiting the profession. Within the literature on teacher personality, teaching style, and the social-emotional wellbeing of teachers is research linking all three topics to teacher burnout. Exhaustion, depersonalization, isolation, and reduced levels of perceived accomplishment are significant factors that lead to teacher burnout (Bernhard 2007; Cohen-Evron, 2002; Cordes & Dougherty 1993; Kellermyer, 2009; Jennings & Greenberg, 2009; Montgomery & Rupp 2005; Ransford, 2007).

Prescriptive suggestions for preventing burnout include collaborating with other teachers, co-teaching, engaging in collaborative action research (Kellermyer, 2009); and engaging in positive conversations with co-workers, receiving positive feedback from principals, forming teaching support teams, and participating in mentoring programs (Kahn, Schneider, Jenkins-Henkelman, & Moyle, 2006). All prescribed interventions involve establishing positive relationships with others. As a sense-of-community within

our classrooms and schools may be beneficial for student academic achievement and decreased student dropout rates, so may a sense-of-community within the teaching profession be beneficial in raising teacher efficacy and reducing the number of teachers who emotionally drop out and then leave the teaching profession.

## Conclusions

A sense-of-community is formed through a cycle of self-reinforcing interactions and experiences between members of a community. Humans have a basic need for a social sense-of-belonging, and choir students value this sense-of-belonging within choir. A gap exists in the research as to the extent which choir students experience sense-of-community.

The formation of a community first involves creating order followed by establishing the distribution of power and authority. “The decision maker or makers must have authority over [its] members for the sense of order to be maintained” (McMillan, 1996, p.5). Within an educational setting, the teacher has the most influence on how her classroom functions and, therefore, has the most influence on the distribution of power within the classroom.

Extensive research has established that teachers greatly influence student academic achievement. Researchers also suggest that teachers are very influential in students’ social and behavioral development. With social competency, comes higher academic achievement. It would be important for teachers to understand the social needs of their students in order to facilitate social development, which allows students to

achieve their potential in both the academic and social constructs.

Equally important is the need for teachers to understand their own level of social-emotional skill and knowledge. Teachers engage in social interactions on a daily basis and teachers' reflective practice should include attention to their intra- and inter-personal skills.

The global perspective of the way in which teacher's mediate all of their students' needs, is their teaching style. What remains to be discovered is just how much influence a particular teaching style may have on students' sense-of-community, which may fulfill students' social need for sense-of-belonging. If students' social-emotional needs are being met, they will be able to better attend to their academic pursuits. The present study contributes to the dialogue between teaching style and students' sense-of-community.

## Implications for Music Education

Both sense-of-community and teaching-styles can be described in terms of outward, observable behaviors. Through analyzing student and teacher behaviors, we may have a better understanding of the connections between these two internalized human phenomena. Investigating the deeper structures of community provides music educators with valuable information on how to foster and maintain a positive sense-of-community as well as recognize and remediate deficits of a social nature within the classroom.

The current trend in recent educational policies is to promote and evaluate students' social-emotional learning. Sense-of-community is the foundation supporting

students' social and emotional growth. School music programs may offer students a highly viable context for experiencing sense-of-community and a safe and supportive environment for exploring social-emotional learning.

A major independent variable to student success is the teacher. Therefore, it is important for teachers to be continually self-reflective, monitoring their daily as well as long-term practices and participating in high-quality professional development programs. Any examination of an educational student-dependent variable (such as sense-of-community) should include the teacher as a factor. As music teachers refine their understanding of teaching-styles, they may be able to adjust their teaching behaviors in order to promote development of sense-of-community within their classrooms.

Results from sense-of-community research may add knowledge and skills to teacher education programs. Pre-service teachers may enter the teaching profession with the ability to reflect upon their interactions with others and use their knowledge of social skills to improve their teaching, students' social skills, and students' academic achievement

With a specific focus on high-school choir directors and high-school choir students, results of this study may increase current teachers' understanding of the complex social structure of their music classes, provide direction for teachers' self-reflection, suggest teacher behaviors that contribute to higher levels of sense-of-community within music classes, and enhance teacher education programs through the addition of knowledge and skills related to sense-of-community.

## Purpose of the Current Study

The purpose of this study was to examine the relationship between high-school choir directors' teaching-style and high-school choir students' psychological sense-of-community. The specific research questions were

1. What level of sense-of-community do high-school choir students report?
2. What are the teaching-style preferences of high-school choir directors?
3. What is the relationship between high-school choir directors' teaching styles and their choirs' level of a psychological sense-of-community?

## Limitations

This study was limited to a mid-Atlantic state and results may not be generalized to a wider geographic area. I included public and private high schools, and schools in urban, suburban, and rural settings but they were not equally represented in this study. School-districts' limitations for access affected equal representation of directors for years-of-experience teaching, age, and gender.

Equal representation of student age, grade level, and gender were limited to the student population of the choirs involved in this study. Students who were members of multiple choirs under the direction of one choir director responded to the student survey regarding their experience within one choir. It may have been difficult for students to separate their sense-of-community experiences between choirs when filling out an online survey. Situational saliency for student responses may be limited since students were not

located in the physical space in which the phenomenon in question actually occurs when they completed their online survey.

It is also possible that a majority of students' responses came from the students most interested in choir or those having a stronger sense-of-community. Thus, representation of the students who experience a lower sense-of-community may have been minimized. If this anomaly exists, it may affect the representation of sense-of-community for a choir as a whole.

## Definitions

For the purposes of the current study, the following definitions will be used throughout:

*9th-Grade Chorus*: a high school choir that is non-auditioned consisting of mixed voicing and students in only 9th grade.

*Blueprint for Reform*: The 2010 reauthorization of the federal Elementary and Secondary Education Act.

*Classroom Community Scale*: (CCS) A measure developed by Rovai (2002) designed to assess students' level of a sense-of-community within the classroom setting. The CCS measures sense-of-community (SOC) as well as connectedness (sub-C) and learning (sub-L).

*Concert Choir*: a high school choir that is non-auditioned consisting of mixed-voicing and students in grades 9-12.

*Cultural Capital*: "A concept associated with Bourdieu, for whom cultural capital acts as a social relation within a system of exchange that includes the accumulated cultural knowledge that confers power and status. Cultural capital is distinguished from economic capital (wealth) and social capital" (human interactions) (Barker, 2004).

*Emotional Intelligence*: "the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (Mayer, Salovey, & Caruso, 2004, p. 197).

*Influence*: an element of community. A reciprocal process in which the individual influences the community and the community influences the individual (McMillan & Chavis, 1986).

*Integration and Fulfillment of Needs*: an element of community. Individual members' needs are met through participation in the community; and participation is a rewarding experience for members (McMillan & Chavis, 1986).

*Membership*: an element of community. "the feeling of belonging or of sharing a sense of personal relatedness" (McMillan & Chavis, 1986, p. 9)

*Men's Chorus*: a high school choir that is non-auditioned consisting of only male voices and students in grades 9-12.

*Music Ensemble*: groups of students who have class/rehearsals who meet within the scheduled school day.

*Music Teaching Style Inventory*: (MTSI) a measure designed by Gumm (2003) in which teachers self-report the frequency of use for 57 teaching behaviors. Scores are interpreted as demonstrating teachers' preferences among eight teaching dimensions: Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment, Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence.

*No Child Left Behind Act of 2001*: (NCLB). Federal policy signed into law in 2001 as the reauthorization of the Elementary and Secondary Education Act.

*Psychological Sense-of-Community*: (SOC) "a *spirit* of belonging together, a feeling that there is an authority structure that can be *trusted*, an awareness that *trade*, and mutual benefit come from being together, and a spirit that comes from shared experiences that are preserved as *art*" (McMillan, 1996, p. 315).

*Select Ensemble*: a high school choir that is auditioned consisting of mixed-voicing and students in grades 9-12.

*Shared Emotional Connection*: an element of community. History that all members of a community may not have actually participated in but in which they become a part of through membership with the group. McMillan and Chavis (1986) state that such shared events "may facilitate or inhibit the strength of the community" (p. 13).

*Shared Valent Event*: a component of the shared emotional connection element of community. An event that carries a high degree of significance or importance for community members (McMillan & Chavis, 1986, p. 14).

*Social Capital*: includes trust, means of communicating, and established "norms and sanctions that promote the common good over self-interest" (Dika and Singh, 2002, p.33 citing Coleman, 1988).

*Social Intelligence*: human capacity to effectively navigate and negotiate complex social relationships and environments (Honeywill, 2010). Characteristics of a high level of social intelligence include "being empathetic, sensing what the other person is feeling, understanding their point of view, and ease and facility in having smooth, effective interactions" (Goleman, 2006).

*Teacher Effectiveness*: "variability in the relationship between teacher instructional strategies, behavior, or effects and student outcomes" (Heck, 2009, p. 230).

*Teaching Style*: "the focus, intention, orientation, or priority underlying the entire pattern of interaction between the teacher, students, and subject matter. As a result it is also the stable, consistent, and pervasive approach to music teaching" (Gumm, 2003, p. 14).

*Women's Chorus*: a high school choir that is non-auditioned consisting of only female voices and students in grades 9-12.

# CHAPTER 3

# METHOD

## Design

This correlational study examined the relationship between high-school choir directors' teaching-style and their choir students' sense-of-community. Two online surveys were used to collect responses from participants. Choir directors completed an online version of the Music Teaching Style Inventory with additional open-ended items; and students completed the Classroom Community Scale with two adaptations to increase saliency.

## Participants

Teacher participants in this study were high-school choir directors ($n$ = 42) and their high-school choir students in grades 9-12 ($n$ = 1,108). Two choir directors were from one school. Student participants were from public and private schools ($n$ = 41) representing rural, suburban, and urban student populations across a mid-Atlantic state. Directors were permitted to include multiple choirs in this study. Some students were members of those multiple choirs, but students were limited to responding to the student survey regarding their participation within only one choir. Equal representation with respect to directors' gender and years-of-teaching experience were limited, and students' age, grade level, and gender were limited due to the student population for each choir included in the study.

## Instruments

### *Student Demographic Variables*

Before responding to the Classroom Community Scale (CCS) items, students responded to demographic questions. Table 6 identifies the demographic questions and the response choices provided. "Free response" indicates that participants typed in their own response, and no list of choices was provided.

Table 6

*Student Demographic Questions and Response Choices*

| | |
|---|---|
| Question: | Gender: |
| Response: | Male, Female |
| Question: | Your age: |
| Response: | 14, 15, 16, 17, 18, 19 |
| Question: | What grade are you currently in?: |
| Response: | 9th grade, 10th grade, 11th grade, 12th grade |
| Question: | Name of the high school in which you are a choir student: |
| Response: | (Free Response) |
| Question: | Name of your school district: |
| Response: | (Free Response) |
| Question: | How long have you been a member of your current high school choir? |
| Response: | This is my first year in this high school choir. |
| | This is my second year in this high school choir. |
| | This is my third year in this high school choir. |
| | This is my fourth year in this high school choir. |
| Question: | How many years in a row have you been a member of this high school choir? |
| Response: | This is my first year in choir. |
| | 2 years in a row. |
| | 3 years in a row. |
| | 4 years in a row. |

*Classroom Community Scale*

The Classroom Community Scale (CCS) is a measure developed by Alfred Rovai (2002) and was used in this study with his permission (see Appendix A). The CCS consists of 20 statements, 10 worded positively and 10 worded negatively, to which students respond using a 5-point Likert-type scale (strongly agree, agree, neutral, disagree, strongly disagree). Each response is scored accordingly: the weights for items 1, 2, 3, 6, 7, 11, 15, 16, and 19 are *strongly agree* = 4, *agree*, = 3, *neutral* = 2, *disagree* = 1, and *strongly disagree* = 0; the weights for items 4, 5, 8, 9, 10, 12, 14, 17, 18, and 20 are *strongly agree* = 0, *agree*, = 1, *neutral* = 2, *disagree* = 3, and *strongly disagree* = 4. The weights of all 20 items are added together to arrive at a score for overall sense-of-community. Raw scores for overall sense-of-community can range from 0 to 80. Higher raw scores are interpreted as the individual perceiving a stronger sense-of-community.

The CCS includes two subscales: connectedness and learning. The raw score for connectedness is calculated by adding together the weights of items 1, 3, 5, 7, 9, 11, 13, 15, 17, and 19 (all odd items). The raw score for learning is calculated by adding together the weights of items 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 (all even items). Raw scores for connectedness and learning can range from 0 to 40. Higher raw scores for each subscale are interpreted as the individual perceiving a stronger sense of connectedness and a higher perceived level of learning.

Three adaptations to the CCS were applied in this study with the permission of the author (Rovai, personal email communication, January 3 and January 31, 2011). First, the

paper version was converted to an online version using SurveyMonkey™[2] as the platform for delivery. Second, "this course" was changed to "choir" for any item containing this language. Third, item #12 was changed additionally by replacing the word "modest" with "minimal." Table 7 provides a comparison of the 2002 version of the CCS created by Rovai and the version used in the present study.

Table 7

*Changes in Wording of the CCS*

| Original wording | Changes for this study in *italics* |
|---|---|
| 1. I feel that students in this course care about each other. | 1. I feel that students in *choir* care about each other. |
| 2. I feel that I am encouraged to ask questions. | |
| 3. I feel connected to others in this course. | 3. I feel connected to others in *choir*. |
| 4. I feel that it is hard to get help when I have a question. | |
| 5. I do not feel a spirit of community. | |
| 6. I feel that I receive timely feedback. | |
| 7. I feel that this course is like a family. | 7. I feel that *choir* is like a family. |
| 8. I feel uneasy exposing gaps in my understanding. | |
| 9. I feel isolated in this course. | 9. I feel isolated in *choir*. |
| 10. I feel reluctant to speak openly. | |
| 11. I trust others in this course. | 11. I trust others in *choir*. |
| 12. I feel that this course results in only modest learning. | 12. I feel that *choir* results in only *minimal* learning. |
| 13. I feel that I can rely on others in this course. | 13. I feel that I can rely on others *choir*. |
| 14. I feel that other students do not help me learn. | |
| 15. I feel that members of this course depend on me. | 15. I feel that members of *choir* depend on me. |
| 16. I feel that I am given ample opportunities to learn. | |
| 17. I feel uncertain about others in this course. | 17. I feel uncertain about others in *choir*. |
| 18. I feel that my educational needs are not being met. | |
| 19. I feel confident that others will support me. | |
| 20. I feel that this course does not promote a desire to learn. | 20. I feel that *choir* does not promote a desire to learn. |

[2] SurveyMonkey™ is an online survey and questionnaire tool. It allows researchers and marketing developers to reach target audiences via emails directly sent from SurveyMonkey™ or through a web address provided by SurveyMonkey™. Authors of surveys can then view data online. Limitations exist with the free version of SurveyMonkey™, but various levels of the paid subscription allow for the sorting, downloading, and analysis of data.

The change in wording from "this course" to "choir" is supported in past research using sense-of-community instruments and the Classroom Community Scale specifically. Situational saliency was compromised in this study in that when students completed the survey, they were not located in the place where choir occurs. Placing the word "choir" within each applicable test item served to help participants maintain a focus on their experiences within choir (Anderson, 2009; Kandziolka, 2007; Obst, personal communication, November 18, 2008; Obst & White, 2004; Rovai, 2002).

The change in wording from "modest" to "minimal" was based on my experience with administering the CCS to high-school choir students ($n$ = 120) in a previous and unpublished study (Anderson, 2009). Item number 12, which includes the word "modest," was the only statement for which students asked for clarification. They specifically asked for a definition of the term "modest."

After thorough reliability and validity analyses, Rovai (2002) reported a Cronbach's *alpha* of 0.93 for the overall scale, 0.92 for the subscale connectedness, and 0.87 for the subscale learning.

*Teacher Demographic Variables*

Prior to responding to the Music Teaching Style Inventory (MTSI), choir directors provided demographic data about themselves and their choirs. Gender was the only variable for which choices were provided (male and female). For all other questions, participants were given ample space to provide a free response. Table 8 lists the teacher and choir demographic items.

Table 8

*Teacher and Choir Demographic Items*

---

Teacher demographics

---

1. Your name:
2. Gender:
3. Your age:
4. Name of the high school in which you are a choir director:
5. Name of your school district:
6. How long have you been a choir director in your current high school position?
7. How long have you been a music educator?
8. Please provide your email address:

---

Choir demographics

---

1. What is the name of your high school choir?
2. About your choir:
    Total number of students in your choir:
    Number of males:
    Number of females:
3. If you direct another choir that will be participating in this study, please provide their information here:
    Name of choir #2:
    Total number of students in Choir #2:
    Number of males in Choir #2:
    Number of females in Choir #2:
    Name of Choir #3:
    Total number of students in Choir #3:
    Number of males in Choir #3:
    Number of females in Choir #3:
4. Describe your choir's class/rehearsal schedule. Please include the length of each class/rehearsal time, how often you see your choir, and any other information that would help me to understand your choir's schedule.
5. How many performances does your choir have in a typical school year and when in the school year do they occur?

---

*Music Teaching Style Inventory*

Alan Gumm created the Music Teaching Style Inventory (1991, 1994) and I converted the Music Teaching Style Inventory (MTSI) to an online measure with his permission. Using a 5-point Likert-type response (*always, often, sometimes, rarely, never*), the research version of the MTSI asks music teachers to respond to the frequency with which they use each of 57 teaching-behaviors. The first question of the MTSI is designed to prep participants for the survey. The remaining 56 statements include seven statements corresponding to each of eight teaching-styles. Responses to the MTSI help teachers understand their preferences amongst eight teaching-styles.

Table 9

*MTSI Items Related to Each of the Eight Teaching-Styles*

| Teaching style dimension | Test items |
|---|---|
| | 1 2 3 4 5 6 7 |
| Assertive Teaching | 2, 10, 18, 26, 34, 42, 50 |
| Nonverbal Motivation | 3, 11, 19, 27, 35, 43, 51 |
| Time Efficiency | 4, 12, 20, 28, 36, 44, 52 |
| Positive Learning Environment | 5, 13, 21, 29, 37, 45, 53 |
| Group Dynamics | 6, 14, 22, 30, 38, 46, 54 |
| Music Concept Learning | 7, 15, 23, 31, 39, 47, 55 |
| Artistic Music Performance | 8, 16, 24, 32, 40, 48, 56 |
| Student Independence | 9, 17, 25, 33, 41, 49, 57 |

Scores are calculated by assigning a numerical value from 1-5 for each response (*never, rarely, sometimes, often*, and *always* respectively) and then summing the response

values for each of the eight teaching-styles. Teaching-style totals are divided by seven to arrive at a mean score. The mean scores for each teaching style are then placed in order from highest to lowest for each participant to indicate the teacher's high, middle, and low groups of teaching-style preferences. The ordering of a teacher's preferences represents their "focus, intention, orientation, or priority underlying the entire pattern of interaction between the teacher, students, and subject matter" (Gumm, 1993, p. 13). According to Gumm's tested theory, the groupings of a teacher's preferences reveal a single focus as a priority for that teacher.

The validity of the MTSI has been tested extensively. The original pilot study established face validity for the list of 57 teaching behaviors (Gumm, 2003). A national sample established construct validity for the eight teaching-style dimensions (Gumm, 2003). Predictive validity was established in a study investigating the correlation between music teaching-styles of choir directors and their choirs' festival ratings (Gumm, 2003). Predictive validity was supported further through correlations between the MTSI and college teacher evaluations for choir-ensemble directors (Gumm, 2004, 2007). The MTSI was validated as measuring the distinct construct of teaching style and not students' motivation for music or learning style in a study involving middle-school and high-school choir students (Gumm, 2004). Students in the same study also completed the Asmus measure assessing students' motivation for music and the Kolb Learning Style Inventory. Shared variance was indicated between band-directors' teaching-styles and their marching- and concert-bands' festival ratings (Groulx, 2010). In Gumm's 1993 study, he reported the Cronbach's *alpha* for the MTSI as 0.96 and the split-half reliability as 0.91.

*Additional Teacher items*

Following the MTSI, choir directors responded to open-ended items, which provided anecdotal information to clarify teachers' experiences with sense-of-community within their choirs. For three items, *yes* and *no* response choices were provided. Teachers were not required to answer any of these items, which are listed in Table 10. Teachers were not provided with any information regarding sense-of-community, such as a definition.

Table 10

*Additional Teacher Items*

| |
|---|
| 1. Do you think your choir students share a sense-of-community within the choir? (Yes or No response choice) |
| 2. Describe any individual student or group behaviors that you think demonstrate a sense-of-community within the choir. |
| 3. Describe any individual student or group behaviors that demonstrate a lack of a sense-of-community within the choir. |
| 4. Do you think that a sense-of-community within the choir is important? (Yes or No response choice) |
| 5. Briefly explain your answer. |
| 6. Do you purposefully attempt to build a sense-of-community within your choir? (Yes or No response choice) |
| 7. Describe what you do to build a sense-of-community. |

## Procedures

Beginning in September 2011, high-school choir directors were invited through an initial email with two follow up emails. I was also able to invite several groups of choral directors verbally during two high-school chorus-festival meetings held in September and October 2011. Any director who responded was considered for the study. Once a director expressed an interest in participating, either verbally or through email, I sent an email to the choral director's high-school administration or other authorized school personnel asking for permission for access to high-school choir students. The email to school administration contained a brief description of my project as well as an attachment containing the complete IRB Protocol document (Appendix A).

Once permission for access to students had been granted via a signed letter on school-district letterhead, I contacted choral directors to ascertain how many ensembles the director would like to include in the study, how many students were in each ensemble, how many students were in multiple ensembles, and when their ensemble course would be ending.

For students in multiple choirs under the same director, the director and I discussed which choir experience students should respond to on their survey. Every attempt was made to balance the number of types and sizes of ensembles in this study.

Directors were then sent a package containing the following items: 1) Director consent form; 2) Scripted invitation for directors to read to students; 3) Student packets containing a parent letter describing the study, parent consent form for minors, and a consent form for students ages 18 and older; and 4) A postage-paid and self-addressed

envelope for the return of all signed forms. Directors chose a time convenient for their schedule in which to read the scripted invitation to their students during a regularly-scheduled choir class..

Directors collected the signed forms from their students and then placed all forms in the envelope provided. Once appropriately signed consent forms were received, I sent participating directors an email containing the link to their survey that requested demographic items, the 57-item Music Teaching Style Inventory, and seven follow-up questions.

Parents consenting to allow their child to participate and students ages 18 and older electing to participate provided an email address to which I was to send the link for the online student survey. When email addresses for potential student participants were missing, I sent their choir directors a web address that did not require an email address for students to access their survey. For students for whom an email address was provided, an initial email containing the link to the survey and two follow-up reminders were sent from SurveyMonkey™. Student assent was obtained through the first page of the online survey, which contained a brief description of the project followed by the choice to continue with the survey or to exit the survey. The student survey consisted of demographic items and the 20-item Classroom Community Scale.

All student and director consent-forms were returned to me within one month prior to the end of an ensemble's course. Two schools had course ending dates in January 2012 and all others ended by the first week in June 2012. Due to directors' travel plans with their choirs, concert schedules, musical show schedules, and personal situations that

required absences from teaching, student invitations were read and student forms were returned at varying times throughout the spring and within the span of March 1, 2012 to May 15, 2012 with one exception. For the two participating choirs whose courses ended in January 2012, the entire research process from inviting students to students and directors completing their surveys took place in January 2012.

Choir students were asked to complete the survey in March through May (or within the last month of their choir class) under the hypothesis that sense-of-community would be higher in a choir toward the end of their choir class than at the beginning of their choir class, since a sense-of-community develops over time (McMillan & Chavis, 1986).

Most students completed their survey outside their choir class and the school day. Two choir directors provided students with access to their schools' computers due to students' lack of access to such technology outside of school. One director scheduled an ensemble for a school computer-lab at which time all eligible students completed the survey. One week prior to the closing of data collection, a final email was sent to all eligible participants thanking them for their willingness to participate, reminding them of the closing date, and confirming the date of the drawing for the iPod Touch™ incentive. Director and student surveys were closed on May 30, 2012.

It was important that choir directors not have access to the completed student surveys so as to prevent any form of conflict of interest between student and director and to alleviate any fears on the part of students regarding their director's possible negative reaction to their responses.

The online survey format prevented directors from having access to their students' responses.

Because research suggests that response rates tend to be lower for online surveys than for paper surveys (Kaplowitz, Hadlock, & Levine, 2004; Matz, 1999), two incentives were offered in this study to encourage a higher response rate. Research also suggests that response rates for prepaid incentives can increase response rates by as much as 20% (Famil, Whitmore, Chromy, Siegel, Cahalan, & Zimbler, 2006; Perkins, 2012; Zhang, 2010).

One 8GB iPod Touch™ (approximate value December, 2011 was $229.00) was awarded to a director who had completed the director survey; and one 8GB iPod Touch™ was awarded to a student who had completed the student survey. Both drawings took place on May 31, 2012 in front of a group of 10 people serving as witnesses to the procedure, and the event was videotaped in case any questions arose concerning the drawing.

All eligible directors ($n$ = 42) were randomly assigned a number from 1-42. A random number generator program was used to choose the winning director. The winning director was notified through email and the 8GB iPod Touch™ was sent on June 2, 2012, postage-paid to the director's high school address.

All eligible students ($n$ = 1,108) were randomly assigned a number from 1 to 1,108. A random number generator program was used to choose the winning student. The winning student was notified through email and the 8GB iPod Touch™ was sent on June 2, 2012, postage-paid to the student's home address that they provided.

## Analysis

*Research Question #1. What level of sense-of-community do high school choir students report?*

Raw scores for students' overall sense-of-community were calculated as per the scoring instructions for the Classroom Community Scale (CCS). The CCS consists of 20 statements, 10 worded positively and 10 worded negatively, to which students responded using a 5-point Likert-type scale (*strongly agree, agree, neutral, disagree, strongly disagree*). Each response was scored accordingly: the weights for items 1, 2, 3, 6, 7, 11, 15, 16, and 19 are *strongly agree* = 4, *agree*, = 3, *neutral* = 2, *disagree* = 1, and *strongly disagree* = 0; the weights for items 4, 5, 8, 9, 10, 12, 14, 17, 18, and 20 are *strongly agree* = 0, *agree*, = 1, *neutral* = 2, *disagree* =3, and *strongly disagree* = 4. The weights of all 20 items were added together to arrive at a score for overall sense-of-community. Raw scores for overall sense-of-community can range from 0 to 80. Higher raw scores are interpreted as the individual perceiving a stronger sense-of-community.

The CCS includes two subscales: connectedness and learning. The raw score for connectedness was calculated by adding together the weights of items 1, 3, 5, 7, 9, 11, 13, 15, 17, and 19 (all odd items). The raw score for learning was calculated by adding together the weights of items 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 (all even items). Raw scores for connectedness and learning can range from 0 to 40. Higher raw scores for each subscale are interpreted as the individual perceiving a stronger sense of connectedness and a higher level of learning.

Once individual student scores were calculated, mean scores and standard deviations for each choir were calculated for sense-of-community, connectedness and learning. Ranges of raw scores for each choir were also considered important data for sense-of-community and each of the two subscales. A narrow or wide range of scores could be interpreted as students within a choir reporting more similar (narrow-range) or more varying (wider-range) experiences for sense-of-community and each subscale. Cronbach's *alpha* reliabilities were calculated for the overall scale and each subscale due to the CCS adaptations made for this study. Skewness and Kurtosis were also calculated to understand if this sample contained a normal distribution of scores.

Researchers have found significant differences in gender for levels of sense-of-community within various communities (Rovai, 2001, 2002; Rovai, & Baker, 2005; Rovai, Wighting, & Lucking, 2004). Mean scores were calculated for females and males within each choir. An independent samples *t*-test was calculated to compare the means of females and males for sense-of-community, connectedness, and learning.

Researchers also report that the frequency with which members of a community interact is an important factor in raising members' levels of sense-of-community (McMillan & Chavis, 1986; Rovai, Wighting, & Lucking, 2004). It may be possible that students who have been in choir for multiple years would report different levels of sense-of-community than students who are new to the choir. For these reasons, the relationships between students' levels of sense-of-community, connectedness, and learning with students' gender, grade, and years-of-experience in choir, and type of ensemble were also explored.

Correlations were performed to examine the relationship between students' gender, grade, years-of-experience, and type of ensemble and their sense-of-community, connectedness, and learning. A two-way ANOVA was performed to determine the significance of the main effects for gender, grade, years-of-experience, and type of ensemble and to examine the interactions between all possible combinations of these same variables on sense-of-community, connectedness, and learning. The Tukey post hoc test was computed for any significant *F*-ratio resulting from the ANOVA.

*Research Question #2. What are the teaching-style preferences of high-school choir directors?*

All items on the Music Teaching Style Inventory were scored following the directions provided by Gumm (2002). Results yielded a score for each teaching-style dimension: Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment, Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence. The mean score and standard deviation were calculated for each teaching-style dimension for each teacher. The higher the teaching-style means, the higher the teacher's priority for that dimension. Top, middle, and bottom priorities reveal a teacher's preferences for the "focus, intention, orientation, or priority underlying the entire pattern of interaction between the teacher, students, and subject matter" (Gumm, 1993, p. 13). Cronbach's *alpha* reliabilities and item-total reliabilities were calculated for each of the eight teaching-styles. Skewness and Kurtosis were calculated to understand if this sample contained a normal distribution of scores.

Previous research findings report differences in teaching-style preferences between male and female teachers (Groulx, 2010). An independent samples *t*-test was used to compare mean scores and standard deviations for each teaching style based on teacher gender.

Gumm's (1994) theory of teaching style considers a teacher's years-of-teaching experience to be a factor in the development of teaching style. In this study, teachers were asked to report their number of years-of-experience as a teacher. Based on total years-of-experience teaching, each teacher was placed into one of five stages of teaching development: 0-2 years-of-experience which is the Self-Reflective Stage; 3-7 years-of-experience which is the Broadening Stage; 8-10 years-of-experience which is the Independent Transition Stage; 11-20 years-of-experience which is the Deepening Stage I; and more than 20 years-of-experience which is the Deepening Stage II. Each director's reported years-of-experience was correlated with their teaching-style means to determine if Gumm's theory was represented in this population of participants. A one-way ANOVA was calculated to compare teaching-style means across the five stages of teaching development.

*Research Question #3. What is the relationship between high-school choir directors' teaching styles and their choirs' level of a psychological sense-of-community?*

Correlations were calculated for each of the teaching styles with students' reported levels of sense-of-community, connectedness and learning. Linear regressions and ANOVAs were calculated to report which combination of teaching styles is the best

predictor of students' level of sense-of-community, connectedness, and learning. The ANOVA served to report the significance of the regression. Regression coefficients, *p* values, and tolerance for multicollinearity for each of the predictor variables were included in the regression procedure. These calculations were necessary to protect against inflated reports of levels of significance due to highly related variables.

## Additional Items Analyses

### *Choir-Class Frequency, Length of Class, and Number of Performances*

Teachers reported the frequency with which each of their choir meets, the length of each choir class, and the number of performances in a typical year. Each of these items is related to previous research on sense-of-community (McMillan & Chavis, 1986). Two-way ANOVAs were used to calculate the main effects and interactions of frequency of choir class, length of choir class, and number of performances on sense-of-community, connectedness, and learning.

### *Teachers' Open-Ended Items*

*Item 2. Describe any individual student or group behaviors that you think demonstrate sense-of-community within the choir.*

*Item 3. Describe any individual student or group behaviors that demonstrate a lack of a sense-of-community within the choir.*

*Item 4. Do you think that a sense-of-community within the choir is important?(Yes or No response choice)*

*Item 5. Briefly explain your answer*

*Item 7. Describe what you do to build a sense-of-community.*

Previous research suggests that high school teachers are not as aware as teachers of elementary or middle school children of the social context within their classrooms (Cohen, 2006).Teachers' responses to open-ended items yielded further understanding of their experiences with sense-of-community within their choir. Directors' reports of student behaviors, which directors think demonstrate the presence or lack of a sense-of-community within their choirs, yielded information on teachers' definitions of sense-of-community as compared to the definition presented in the theory of sense-of-community.

Teachers' responses to open-ended items also served as a form of limited, methodological triangulation regarding teaching behaviors (Creswell, 2007; Creswell & Miller, 2000; Olsen, 2004). Teachers' descriptions of their planned choir activities were compared with their responses to the Music Teaching Style Inventory that revealed their teaching-style preferences.

Content analyses were performed on teachers' open-ended responses from a theory-based approach. The text of teachers' responses was categorized using *a priori codes* (Creswell, 2007; Gery, 1999; Marshall & Rossman, 2006). Sense-of-community codes included *membership, influence, integration and fulfillment of needs,* and *shared emotional connection*. Teaching-style codes consisted of the eight teaching-style dimensions: Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment, Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence. Responses from teachers were in the form of complete sentences, partial sentences, and bulleted items. A teacher's response for one question could contain occurrences for both sense-of-community and teaching-style

codes. For example, the following response to *Question 7* was coded as one occurrence of "Positive Learning Environment" (PLE) within Gumm's theory of teaching styles and one occurrence for "membership" (M) within sense-of-community theory: "Personally, I always try to greet students at the door and build relationships with them in regards to their non-musical activities (PLE). Students who feel as though their teacher cares about them are more likely to perform well and feel that sense of belonging (M)." "Building relationships" with students is a teacher behavior described by Gumm under Positive Learning Environment and "a sense of belonging" is directly stated in the definition of membership (McMillan & Chavis, 1986).

Code co-occurrence in which a single occurrence can be assigned two or more codes (Guest & McLellan, 2003) did not present an issue in this process since all codes were well defined in the literature. Text was assigned only one code or left un-coded.

All occurrences were then listed under each code. The number of teachers who mentioned a particular theme or category determined the frequency of code occurrences. Higher frequencies of codes were interpreted as an indication of the importance of a code for the teachers in this study. For example one teacher's statement, "change seating arrangement" was coded as "Group Dynamics" because it is a teacher behavior found in the description of this teaching style. The same teacher also stated "section leaders run sectionals" which was also coded as "Group Dynamics" because it, too, is another teacher behavior found in the description of this teaching style. Both occurrences counted as a frequency of one since they were both stated by the same teacher. This process is a "better indicator of overall thematic importance than the absolute number of times a

theme is expressed and coded" (Namey, Guest, Thairu, & Johnson, 2007, p.143) because it protects against inflated reports caused by one teacher with a very long response containing multiple occurrences while another teacher may have only written a short statement representing one or no occurrence.

All un-coded text was examined to determine if any other emerging codes could be uncovered (Ryan, 1999). Two teachers outside this study confirmed reliability of the coding. Any item that received two exceptions was discussed and re-coded if deemed necessary.

# CHAPTER 4

# RESULTS

## Descriptive Statistics

### *High Schools*

High-school choir directors ($n$ = 539) across a mid-Atlantic state were invited to participate in this study through an initial email with two follow-up emails. A face-to-face invitation was also extended to directors ($n$ = 96) at two high-school choir festival meetings. Of the total number of directors invited ($n$ = 539), 67 responded through email stating their interest in participating in this study. Through an initial email with no more than two follow-up emails, I contacted school-district administration of the choir directors electing to participate for permission to access their high-school choir students. No response was received from eight school districts. Fourteen schools denied permission for access to students. The remaining 45 school districts granted permission.

Of the 45 schools eligible to participate, 41 saw the study through to completion. I received no student forms from four eligible schools. Appendix B provides demographic data for each the 41 schools participating in this study. Summaries of school demographic data are included in Tables 11 and 12.

Table 11

*High-School Locale and School Population*

| | Locale | High-School Student Population | | | | |
|---|---|---|---|---|---|---|
| | *n* | < 500 *n* | 501-1000 *n* | 1001-1500 *n* | 1501-2000 *n* | 2000 + *n* |
| City | 2 | 1 | 0 | 0 | 1 | 0 |
| Town | 4 | 0 | 1 | 1 | 1 | 1 |
| Suburban | 22 | 6 | 6 | 7 | 1 | 2 |
| Rural | 13 | 2 | 6 | 3 | 2 | 0 |
| Total | 41 | 9 | 13 | 11 | 5 | 3 |

*Note*. Adapted from National Center for Education Statistics. (2010). "School Search." Retrieved from http://nces.ed.gov/globallocator/

Table 12

*High-School Student Demographics*

| | Eligible Free Lunch *n* | Eligible Reduced Lunch *n* | Amer Ind/ Alaskan *n* | Asian/ Pacific Islander *n* | Black *n* | Hispanic *n* | White *n* |
|---|---|---|---|---|---|---|---|
| <1 % | 5 | 5 | 41 | 20 | 8 | 17 | 0 |
| 1-25% | 28 | 35 | 0 | 21 | 32 | 22 | 1 |
| 26-50% | 7 | 1 | 0 | 0 | 1 | 1 | 1 |
| 51-75% | 1 | 0 | 0 | 0 | 0 | 1 | 3 |
| 76-100% | 1 | 0 | 0 | 0 | 0 | 0 | 36 |

*Note*. Adapted from National Center for Education Statistics. (2010). "School Search." Retrieved from http://nces.ed.gov/globallocator/

*Teachers*

Once permission had been granted for access to students, I contacted each choir director to determine how many ensembles the director would like to include in the study, how many students in each ensemble, how many students were in multiple ensembles, and when their ensemble course would be ending. For directors with students who were members of multiple ensembles, I discussed with the director as to which ensemble students should be responding to for the student survey. An attempt was made to balance the types and sizes of ensembles included in this study. Appendix C provides complete descriptive statistics for each director. Table 13 provides a summary. Based upon teachers' years-of-experience as a teacher, each teacher was placed within one of the five stages of teaching development as proposed by Gumm (2002).

Table 13

*Teacher Descriptive Statistics*

| Gender | | Number of Ensembles per teacher in this study | | | | Number of Yrs. Teaching Experience | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *n* | 1 | 2 | 3 | 4 | 0-2 SR | 3-7 B | 8-10 IT | 11-20 D1 | 21 + D2 |
| M | 17 | 14 | 2 | 1 | 0 | 1 | 4 | 1 | 6 | 5 |
| F | 25 | 17 | 5 | 1 | 1 | 4 | 5 | 1 | 9 | 6 |
| Total | 42 | 31 | 7 | 2 | 1 | 5 | 9 | 2 | 15 | 11 |

*Note*. SR = Self-Reflective, B = Broadening, IT = Independent Transition, D1 = Deepening Stage I, D2 = Deepening Stage II.

*Ensembles*

Every attempt was made to recruit a balanced number of different types and sizes of ensembles. This study was limited to the number of eligible schools that completed the study and the ensembles that directors were willing to include in the study. From the 41 schools consisting of 42 high-school choir directors, 56 choir ensembles participated. From these 56 ensembles, five different types of ensembles emerged: 9th-Grade Chorus (*n* = 2), consisting of mixed-voicing; Men's Chorus (*n* = 1) consisting of male students in grades 9-12; Women's Chorus (*n* = 8) consisting of female students in grades 9-12; Select Ensemble (*n* = 7) consisting of mixed-voicing, students in grades 9-12, and participation was determined by audition; and Concert Choir (*n* = 38) consisting of mixed-voicing, students in grades 9-12, where participation was not based on an audition. Appendix D provides a listing of student enrollment for each ensemble. In summary, the student enrollment for the 9th-Grade Choruses were 34 and 65; student enrollment in the Men's Chorus was 15; student enrollment in the Women's Choruses ranged from 22 to 53; student enrollment in the Select Ensembles ranged from 14 to 94; and student enrollment in the Concert Choirs ranged from 17 to 230.

*Students*

A total of 3,995 student packets were sent to 45 eligible directors with 3,537 packets going to the 41 schools / 42 directors who completed the study. Of the forms sent to participating schools (*n* = 3,537), 39.86% (*n* = 1,410) were appropriately signed and returned to me. From the forms received, 2.69% (*n* = 38) did not contain an email address

for the student. In order for these students to access their survey, I provided directors with a web link to the student survey that did not require an email address.

Through SurveyMonkey ™, students were sent the link to the online survey via an initial email with two follow-up reminders. Another email was sent to all students, one week prior to the closing of data collection thanking them for their willingness to participate, reminding them of the closing date, and confirming the date of the drawing for the iPod Touch™ incentive. The total response rate for completed student surveys from all invited students in schools completing the study was 31.33% ($n$ = 1,108). The response rate for each ensemble from the number of forms returned to me ranged from 45.95% to 100%. The student response rate for each ensemble based on total student enrollment per ensemble ranged from 7.41% to 89.36%. Appendix E provides complete student demographic information and descriptive statistics per ensemble. Table 14 summarizes students' gender, grade levels, and years-of-experience within their current high school ensemble.

Table 14

*Student Descriptive Statistics*

| Gender | | Grade Level | | | | Number of Yrs. Ensemble Experience | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 |
| | *n* | *n* | *n* | *n* | *n* | *n* | *n* | *n* | *n* |
| M | 275 | 55 | 67 | 52 | 101 | 102 | 67 | 49 | 57 |
| F | 833 | 173 | 191 | 183 | 286 | 255 | 211 | 193 | 174 |
| Total | 1108 | 228 | 258 | 235 | 387 | 357 | 278 | 242 | 231 |

## Classroom Community Scale

High-school choir students were invited to participate through a scripted invitation read to them by their choir directors. Choir directors were also instructed to tell students in multiple choirs involved in the study to respond to the survey regarding their experience within a particular choir. Before directors extended the invitation to students, the high-school choir director and I determined to which experience these students would be responding. Saliency of student responses may be limited in that students may have had some difficulty in separating their multiple choral experiences. High-school choir students ($n$ = 1,108) representing 56 ensembles completed an online version of the Classroom Community Scale.

The Classroom Community Scale (CCS) measures overall sense-of-community (SOC), connectedness (subC), and learning (subL). Table 15 presents students' mean scores in aggregate form by gender, grade, and years-of-experience within their assigned ensemble for this study, and type of ensemble. Appendices F and G provide SOC, subL, and subC data for each ensemble by student gender, grade, and years-of-experience in their current high school choir.

Minimum and maximum raw scores for each dependent variable are 0–80 for sense-of-community (SOC) and 0–40 for connectedness (subC), and 0–40 for learning (subL). The minimum and maximum scores for the total student sample ($n$ = 1,108) range from 7–80 for SOC, 3–40 for subC, and 5–40 for subL representing a wide range within levels for each scale. Table 16 provides ranges for students sorted by gender, grade, years-of-experience in high school choir, and type of ensemble. Wide ranges for students'

reported levels of SOC, subC, and subL should be viewed with caution as they could have occurred due to uncontrolled variables within the study's method.

Table 15

*CCS and Subscale Scores per Independent Variable*

| Variable | | SOC | | subC | | subL | |
|---|---|---|---|---|---|---|---|
| | *n* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Gender | | | | | | | |
| Female | 833 | 57.56 | 12.05 | 27.72 | 6.80 | 29.83 | 6.23 |
| Male | 275 | 57.78 | 12.59 | 28.25 | 7.04 | 29.53 | 6.57 |
| Grade | | | | | | | |
| 9 | 228 | 54.20 | 12.15 | 26.22 | 6.65 | 27.98 | 6.31 |
| 10 | 258 | 57.94 | 12.68 | 28.05 | 7.28 | 29.89 | 6.41 |
| 11 | 235 | 58.40 | 11.31 | 28.15 | 6.68 | 30.25 | 5.70 |
| 12 | 387 | 58.93 | 12.05 | 28.51 | 6.66 | 30.42 | 6.42 |
| Yrs. Exp. | | | | | | | |
| 1 | 357 | 56.38 | 11.95 | 27.10 | 6.90 | 29.28 | 6.07 |
| 2 | 278 | 58.40 | 12.13 | 28.33 | 6.64 | 30.07 | 6.50 |
| 3 | 242 | 57.60 | 11.44 | 27.85 | 6.67 | 29.76 | 5.72 |
| 4 | 231 | 58.58 | 13.23 | 28.45 | 7.18 | 30.13 | 7.00 |
| Ensemble | | | | | | | |
| 9th Grade Chorus | 50 | 49.62 | 10.94 | 23.28 | 5.63 | 26.34 | 6.14 |
| Men's Chorus | 4 | 61.25 | 11.35 | 29.50 | 5.92 | 31.75 | 5.44 |
| Women's Chorus | 87 | 57.54 | 12.07 | 26.94 | 7.18 | 30.60 | 6.05 |
| Select Ensemble | 161 | 61.29 | 11.19 | 29.75 | 6.39 | 31.53 | 5.77 |
| Concert Choir | 806 | 57.36 | 12.21 | 27.85 | 8.85 | 29.51 | 6.35 |

*Note*. SOC = Overall sense-of-community, subC = subscale of connectedness, subL = subscale of learning.

Table 16

*Raw Score Ranges for SOC, subC, and subL by Independent Variable*

| Variable | | SOC | | subC | | subL | |
|---|---|---|---|---|---|---|---|
| | *n* | Min. | Max. | Min. | Max. | Min. | Max. |
| Gender | | | | | | | |
| Female | 833 | 7 | 80 | 3 | 40 | 4 | 40 |
| Male | 275 | 19 | 80 | 3 | 40 | 6 | 40 |
| Grade | | | | | | | |
| 9 | 228 | 11 | 80 | 6 | 40 | 5 | 40 |
| 10 | 258 | 7 | 80 | 3 | 40 | 4 | 40 |
| 11 | 235 | 23 | 80 | 6 | 40 | 9 | 40 |
| 12 | 387 | 16 | 80 | 3 | 40 | 5 | 40 |
| Yrs. Exp. | | | | | | | |
| 1 | 357 | 11 | 80 | 3 | 40 | 5 | 40 |
| 2 | 278 | 7 | 80 | 3 | 40 | 4 | 40 |
| 3 | 242 | 23 | 80 | 6 | 40 | 14 | 40 |
| 4 | 231 | 16 | 80 | 3 | 40 | 5 | 40 |
| Ensemble | | | | | | | |
| 9th Grade Chorus | 50 | 28 | 77 | 14 | 37 | 14 | 40 |
| Men's Chorus | 4 | 45 | 70 | 21 | 34 | 24 | 36 |
| Women's Chorus | 87 | 7 | 75 | 3 | 35 | 4 | 40 |
| Select Ensemble | 161 | 24 | 80 | 3 | 40 | 9 | 40 |
| Concert Choir | 806 | 11 | 80 | 3 | 40 | 5 | 40 |

*Note*. SOC = Overall sense-of-community, subC = subscale of connectedness, subL = subscale of learning.

Skewness and kurtosis calculations indicate a slight, negative skewness possibly due to very low scores for several outliers: SOC (−.62), subC (−.63), and subL (−.77). Considerable skewness is indicated for the Men's Chorus on all three scales and for the Women's Choruses for SOC and subL. Appendix H provides skewness and kurtosis information for each independent variable across SOC, subC, and subL.

The Classroom Community Scale's Cronbach's *alphas* were reported as 0.93 for sense-of-community, 0.92 for connectedness, and 0.87 for learning (Rovai, 2002). The Cronbach's *alpha* for this study's version of the CCS was 0.92 for sense-of-community, 0.90 for connectedness, and 0.86 for learning. The three adaptations applied to this study's version of the CCS (see Table 7) did not appear to significantly alter reliability for any of the three scales.

An independent samples *t*-test conducted to compare overall sense-of-community (SOC), connectedness (subC), and learning (subL) for females and males revealed no significant difference in SOC scores for females ($M = 57.56$, $SD = 12.05$) and males ($M = 57.78$, $SD = 12.59$); $t\ (1,106) = 0.27$, $p = .57$; no significant difference in subC scores for females ($M = 27.72$, $SD = 6.80$) and males ($M = 28.25$, $SD = 7.04$); $t(1,106) = 1.13$, $p = .26$; and no significant difference in subL scores for females ($M = 29.83$, $SD = 6.23$) and males ($M = 29.53$, $SD = 6.57$); $t\ (1,106) = 0.70$ $p = .49$. These results suggest that females and males are experiencing similar levels of sense-of-community, connectedness, and learning within their high-school choir ensembles. This finding is particularly interesting in light of data from previous research using the same test instrument in which significant

differences for females and males were reported on all three scales (Rovai, 2001, 2002; Rovai, & Baker, 2005; Rovai, Wighting, & Lucking, 2004).

Table 17

*Correlations for Student Independent Variables, SOC, subC, subL*

| | | | | | | |
|---|---|---|---|---|---|---|
| SOC | | | | | | |
| subC | .93** | | | | | |
| subL | .92** | .71** | | | | |
| Gender | −.00 | −.03 | .02 | | | |
| Grade | .13** | .11** | .13** | −.00 | | |
| Yrs. Exp. | .06 | .06* | .04 | .05 | .63** | |
| Ensemble | .07* | .10** | .03 | .01 | .26** | .06* |

*Note*. **Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

Correlations for all student variables are displayed in Table 17. To explore the significant correlations further, two-way ANOVAs were conducted to compare the main effects and all possible interaction models of students' gender, grade, years-of-experience, and type of ensemble on overall sense-of-community (SOC), connectedness (subC), and learning (subL). A significant main effect emerged for students' grade at the $p < .001$ level on SOC, $F(3,1104) = 7.99$, $p = .000$, subC, $F(3,1104) = 5.75$, $p = .001$, and subL, $F(3,1104) = 8.12$, $p = .000$. Post hoc comparisons using the Tukey HSD test indicated that the mean score for students in 9th-grade for SOC ($M = 54.20.53$, $SD = 12.14$), subC ($M = 26.22$, $SD = 6.65$), and subL ($M = 27.98$, $SD = 6.31$) were significantly lower than the mean scores for 10th grade SOC ($M = 57.94$, $SD = 12.68$), subC ($M = 28.05$, $SD = 7.28$), subL ($M = 29.89$, $SD = 6.41$); 11th grade SOC ($M = 58.40$, $SD =$

11.31), subC ($M$ = 28.15, $SD$ = 6.68), subL ($M$ = 30.25, $SD$ = 5.70); and 12th grade SOC ($M$ = 58.93, $SD$ = 12.05), subC ($M$ = 28.51, $SD$ = 6.63), subL ($M$ = 30.42, $SD$ = 6.6.42). Ninth-grade high-school choir students reported experiencing a significantly lower level of sense-of-community, connectedness, and learning than students of other grade levels.

The levels of SOC, subC, and subL for 9th-grade students are not connected to the fact that the 9th-grade students in this study were experiencing their first year in high school choir. Results of the two-way ANOVAs also suggest that years-of-experience in high school choir has no significant main effect on SOC, $F(3,1104) = 2.10$, $p = .10$, subC, $F(3,1104) = 2.49$, $p = .06$, and subL, $F(3,1104) = 1.18$, $p = .32$. Students in their first year of choir ($n$ = 357), second year of choir ($n$ = 278), third year of choir ($n$ = 242) and fourth year of choir ($n$ = 231) did not report significantly different levels of SOC, subC, and subL. Of the students in the "first year" group, 185 were 9th-grade students, 74 were 10th-grade students, 34 were 11th-grade students, and 64 were 12th-grade students.

A significant main effect at the $p < .001$ level emerged for type of ensemble on overall sense-of-community (SOC), $F(3,1104) = 9.50$, $p = .000$, connectedness (subC), $F(3,1104) = 9.36$, $p = .001$, and learning (subL), $F(3,1104) = 7.28$, $p = .000$. Two significant differences in means (Table 18) emerged from post hoc comparisons using the Tukey HSD test: 1) the mean score for students in 9th-Grade Choruses for SOC, subC, and subL were significantly lower than the mean scores for Women's Choruses, Select Ensembles, and Concert Choirs on all three scales; 2) the mean score for students in Select Choruses for SOC, subC, and subL were significantly higher than the mean scores for Concert Choirs on all three scales.

Table 18

*Type of Ensemble M and SD for SOC, subC, and subL*

| | SOC | | subC | | subL | |
|---|---|---|---|---|---|---|
| Ensemble | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 9th Grade Chorus | 49.62 | 10.94 | 23.28 | 5.63 | 26.34 | 6.14 |
| Men's Chorus | 61.25 | 11.35 | 29.50 | 5.92 | 31.75 | 5.44 |
| Women's Chorus | 57.54 | 12.07 | 26.94 | 7.18 | 30.60 | 6.05 |
| Select Ensemble | 61.29 | 11.19 | 29.75 | 6.39 | 31.53 | 5.77 |
| Concert Choir | 57.36 | 12.21 | 27.85 | 8.85 | 29.51 | 6.35 |

*Note*. SOC = Overall sense-of-community. subC = subscale of connectedness. subL = subscale of learning.

The lower mean score for 9th-Grade Choruses and its significant effect is consistent with the ANOVA results for the effect of grade on SOC, subC, and subL. Of the 161 students in Select Ensembles in this study, seven students were 9th-graders (4% of the Select Ensemble population). Of the 806 students in Concert Choirs in this study, 147 students were 9th-graders (18% of the Concert Choir population). To control for the main effect of 9th-grade students possibly contributing to the main effect of Select Ensembles, an ANOVA was calculated with the removal of 9th-grade students from both Select Ensembles and Concert Choirs. Select Ensemble students still reported significantly higher levels than Concert Choir students for all three scales: overall sense-of-community (SOC), $F(1,811) = 13.06$, $p = .000$, connectedness (subC), $F(1,811) = 10.44$, $p = .001$, and learning (subL), $F(1,811) = 11.74$, $p = .001$.

The two-way ANOVAs revealed no significant interaction for any combination of gender, grade, years-of-experience, and type of ensemble on SOC, subC, and subL. Appendix I contains complete two-way ANOVA results.

Music Teaching Style Inventory

Reliability coefficients were calculated for all items on the Music Teaching Style Inventory (MTSI) and compared with existing reliability data. Table 19 shows the comparison of reliabilities for this study with the most recent reliabilities published by the author of the MTSI (Gumm, 2003); a recent study involving band directors (Groulx, 2010); and a recent study involving high-school choir directors (Olesen, 2010).

Table 19

*Cronbach's α Reliability data for the MTSI*

| MTSI Dimension | Current Study | Gumm (2003) | Groulx (2010) | Olesen (2010) |
|---|---|---|---|---|
| Assertive Teaching | .70 | .75 | .75 | .76 |
| Nonverbal Motivation | .63 | .82 | .66 | .70 |
| Time Efficiency | .75 | .79 | .75 | .80 |
| Positive Learning Environment | .70 | .79 | .79 | .79 |
| Group Dynamics | .76 | .73 | .78 | .81 |
| Music Concept Learning | .77 | .83 | .74 | .76 |
| Artistic Music Performance | .68 | .77 | .74 | .79 |
| Student Independence | .80 | .86 | .85 | .85 |

Similar reliabilities emerged between this study and Gumm's (2003) for Assertive Teaching, Time Efficiency, Group Dynamics, Music Concept Learning, and Student Independence. Consistent with Groulx's (2010) findings, though, Nonverbal Motivation reliability was lower than Gumm's (2003) findings and removal of any single item did not improve reliability. Artistic Music Performance reliability for this study was also lower than Gumm's (2003) findings. Also consistent with Groulx's (2010) findings, removal of item 5 for Artistic Music Performance, "Develop musical skills through

physical manipulation" increased reliability (from .68 to .70 for this study). Reliability for Positive Learning Environment for this study, would be increased from .70 to .71 with the removal of item 3, "Be responsive to student fatigue and frustration." For all other items, reliability was only decreased with the removal of any single item. No comparison to Olesen's (2010) study can be made regarding the removal of any single item, as this information was not reported in that study. The removal of items is presented here for discussion purposes only. No items were removed within the analyses that follow. Item to teaching-style correlations were calculated for the MTSI and are displayed in Table 20. Appendix J displays all inter-item matrices for teaching style.

Table 20

*Item-Total Correlations for Teaching Styles for the MTSI*

| | Item Number | | | | | | |
|---|---|---|---|---|---|---|---|
| MTSI Dimension | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Assertive Teaching | .66 | .70 | .69 | .64 | .66 | .65 | .68 |
| Nonverbal Motivation | .61 | .58 | .58 | .55 | .58 | .60 | .62 |
| Time Efficiency | .73 | .73 | .67 | .76 | .70 | .73 | .73 |
| Positive Learning Environment | .64 | .64 | .72 | .69 | .66 | .63 | .70 |
| Group Dynamics | .73 | .72 | .76 | .70 | .76 | .72 | .70 |
| Music Concept Learning | .79 | .80 | .79 | .78 | .80 | .77 | .75 |
| Artistic Music Performance | .62 | .67 | .61 | .68 | .70 | .66 | .59 |
| Student Independence | .77 | .79 | .80 | .79 | .80 | .78 | .76 |

Item-total reliabilities were moderately strong, ranging from .55 to .80. Items most strongly correlated for Music Concept Learning and Student Independence with all items between .75 and .80. Nonverbal Motivation emerged with the lowest correlations:

item 4 with a correlation of .55; and items 2, 3, and 5 with a correlation of .58. Artistic Music Performance contained one correlation of .59 for item 7. Groulx (2010) also reported low correlations within Nonverbal Motivation (item 3, $r = 0.47$) and Artistic Music Performance (item 5, $r = 0.47$).

Table 21 provides descriptive statistics for the MTSI. Appendix K provides MTSI descriptive statistics for each of the choir directors ($n = 42$) in this study. Artistic Music Performance was negatively skewed which could be due to two very low outliers within the data set. Included in Table 21 are the composite groupings of teaching styles as described by Gumm (2004): Breadth of Activities, which are the teaching styles with a focus on teacher-led activities; and Depth of Student Learning, which are the teaching styles with a focus on student-oriented activities.

Table 21

*Descriptive Statistics for MTSI*

| MTSI dimension | *n* | *M* | *SD* | Skew. | Kurt. |
|---|---|---|---|---|---|
| Assertive Teaching | 42 | 3.80 | .49 | −.42 | −.05 |
| Nonverbal Motivation | 42 | 3.75 | .45 | .90 | .99 |
| Time Efficiency | 42 | 4.33 | .39 | .01 | −.42 |
| Positive Learning Environment | 42 | 4.27 | .40 | −.46 | −.50 |
| Group Dynamics | 42 | 2.84 | .53 | .48 | −.48 |
| Music Concept Learning | 42 | 3.48 | .50 | −.44 | 1.37 |
| Artistic Music Performance | 42 | 3.46 | .49 | −1.21 | 2.85 |
| Student Independence | 42 | 3.30 | .51 | −.17 | .22 |
| Breadth of Activities[a] | 42 | 4.04 | .32 | .30 | .01 |
| Depth of Student Learning[b] | 42 | 3.27 | .42 | −.62 | 2.53 |

*Note.* [a] Grouping of the dimensions Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment. [b] Grouping of the dimensions Group Dynamics, Music Concept Learning, Artistic Music Performance, Student Independence.

Through an independent samples *t*-test to compare teaching-style mean scores for females ($n = 25$) and males ($n = 17$), Nonverbal Motivation emerged as the only teaching style to be significantly different with males ($M = 3.96$, $SD = .52$) having a higher mean score than females ($M = 3.60$, $SD = .34$); $t\ (40) = -2.64$, $p = .01$. Table 22 lists complete results of the *t*-test.

Table 22

*T-Test Results Teacher Gender with Teaching-Style Dimensions*

| | *M* | | *SD* | | | | |
|---|---|---|---|---|---|---|---|
| Dimension | Females | Males | Females | Males | *t* | *df* | *p* < |
| Assertive Teaching | 3.80 | 3.79 | .40 | .60 | .07 | 40 | .95 |
| Nonverbal Motivation | 3.60 | 3.96 | .34 | .52 | −2.64 | 40 | .01 |
| Time Efficiency | 4.26 | 4.44 | .37 | .41 | −1.47 | 40 | .15 |
| Positive Learning Environ. | 4.27 | 4.28 | .33 | .49 | -.07 | 40 | .95 |
| Group Dynamics | 2.86 | 2.82 | .52 | .59 | .20 | 40 | .85 |
| Music Concept Learning | 3.35 | 3.66 | .47 | .52 | −1.96 | 40 | .06 |
| Artistic Music Performance | 3.39 | 3.55 | .52 | .44 | −.99 | 40 | .33 |
| Student Independence | 3.22 | 3.43 | .51 | .49 | −1.33 | 40 | .19 |

A one-way ANOVA was conducted to compare the effect of teachers' stage of teaching-development (Self-Reflective, Broadening, Independent Transition, Deepening I, and Deepening II) on each of the eight teaching-style dimensions at the $p < .05$ level. Results in Table 23 suggest that teaching-style preferences did not significantly change with numbers of years-of-experience. Therefore, Gumm's theory that teaching style changes with years-of-teaching experience, was not reflected by the teachers in this study.

Table 23

*ANOVA Results for Stage of Teaching Development on Teaching-Style Dimensions*

| Teaching Style Dimension | *M* | *SD* | *df* | *F* | *p* < |
|---|---|---|---|---|---|
| Assertive Teaching | 3.80 | .49 | 4, 51 | 1.10 | .36 |
| Nonverbal Motivation | 3.75 | .45 | 4, 51 | .58 | .68 |
| Time Efficiency | 4.33 | .39 | 4, 51 | .97 | .44 |
| Positive Learning Environ. | 4.27 | .40 | 4, 51 | .14 | .97 |
| Group Dynamics | 2.84 | .53 | 4, 51 | 2.00 | .10 |
| Music Concept Learning | 3.48 | .50 | 4, 51 | 1.13 | .35 |
| Artistic Music Performance | 3.46 | .49 | 4, 51 | 1.38 | .25 |
| Student Independence | 3.30 | .51 | 4, 51 | .40 | .80 |

Results from a paired samples *t*-test reveal a significant difference between teachers' mean scores for the composite groups described as Breadth of Activities ($M$ = 4.04, $SD$ = .32) and Depth of Student Learning ($M$ = 3.27, $SD$ = .42); $t$ (41) = 14.36, $p$ = .000. Teachers across all years-of-experience more often chose teaching behaviors within the Assertive Teaching, Nonverbal Motivation, Time Efficiency, and Positive Learning Environment teaching-styles. Of the remaining four teaching-styles, Group Dynamics appeared at the bottom of teachers' order of preferences for 40 of the 42 teacher participants.

## Regression Analyses

Table 24 lists the correlations between each of the eight teaching-style dimensions and the three sense-of-community scales: sense-of-community (SOC), connectedness (subC), and learning (subL).

Table 24

*Correlations for Teaching Styles and SOC, subC, subL*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SOC | | | | | | | | | | |
| subC | .93** | | | | | | | | | |
| subL | .92** | .71** | | | | | | | | |
| AT | .01 | −.05 | .05 | | | | | | | |
| NM | .06 | .00 | .10 | .39** | | | | | | |
| TE | .26 | .13 | .34* | .33* | .56** | | | | | |
| PLE | .06 | .06 | .05 | .41** | .34* | .40** | | | | |
| GD | .15 | .12 | .15 | .13 | .40** | .27* | −.48 | | | |
| MCL | .04 | −.00 | .07 | .31* | .69** | .55** | .35* | .51** | | |
| AMP | −.17 | −.10 | −.21 | .26 | .50** | .32* | .28* | .36** | .70** | |
| SI | .19 | .14 | .22 | .38** | .58** | .37** | .28* | .58** | .78** | .57** |

*Note*. AT = Assertive Teaching, NM = Nonverbal Motivation, TE = Time Efficiency, PLE = Positive Learning Environment, GD = Group Dynamics, MCL = Music Concept Learning, AMP = Artistic Music Performance, SI = Student Independence.
**Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

Linear multiple regressions were conducted to test which combination of teaching styles would best predict students' levels of sense-of-community (SOC), connectedness (subC), and learning (subL). Tolerance levels for multicollinearity fell within acceptable ranges for each of the predictor variables with the lowest tolerance of .22 for Music Concept Learning and the highest of .70 for Assertive Teaching.

The results of the regression for teaching style on SOC indicated that the model of all eight teaching-style dimensions explained 26% of the variance of SOC but the model was not a significant predictor for students' level of SOC ($R2 = .26$, $F(8,47) = 2.03$, $p < .06$). Table 25 provides regression coefficients for each of the eight teaching-styles.

Within the model, Time Efficiency (β = .38, p < .03) and Student Independence (β = .52, p < .03) added value to the constant, while Artistic Music Performance (β = −.37, p < .05) subtracted value from the constant.

Table 25

*Regression Coefficients for Teaching Styles on SOC*

| Dimension | B | SE B | β | *t* | *p* < | Tolerance |
|---|---|---|---|---|---|---|
| Assertive Teaching | −1.43 | 1.55 | −.138 | −.92 | .36 | .71 |
| Nonverbal Motivation | −.76 | 2.56 | −.06 | −.34 | .74 | .45 |
| Time Efficiency | 5.08 | 2.32 | .38 | 2.81 | .03 | .57 |
| Positive Learning Environ. | .57 | 2.04 | .04 | .36 | .78 | .67 |
| Group Dynamics | .56 | 1.59 | .06 | .36 | .72 | .58 |
| Music Concept Learning | −2.98 | 2.97 | −.27 | −1.00 | .32 | .22 |
| Artistic Music Performance | −3.78 | 1.83 | −.37 | −2.06 | .05 | .50 |
| Student Independence | 5.24 | 2.28 | .52 | 2.30 | .03 | .31 |

The results of the regression for teaching style on connectedness (subC) indicated that the model of all eight teaching-style dimensions explained 36% of the variance of subC but the model was not a significant predictor for students' level of subC ($R2$ = .36, F(8,47) = .90, p < .53). Table 26 provides regression coefficients for each of the eight teaching-styles. Within the model, none of the eight teaching-styles were significant predictors.

Table 26

*Regression Coefficients for Teaching Styles on Connectedness*

| Dimension | B | SE B | β | *t* | *p* < | Tolerance |
|---|---|---|---|---|---|---|
| Assertive Teaching | −.88 | .85 | −.168 | −1.04 | .30 | .71 |
| Nonverbal Motivation | −.42 | 1.23 | −.07 | −.34 | .74 | .45 |
| Time Efficiency | 1.51 | 1.22 | .22 | 1.24 | .22 | .57 |
| Positive Learning Environ. | .76 | 1.11 | .11 | .68 | .50 | .67 |
| Group Dynamics | .48 | .87 | .10 | .55 | .59 | .58 |
| Music Concept Learning | −1.73 | 1.62 | −.32 | −1.07 | .29 | .22 |
| Artistic Music Performance | −.96 | 1.01 | −.18 | −.95 | .35 | .50 |
| Student Independence | 2.15 | 1.25 | .42 | 1.72 | .09 | .31 |

The results of the regression for teaching style on learning (subL) indicated that the model of all eight teaching-style dimensions explained 35% of the variance of subL and the model was a significant predictor for students' subL ($R2 = .35$, $F(8,47) = 3.17$, $p<.006$). Table 27 provides regression coefficients for each of the eight teaching-styles. Three teaching-styles were significant predictors for subL. Time Efficiency ($\beta = .46$, $p<.005$) and Student Independence ($\beta = .53$, $p<.02$) added value to the constant, and Artistic Music Performance ($\beta = -.48$, $p<.006$) subtracted value from the constant. Results suggest that teachers who report a higher frequency of Time Efficiency and Student Independence teaching behaviors will have a positive effect on students' perceived level of learning, and teachers who report a higher frequency of Artistic Music Performance teaching behaviors will have a negative effect on students' perceived level of learning.

Table 27

*Regression Coefficients for Teaching Styles on Learning*

| Dimension | B | SE B | β | *t* | *p* < | Tolerance |
|---|---|---|---|---|---|---|
| Assertive Teaching | −.55 | .83 | −.10 | −.66 | .51 | .71 |
| Nonverbal Motivation | −.34 | 1.21 | −.05 | −.28 | .78 | .45 |
| Time Efficiency | 3.57 | 1.20 | .47 | 2.98 | .005 | .57 |
| Positive Learning Environ. | −.19 | 1.09 | −.03 | −.17 | .86 | .67 |
| Group Dynamics | .09 | .85 | .02 | .10 | .92 | .58 |
| Music Concept Learning | −1.25 | 1.59 | −.20 | −.78 | .44 | .22 |
| Artistic Music Performance | −2.82 | .99 | −.48 | −2.86 | .006 | .50 |
| Student Independence | 3.10 | 1.22 | .53 | 2.53 | .02 | .31 |

## Additional Items Analyses

*Choir-Class Frequency, Length of Class, and Number of Performances per Year*

Teachers were asked to describe their choir-class schedule including the length of each class along with how often classes are held. Teachers were also asked how many times their choir performs in a typical year. Both questions are relevant to the research on sense-of-community. McMillan and Chavis (1986) suggest that the more contact members have with one another and the higher the frequency of important events that are shared by members, the higher the sense-of-community.

From teachers' descriptions, six different categories emerged in which frequency of class meeting and length of class meeting could be combined: two-times per-week for 40-50 minutes per-class, 3 times per-week for 50-90 minutes per-class, daily for 40-60 minutes per-class, daily for 60-100 minutes per-class, every-other-day for 40-60 minutes per-class, and every-other-day for 80-100 minutes per-class. Most choir classes in this study met daily for 40-60 minutes per class ($n$ = 30).

Teachers also noted special circumstances such as choirs that were split, meeting in two different sections and also having to share their students with other classes such as Advanced Placement, honors, and other music-ensemble courses. Shared students would not have choir at the same frequency as non-shared choir students. Teachers reported that five Concert Choirs in this study were split between two sections of class, and 14 Concert Choirs shared students with other courses. One Concert Choir and one Select Ensemble in this study met for one semester each. All other choirs met for a full school year.

Responses for the number of performances in a typical year also formed categories: 1) two-times per year, 2) three or four times per year, 3) five or six times per year, 4) and seven or more times per year. No choir was reported as performing fewer than two-times per year and two choirs were reported as performing more than 10 times per year. Number of performances included school and community performances held during and outside the regular school day. Two, and three-four performances per year were the most common response ($n$ = 32). Table 28 lists the frequency/length of choir classes and the number of performances per year by type of ensemble.

Table 28

*Frequency/Length of Choir Class and Number of Performances per Year per Ensemble*

| Ensemble | Frequency and Length of Choir Classes/Rehearsals [a] | | | | | | Number of Performances per Year [b] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 |
| 9th Grade Chorus | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| Men's Chorus | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Women's Chorus | 0 | 0 | 4 | 0 | 1 | 3 | 1 | 4 | 1 | 2 |
| Select Ensemble | 0 | 0 | 4 | 2[c] | 0 | 1 | 0 | 2 | 2 | 3 |
| Concert Choir | 4 | 2 | 20 | 1[d] | 5 | 6 | 17 | 15 | 2 | 4 |
| Total | 4 | 2 | 30 | 3 | 7 | 10 | 19 | 23 | 5 | 9 |
| Shared group | | 1 (CC) [e] | 11 (CC) | 1 (CC) | | 1 (CC) | | | | |
| Split sections | | | 2 (CC) | | | 3 (CC) | | | | |

*Note*. [a] Frequency: 1 = 2 X week, 40-50 min. per class, 2 = 3 X per week, 50-90 min. per class, 3 = daily, 40-60 min. per class, 4 = daily for 60-100 min. per class, 5 = every other day, 40-60 min. per class, 6 = every other day, 80-100 min. per class
[b] Number of Performance: 1 = 2 per year, 2 = 3 or 4 per year, 3 = 5 or 6 per year, 4 = 7+ per year. [c] One Select Ensemble meets for one semester only. [d] One Concert Choir meets for one semester only. [e] CC = Concert Choir.

A two-way ANOVA was conducted to examine the main effect and interactions of choir class frequency and number of performances on overall sense-of-community (SOC), connectedness (subC), and learning (subL). The assumption for homogeneity of variance was satisfied by Levene's test for equality of error variances. There was no significant interaction between choir class frequency and number of performances on SOC, subC, or subL. No significant main effect was found for choir class frequency on SOC, subC, or subL, however, a significant main effect emerged for number of performances at the $p < .05$ level on SOC, $F(3,42) = 3.73$, $p = 0.02$, subC, $F(3,42) = 3.21$, $p = 0.03$, and subL, $F(3,42) = 2.97$, $p = 0.04$. Post hoc comparisons using the Tukey HSD

test indicated that mean scores for SOC, subC, and subL for choirs performing five or more times per year scored higher than students performing two or three-four times per year. No significant effect on SOC, subC, or subL was found between choirs performing two or three-four times per year or between groups performing five-six and more than seven times per year. Results suggest that a threshold effect may exist in that no significant difference in sense-of-community, connectedness, and learning are achieved until a choir reaches five or more performances. Table 29 provides means and standard deviations for the significant main effect for number of performances on SOC, subC, and subL.

Table 29

*Two-way ANOVA for Choir-Class Frequency and Number of Performances on SOC, subC, and subL*

| | SOC | | subC | | subL | |
|---|---|---|---|---|---|---|
| No. of Performances per year | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 2 | 55.11 | 5.61 | 26.69 | 2.73 | 28.42 | 3.27 |
| 3-4 | 57.41 | 3.54 | 27.68 | 1.94 | 29.73 | 2.29 |
| 5-6 | 62.56 | 6.27 | 30.28 | 3.22 | 32.29 | 3.15 |
| 7+ | 60.38 | 4.00 | 28.92 | 2.36 | 31.46 | 2.03 |

*Note*. SOC = Overall sense-of-community, subC = subscale of connectedness, subL = subscale of learning.

*Teachers' Open-Ended Items*

Following the test items on the Music Teaching Style Inventory (MTSI), choir directors were asked to answer open-ended items which provided anecdotal information

to further understand their experiences with sense-of-community within their choirs. Three items consisted of a *yes* or *no* response choice and four items were open-ended items. None of the questions were required, and between four directors a total of 6 questions were left unanswered. Teachers' responses provided insight into their definition of a sense-of-community and its importance.

Teachers' responses to open-ended items also served as a form of limited, methodological triangulation regarding teaching behaviors (Creswell, 2007; Creswell & Miller, 2000; Olsen, 2004). Teachers' descriptions of their planned choir activities were compared with their responses to the Music Teaching Style Inventory that revealed their teaching-style preferences. The additional teacher items provided information regarding teachers' perceptions of which teaching behaviors foster and support students' SOC within the choir.

*Item 1. Do you think your choir students share a sense-of-community within the choir? (Yes or No response choice)*

*Item 2. Describe any individual student or group behaviors that you think demonstrate a sense-of-community within the choir.*

*Item 3. Describe any individual student or group behaviors that demonstrate a lack of a sense-of-community within the choir.*

Responses to the open-ended items were examined for the insight they may provide on teachers' experiences with sense-of-community and their teaching-style preferences. In response to Item #1, 40 teachers said, "yes," they thought their choir students shared a sense-of-community. Two teachers responded with "no."

With no information provided on sense-of-community, teachers' responses to Items #2 and #3 suggest that teachers' perceptions of sense-of-community included all four elements (*membership, influence, integration and fulfillment of needs,* and *shared emotional connection*) found in the research-based definition of sense-of-community (McMillan and Chavis, 1986). Table 30 provides the frequency of occurrences within teachers' responses for each of the four elements within sense-of-community. Frequency represents the number of teachers who identified each element.

Table 30

*Frequency of Occurrences for Elements of Sense-of-community*

| Sense-of-Community Element | *n* | % of teachers |
|---|---|---|
| Membership | *n* = 36 | 85 |
| Influence | *n* = 27 | 64 |
| Integration and Fulfillment of Needs | *n* = 21 | 50 |
| Shared Emotional Connection | *n* = 35 | 83 |

All teachers' responded with a reference to at least one element of sense-of-community, 14 teachers referred to two different elements, 18 teachers referred to three different elements, and 9 teachers referred to all four elements. The elements identified by the most number of teachers were *membership* (*n* = 36) and *shared emotional connection* (*n* = 35).

The *membership* element includes the components labeled as boundaries, emotional safety, sense of belonging and identification, personal investment, and

common symbol system. Teachers listed choir t-shirts, sweatshirts, water bottles, and ensemble Facebook-pages as items demonstrating common symbols and boundaries. Singing choir songs outside of choir class was another item in this category in that this also describes a boundary. Only students who are "in" choir would be able to recognize these songs; all other students would be labeled as "not in" choir. Emotional safety was evidenced in teachers' comments such as choir members demonstrate "acceptance of other's strengths and weaknesses" and an absence of any kind of "making fun" of others.

Teachers reported student behaviors such as "unengaged in rehearsal" (lack of personal investment), and "not sing[ing] out because of fears that someone else will think badly of their singing" (lack of emotional safety) as indications of their students' lack of sense-of-community.

Six teachers expressed their frustration with students who were "placed in choir by administration" just to "fill a block" and students who chose choir to "get out of taking something else." Teachers assigned the reason behind a student's choice or lack of choice for choir as an underlying source for these students' perceived lack of engagement. Another explanation for the un-engaged singer may be explained by McMillan's and Chavis's (1986) description of members who go against the accepted norms of a community. Sometimes the rebellious member is actually acting against the norms in order to establish his own individualism. This particular phenomenon falls under the element of *influence* in that the rebellious member is refusing to be influenced by community members.

The other element of sense-of-community that teachers identified with a higher frequency was *shared emotional connection* ($n = 35$) which includes the categories of contact hypothesis, quality of interaction, closure to events, shared valent events, investment (such as money and time), effect of honor and humiliation, and spiritual bond. Teachers connected students' "working together for a common goal" and the "shared experiences" of concerts, "tragedies" involving members, fundraising, and both musical and non-musical based trips as important ways through which they observed a sense-of-community and how a sense-of-community is developed. Not participating in concerts or the "extra" events of the choir, were viewed by teachers as behaviors demonstrating students' lack of sense-of-community.

S*hared emotional connection* was also revealed in teachers' descriptions of their students' group accomplishments such as experiencing that "musical magical moment" or in the frustrations of "going through the difficult process of tuning that Whitacre chord." One teacher had an interesting view of vocal assessments:

> We also have singing tests every semester that I think gives them all a reason to rally around each other either to say 'man, this stinks that we have to do this' or 'I have to go practice for the singing test, I'm really nervous' or whatever the case may be.

Another teacher's statement summarizes, "Our choir community shares passions, joy, sorrow, and we all grow stronger as individuals and as a community, a musical family, as a result."

*Influence* was the sense-of-community element with the next highest number of references ($n = 27$) in teachers' comments. *Influence* is the reciprocal act of members having some kind of influence on each other. *Influence* also includes trust as a bonding agent between members (McMillan, 1991). Teachers expressed that trust was an important foundation upon which a sense-of-community is built. "[Students are] more likely to experiment and emote, if they are comfortable with their surroundings and know and trust their colleagues." One teacher includes the completion of a "trust trail" as part of a three-day, Select Ensemble retreat.

Teachers also reported *influence* through their observation of "more experienced students helping newer students in reading or following the music." Teachers described ways in which they try to facilitate *influence* through having "seniors all pick first-year choir members to 'buddy' with" and "plac[ing] talented singers beside those who need someone singing in their ear." In this way, the experienced choir members are influencing the newer members to appropriately participate in and positively contribute to the choir.

*Integration and fulfillment of needs* is the final element of sense-of-community and includes positive reinforcement, status, and a level of competence. Teachers ($n = 21$) reported observing students "giving each other positive encouragement" and generally "being supportive of each other." Other examples of this element emerged in comments describing students as having "pride in their choir's work," "respect[ing the] expectations set for them to keep the standards high," "each section feels proud," and "students carry[ing] themselves with pride."

Teachers also described student behaviors that they felt demonstrated a lack of *integration and fulfillment of needs*. Three teachers noted the "very quiet" and "socially withdrawn" student in their choir who chooses not to interact with other members but who "really sings out" and "is still accepted" by others in the choir. The difficulty in assessing this behavior is that members may be positively reinforced in different ways. Therefore, the socially "withdrawn" student may still experience a high level of *integration and fulfillment of needs*. It would be interesting to discover the level of *integration and fulfillment* the "withdrawn" student reports. If this student is experiencing high levels of *integration and fulfillment of needs*, is it through the singing, the acceptance, or the combination of the two in that the students' social label becomes transparent when performing with the other members of the choir?

Overall, teachers' responses indicated that they were able to identify student behaviors representing all four elements of sense-of-community with *membership* and *shared emotional connection* being the most commonly identified elements, followed by *influence* and then *integration and fulfillment of needs*. What is not known from teachers' responses is how often they observe these behaviors.

*Item 4. Do you think that a sense-of-community within the choir is important?*
*(Yes or No response choice)*

*Item 5. Briefly explain your answer*

In response to Item #4, 41 teachers said, "yes" a sense-of-community is important within the choir (one teacher responded with "somewhat"). Teachers expressed that a

sense-of-community within the choir affected musical performance and had important non-musical outcomes. Teachers' responses are self-reports of their perceptions and cannot be interpreted as empirical validation of the connections they present. In this study, they serve as a beginning exploration of this phenomenon.

Teachers connected students' musical expression with a sense-of-community. One teacher stated, "music is both a way to express and share feelings and a way to get in touch with your own feelings." Others expressed that if choir students have a sense-of-community they will "sing from the heart," "respond more deeply to expressive elements," be able to "create the aesthetic feeling in performance," and "make a performance more expressive, more engaging, and more committed." Trusting each other and emotional safety were most often mentioned by teachers as necessary for their choirs to experience or produce the expressive elements of music.

Teachers also connected a choir's ability to reach its potential with sense-of-community. It "motivates them to do their best work," has a "positive effect on the musical result," and leads to "more powerful performances." Reported consequences of not having a sense-of-community include "it can affect the sound of those around him/her," and "affect the pitch and energy needed to make excellence happen." Another teacher equated sense-of-community with a "sense of ensemble."

> I refer to it constantly to my choir as a 'sense of ensemble.' It is important that the students are responsible for their musical skills, but just as important for them to develop their 'tunnel vision' into 'funnel vision' and become aware of how their

voice and their part interacts with others in their section and with all of the other sections in the choir.

As McMillan and Chavis (1986) described sense-of-community as being self-reinforcing, one teacher also makes reference to the cyclical movement between sense-of-community and music-making: “I believe that community and good music-making mutually advance and sustain one another.”

Teachers expressed that a sense-of-community contributes to advancement and sustainability in other ways as well. It serves to “expand and improve” a choir program, is a “powerful force for recruitment in building the ensemble,” “makes students want to return each year,” and with a sense-of-community “retention and participation is much better.”

Moving from the building level to the school district level, teachers connected sense-of-community with advocacy. “Once students have ownership due to such as sense-of-community, so, in turn, do their parents, so does the community, and then music advocacy is a much more natural thing.” “Furthermore, the more important a student's choir is to them and their life, the more likely the program is to be supported by parents and administrators.”

Going beyond the school district, teachers stated that a sense-of-community within the choir will “build bonds that may sustain students outside the school environment,” and students “will gravitate toward community ensembles in adulthood, contribute more to their community and attain a higher quality of life as a result.”

In summary, the sample of teachers in this study reported that the importance of sense-of-community includes its affect on students' musical expression; students' ability to achieve their potential in musical performance; students' retention within choir ensembles; teachers' advocacy for choir programs; and student's participation in musical ensembles beyond high school. Teachers' presented compelling reasons to warrant future research involving the phenomenon of sense-of-community.

*Item 6. Do you purposefully attempt to build a sense-of-community within your choir? (Yes or No response choice)*

*Item 7. Describe what you do to build a sense-of-community.*

As a form of methodological triangulation of data (Creswell, 2007) Item #7 should not be viewed as corroborating or contradictory evidence regarding teaching-style preferences, and they should be interpreted with caution. Two important differences need to be factored into comparing results between the Music Teaching Style Inventory (MTSI) and the open-ended items.

First, the MTSI asked teachers to rate how often they used each of 57 teaching behaviors. In the additional open-ended items, teachers were not asked to report how often they engaged in such teaching behaviors. For example, one of the MTSI test items for Group Dynamics is "Have a student lead the rehearsal." One teacher responded with "sometimes" for this MTSI item. The same teacher's response to open-ended Item #7 was "I use section leaders to run sectionals." This response does not indicate how often this activity takes place.

Second, teachers' open-ended responses described teaching behaviors that are clearly listed in Gumm's (2003) broader descriptions of each style but which are not specifically stated as one of the seven items for that style on the MTSI. For example, Gumm (2003) lists "temporarily alter the seating or standing arrangement" as a teacher behavior for Group Dynamics, but it does not appear as a teaching behavior on the MTSI. In response to the open-ended Item #7 one teacher stated, "I constantly change seating arrangements." This teacher's responses to the Group Dynamics MTSI test items were

"often" : Have students rehearse music in separate small groups.

"often" : Have students work with each other on music.

"rarely" : Have students perform for their peers in class.

"sometimes": Have students learn about music through interactive groups.

"sometimes" : Allow an individual student to make a presentation.

"sometimes" : Have the class be led by student leaders.

"sometimes" : Have students brainstorm among themselves.

Without more discussion with the teacher, it is difficult to know whether this teacher made any connections between the open-ended response of "changing seats" and any of the Group Dynamics MTSI test items.

The purpose of Item #7 was to understand what teaching-behaviors teachers identified as those they use for the purpose of forming or increasing a sense-of-community within their choir. Frequency in Table 31 represents the number of teachers ($n$ = 39) who responded with descriptions of teacher behaviors associated with each

teaching style. Four teachers responded that they do not purposefully attempt to build a sense-of-community within their choir.

Table 31

*Frequency of Occurrences for Teaching Styles*

| Teaching Style Dimension | *n* | % of teachers |
|---|---|---|
| Assertive Teaching | *n* = 0 | 0 |
| Nonverbal Motivation | *n* = 0 | 0 |
| Time Efficiency | *n* = 0 | 0 |
| Positive Learning Environment | *n* = 19 | 48 |
| Group Dynamics | *n* = 20 | 51 |
| Music Concept Learning | *n* = 0 | 0 |
| Artistic Music Performance | *n* = 4 | 10 |
| Student Independence | *n* = 10 | 25 |

As described in Table 31, teachers identified teaching-behaviors within the styles of Group Dynamics (*n* = 20), Positive Learning Environment (*n* = 19), Student Independence (*n* = 10), and Artistic Music Performance (*n* = 4). Positive Learning Environment is part of the composite group of teaching styles described as teacher-focused (Breadth of Activities group of styles), while the other three styles are part of the composite group described as student-focused (Depth of Student Learning). This result may appear to contradict teachers' scores on the Music Teaching Style Inventory (MTSI) that revealed a significantly higher teacher preference for Breadth of Activities styles than Depth of Student Learning styles. Group Dynamics was of low, or even the lowest preference within the rankings of teachers' style preferences for 40 of the 42 teacher participants and yet Group Dynamics teaching-behaviors were reported with highest

frequency as those used by teachers to purposefully build sense-of-community within their choirs. As previously stated, this does not necessarily represent contradictory results, but it is a relationship that may be worthy of future exploration.

Group Dynamics is characterized as a "focus on building interdependence and self-responsibility in students by altering the dynamic s of the group" (Gumm, 2003, p. 53). Teachers identified Group Dynamics teaching-behaviors in their reports of planned activities such as "using section leaders to run sectionals," "mix[ing] up their riser positions during rehearsal," "group improvising/composing," and "creat[ing] music in small groups without my supervision" as teaching-behaviors to build sense-of-community.

Positive Learning Environment teaching-behaviors are motivated by a desire to "establish an environment in which the students enjoy to learn" (Gumm, 2003, p. 51). Teachers identified Positive Learning Environment teaching-behaviors as being connected to building sense-of-community in such statements as "build relationships with students and among students" and teachers facilitated this process by allowing students to have time to "socialize." Teachers expressed a concern, however, that "too much talking" and a "generalized social atmosphere doesn't always improve efficiency" and sometimes "leads to a lousy rehearsal." One teacher stated, "Sometimes, because they are so close, they don't focus on the task at hand. They would rather socialize. They have to be reminded of their job as choral musicians."

Teachers expressed that they took an interest in students' activities outside the choir room, made sure that students "knew the names of everyone in their section, and

"encourage[d] students throughout the rehearsal" with "positive reinforcement more than negative." "Send[ing] cards to sick kids," "cheer[ing] for students who get their license to drive," and "singing 'Happy Birthday' to each student on their birthday" were other ways teachers believed a sense-of-community could be developed.

Another teaching behavior within the Positive Learning Environment dimension is "use humor in your teaching" (Gumm, 2003, p. 52). Teachers reported that "having fun" was important for them and their students. One teacher stated, "I do…not take myself too seriously. I try to keep classes loose and laughing." Other teachers said "we do funny warm-up exercises together" and "I have a whole list of 'jokes' about each [voice] section and sometimes we have fun with these." Teachers said they "provid[ed] time for 'fun' activities" because it was "important that they [the students] have fun with other music-makers." While teachers connected humor in the choir rehearsal with developing sense-of-community, how often humor is present cannot be determined without further questioning or observing teachers. None of the MTSI items for Positive Learning Environment referred specifically to fun or humor.

Student Independence is a "focus on student abilities to think, feel, and act for themselves and then to create new knowledge of their own" (Gumm, 2003, p. 91). Teachers expressed that sense-of-community could be developed through Student Independence by "discuss[ing] our strengths and weaknesses," "ask[ing] their feedback about their rehearsal or performance," and "attempt[ing] to create a need to know something and a desire to know something." Teachers reported the benefits of questioning students and discussion with students as facilitating a feeling that the "choir

isn't created by me [the teacher], but by them." Another teacher summarized with "I try to make their music learning be as much directed by their own questioning as it is by mine." While Student Independence and Group Dynamics have opposing foci, teachers report that both styles contain teaching behaviors that build a sense-of-community; nine teachers reported using teaching behaviors found within both of these teaching styles.

Moving to a more musically focused teaching-style, Artistic Music Performance is a "focus on masterful performing that require[s] high levels of human response" (Gumm, 2003, p. 75). Teachers reported Artistic Music Performance teaching behaviors as connected to building sense-of-community in such descriptions as allowing the teacher's "personal joy and emotional moments when rehearsing and performing [to] show through and letting them know its okay to show their emotions for the music too." Other teachers expressed that sense-of-community could come from "attention to detail with vowel match and intonation" and "emphasiz[ing] the musical interdependence of the singers; their reliance upon each other (for the correct pitches at the outset of learning to tuning and vowel match as the learning advances)." Bringing together the elements of musical performance were described as analogous to bringing together students to form a sense-of-community. As students' learn that interdependence is a necessary part of group musical performance, they may be transferring that interdependence to interpersonal relationships within the choir.

Further investigation is needed to understand the degree to which frequencies of each of the eight teaching behaviors contribute to or inhibit the development of sense-of-community. Through the responses to all open-ended items, teachers

1) identified the four elements of sense-of-community through student behaviors;

2) stated that sense-of-community was important due to its effect on students' musical expression; students' ability to achieve their potential for musical performance; students' retention within choir ensembles; teachers' advocacy for choir programs; and student's participation in musical ensembles beyond high school; and

3) identified teaching behaviors within the dimensions of Positive Learning Environment, Group Dynamics, Artistic Music Performance, and Student Independence as those which contribute to building sense-of-community.

Future investigation is needed to understand the degree to which teachers understand all four elements of sense-of-community, the level of impact sense-of-community has on musical and non-musical outcomes, and the effect of teaching behaviors on a choir's sense-of-community.

# CHAPTER 5

# DISCUSSION

## Summary

### *Introduction and Purpose*

A safe school-climate focused on a sense-of-community positively influences student achievement scores (CASEL, 2010b; McCabe & Cohen, 2006). Researchers and education policy-makers agree that students' social-emotional development is part of a complex interaction of factors affecting students' academic achievement. The dramatic increase in the number of policies designed to foster a sense-of-community demonstrates policy-makers' high interest in attending to students' social-emotional wellbeing within an educational setting.

Sense-of-community includes four elements whose interactions are self-reinforcing: *membership, influence, integration and fulfillment*, and *shared emotional connection* (McMillan & Chavis, 1986). Students who experience membership within a school community in which they have a symbiotic influential relationship with others, are positively reinforced, and participate in meaningful, shared experiences are better able to focus on academic tasks.

Students' level of sense-of-community within the educational setting can be measured using The Classroom Community Scale (CCS) as developed by Alfred Rovai. The CCS also measures students' sense of connectedness and perceived levels of

learning. A gap exists in the research on sense-of-community in that this phenomenon has not been studied within school music classrooms.

Researchers agree that teachers have the highest degree of influence within a child's educational experience. They disagree, though, on just how much influence can be attributed to the teacher for any student outcome such as academic achievement or sense-of-community (Hattie, 2003; Marzano, 2003). Teachers are both directly and indirectly involved in students' social-emotional development. Preschool and elementary teachers are more apt to teach social skills overtly to their students, while high school teachers have the least amount of information, understanding, and participation in discussions on connections between social-emotional skills and students' cognitive abilities (Cohen, 2006).

Along with possible limitations in high-school teachers' abilities to mediate sense-of-community within a classroom, student membership of the high school choir also presents a challenge. Membership in high school choir does not usually require years of prior experience such as high school bands or orchestras may require. Teachers report that the non-auditioned high-school choir presents an additional challenge in that students may have been placed in this class as simply a solution to a scheduling problem. Levels of student interest in the non-auditioned high-school choir may vary greatly. Choir directors of non-auditioned high-school choirs need to mediate all of these challenges to form a cohesive musical ensemble.

An examination of teaching behaviors that describe a teacher's overall teaching-style may help us to understand how high-school choir directors negotiate the

phenomenon of a sense-of-community within their high school choirs. Alan Gumm's theory on music teaching-styles proposes that teaching behaviors can be sorted into eight teaching-style dimensions, each with a specific focus: Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment, Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence (Gumm, 2003). Furthermore, teaching-style preferences will change with accumulated years-of-experience teaching (Gumm, 2003). The Music Teaching Style Inventory (Gumm, 2003) measures teachers' teaching-style preferences by asking them how often they use 57 different teaching behaviors.

The purpose of this study was to examine the relationship between high-school choir directors' teaching style and high-school choir students' psychological sense-of-community. The specific research questions were 1) What level of sense-of-community do high-school choir students report? 2) What are the teaching-style preferences of high-school choir directors? 3) What is the relationship between high-school choir directors' teaching styles and their choirs' level of a psychological sense-of-community?

Through the combination of using best teaching practices and understanding how sense-of-community is formed, music educators will be providing students with the optimal environment needed for students to achieve their potential within and possibly beyond the music classroom.

*Method*

In this correlational study, I used two online surveys to collect responses from high-school choir students and their high-school choir directors. Students completed the Classroom Community Scale (Rovai, 2002) with two adaptations to increase saliency. The Classroom Community Scale measures students' overall sense-of-community, their sense of connectedness, and their perceived levels of learning. Choir directors completed the Music Teaching Style Inventory (Gumm, 2003) with additional open-ended items. Teachers' responses to the Music Teaching Style Inventory reveal their teaching-style preferences.

I offered two incentives to encourage a higher response rate: one 8GB iPod Touch™ (approximate value December, 2011 was $229.00) was awarded to a director who had completed the director survey; and one 8GB iPod Touch™ was awarded to a student who had completed the student survey.

After choir directors expressed their interest in participating in this study and school district administrators granted access to their high-school choir students, choir directors read a scripted invitation to their students and distributed and collected permission forms. Students electing to participate provided an email address to which I sent the link for the Classroom Community Scale on SurveyMonkey™. When email addresses for potential student participants were missing, I sent their choir directors a web address that did not require an email address for students to access the student survey. Directors electing to participate provided an email address to which I sent them the link to the Music Teaching Inventory on SurveyMonkey™.

I sent all participants an initial email with two reminders to complete their surveys. Two choirs ended classes in January 2012, so these students completed their surveys in January 2012. All other choir students completed their surveys between March 2012 and May 2012. One week prior to the closing of data collection, a final email was sent to all eligible participants thanking them for their willingness to participate, reminding them of the closing date, and confirming the date of the drawing for the iPod Touch™ incentive. Director and student surveys were closed on May 30, 2012, and the drawings for the incentives took place on May 31, 2012.

*Participants*

High school choir students ($n$ = 1,108) across a mid-Atlantic state, in grades 9-12, were members of a 9th-Grade Chorus ($n$ = 2), Men's Chorus ($n$ = 1), Women's Chorus ($n$ = 8), Select Ensemble ($n$ = 7), or Concert Choir ($n$ = 38). High schools represented city ($n$ = 2), town ($n$ = 4), suburban ($n$ = 22), and rural ($n$ = 13) student populations. The response rate for individual ensembles ranged from 7% to 89%. Students completed the Classroom Community Scale (Rovai, 2002) that measures overall sense-of-community, connectedness, and learning. I included items on the survey to collect data for three independent variables: gender, students' current grade, and years-of-experience in their current high school choir.

Female ($n$ = 25) and male ($n$ =17) high-school choir directors included teachers with teaching experience ranging from 1-37 years. I categorized teachers by their years-of-experience teaching (Gumm, 2003): 0-2 years = Self Reflective Stage ($n$ = 5); 3-7

years = Broadening Stage ($n$ = 9); 8-10 years = Independent Transition Stage ($n$ = 2); 11-20 years = Deepening Stage I ($n$ = 15); 21 + years = Deepening Stage II ($n$ = 11). Ten choir directors included multiple ensembles in this study.

## Results

*Research Question 1: What level of sense-of-community do high-school choir students report?*

Reliability remained high for each of the three scales of the Classroom Community Scale even with the two changes in wording that I made to increase saliency. Cronbach's *alpha* was 0.92 for overall sense-of-community, 0.90 for connectedness, and 0.86 for learning. Students' raw scores for overall sense-of-community, connectedness and learning described wide ranges of reported experiences for each of the three scales. Data was slightly negatively skewed due to very low scores for several outliers; and considerably skewed for the Men's Chorus, possibly due to the low response rate ($n$ = 4) for this group.

I conducted an independent samples $t$-test to compare means of female and male students for all three scales and found no significant difference. Previous researchers using the CCS had reported significant differences for gender (Rovai, 2001, 2002; Rovai & Baker, 2005; Rovai, Wighting, & Lucking, 2004).

My results of a two-way ANOVA to compare the main effect and interactions for students' gender, grade, years-of-experience in choir, and type of ensemble on sense-of-community, connectedness, and learning, indicate no significant interactions. My results

revealed significant main effects for 9th-grade students whose mean scores for all three scales were lower than students of other grades, and for Select Ensemble students whose mean scores for all three scales were significantly higher than those of Concert Choirs. No main effect emerged for students' years-of-experience in choir for any of the three scales.

*Research Question 2: What are the teaching-style preferences of high-school choir directors?*

Teachers completed the Music Teaching Style Inventory (MTSI) that asks teachers to rate how often they use 57 different teaching behaviors corresponding to eight teaching styles (Gumm, 2003). Reliability for each teaching style was high ranging from 0.63 to 0.80. However, in calculating the item-total correlations, Nonverbal Motivation emerged with lower reliability ($r = 0.61$). Removing any item did not improve its reliability. Artistic Music Performance reliability was also lower ($r = 0.62$) and could have been improved with the removal of one item. Groulx (2010) reported similar findings in his study involving high-school band directors.

Teachers in this sample preferred the four teaching styles categorized as Breadth of Activities which is a focus on teacher-led instruction (Gumm, 2003): Time Efficiency ($M = 4.33$), Positive Learning Environment ($M = 4.27$), Assertive Teaching ($M = 3.80$), and Nonverbal Motivation ($M = 3.75$). The remaining four teaching styles are categorized as Depth of Student Learning, which is a focus on student-oriented activities: Music Concept Learning ($M = 3.48$), Artistic Music Performance ($M = 3.46$), Student

Independence ($M$ = 3.30), and Group Dynamics ($M$ = 2.84), which all but two directors ranked as a low or their lowest preference.

I conducted an independent samples $t$-test to compare means of female and male choir directors and found no significant difference in teaching-style preferences between females and males. Results from a one-way ANOVA did not reveal any significant differences in teaching-style preferences based upon years of teaching experience contradicting this element of teaching-style theory as proposed by Gumm (2003).

*Research Question 3: What is the relationship between high-school choir directors' teaching styles and their choirs' level of a psychological sense-of-community?*

Results from using a linear regression model consisting of all eight teaching-style dimensions suggest that teaching-style preferences are not significant predictors for students' levels of sense-of-community and connectedness. Within the same model, teaching-style preferences are a significant predictor for student learning accounting for 35% of the variance. Time Efficiency and Student Independence teaching-styles have a positive effect on learning, and Artistic Music Performance teaching-style has a negative effect.

*Choir-Class Frequency, Length of Class, and Number of Performances per Year*

Length and frequency of choir classes formed six categories ranging from two classes per week of 40-50 minutes in length to daily classes for 80-100 minutes in length. Most classes met daily for 40-60 minutes per class ($n$ = 30). Number of performances per

year for each choir formed four categories ranging from two performances per year to seven or more performances per year. Most choirs performed two times per year ($n$ = 19) or three-four times per year ($n$ = 23).

My results from a two-way ANOVA for frequency/length of choir classes and number of performances per year on students' sense-of-community, connectedness, and learning, suggest no significant effect for the interaction and no main effect for frequency/length of choir classes. However, a threshold effect may exist for number of performances per year. Choirs performing five or more times per year reported significantly higher levels of sense-of-community, connectedness, and learning than choirs performing two, three, or four times per year.

*Teachers Open-Ended Items*

I asked teachers to respond to open-ended items following the Music Teaching Style Inventory. My purpose for asking these questions was to gain insight into teachers' perceptions of the meaning of sense-of-community, its importance within their choirs, and which teaching behaviors they associated with building a sense-of-community. I did not provide teachers with any information about sense-of-community.

I asked teachers to identify student behaviors that demonstrated the presence of a sense-of-community and student behaviors that demonstrated a lack of sense-of-community within their choirs. I coded teachers' responses for specifically the four elements of sense-of-community: *membership, influence, integration and fulfillment,* and *shared emotional connection*. All four elements were represented in teachers' ($n$ = 42)

responses with *membership* (*n* = 36) and *shared emotional connection* (*n* = 35) described by the highest number of directors followed by *influence* (*n* = 27) and *integration and fulfillment of needs* (*n* = 21).

With one teacher responding "somewhat," the remaining teachers responded, "yes" to my question asking if a sense-of-community was important. Five themes emerged from teachers' responses to my question asking them to explain their answer. Teachers reported that sense-of-community was important for students' musical expression; students' ability to achieve their potential in musical performance; students' retention within choir ensembles; teachers' advocacy for choir programs; and student's participation in musical ensembles beyond high school.

Thirty-nine teachers responded that they purposefully try to build a sense-of-community within their choirs. For my question asking how they do this, their responses described teaching behaviors corresponding to four of the eight teaching-style dimensions (Gumm, 2003). Teachers connected Group Dynamics (*n* = 20), Positive Learning Environment (*n* = 19), Student Independence (*n* = 10), and Artistic Music Performance (*n* = 4) teaching behaviors to ways in which teachers facilitate students' development of sense-of-community with the high school choir.

## Conclusions

The purpose of this study was to examine the relationship between high school choir directors' teaching styles and their choirs' sense of community. My analyses of students' self reported levels of sense of community revealed that 9$^{th}$ grade students

reported significantly lower levels of sense of community, connectedness, and learning than other grade levels of students even if those students were experiencing their first year of high school choir. Students in auditioned Select Ensembles reported significantly higher levels of sense of community than students in non-auditioned Concert Choirs. Choirs that perform five or more times within a school year also reported higher levels of sense of community, connectedness, and learning.

Teachers reported favoring the Time Efficiency, Positive Learning Environment, Assertive Teaching, and Nonverbal Motivation teaching styles that focus on the teacher as taking most of the responsibility for student learning. Teachers across all years of music teaching experience reported the same preferences. Teaching style preference was not a significant predictor for students' level of sense of community or connectedness. Time Efficiency and Student Independence teaching styles were significant predictors for students' level of learning in that an increase in the use these teaching behaviors would increase choir students' learning. An increased use of Artistic Music Performance teaching behaviors, however, would significantly decrease choir students' learning.

As a group, teachers were able to identify all four elements of sense of community through their observations of choir student behaviors. Teachers also reported that activities within the Positive Learning Environment, Group Dynamics, Artistic Music Performance, and Student Independence teaching styles are those they purposefully plan in order to increase their choir students' sense of community. Teachers expressed that a sense of community has importance in that it facilitates students' musical expression; students' ability to achieve their potential in musical performance; students'

retention within choir ensembles; teachers' advocacy for choir programs; and student's participation in musical ensembles beyond high school.

## Discussion and Recommendations

I begin this section by discussing limitations and challenges in the design and method of this study and my recommendations for researchers who may wish to replicate this study or conduct similar studies. Within each section that follows, I discuss my results and present recommendations that music education professionals may want to consider implementing within their music programs in order to increase their students' sense-of-community. I conclude this chapter with a summary of what my results may mean for music education in general and recommendations for future research.

### *Design and Method*

This study was limited to a mid-Atlantic state and results may not be generalizable to a wider geographic area. I recruited both public and private high schools, and schools in urban, suburban, and rural settings for this study, but they were not equally represented in the final sample. Equal representation of students by age, grade level, and gender was limited to the student population of the choirs involved in this study. Other limits to generalizability involve the student and teacher sample populations in this study. Equal representation of choir directors' across age, gender, and years-of-experience teaching was also limited due to directors' availability and school district permission for access to high-school choir students. Responses from this sample of high-school choir

directors, though, yielded results that are similar to, and in one case mimic those of three recent studies that included much larger samples of music teachers (Groulx, 2010; Gumm, 2007; Olesen, 2010).

Students were invited to participate through their teacher reading a scripted invitation. Bias in the relationship between students and their teachers may affect the generalizability of student results for this study. It is possible that a majority of students' responses came from the students who are most interested in choir, who feel that they have a good rapport with their teacher, or who have a stronger sense-of-community within the choir. Thus, representation of the students who experience a lower sense-of-community may have been minimized. If this anomaly exists, it may affect the representation of sense-of-community for a choir as a whole.

I provided access to the student survey through an email from SurveyMonkey™ containing the link the survey. Of the student permission forms that I sent to participating schools, 40% were returned with appropriate signatures and 2.69% of these forms did not contain an email address for the student. Eight percent of the completed forms yielded no response from students, which may have been related to problems that I encountered with using emails as a way to access students. I experienced difficulties deciphering parents' and students' handwritten email addresses on the permission forms, with invalid email addresses, and with reports that some email providers' filtering systems had sent my emails to the recipients "spam" or "junk" folder. In my scripted invitation for teachers to read to their students, I attempted to control for this possibility by including a statement asking students to check these folders. In some of the rural school districts interested in

participating in this study, lack of access to technology was an issue that prevented their participation.

Students who were members of multiple choirs under the direction of one choir director were told by their teacher to respond to the student survey regarding their experience within a particular choir. It may have been difficult for students to separate their sense-of-community experiences between choirs when filling out an online survey. Situational saliency for student responses was limited since students completed their online survey while not in the physical space in which the phenomenon in question actually occurred.

Having a researcher do the inviting and then administering the student survey within the choir-class setting may have helped to control the invitation process, possible bias due to teacher-student relationships, and saliency. This may be more difficult to achieve under the current pressures placed on schools and teachers due to high-stakes testing. It was very important for many participating schools that students and teachers would not lose more than the 15-minutes of class time projected as needed for teachers to read the scripted invitation to their students, and that students not complete the student survey on school time.

## Students' Sense-of-Community

### *Gender*

Beginning in the 1990s, research on gender in education has focused on the academic disengagement of male students (Weaver-Hightower, 2003). Researchers

suggest a similar disengagement for sense-of-community in that males report lower levels of sense-of-community than females within an educational context (Rovai, 2001, 2002; Rovai, & Baker, 2005; Rovai, Wighting, & Lucking, 2004). Solutions for motivating boys in order to enhance learning, social, and psychological outcomes include creating a classroom environment that is caring and supportive in which students feel that they are valued, they have some control over what and how they learn, and their opinions matter (Power, 2008; Ryan & Patrick, 2001; Weaver-Hightower, 2003). These prescriptive actions are beneficial for both boys and girls, but are especially motivating for boys.

Membership within a school choir has been a medium for facilitating such motivation in programs designed for indigenous populations of males in Australian (Power, 2008) schools and high-risk adolescent males in the United States (Nelson, 1997). The current study and past research reveal that males report levels similar to females for sense-of-community within the high school choir (Anderson, 2009; Sugden, 2005). With a closer look at this phenomenon for male students within the high school choir, or perhaps music ensembles in general, we may come to understand how to apply the resulting knowledge within other academic classes. Through a research agenda focused on the complex *interaction* between learning and social processes, rather than examining each factor in isolation, we may be able to ameliorate boys' and girls' overall educational experience and socio-psychological wellbeing.

*Grade Level*

While gender was not a factor for students' level of sense-of-community in this study, students' grade level was. Ninth-grade students reported lower levels of sense-of-community, connectedness, and learning than 10th-, 11th-, and 12th-grade students. Upperclassmen experiencing their first year of high school choir reported higher scores than freshmen therefore years of high-school choir experience were not at issue.

In this study, all 9th-grade students had transitioned into high school for their freshman year. The effects of and difficulties with students transitioning from elementary to middle school and then high school have been a focus in educational research. A decline in academic achievement and a lessened sense-of-belonging has been documented for transitioning 9th-grade students (Akos & Galassi, 2004; Alspaugh, 1998; Anderman, 2003; Eccles, Wigfield, Midgley, Reuman, Mac Iver, & Feldlaufer, 1993; Ma, 2003; Osterman, 2000). Freshmen who experienced more connectedness within their middle school and who participated in school activities report less difficulty with transitioning to high school (Eccles et al., 1993; Osterman, 2000). In this case, a phenomenon that exists beyond the choral classroom emerges as evident within the choral classroom.

Several high-school choir directors in this study described strategies for helping freshmen transition into the high school choir: including 8th-grade students (future 9th-grade choir students) in a high school choir rehearsal or social event; and establishing a "buddy" system between freshmen and upperclassmen. The first strategy is not only a recruitment aid, but also a type of preventative measure for lessening freshmen anxiety.

The second not only facilitates the enculturation of freshmen into the high school choir, but also has benefits for the students providing the support. If middle- and high-school choir directors work together to provide activities to foster retention between choirs, 9th-grade students may experience a residual effect with less difficulty in general with their transition to high school.

*Type of Ensemble*

Select Ensemble is a general label for a mixed-voice choir in which students in grades 9-12 are selected by audition. Concert Choir is a general label for a mixed-voice choir in which students in grades 9-12 are not required to audition for membership. A positive correlation emerged for students in Select Ensembles over Concert Choir students for sense-of-community, connectedness, and learning even with the removal of 9th-grade students to control for the significant effect of 9th-graders' reported levels of sense-of-community, connectedness, and learning.

Of the four sense-of-community elements, *integration and fulfillment of needs* may be one that is stronger for students within Select Ensembles and a contributing factor for their higher scores. *Integration and fulfillment of needs* means that members are being positively reinforced through membership. Two possible reinforcements for membership are status and competence (seeking others who can be of benefit to a member). Even though members of a community may value varying reinforcements, it is a shared value that becomes the strongest unifying principal of a community (McMillan & Chavis, 1986).

Since membership in Select Ensembles required extra effort on the part of students in preparing for and performing in an audition, it may be presumed that all students in Select Ensembles have a strong desire to be in the ensemble. The audition requirement may also assign a higher status and expected level of competence for membership within Select Ensembles.

In contrast, Concert Choirs in this study did not require an audition. In their open-ended responses, teachers indicated that Concert Choirs could include students who were placed in choir to resolve scheduling issues or students who chose choir for reasons other than a desire to sing. Concert Choirs may be perceived to have a lower status and lower level of competence. This does not portend poor performances from Concert Choirs, but rather a student perception of a lower status and lower level of competence for Concert Choir membership.

*Shared emotional connection* is another element of sense-of-community that may also be heightened for Select Ensemble members. Within this element of community are seven components: contact hypothesis (higher number of member interactions result in higher sense-of-community), quality of interaction, closure to events (a clear direction or focus for the group), shared valent event hypothesis (high degree of importance for shared events contributes to sense-of-community), investment (personal investment in the form of time, money, energy, and emotion), effect of honor or humiliation on community members, and spiritual bond (an overarching spirit, tone, mind-set, and emotional bonding).

Contact hypothesis may not be at issue because Select Ensembles and Concert Choirs in this study had similar frequencies of classes, lengths of classes, and numbers of performances. Quality of interaction, closure to events, and investment may be the more significant issue for students within Select Ensembles in that all three components suggest shared goals, shared foci, and an increased desire to participate. While the number of performances for these two types of ensembles may not be a factor, the importance of each event may differ (shared valent event hypothesis). Select Ensembles may be chosen more often than Concert Choirs to perform at important community or school events.

Closer investigation is needed to determine if the effect of honor or humiliation, spiritual bond, and the remaining two elements of sense-of-community—membership and influence—differ between Select Ensembles and Concert Choirs.

Data from this study suggests a hypothesis that a focus on increasing *integration and fulfillment of needs* and *shared emotional connection* would result in an increase in sense-of-community, connectedness, and learning for Concert Choirs. For choir directors, this means developing ways to motivate the unengaged singer, setting high expectations for classroom activities, establishing clear goals, enlisting the help of students for setting goals, encouraging students' to put forth high levels of effort, and providing opportunities for the group to perform at events that have a high degree of importance.

*Number of Performances*

The number of performances for choirs is another significant factor in students' reported levels of sense-of-community. Choirs performing five or more times per year reported significantly higher levels of sense-of-community than choirs performing two, three, or four times per year. This represents a threshold effect in that no significant difference in sense-of-community can be achieved until a choir reaches five or more performances

With diminishing budgets for arts programs as the current trend, it may not be possible for choirs to add performances to their schedule. More performances may involve additional costs for the purchase of repertoire, travel, lighting and sound, or custodial services for the use of school venues. Additional performances could include t daytime performances for other student populations, such as elementary and middle schools, but again, this may prove to be difficult to achieve with the increased pressure on high-stakes testing. Administrators may not allow students to be released from class time to perform or attend a concert.

Just as student achievement is a complex interaction of factors, so is sense-of-community. Due to the complexity of this phenomenon, using only the Classroom Community Scale as the sole student measure may have been an issue for this study. A combination of quantitative and qualitative data would increase our understanding of students' experiences. I recommend that future studies on sense-of-community include qualitative data from students to clarify their experiences with sense-of-community and additional measures to assess learning outcomes. While the Classroom Community Scale

measure students' perceived levels of learning, we can't be certain that students responded to the learning test-items as pertaining to curricular objectives, which was the intent of the measure. It would be valuable to know if students responded to the learning test-items regarding their learning of social-emotional skills, interpersonal skills, musical skills and knowledge, or some combination of these items.

## Teaching Style

### *Choir Directors' Music Teaching-Style Preferences*

Central to my study is the highly researched teaching-style theory as developed by Alan Gumm (2003), who defines teaching style as "the focus, intention, orientation, or priority underlying the entire pattern of interaction between the teacher, students, and subject matter. As a result it is also the stable, consistent, and pervasive approach to music teaching" (p. 14). The Music Teaching Style Inventory (MTSI) (Gumm, 2003) assesses how often teachers use 57 teaching behaviors related to eight teaching-style dimensions: Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment, Group Dynamics, Music Concept Learning, Artistic Music Performance, and Student Independence.

Teachers in this sample ($n = 42$) preferred the four teaching styles categorized as Breadth of Activities which is a focus on teacher-led instruction (Gumm, 2003): Time Efficiency ($M = 4.33$), Positive Learning Environment ($M = 4.27$), Assertive Teaching ($M = 3.80$), and Nonverbal Motivation ($M = 3.75$). The remaining four teaching styles are categorized as Depth of Student Learning, which is a focus on student-oriented activities:

Music Concept Learning ($M$ = 3.48), Artistic Music Performance ($M$ = 3.46), Student Independence ($M$ = 3.30), and Group Dynamics ($M$ = 2.84), which all but two directors ranked as a low or their lowest preference.

My results are consistent with other recent studies involving the MTSI (Groulx, 2010; Gumm, 2004, 2007; Kazee, 2010; Olesen, 2010). Across these studies, teachers reported little difference in teaching style preference whether a band or choir director and regardless of gender and years-of-experience. Gumm's theory includes the tenet that teaching-style preferences change with years of teaching experience. Specifically, with more experience, a teacher becomes more adept at shifting the responsibility for learning from teacher to student, which means a shift from the Breadth of Activities styles to the Depth of Student Learning Styles. One possible explanation offered by Gumm (2004) for the similar preferences amongst larger populations of choir directors is geographical or regional limitations of studies. However, the recent studies cited here represent a wide variety of regions within the United States.

Based on the combination of teachers' open-ended responses and teachers' self-reported teaching-style preferences, I believe Kazee (2010) offers a more plausible explanation for the similarities. Teachers place high importance on teaching behaviors that align with Music Concept Learning, Artistic Music Performance, and Student Independence teaching-styles (Kazee, 2010). However, high-stakes testing-mandates leave music educators feeling pressured to demonstrate they are teaching quantifiable knowledge to support educational policy. Teachers also perceive that they just do not have the time to devote to the more expressive elements or commit to using the more

student-oriented teaching styles (Kazee, 2010). In order to understand the impact of a decreased focus on the Depth of Student Learning teaching-styles, studies may need to be developed in which student learning outcomes are compared for choirs under the direction of teachers who prefers the Breadth of Learning styles and choirs under the direction of teachers who prefers the Depth of Student Learning styles. Through such studies, researchers may be able to suggest activities and methods for utilizing the Depth of Student Learning teaching styles that do not detract from a choir's ability to achieve their potential. Depth of Student Learning teaching-behaviors may even be suggested as a more efficient way to reach those same goals. If this were the case, it would lessen the tension for teachers between focusing on the expressive elements, which they find important, and the need to support current educational policy.

*Correlation Between Teaching-Style Preferences and Students' Sense-of-community*

Results from linear regression analyses for teaching styles on students' sense-of-community, connectedness, and learning suggest teaching styles were not significant predictors of students' sense-of-community and connectedness. Teaching styles were significant predictors of students' learning, in that Time Efficiency and Student Independence teaching styles yield higher levels of learning and the Artistic Music Performance teaching style negatively affects learning.

Open-ended questions asked teachers to 1) identify student behaviors that demonstrated a presence of sense-of-community within their choirs, 2) identify student behaviors that demonstrated a lack of sense-of-community, 3) if they believed that sense-

of-community was important and why or why not, and finally, 4) if they purposefully attempt to build a sense-of-community, and if so, how. Teachers were not given a definition or other information about sense-of-community. Through coding teachers' responses ($n$ = 42), I found descriptions of all four elements of sense-of-community across the sample: *membership* ($n$ = 36) and *shared emotional connection* ($n$ = 35) were described by the most number of teachers followed by *influence* ($n$ = 27) and *integration and fulfillment of needs* ($n$ = 21). Further investigation is needed to understand how many teachers are able to recognize all four elements of sense-of-community and whether they place equal importance across all four elements.

Under some level of a working knowledge of sense-of-community, 39 teachers responded that they purposefully try to build a sense-of-community within their choirs. When asked how, their responses included descriptions of activities and teaching behaviors corresponding to four of the eight teaching-style dimensions (Gumm, 2003): Group Dynamics ($n$ = 20), Positive Learning Environment ($n$ = 19), Student Independence ($n$ = 10), and Artistic Music Performance ($n$ = 4). Three of these styles—Group Dynamics, Student Independence, and Artistic Music Performance—are within the Depth of Student Learning composite, which teachers self-reported through the Music Teaching Style Inventory (MTSI) as those they use with a significantly lower frequency than the Breadth of Activities teaching-styles (Assertive Teaching, Nonverbal Motivation, Time Efficiency, and Positive Learning Environment). Interestingly, results from the MTSI revealed that Group Dynamics teaching-style was ranked as a low or the lowest preferred teaching style for 40 of the 42 teachers in this sample, and yet teachers

identified Group Dynamics with the highest frequency as teaching behaviors correlated with increasing students' sense-of-community.

On the surface, results may appear to be contradictory, but it is important to remember that my open-ended questions asked teachers to identify which teaching behaviors facilitated specifically sense-of-community, and I did not ask how often they employed these strategies. The MTSI asked teachers to rate teaching behavior frequency as a more global look at teachers' style preferences.

In light of the information that teachers shared through the open-ended questions, it is clear that a more effective research strategy is needed to 1) isolate teacher behaviors that contribute to or inhibit students' sense-of-community, 2) determine the frequency with which such activities should be implemented to positively affect students' sense-of-community, and 3) assess the level of impact teachers have on students' sense-of-community.

Video-recording or observing rehearsals, interviewing teachers, and asking teachers to track the frequency of specific teacher behaviors would provide information on how and with what frequency teachers attempt to build or address sense-of-community within their choirs. With this type of information we can begin to understand the level of impact teachers have on their students' sense-of-community.

The higher levels of sense-of-community reported by students of Select Ensembles raises other questions for teaching-style preferences. Five of the seven directors who included their Select Ensembles in this study also included their Concert Choirs. Select Ensemble students reported significantly higher levels of sense-of-

community, connectedness, and learning than Concert Choirs. If teaching style is "the stable, consistent, and pervasive approach to music teaching" (Gumm, 2003, p. 14), then we may expect that teachers would be consistent in their approach to all of their teaching responsibilities. The difference in levels of sense-of-community between choirs under the direction of the same teacher could suggest 1) choir directors are subtly changing their approach in working with Select Ensembles or 2) other dynamics are at work within Select Ensembles that serve to increase students' sense-of-community. I have hypothesized above that *integration and fulfillment of needs* and *shared emotional connection* may be the sense-of-community elements that are stronger for Select Ensemble members.

Teachers reported that they perceive sense-of-community as being important within their high school choirs. When asked why sense-of-community is important, five themes emerged from their responses: students' musical expression; students' ability to achieve their potential in musical performance; students' retention within choir ensembles; teachers' advocacy for choir programs; and student's participation in musical ensembles beyond high school.

Teachers expressed that students' ability to perform with expression is increased if they feel that they are in a safe, trusting, and accepting environment. Sense-of-community is necessary in order for students to take risks expressing emotion as part of music performance. Students' perceived fear of humiliation for being emotionally expressive would greatly inhibit expressive musical performance.

Teachers described the connection between sense-of-community and achieving musical performance potential as self-reinforcing and reciprocal. Students' connections to one another on the social-emotional level are reflected in their performance of musical elements such as vowel formation, attacks and releases, blending, balance, and dynamics, and vice versa. As a choir begins to lessen their differences in musical performance, they may also lessen or begin to merge the differences that exist socially and emotionally within its membership. The cohesiveness they experience musically may facilitate social-emotional connectedness.

Social and emotional connectedness then aids in student retention and advocacy for music education programs. Teachers expressed that students would have a greater desire to remain in their choir programs if students perceived they were socially or emotionally connected within the choir. Students' connectedness then becomes a powerful means of magnifying students' and parents' willingness to advocate for the retention of music education programs—a serious concern in today's educational climate.

Teachers reported that students' sense-of-community within their high school choir would lead students to seek participation in music ensembles after graduation. Participation in adult or community ensembles includes a significant number of musicians who also participated in their high-school music ensembles (Homquist, 1995; Joyce, 2001; New Horizons, 2012; Resnink-Hoff, 2009), but more research is needed to understand the impact of students' experiences with sense-of-community within their high-school music ensembles on their decision to join a community group as an adult.

With teachers assigning such importance to sense-of-community within high school choirs, it seems warranted that researchers adopt an agenda focused on understanding this complex phenomenon. Research conducted by teams of music educators, psychologists, and sociologists would help to inform teachers on how to navigate the social-emotional constructs within their ensembles in the hopes of enhancing students' ensemble experiences.

## Implications for Music Education

The purpose of this correlational study was to examine the level of sense-of-community as reported by high-school choir students, the teaching-style preferences of high-school choir directors, and the relationship between high-school choir directors' teaching style and high-school choir students' psychological sense-of-community. While more investigation is needed to understand fully the teacher's role in students' sense-of-community, the results of this study suggest several issues for music educators' and researchers' consideration: males' and transitioning $9^{th}$-graders' experiences with sense-of-community, the main effect of Select Ensemble membership, a choir's number of performances, teaching behaviors that affect sense-of-community within the high school choir, and the importance of students' sense-of-community within music ensembles.

Males have reported lower levels of sense-of-community than females within educational contexts outside the high school choir classroom (Rovai, 2001, 2002; Rovai, & Baker, 2005; Rovai, Wighting, & Lucking, 2004) but reported similar levels of sense-of-community as females within high school choir classrooms. With a closer look at the

male experience within the high school choir classroom, teachers and researchers in music education may be able to suggest ways to improve academic engagement for male students across their educational experiences.

Of concern within the high school choir classroom are transitioning 9th-grade students. Ninth-grade choir students reported significantly lower levels of sense-of-community, suggesting that high-school choir directors may want to be more sensitive to and plan for the needs of their 9th-grade student population. High-school and middle-school choir directors should be encouraged to establish or continue their collaborative efforts to develop activities and events that will ease the transition for 9th-grade students. In helping the transitioning 9th-grade music student to establish a connection with a high-school music ensemble prior to the start of their 9th-grade year, the 9th-grade student's anxiety may be lessened. Lower anxiety may also translate into higher academic achievement overall for the 9th-grade student.

Other planning considerations for high-school choir directors include the number of choir performances their students will participate in and the importance that students may attach to each performance. Results from this study suggest that five or more performances per school year yield higher levels of sense-of-community. However, with a majority of schools reporting that they perform two, three, or four times per year, funding and scheduling issues may prevent a choir from being able to add evening concerts in an auditorium or travelling to a venue off the school campus.

What we know from previous research is that shared valent events add to sense-of-community (McMillan & Chavis, 1986). The importance of the shared event for the

members of the community is central to *shared emotional connection*. With careful planning of repertoire and being selective in choosing performances, choir directors may be able to increase the importance of events shared by choir members and, therefore, achieve the same gain as simply increasing the number of performances. The ways in which choir directors achieve increased importance or numbers of performances will be unique to the characteristics and needs of their own students as well as directors' access to resources. Possible solutions may include bringing visiting artists into the choir classroom through grant funding or other school funding sources, performing jointly with neighboring schools, performing at middle and elementary schools within the same district, organizing a day in which students travel to multiple community venues for performances, performing in assemblies for their peers, performing as part of fund-raising events, and performing at community events that have high importance for those residing within that locale.

The shared valent-event hypothesis may also be involved in the higher levels of sense-of-community reported by students in Select Ensembles. Choir directors may be able to provide further insight on this phenomenon through self-reflection on their teaching practices and careful observation of their students' behaviors and interactions. Based on the results of this study, I have hypothesized that *integration and fulfillment of needs* and *shared emotional connection* for Select Ensembles may be the elements contributing to their increased level of sense-of-community. For choir directors, this means developing ways to motivate the unengaged singer who is more often situated in the non-auditioned Concert Choir than in a Select Ensemble, setting high expectations for

classroom activities, establishing clear goals, enlisting the help of students for setting goals, encouraging students' to put forth high levels of effort, and providing opportunities for the group to perform at events that have a high degree of importance. More investigation is needed to understand choir directors' involvement in Select Ensembles' increased levels of sense-of-community, and if so, how they could apply this knowledge to all other types of ensembles.

Teacher self-reflection in combination with researcher observation may be needed to understand the more profound implications of teaching behaviors on students' sense-of-community. Teachers reported preferring Assertive Teaching, Nonverbal Motivation, Time Efficiency, and Positive Learning Environment teaching-styles while describing, Positive Learning Environment, Group Dynamics, Artistic Music Performance, and Student Independence teaching-styles as those that foster a sense-of-community within their choirs. What is not known from this study is how often teachers incorporated within their choir classes the activities they specifically designed to address students' sense-of-community needs. With a focus on the teacher's role in students' sense-of-community, researchers and teacher education programs may be able to help all teachers develop methods and activities in order to positively affect sense-of-community within all of their ensembles, and understand the frequency with which they need to be implemented. Teachers may find that the benefits of such activities not only enhance their students' social emotional skills, and increase students' musical achievement, but also strengthen their music programs and provide teachers with an even more fulfilling experience as music education professionals.

## Recommendations for Future Research

Future investigations on students' sense-of-community should include measures that assess specific learning outcomes in combination with measures that assess students' sense-of-community. Research focused on the complex *interaction* between learning and social processes, rather than examining each factor in isolation, will lead to a clearer understanding of this phenomenon and its impact on students overall educational experience and social-emotional wellbeing.

Qualitative research methods such as ethnography, case study, and phenomenology may be helpful in understanding the experience of males and 9$^{th}$-grade students within high school choir. Such information may yield suggestions for strategies that benefit both student populations within and beyond the choir classroom.

Students who participate in auditioned Select Ensembles would be another viable population for future research. Under the direction of the same choir director, Select Ensemble students reported higher levels of sense-of-community, connectedness, and learning than Concert Choirs. Questions for researchers consideration may be 1) What is the choir director's role in the difference in sense-of-community, connectedness, and learning reported by Select Ensemble students? 2) How do Select Ensemble students perceive their membership within this ensemble? 3) Do students perceive a difference between membership in Select Ensemble and Concert Choir? 4) Do student interactions within the Select Ensemble differ from student interactions within the Concert Choir? and 5) Do students in Select Ensembles perceive their performances to be of higher importance than the performances of Concert Choirs?

Choirs performing five or more times per school year reported higher levels of sense-of-community. Investigations that delineate the nature of these performances may help us to understand what role the type of performance or its importance to the group has for students' sense-of-community.

Teachers identified specific teaching behaviors within the Group Dynamics, Positive Learning Environment, Student Independence, and Artistic Music Performance teaching styles as those they think help to facilitate students' sense-of-community. Research is needed to understand how often teachers use these strategies within the choral classroom and exactly what affect their use has on students' sense-of-community.

Finally, sense-of-community should be investigated in all music and ensemble classrooms, all other academic classrooms, and extra-curricular activities. With psychologist, sociologists, and music educators working collaboratively, investigations of this nature would provide a greater understanding of students' experiences across their education career. We may also learn of the shared or unique qualities between music education and other curricular subjects with a goal towards considering the whole child throughout their education.

Our educational system is one in which students learn within a social context. Educators, researchers, and policy-makers are demonstrating an increased awareness of the importance of this social setting on students' academic success. A sense-of-community within the classroom or the larger school setting may provide our students with the emotionally and socially supportive environment they need in order to achieve their academic potential. With educators helping to facilitate students' sense-of-

community within the school setting and the socio-psychological benefits that an individual experiences from feeling connected to others, our students will be better able to navigate the range of social contexts in which they live.

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# APPENDIX A

# IRB PROTOCOL

TO: Institutional Review Board Coordinator
Institutional Review Board
3400 North Broad Street (509-00)
Philadelphia, PA 19140

RE: **Protocol # 20021**: An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community

FROM: **Principal Investigator: Deborah A. Sheldon, PhD**
Department of Music Education and Therapy
Boyer College of Music and Dance
Temple University, 2001 N. 13th Street, Philadelphia, PA 19122
Contact Information: Office: 215.204.8649 dsheldon@temple.edu
**Student Investigator: Louise L. Anderson**, Doctoral candidate
Department of Music Education and Therapy
Temple University, Philadelphia, PA
Contact Information: 717.940.4930 Louise.Anderson@temple.edu

DATE: September 26, 2011

I am submitting Protocol #20021 for approval from Committee B with the following changes based upon the committee's review of this protocol in August 2011:

1. Changed student data collection procedure from paper survey to online survey.

2. Parent/Guardian Consent forms for minors and Consent forms for students 18 years and older:
   -contain a request for an email address for the student to which I will then send the link for the online student survey.

3. Minor Assent:
   -once the minor student enters the online survey, they are given the opportunity to continue or decline to take the survey.

4. Streamlined the incentive language:
   -removed the requirement for 60% participation rate for students in a choir. All students and directors who return completed consent forms and complete the online survey are eligible for the student or director incentive.

5. Parent/Guardian cover letter:
   -changed "your student" to "your child."

Two packets contain clean copies of consent forms on letterhead. The third copy has all changes highlighted.

Thank you for your consideration in this matter,

Louise L. Anderson

| | TEMPLE UNIVERSITY<br>Office of the Vice President for Research<br>**Institutional Review Board**<br>**Committee B**<br>(215) 707-8757 Fax: (215) 707-8387<br>www.research.temple.edu/irb | COMMITTEE USE<br>PROTOCOL NUMBER |
|---|---|---|

# REQUEST FOR PROTOCOL REVIEW (BEHAVIORAL & SOCIAL SCIENCES)

## I. PRINCIPAL INVESTIGATOR – IF STUDENT RESEARCH, ADVISOR IS PRINCIPAL INVESTIGATOR

| NAME, DEGREE | AFFILIATION WITH TEMPLE | PHONE | FAX |
|---|---|---|---|
| Deborah A. Sheldon, PhD | Professor and Chair of Music Education and Therapy | | |

| SCHOOL/COLLEGE, CENTER/DEPARTMENT, AND SECTION | TEMPLE EMAIL (REQUIRED) |
|---|---|
| Boyer College of Music and Dance/ Department of Music Education and Therapy | dsheldon@temple.edu |

**PREFERRED MAILING ADDRESS**
Boyer College of Music and Dance, Philadelphia, PA 19122

| ACCESSNET ID (REQUIRED) | 9 DIGIT TUID (REQUIRED) |
|---|---|
| dsheldon | |

**SIGNATURE OF PRINCIPAL INVESTIGATOR – IF STUDENT RESEARCH, ADVISOR IS PRINCIPAL INVESTIGATOR**
**Signature:** _____ **DATE** 5-4-2011

**Printed Name:** Deborah A. Sheldon

## II. STUDENT INVESTIGATOR – TEMPLE STUDENT

| NAME, DEGREE | AFFILIATION WITH TEMPLE | PHONE | FAX |
|---|---|---|---|
| Louise L. Anderson | Graduate student | | |

| SCHOOL/COLLEGE, CENTER/DEPARTMENT, AND SECTION | TEMPLE EMAIL (REQUIRED) |
|---|---|
| Boyer College of Music and Dance/ Department of Music Education and Therapy | lesarts@temple.edu |

**PREFERRED MAILING ADDRESS**

| ACCESSNET ID (REQUIRED) | 9 DIGIT TUID (REQUIRED) |
|---|---|
| lesarts | |

**SIGNATURE OF STUDENT RESEARCHER**
**Signature:** _____ **DATE** 5-4-2011

**Printed Name:** Louise L. Anderson

## III. PROJECT CATEGORY

| | | | |
|---|---|---|---|
| | Faculty Research | X | Dissertation Research |
| | Master's Research | | Other Graduate Research |
| | Undergraduate Research | | Undergraduate Independent Study |
| | Undergraduate Course Requirement | | Administrative Research |
| | | | |

**IV. PROJECT DATA**

**TITLE OF PROJECT**

An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community

| **FUNDING AGENCY** | **PROPOSED STARTING DATE** | **ESTIMATED DURATION** |
|---|---|---|
| NA | September 2011 | 1 year |

**STUDY LOCATION**

**IS DATA FOR THIS STUDY BEING OBTAINED FROM ANOTHER SOURCE?**

**X No Yes**

**IF YES, IDENTIFY THE SOURCE AND PROVIDE DOCUMENTED PERMISSION TO USE THE DATA.**

**PLEASE NOTE**

IF YOUR PROTOCOL IS DETERMINED TO REQUIRE FULL COMMITTEE REVIEW, YOU WILL BE REQUESTED TO PROVIDE ADDITIONAL COPIES (20 TOTAL)
FORWARD THREE (3) COPIES OF THIS FORM WITH PROTOCOL AND CONSENT FORM(S) TO:
RICHARD THROM, DIRECTOR, OFFICE FOR HUMAN SUBJECTS PROTECTION
PROGRAM MANAGER & COORDINATOR, IRB
3rd FLOOR HUDSON BUILDING (555-00)
3425 NORTH CARLISLE STREET
PHILADELPHIA, PA 19140

**Title: An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community**

**I. CHARACTERISTICS OF POTENTIAL SUBJECTS**

**A. About how many subjects will you need? Please include the number of females and males you wish to recruit.**

For this study *n*>50 high school choirs.
Potential subjects for this study fall into two categories: choir directors and choir students. Every effort will be made to find an equal number of male and female choir directors (*n*=25 female, *n*=25 male). The total number of students is dependent upon the student membership of the choirs selected for this study. Equal representation of student males and females cannot be guaranteed due to ratios of gender within the membership of each choir included in this study.

**B. Describe the potential subjects in terms of gender, age range, ethnic group, and any other significant descriptors.**

Potential subjects are adults whose range in age is 22-65, and every effort will be made to recruit an equal number of males and females. Every effort will be made to recruit subjects of varying ethnicities. Subjects must be high school choir directors who direct at least one choral ensemble. Every effort will be made to recruit subjects who have varying years of experience in directing high school choral ensembles. Subjects will be recruited from private, parochial, and public school settings within urban, suburban, and rural areas of Xxxx.
High school choir students will also be subjects in this study. Since the study requires high school choral ensembles to be surveyed, the age of students will range from 14-19. The gender representation of student subjects is completely dependent upon the population of each choir, therefore, equal representation of gender, and age within choir cannot be guaranteed

**C. Indicate any special subject characteristics, such as persons with mental handicaps, physical handicaps, prisoners, pregnant women, etc.**

None.

**D. Are you aware of any special health problems with the subject pool?**

No. The subject pool is assumed to be healthy.

**E. Describe how you will gain access to these potential subjects.**

Email notices will be sent to 95 high school choral directors in Xxxx of the Xxx Music Education Association (*Appendix J)*, XX, inviting them to participate in this study *(Appendix A)*. Initial emails will be followed up with two additional email notices and one phone call. Teachers will also be verbally invited to participate at two choral festival meetings held in September and October. Any director who responds will be considered for the study. Letters will then be sent to choral directors' administration asking for permission to have access to high school choral students *(Appendix B)*. Included in *Appendix B* is written permission for access to students in the _____ School District. I will amend this protocol as other schools grant permission for access. (**At this time, I do not have a letter for permission for access. However, my request is being considered in an August school board meeting in the Xxxx School District. As soon as permission is granted, I will amend this protocol.)**

Once permission for access to students has been granted, I will send a consent form to the high school choir director for their participation in this study *(Appendix C)*. Directors will mail the signed consent form to me.
Once I receive the director consent form, I will send directors the scripted invitation directors to read to their students (*Appendix E*) as well as student packets *(Appendix D)*.

In March, all participating directors will be sent the following materials:

1) the link to the online survey for directors which consists of the *Music Teaching Style Inventory* (*Appendix F*) with additional demographic items (*Appendix G*) and open-ended questions *(Appendix G)*.
2) a scripted invitation *(Appendix E)* for directors to read to their students
3) student packets *(Appendix D)* containing:
    a) letter to parents/guardians describing the project
    b) Consent Form for parent/guardian permission for minors
    c) Consent Form for students 18 years old or older

Directors may choose a convenient time between March 1 through March 30, 2012 to read the scripted invitation to students and then immediately hand out the student packets. Directors are to set a one or two-week time frame for collecting all student forms. Directors will place all student forms in the mailer that I will provide and they will be mailed back to me on or before April 1, 2012.

The consent forms for minor contains a place for an email address for the minor. I will email the minor with the link for the student survey. The first screen of the student survey contains a statement regarding confidentiality and asks if the student would like to take the survey. If a student chooses, "No," they will then be taken to the disqualification screen which simply thanks them and exits them from the survey. If a student chooses "Yes," then they will be guided through the survey questions.

**F. How will subjects be selected or excluded from the study?**

I will invite high school choir directors through an email invitation and a verbal invitation. Any director who chooses not to participate will be thanked and excluded from the study.

All students within a participating directors' choir(s) will be invited to participate. If students return completed required forms to their director, and then choose to take the student survey, they will be included in the study. If student forms or surveys are incomplete or missing data, they will be excluded from the study.

**G. If subjects are from an institution other than Temple University, please indicate the name of the officer responsible for granting access to the subjects.**

The high school principal and school district superintendent of each public school district in Xxxx will be responsible for granting permission for access to students. For non-public schools, the person(s) responsible for granting permission to access to subjects will be the person(s) who have authority to do so. *(Please see attached letter requesting permission for access in Appendix B.)*

**H. If the subjects are children, anyone suffering from a known psychiatric condition, or legally restricted, please explain why it is necessary to use these persons as subjects.**

The purpose of this research includes describing the level of a sense of community that high school students experience through their participation in high school choral ensembles. High school students typically range in age from 14-19. Therefore, it is necessary to have minors as subjects.

## II. EXPERIMENTAL OR RESEARCH PROCEDURE

**A. Describe the objectives and/or goals of your research.**

The purpose of this study is to examine the relationship between high school choir directors' teaching style and high school choir students' psychological sense of community. The specific research questions are

1. What level of sense of community do high school choir students report?

2. What are the teaching style preferences of high school choir directors?
3. What is the relationship between high school choir directors' teaching style and their choirs' level of a sense of community?

**B. Please describe the intended experimental or research procedure. This should include a description of what the subject will experience or be required to do. Please attach a copy of all questionnaires or instruments to be used.**

High school choir directors will be asked to complete an online survey. Prior to the survey questions, choir directors will be asked to provide the following data: age, gender, years of experience as a music educator, and years of experience as a high school choir director. They will also be asked to describe their choir's class/rehearsal schedule and their number of performances in a typical school year.

*Music Teaching Styles:*
Gumm (1993, 1994, 2003) has done extensive research on choir directors' music teaching styles. A teaching style is "the focus, intention, orientation or priority underlying the entire pattern of interaction between the teacher, students, and subject matter. As a result it is also the stable, consistent and pervasive approach to music teaching" (Gumm, 2003, p.14). He has developed an instrument called the *Music Teaching Style Inventory* (MTSI) that asks directors to respond to 57 statements using a 5-point Likert-type scale (*never, rarely, sometimes, often, always*). The resulting scores for each of the 8 teaching styles demonstrate the underlying priorities of the director's teacher behaviors. Teaching styles will be placed in rank order for each teacher. Each teaching style can be effective, and each becomes a negative approach when overused. Gumm states that teaching style develops along a continuum as a result of the number of years a teacher has been teaching. I am asking directors to provide data on their age and years of experience. This data is needed to understand if the teaching style of the directors participating in this study is also following the same developmental pattern as described by Gumm. I will also be including 4 open-ended questions at the conclusion of the instrument. I have written permission from Dr. Gumm to use his copyrighted instrument with the added questions and to create an online version for the participating directors to access *(Appendix H)*.
Participating directors will also need to read the scripted invitation to their choir students, hand out student packets, collect and mail the student forms back to me. The director will not have access to the student survey data.

*Psychological Sense of Community:*
McMillan and Chavis (1986) developed a definition of a psychological "sense of community" that has become the underlying theory of a body of research in the field of psychology. Sense of community consists of four elements: membership, influence, integration and fulfillment of needs, and shared emotional connection. Chavis (1986) developed a quantitative measure for sense of community that was applied to a variety of contexts. Rovai (2001, 2002) modified the measure to fit the context of the classroom. His measure is called the *Classroom Community Scale* (CCS). A gap exists in the literature for application of the CCS to K-12 music classes of any kind. The CCS measures an overall sense of community experienced by the individual as well as the subscales of learning and connectedness. It is believed that a higher sense of community is related to higher achievement.
The student survey (CCS) consists of 20 statements to which students respond with 5-point Likert-type scale (*strongly agree, agree, neutral, disagree, strongly disagree*). Students should be able to complete the entire survey in approximately 10 minutes. I have permission from Dr. Alfred Rovai to use his CCS instrument for this study*(Appendix I)*. Students are being asked to provide their age, gender, and years of experience in high school choir because research has suggested that significant differences exist between gender for levels of a sense of community (Rovai, 2001,

2002; Rovai & Baker, 2005; Rovai, Wighting, & Lucking, 2004) and that more frequent contact increases a sense of community (Fyson, 2008; McMillan & Chavis, 1986; Summers, 2006). I am asking directors to provide information on their choir's class/rehearsal schedule and the typical number of performances per year to understand the frequency of their students' meeting as a choir. McMillan and Chavis (1986) also state that shared valent events are important for members to bond as a community. I am asking directors to provide information on their choir's number of performances in a typical year to understand if choirs meet this component of "community."

**C. Will the subjects be deceived in any way? If yes, please describe below.**
No.

**D. To what extent will the routine activities of the subject be interrupted during the course of the study?**
All contact with choir directors will be made via email and at regularly scheduled choir director meetings as part of Xxxx choir festivals. Contact with student participants will be made through their choral director. Choir directors will interrupt their students' regularly scheduled choir class. During this interruption in class time, choir directors will read a scripted invitation and distribute student packets. It may take directors 20 minutes to read the script and distribute student packets. The directors' online survey will take approximately 15-20 minutes to complete. The survey will be available online for a period of 3 months so that directors may access the survey at a time convenient for them.
Total time from classroom instruction is approximately 20 minutes. Total time for directors (reading script, distributing student forms, and completing the director survey) is approximately 40 minutes.

**E. Indicate any compensation for the subjects.**

To encourage participation in this study I am offering two incentives:

Student incentive:
Any student returning completed consent and/or assent forms and a completed survey will be entered for a chance to win an 8GB iPod Touch™ (approximate value April, 2011 is $229.00). I will be responsible for checking all forms for completion. Each student participant will be assigned a number. I will enter all eligible students' numbers into a random number generator program to select a winning student.

Director incentive:
Any choir director who completes the director survey will be entered to win an 8GB iPod Touch™ (approximate value April, 2011 is $229.00). I will be responsible for checking all forms for completion. Each director will be assigned a number. I will enter all eligible directors' numbers into a random number generator program to select a winning director.

The drawing for both iPod Touch™ incentives will occur on May 31, 2012, in two separate drawings. On June 1, 2012, I will notify the winning director and the director of the choir in which the winning student participates via directors' email addresses. I will send the iPods™ to each winner's school before the end of the 2012 school year I will be responsible for all postage costs.

It is possible that a school's choir class that begins in the fall of 2011 may end before March, 2012 when data collection would begin. In the event that a participating school's choir does not continue through at least the end of March, 2012, I will begin the data collection process at least

one month prior to the ending date of their choir class. Any participating directors and students under this condition will still be eligible for the incentives to be awarded in May 31, 2012.

## III. DATA CONFIDENTIALITY

**A. What procedure(s) will you use to insure confidentiality of the data? How will you preserve subject anonymity?**

Students' names will be necessary on Consent forms. Each student survey will be assigned a number for the purposes of data entry and the selection of winners for the incentives. I will need to know student names to be able to award the student incentive. Student data will be discussed in aggregate form on the school level. Student data will not be shared with choir directors.
I will share a choir director's survey results with the choir director if they request it. The results of the choir director survey will yield information about the director's preferred teaching style. This information may benefit the director by helping them to understand their own teaching process. I will not share any student data with choir directors. Choir director data will be reported at the individual level and pseudonyms will be assigned for any director should discussion of the results become necessary. Schools will not be identified by name or location. If it becomes pertinent to discuss a particular school's data, a pseudonym will be given for the school. It is possible, but unlikely, that audience members in presentations and readers of publications who are familiar with me may be able to guess the identities of schools even with pseudonyms. I will store all electronic data that I collect in a password-protected folder on my personal computer. Hard copies of any data will be stored in a lockable filing cabinet. Three years after the completion of this study, I will destroy all data related to this project.

## IV. CONSENT PROCEDURES

**A. Attach copy of consent form to be used (Please note that if consent form is more than one (1) page, the title of the study must be on the signature page.)**

**OR**

**If non-written consent is to be used, attach a statement describing exactly what the subjects will be told.**

*Please see IV B*

**B. Describe how you will handle consent procedure for minors, mentally challenged persons, and persons with significant emotional disturbances.**

As described in I-E, choir directors will read a scripted invitation to their students. Included in the invitation are directions for the students. Student packets will be distributed immediately following the invitation and students will take them home to share with parents/guardians. Directions are also included in the cover letter of the student packet. Students may choose to complete the survey after they have parent/guardian consent or they may choose not to participate. If parents/guardians do not give consent then the student will be excluded from the survey. None of the potential subjects will be mentally challenged or have significant emotional disturbances.

## V. BENEFITS OF THE STUDY

**A. How will any one subject benefit from participation in this study?**

There are no guaranteed benefits for any one participant in the study. Students may feel self-satisfaction in knowing that the information they provide will contribute to educators understanding of students' experiences within high school choir. If Choir directors may benefit from having a greater understanding of their music teaching style.

**B. How will society, in general, benefit from the conduct of this study?**

There are no guaranteed benefits for society. Past research has linked a high sense of community with higher achievement in learning and higher student retention rates within educational programs. Music educators may find the results of this study a valuable contribution towards understanding the importance of a sense of community and an understanding of their own teaching style, and therefore, consider purposefully cultivating a sense of community within the choral ensemble and modifying their style to reach this goal. Results of the *Music Teaching Style Inventory* combined with students' *Classroom Community Scale* responses may guide teachers for further professional development as well as enhance teacher education programs.

## VI. RISKS/DISCOMFORTS TO SUBJECTS

**A. Describe any aspects of the research project that might cause discomfort, inconvenience, or physical danger to the subjects.**

None

**B. Describe any long-range risks to the subjects.**

None

**C. What is the rationale for exposing subjects to these risks?**

NA

**Email Invitation to Choir Directors**

Dear [Choir Director],

I am a fulltime choral director at Manheim Central High School and am currently working on my dissertation as part of a PhD in Music Education at Temple University. My dissertation focuses on the relationship between high school choir students' sense of community and their choir directors' teaching style. Although we don't know for certain, some research has shown that a higher sense of community within the classroom may result in higher achievement in learning as well as higher retention rates for students to remain within a given program. You are one of 95 high school choir directors in Xxxx whom I would like to invite to participate in my study.

As a choir director, I am very sensitive to the issue of time and understand the many things we all juggle in our daily teaching schedules and performance commitments. Every effort has been made to keep this project as burden-free as possible for you and your students. The tasks I ask of you are (1) complete a consent form for your participation; 2) complete an online survey for directors (approximately 15 minutes needed); (3) read a scripted invitation to your choir students for their participation in the study; 4) immediately following reading the script, hand out student packets containing all student forms; 5) collect student forms and mail them back to me using the self-addressed, stamped mailer which I will provide. I am asking that the student materials be distributed, collected, and mailed back to me between March 1 and April 1, 2012. You may choose the specific date within the range specified that is most convenient for you to hand out and collect student forms. Students would then fill out an online survey between April 1 and May 30, 2012. Students can access their survey from their home.

**I am offering two incentives for your and your students' participation provided that all forms and surveys are appropriately completed: 1) an 8GB iPod Touch™** to be awarded to a choir director and chosen from all directors participating in this study**; 2) an 8GB iPod Touch™** to be awarded to a student to be chosen from all students participating in this study**. I will randomly choose the winning director and student in two separate drawings on May 31, 2012. I will notify the winning director and the director of the choir in which the winning student participates on June 1, 2012 via the directors' email address(es). I will send the iPods™ to each winner's school before the end of the 2012 school year and postage will be my responsibility. All surveys must be completed by May 30, 2012 in order for directors and students to be eligible for the drawings.**

I am writing to you first to ask if you are interested in participating in my study. If you are interested, I will then proceed with obtaining permission from your district administration to have access to your students.

Dr. Deborah Sheldon, Chair of Music Education and Therapy, in the Boyer College of Music and Dance at Temple University, is overseeing my project. If you would like more details on the study, please let me know.

I appreciate your consideration in this matter. Please respond to this email if you are interested in participating and I will then proceed with making arrangements.

Sincerely,

Louise L. Anderson
Temple University

**Request to School District Administration for Permission for Access to Students**

TO:
CC:

RE: **Title:** An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community

**Principal Investigator: Deborah A. Sheldon, PhD**
Department of Music Education and Therapy
Boyer College of Music and Dance
Temple University, 2001 N. 13th Street, Philadelphia, PA 19122
Contact Information: Office: 215.204.8649 dsheldon@temple.edu

**Student Investigator: Louise L. Anderson**, Doctoral Candidate in Music Education
Department of Music Education and Therapy
Temple University, Philadelphia, PA
Contact Information: 717.940.4930 Louise.Anderson@temple.edu
Home address: 87 South Grant Street, Manheim, PA 17545

FROM: Louise L. Anderson

DATE:

I am writing because your high school choir director, [Director's Name], has expressed an interest in participating in my research project.

I am a fulltime choral director at Manheim Central High School and am currently working on my dissertation for a PhD in Music Education at Temple University. I (Mrs. Louise Anderson) have developed a research project that concerns the experiences of high school choir students and their choir directors. I'm interested in describing the relationship between high school choir students' sense of community within choir and their choir director's teaching style. Although we don't know for certain, some research has shown that a higher sense of community within the classroom may result in higher achievement in learning as well as higher retention rates for students to remain within a given program.

Attached you will find:

- a list outlining the project process,
- a description of the two incentives being offered for choir director and choir student participation,
- the completed Institutional Review Board (IRB) document from Temple University,
- all instruments and consent forms.

***Upon your review of these documents, if you agree to grant me permission to have access to your high school students, I would ask that, using school district letterhead, you please send a letter to me stating that you are granting permission for access to students.***

All identifying information such as names of students, schools, teachers, school employees, or location of schools shall be protected with anonymity. Pseudonyms will be used if discussion is necessary. Thank you for your consideration in this matter. Please feel free to contact me at any time if you have questions. My contact information is listed above.

## Outline of Research Project

1. Obtain written **permission from school district authority** granting access to high school choral students.

2. Send **choir director a consent form** to be signed by the director for his/her participation.

3. Send directors **student packets** containing a detailed description of the research project, and all required consent forms.

4. Director chooses a convenient date between March 1 and March 30, 2012 to **read a scripted invitation** for all choir students to participate in the study and **distribute student packets.**

5. Students return completed consent forms to their choir director who then males all completed forms to me using the self-addressed, stamped envelope that has been provided.

6. Choir directors and students **complete the online survey** between April 1 and May 30.

7. **Random drawing** for director and student incentives that I am offering from all eligible entries will take place on May 31, 2012. (see below)

6. Perform **analysis** and prepare written paper.

**NOTE:** Discussion of this project in either written form or formal presentation will never include the name or location of the school, or any names of the student or director participants. All data will be stored in a password-protected folder on my computer for three years.

## Choir director and Choir student incentives:

I am offering two forms of incentives. 1) each student returning appropriately completed consent and/or assent forms and a student survey will be entered for a chance to win an 8GB iPod Touch™ (approximate value at this time is $229.00); 2) all choir directors who complete the online director survey will also be entered to win an 8GB iPod Touch™ (approximate value at this time is $229.00).

Both drawings for the iPod Touch™ incentives will occur on May 31, 2012 and I will randomly choose the winning student and director from all eligible participants. I will enter the numbers assigned to each student survey into a random number generator program and one student will be selected. In this same way, I will also be randomly choosing a director to receive the director iPod Touch™ incentive from the pool of eligible directors, and the drawing will also occur on May 31, 2012. On June 1, 2012, I will notify the winning director and the director of the choir in which the winning student participates via the directors' email addresses. I will send the iPods™ to each winner's school before the end of the 2012 school year and I will be the responsible for the cost of postage.

# General Consent Form
# (to be completed by choir director)

**Title of Project:** An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community

**Principal Investigator: Deborah A. Sheldon, PhD**
Department of Music Education and Therapy
Boyer College of Music and Dance
Temple University, 2001 N. 13th Street, Philadelphia, PA 19122
Contact Information: Office: 215.204.8649 dsheldon@temple.edu
**Student-Investigator: Louise L. Anderson**, Graduate Student
Department of Music Education and Therapy
Temple University, Philadelphia, PA
Contact Information: 717.940.4930 Louise.Anderson@temple.edu

Hello! As a part of my doctoral program in Music Education at Temple University, I have developed a research project that focuses on the relationship between high school choir students' sense of community and choir directors' teaching style. You are one of 95 high school choir directors in PMEA District 7 whom I would like to invite to participate in my study. I would like to describe this project to you that involves directors and students filling out a short survey. Below, I will address the choir director's participation in this study.

***A description of the project:***

Part of the focus of my project is to determine students' individual levels of a sense of community within your choir. I'm interested in students' perceptions of how strongly they may or may not have felt they were members of a group when participating in choir. All of your choir students are invited to participate in this study. I would ask that you read a scripted invitation to your choir students during a choir class/rehearsal at a date convenient for you between March 1 and April 15, 2012. The scripted invitation explains to the students that their participation involves filling out a 20-question survey.

As a director, you will fill out a completely different survey that focuses on music teaching styles. All music teaching styles can be effective. The director's online survey consists of 57 statements to which you reply with either never, rarely, sometimes, often, or always. Three open-ended questions conclude the survey document.

***What would participation in this project require you to do?***

After you sign and return this consent form, I will send you all the information and materials you need for your students' and your participation. I will email you with the link to access the online survey for directors, and I will send you the student packets. You may complete the online survey for directors at any time convenient to you between March 1 and May 30. You will also choose a convenient day between March 1 and April 15, 2012, for you to read to your choir students a prepared script inviting them to participate in this study. After reading the invitation, you would give each student a packet containing all necessary consent and forms. Students would take home the packet for parents and students to complete. Students return the forms to you. You will place all student forms in the mailer that I will provide and place it in the mail. It will take you approximately 15 minutes to complete the director survey and approximately 10 minutes total for your students (and parents) to complete their consent forms. Once I receive the forms from you, I will email your participating students the link to the online student survey.

***Is any incentive being offered for your participation?***

**Yes!** I am offering an incentive for your participation under the following conditions: If you complete the director's online survey, your name will be entered to win an 8GB **iPod Touch™** from the pool of all eligible directors. Each student who appropriately completes the necessary forms will also be entered to win an 8GB iPod Touch™ from the pool of all eligible students. In order for eligible directors and students to be entered into the two drawings, I must receive completed forms and surveys by May 30, 2012. I will randomly select winners on May 31, 2012 and notify winners on June 1, 2012. I will send iPods™ to the winners' school(s) before the end of the 2011-2012 school year. I will be responsible for all postage.

***How will I use the survey data?***

If you would like to know the results of your director survey, I will share those with you and only you. Your name will not be revealed in any discussion that I may have regarding the results of this project. All students will remain completely anonymous. You will not have access to your students' survey results. I may share the director and student survey results with my faculty advisor from Temple University. The results of the surveys will become part of my dissertation and may be used for presentation or publications. I will report the student data in aggregate form on the school level but I will choose pseudonyms for school and school district names. I will report director data on the individual level. I will choose pseudonyms if discussion is needed on the individual director data. I will not reveal any information about your school, school district, school's location, or where you live. Again, your name will not be revealed. I will store all data that I collect in a password-protected folder on my personal computer. Three years after the completion of this study, I will destroy all data related to this project.

***How do you become a participant?***

By signing this consent form, you are agreeing to participate in this study as described above.

Thank you very much for your time! Please feel free to contact me with any questions you may have.

___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

My participation in this study is on a voluntary basis. I understand that I can withdraw from the study at any time, and that I may withdraw from the study at any time without consequence or prejudice. Withdrawing from the study will not cause harm to my relationship with students in my choir, my school district, or Temple University. Any data that has been collected from me up to that point will be destroyed.

Confidentiality Statement:
Although the study team has placed safeguards to maintain the confidentiality of my personal information, there is always a potential risk of an unpermitted disclosure. To that degree, all documents and information pertaining to this research study will be kept confidential, unless required by applicable federal, state, and local laws and regulations to be disclosed.

I understand that records and data generated by the study may be reviewed by Temple University and its agents, the study sponsor or the sponsor's agents (if applicable), and/or governmental agencies to assure proper conduct of the study and compliance with regulations. I understand that the results of this study may be published. If any data is published, I will not be identified by name.

If I have any questions about my rights as a research subject, I may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or

regular mail: Institutional Review Board Coordinator Temple University Research Administration Student Faculty Conference Center 3340 North Board Street – Suite 304, Philadelphia, PA, 19140.

Signing your name below indicates that you have read and understand the contents of this Consent Form and that you agree to take part in this study.

**(Please print)** Name of Choir Director Date

**Signing your name on the line below means that you are agreeing to participate in this study.**

**Signature** of Choir Director Date

**Signature** of Principal Investigator Date

**Signature** of Student Investigator Date

TO: Parents/Guardians of High School Choral Students
RE: Research Project
FROM: Principal Investigator: Deborah A. Sheldon, PhD, Temple University
Contact Information: Office: 215.204.8649 dsheldon@temple.edu
Student Investigator: Louise L. Anderson, PhD student at Temple University
Contact Information: 717.940.4930 Louise.Anderson@temple.edu
DATE: March 1, 2012

Dear Parents/Guardians,

I am a full time choral director at Manheim Central High School and am currently working on my dissertation to complete a PhD in Music Education at Temple University. I (Mrs. Louise Anderson) have developed a research project that concerns the experiences of high school choir students and their choir directors. The focus of my project is to examine the relationship between high school choir students' sense of community and choir directors' teaching style. Although we don't know for certain, some research has shown that a higher sense of community within the classroom may result in higher achievement in learning as well as higher retention rates for students to remain within a given program.

All current 9th through 12th grade choir students are invited to participate in this study. This research involves students filling out an online, 20-statement survey that asks them to respond with strongly agree, agree, neutral, disagree, or strongly disagree. During a regular choir class, your child's choir director has read a script inviting your child to participate. That same information is included in this packet. The total time it may take for a student to complete the online survey is approximately 10 minutes. The attachments to this letter include a detailed description of the project.

**If you are the parent or guardian of a high school choir student who is age 17 or younger**:
1. please sign the consent form granting permission for your child to participate;
**NOTE:** On this form you are asked to provide an email address for your child. I will then email your child with the link to the online survey.
2. your child should return the signed consent form to his/her choir director who will then mail all complete forms to me.

**If you are the parent or guardian of a high school choir student who is age 18 or older:**
1. if your child chooses to participate, they then need to sign the consent form for students age18 or older and provide an email address so that I may send them the link to the online survey.
2. your child should return the signed consent form to his/her choir director who will then mail all completed forms to me.

Any student returning the necessary completed forms to his/her director and completes the online survey, will be entered to win an 8GB iPod Touch™. I will randomly select the winning student from all eligible entries and the drawing will occur on May 31, 2012. I will notify the winner through their choir director and the winning student will receive their iPod Touch™ before the end of the 2011-2012 school year. All forms must be returned to the director and the director must mail them to me so that I receive them on or before May 30, 2012 in order for students to be eligible to win the iPod Touch™. Any postage costs will be my responsibility.

Please feel free to contact me at any time with questions concerning this project.

You may use the following email address: Louise.Anderson@temple.edu. My cellphone number is 717.940.4930.

Thank you for your consideration in this matter.

## Consent Form to be completed by Parents/Guardians if Student is 17-years-old or younger

**Title of Project: An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community**

**Principal Investigator: Deborah A. Sheldon, PhD**
Department of Music Education and Therapy
Boyer College of Music and Dance
Temple University, 2001 N. 13th Street, Philadelphia, PA 19122
Contact Information: Office: 215.204.8649 dsheldon@temple.edu
**Student Investigator: Louise L. Anderson**, Graduate Student
Department of Music Education and Therapy
Temple University, Philadelphia, PA
Contact Information: 717.940.4930 Louise.Anderson@temple.edu

Hello! As a part of my doctoral program in Music Education at Temple University, I have developed a research project that focuses on the experiences of high school choir students and the teaching styles of high school choir directors. I would like to invite your child to participate in my study. I would like to describe this project to you that involves students filling out a short survey. Below, I will address your child's participation in this study.

***A description of the project:***

Part of the focus of my project is to determine students' individual levels of a sense of community within your child's choir. I'm interested in students' views of how strongly they may or may not have felt they were members of a group when participating in choir. Your child would be completing a 20-question survey.

***What would participation in this project require my child to do?***

By signing this consent form and providing an email address for your child, you are allowing your child to participate in this study. Please return this signed form to your child's choir director who will then mail all completed forms to me. Your child's director will announce the ending date for collecting completed forms.
After I receive this completed form, I will then email your child with the link to the online survey. Once your child accesses the survey, they will be given the choice to complete the survey or exit the survey. It should take about 10-15 minutes for your child to complete the online survey.

***Is any incentive being offered for my child's participation?***

**Yes!** I am offering an incentive for your child's participation under the following conditions: Each student who appropriately completes the necessary forms and survey by the due date will be entered to win an **8GB iPod Touch™** from the pool of all eligible students. In order for students to be eligible I must receive completed forms and surveys by May 30, 2012. I will be randomly selecting a winner on May 31, 2012 and the winning student's director will be notified on June 1, 2012. The iPod Touch™ will be sent to the winner's school before the end of the 2011-2012 school year. Postage will be my responsibility.

***How will I use the survey data?***

Directors will not have access to your child's survey answers. Your child's name, email address, choir director's name, name of the school, and location will not be revealed in any discussion that I may have regarding the results of this project. I may share the results of the survey with my faculty advisor from Temple University. The results of the surveys will become part of my dissertation and may be used for presentations or publications. I will report student data on the school level, but I will choose pseudonyms for school and school district names. I will report director data on the individual level. I will choose pseudonyms if discussion is needed on the individual director data. I will not reveal any information about the director's school, school district, or school's location. Again, your child's name will not be revealed. I will store all data that I collect in a password-protected folder on my personal computer. Three years after the completion of this study, I will destroy all data related to this project.

***How does my child become a participant?***

By signing this consent form and providing an email address for your child, you are agreeing to allow your child to participate in this study as described above. I will then email your child with the link to the online survey.

Thank you very much for your time! Please feel free to contact me with any questions you may have.

PARENTS/GUARDIANS can withdraw their consent at any time, trumping any child's choice to participate.

My child's participation in this study is on a voluntary basis. I understand that my child can withdraw from the study at any time, and that my child may withdraw from the study at any time without consequence or prejudice. Withdrawing from the study will not cause harm to my child's relationship with students in my child's choir, the choir director, school district, or Temple University. Any data that has been collected from my child will be destroyed.

Confidentiality Statement:
Although the study team has placed safeguards to maintain the confidentiality of my personal information, there is always a potential risk of an unpermitted disclosure. To that degree, all documents and information pertaining to this research study will be kept confidential, unless required by applicable federal, state, and local laws and regulations to be disclosed.

I understand that records and data generated by the study may be reviewed by Temple University and its agents, the study sponsor or the sponsor's agents (if applicable), and/or governmental agencies to assure proper conduct of the study and compliance with regulations. I understand that the results of this study may be published. If any data is published, I will not be identified by name.

If I have any questions about my rights as a research subject, I may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or regular mail: Institutional Review Board Coordinator Temple University Research Administration Student Faculty Conference Center 3340 North Board Street – Suite 304, Philadelphia, PA, 19140.

Signing your name below indicates that you have read and understand the contents of this Consent Form and that you agree to take part in this study.

**(Please print)** Name of Parent/Guardian Date

**(Please print)** Name of Your Child Date

**In order for your child to access the online survey, please provide an email address for your child:**

_____

**Signing your name on the line below means that you are agreeing to participate in this study.**

**Signature** of Parent/Guardian Date

Signature of Principal Investigator Date

Signature of Student Investigator Date

## Consent Form to be completed by Students 18-years-old or older

**Title of Project: An Examination of the Relationship Between Teaching Style and High School Choir Students' Sense of Community**

**Principal Investigator: Deborah A. Sheldon, PhD**
Department of Music Education and Therapy
Boyer College of Music and Dance
Temple University, 2001 N. 13th Street, Philadelphia, PA 19122
Contact Information: Office: 215.204.8649 dsheldon@temple.edu
**Student Investigator: Louise L. Anderson**, Graduate Student
Department of Music Education and Therapy
Temple University, Philadelphia, PA
Contact Information: 717.940.4930 Louise.Anderson@temple.edu

Hello! As a part of my doctoral program in Music Education at Temple University, I have developed a research project that focuses on the experiences of high school choir students and the teaching styles of high school choir directors. I would like to invite you to participate in my study. I would like to describe this project to you that involves students filling out a short online survey. Below, I will address your participation in this study.

***A description of the project:***

Part of the focus of my project is to determine students' individual levels of a sense of community within your high school choir. I'm interested in your view of how strongly you may or may not have felt you were member of a group when participating in choir. You will be asked to fill out a 20-question online survey.

***What would my participation in this project require me to do?***

Once you have signed this consent form and provided an email address, you need to return the completed form to your choir director. Your director will announce the ending date for collecting completed forms. Your director will then mail all completed student forms to me. I will then send you an email containing the link to the online student survey. It should take about 10-15 minutes for you to complete the survey.

***Is any incentive being offered for my participation?***

**Yes!** I am offering an incentive for your participation under the following conditions: Each student who appropriately completes the necessary forms and survey, and returns them by the due date will be entered to win an **8GB iPod Touch™** from the pool of all eligible students. In order for you to be entered into the drawing, I must receive your completed forms and surveys by May 30, 2012. I will be randomly selecting a winner on May 31, 2012 and the winning student's director will be notified on June 1, 2012. The iPod Touch™ will be sent to the winner's school before the end of the 2011-2012 school year. Postage will be my responsibility.

***How will I use the survey data?***

Directors will not have access to your survey answers. Your name, email address, choir director's name, name of the school, or location will not be revealed in any discussion that I may have regarding the results of this project. I may share the results of the survey with my faculty advisor from Temple University. The results of the surveys will become part of my dissertation and may be used for presentation or publications.

I will report your data on the school level but I will choose pseudonyms for school and school district names. I will report director data on the individual level. I will choose pseudonyms if discussion is needed on the individual director data. I will not reveal any information about the director's school, school district, school's location, or where you live. Again, your name will not be revealed. I will store all data that I collect in a password-protected folder on my personal computer. Three years after the completion of this study, I will destroy all data related to this project.

***How do you become a participant?***

By signing this consent form, you are agreeing to participate in this study as described above.

Thank you very much for your time! Please feel free to contact me with any questions you may have.

PARENTS/GUARDIANS can withdraw their consent at any time, trumping any child's choice to participate.

My participation in this study is on a voluntary basis. I understand that I can withdraw from the study at any time, and that I may withdraw from the study at any time without consequence or prejudice. Withdrawing from the study will not cause harm to my relationship with students in my choir, with the choir director, school district, or Temple University. Any data that has been collected from me will be destroyed.

Confidentiality Statement:
Although the study team has placed safeguards to maintain the confidentiality of my personal information, there is always a potential risk of an unpermitted disclosure. To that degree, all documents and information pertaining to this research study will be kept confidential, unless required by applicable federal, state, and local laws and regulations to be disclosed.

I understand that records and data generated by the study may be reviewed by Temple University and its agents, the study sponsor or the sponsor's agents (if applicable), and/or governmental agencies to assure proper conduct of the study and compliance with regulations. I understand that the results of this study may be published. If any data is published, I will not be identified by name.

If I have any questions about my rights as a research subject, I may contact the Institutional Review Board Coordinator at (215) 707-3390. The IRB Coordinator may also be reached by email: IRB@temple.edu or regular mail: Institutional Review Board Coordinator Temple University Research Administration Student Faculty Conference Center 3340 North Board Street – Suite 304, Philadelphia, PA, 19140.

Signing your name below indicates that you have read and understand the contents of this Consent Form and that you agree to take part in this study.

**(Please print)** Student Name Date

**In order for you to access the online survey, please provide an email address:**

**Signing your name on the line below means that you are agreeing to participate in this study.**

**Signature** of Student Date

**Signature** of Principal Investigator Date

**Signature** of Student Investigator Date

**Script to Invite Students to Participate in Project**
**Directions for Directors:**

- **Please choose a convenient date between March 1 and March 30 to read the following invitation to your choir students. I would suggest giving your students a one or two-week time period for the return of their forms. You may want to set the due date for all forms as March 20 to allow time for mailing all forms to me.**
- **All student forms must be completed and returned to me no later than April 1.**
- **Immediately after reading the invitation, hand out the student packets to all students in the choir.**

**READ THIS TO YOUR STUDENTS:**

You and I have been selected to be a part of a research project focused on the experiences of high school choir students and choir directors. As your director, I have already agreed to participate in the director's part of the project. Our school district administration has also agreed to allow the researcher to invite you to participate in the student part of the project. The researcher is Mrs. Louise Anderson. She is a full-time high school choir director. This project as part of her doctoral studies in Music Education at Temple University in Philadelphia.

The focus of the student portion of the project is your views of how strongly you may or may not feel that you are a member of a group when participating in choir.

Mrs. Anderson, the researcher, would like to invite **all** of you to participate in this project. You will be asked to take an online survey containing 20 statements. Your responses in the survey will be either *strongly agree*, *agree*, *neutral*, *disagree*, or *strongly disagree*. The entire survey will take you about 10 minutes to complete. I, as your director, will not have access to your responses on the survey. It's important that we have as close to 100% participation from the choir as we can possibly have.

Mrs. Anderson is offering each student who participates in this project a chance to win an iPod Touch™. In order to be eligible to win, you must return the completed form in this packet and take the online survey.

At this point, I am going to hand out the student packets. Each packet contains a letter informing your parents/guardians of this project as well as consent forms for your participation.

**(DISTRIBUTE STUDENT PACKETS)**

The first page of the packet is a letter to your parent or guardian. It explains the project and gives the following directions:

**If you are age 17 or younger:**
1. please ask your parent or guardian to sign the yellow Consent Form giving permission for you to participate. Your parent or guardian must provide an email address for you so that you may be sent the link to the online survey.
2. once this form is complete, please return the form to me, and I will then mail the forms to Mrs.Anderson.

**If you are age 18 or older:**
1. you need to sign the green Consent Form for students age 18 or older if you choose to participate.You do not need to have parent/guardian permission to participate. Remember to provide an email address so that you can be sent the link to the online survey.
2. once this form is complete, please return the form to me, and I will then mail the forms to Mrs. Anderson

In order for you to be entered to win the iPod Touch™, all forms must reach Mrs. Anderson by April 1, 2012. I am asking that you return your sealed envelopes to me no later than _____(Choose a date that will be convenient for you and also allows for mailing time.) Students from other high schools have also been invited to participate and one iPod Touch™ will be awarded from all participating students.

Mrs. Anderson will randomly choose the winner of the iPod Touch™ on May 31, 2012. She will send the iPod Touch™ to the winner's school before the end of the 2011-2012 school year.

It is important for you to know that Mrs. Anderson will not reveal your name, email address, where you live, the school's name, or the school's location. She will not share your answers with me. She may share the survey results with her advisor at Temple University. The results of the surveys may be used for presentations or publications. She will store all of the data in a password-protected folder on her personal computer until three years after the completion of this research project.

Mrs. Anderson would like to thank you very much for your time in filling out the forms and the survey! Please feel free to contact Mrs. Anderson with any questions you may have.

Good luck in winning the iPod™!

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Additional information for directors:

1. Any student who is 18 years-old or older may sign the consent form and hand it back to you as soon as you are finished reading the script above.

2. If you are including multiple choirs in this project, any choir student who is a member of multiple choirs should only respond to the survey questions with ***one*** choir in mind. When they access the online survey, there is a place for the student to type in the name of the choir they choose to respond to.

3. It is really important to have as many students as possible respond from your choir. This is not a survey for just those students who have the highest interest in choir participation.

Thank you so much for your help in this research project!

Open-Ended questions added to the Music Teaching Style Inventory
And
Demographic information to be collected from each Director

Director Information: (These items will appear at the beginning of the online *Music Teaching Style Inventory* for directors.)

1. Age: _____

2. Gender: M F

3. Number of years experience as a music teacher? (Please include the current year)

4. Number of years as a choir director in your current position?

5. Name of your choir? (If you director more than one choir and are planning to invite students from multiple choirs, please include the name of each choir.

6. How many students are in your choir (or each of your choirs)?

7. Describe your choir's class/rehearsal schedule. Please include the length of each class/rehearsal time, how often you see your choir, and any other information that would help me to understand your choir's schedule.

8. How many performances does your choir have in a typical school year and when in the school year do they occur?

The following items will appear after the *Music Teaching Style Inventory* as part of the online instrument:

1. Do you think your choir students share a sense of community within the choir?
   Yes No

2. If yes, describe any individual student or group behaviors that demonstrate a sense of community.

   If no, describe any individual student or group behaviors that demonstrate a lack of a sense of community.

3. Do you think that a sense of community within the choir is important?
   Yes Somewhat No
   Please briefly explain your answer.

4. Do you purposefully attempt to build a sense of community within your choir?

   **If yes,** describe what you do to build a sense of community.

Communications with Alan Gumm, PhD., granting permissions and conditions for use of the Music Teaching Style Inventory
Permission for use of the Music Teaching Style Inventory
(Email communication with Dr. Alan Gumm)

Date: Mon, Jan 24, 2011 at 2:38 PM
Subject: Re: Choral Research
To: "Gumm, Alan J" <gumm1aj@cmich.edu>
Cc: DEBORAH SHELDON <dsheldon@temple.edu>

Dr. Gumm,

Thank you so much for taking the time to respond so quickly and thoroughly.

I wanted to answer your question concerning the student survey:
I am using an instrument called the Classroom Community Scale that was developed by Dr. Alfred Rovai of Regent University in Virginia. His instrument was developed from research on the psychological sense of community and learning. His scale measures connectedness and learning. The students will be self-reporting the level of a sense of community that they experience within the choral setting. One of my research questions asks what the relationship is between teaching styles and a sense of community. In my research on teaching styles, I found *many* different ways of approaching and describing the topic. I found in your research the descriptions of teaching styles and a clustering of teaching behaviors supported by much research; takes a global look at the teacher; and is detailed in a way that I think my question can be most effectively answered. The null hypothesis would be that students experience a high level of a sense of community with a variety of teachers' styles. I am planning on a large sample population.

Thank you for all the suggestions and information.

I will certainly keep you posted!

Take care,

Louise Anderson

On Mon, Jan 24, 2011 at 12:53 PM, Gumm, Alan J <gumm1aj@cmich.edu> wrote:
Louise,
Thank you for the update on your research. I am glad to confirm permission to use the MTSI within your revised timeline. The agreement has no time limit, and is mostly to avoid misguided use and to assure consistent and valid results in data collection. Also, the agreement applies to the version as sent by me as well as any "derivatives thereof," which answers several of your questions. You have permission to derive the MTSI into an online version, with the understanding that I still own "all rights, title and interest, including, without limitation, the copyright." So the agreement allows you the freedom to adapt it for your research needs with the understanding that changes do not alter copyright. It was good of you to ask, thank you.

I love the direction you are taking with your dissertation. Developing a sense of community certainly is more than a nice intention on the part of a choral director, and requires particular skills and perceptions, a shift in the pattern of teaching behavior, and ultimately a distinctive teaching style. Visa versa, teaching

style should reflect differences in sense of community--theoretically that is, and you will be putting this to the test. I love it!

Thank you for the clarification that your questionnaire section will not appear to be part of the MTSI. You could even come up with your own global title for the entire data collection form and leave out separate titles for each section (omit the MTSI title altogether if you'd like), provided that separate directions are provided for each section. A caution, though--to allow valid comparison with previous MTSI results, you need to retain my directions for the MTSI section of your form.

You said you are using a "different instrument" for students. Do you mean other than the MTSI, or a student version of the MTSI? If it is a student version of the MTSI, did I provide you with my student version, or did you derive a

student version from my teacher version? I have a student version of the MTSI that has been used in previous research, and if you stick to the one I created then you can make more valid comparisons with previous student-rated music teaching style results. If you alter the MTSI yourself, you need to note this fact in your method section and include this implication in the discussion section when discussing results. Just checking...sorry for the tangent. I intend these comments to be helpful and informative toward the success of your research rather than bossy and restrictive.

Thank you for contributing to this line of research with your interesting and original perspective. It a topic of significant importance to music teachers, and each new step helps give direction to future generations. I look forward to share results with me in 2012 (as per the agreement).

Alan Gumm
School of Music
Central Michigan University
Mount Pleasant, MI 48859
989-774-1966
gumm1aj@cmich.edu

-----Original Message-----
From: LOUISE L ANDERSON [mailto:lesarts@temple.edu]
Sent: Fri 1/21/2011 9:33 AM
To: Gumm, Alan J
Cc: DEBORAH SHELDON
Subject: Re: Choral Research

Dear Dr. Gumm,

I am still very interested in your research on Music Teaching Styles and am still interested including your work as an integral part of my dissertation project.

At this point in my dissertation project, I'm aiming for the dissertation proposal defense by the end of this semester or the beginning of the fall 2011 semester. Consent and assent forms as well as permission for access to students (I am also using a different instrument with students) will be gathered in the fall of 2011. Data collection will occur in the spring of 2012 followed by analysis.

Deborah Sheldon, PhD. remains my dissertation chair. I have cc'd her on this email as well.

Due to the new timeline and the elapsed time between our earlier communications and now, I am writing to obtain your confirmation that I still have your permission, as per your Conditional Use Agreement, to use

your Music Teaching Style Inventory (MTSI) as part of my dissertation project.

I have a few specific questions about my use of the MTSI that I want to make sure would meet with your approval.

1. In order to make the MTSI as convenient as possible for busy teachers to complete, I would like to create an online version. Teachers would receive the link for the survey, complete the survey, and their responses would be
sent directly to me. I am considering using the Google Forms application for this process. I would be happy to create it and send it to you for your approval. I would be sure to include the exact wording of your document as well as the copyright citation.

2. The working title for my dissertation is *High School Choir Directors' Teaching Styles and their Choirs' Sense of Community*. I am considering asking teachers a couple open-ended questions directed towards the topic of a
psychological sense of community within their choirs. These questions would appear at the conclusion of the MTSI. I can make sure that is clear to all participating subjects that the open-ended questions are not part of the
MTSI.

I look forward to response.
Thank you very much for your consideration in this matter,

Louise L. Anderson
Doctoral Candidate in Music Education
Boyer College of Music and Dance
Temple University
Philadelphia, PA
cell: 717-940-4930
e-mail: Louise.Anderson@temple.edu

On Thu, Sep 3, 2009 at 10:35 AM, Gumm, Alan J <gumm1aj@cmich.edu> wrote:

> So it is the start of a new semester, and I am wondering how your research is going, or how it turned out. Please >share your results, I am eager to find out what you have discovered.
>
> Best wishes,
>
> Alan Gumm
> School of Music
> Central Michigan University
> Mount Pleasant, MI 48859
> 989-774-1966
> gumm1aj@cmich.edu
>
>
> -----Original Message-----
> From: Louise L. Anderson [mailto:Louise.Anderson@temple.edu]
> Sent: Wed 3/11/2009 9:55 PM
> To: Gumm, Alan J

> Subject: RE: Choral Research
>
> Dr. Gumm,
>
> Thank you very much for your quick response. I will be away tomorrow through Saturday at a conference. Upon >my return, I will share this information with my advisor. With her approval, I will email the required response as >you have indicated. And yes, I am interested in the teacher self-report version.
>
> Thank you for allowing me access to the research version.
>
> Sincerely,
>
> ---- Original message ----
> >Date: Wed, 11 Mar 2009 20:54:15 -0400
> >From: "Gumm, Alan J" <gumm1aj@cmich.edu>
> >Subject: RE: Choral Research
> >To: "Louise L. Anderson" <Louise.Anderson@temple.edu>
> >
> >Louise,
> >The inventory in the text is NOT a research tool, but is a simpler self-help version. The version you want has >>been tested vigorously for reliability and validity and is available by permission only. For permission, please copy >>the CONDITIONAL USE AGREEMENT text at the bottom of this email into a reply email with your name, >>institution at which you are working on your PhD, PhD advisor contact information, and your contact information >>as your agreement "signature." Upon receipt of your email agreement, I will send you the research version of the >>MTSI along with scoring instructions. I assume that you want the teacher self-report version and not a version for >>students to share their perceptions of the teacher's music teaching style. If otherwise, please let me know.
> >I am also available for advice and general conversation as needed, though your research seems pretty clear cut.
>> Otherwise, I look forward to your report of research results, as per the agreement, and anticipate that you will >>have very telling findings.
> >
> >Alan Gumm
> >School of Music
> >Central Michigan University
> >Mount Pleasant, MI 48859
> >989-774-1966
> >gumm1aj@cmich.edu
> >
> >
> >
> >-----Original Message-----
> >From: Louise L. Anderson [mailto:Louise.Anderson@temple.edu]
> >Sent: Mon 3/9/2009 4:24 PM
> >To: Gumm, Alan J
> >Subject: Choral Research
> >
> >Dr. Gumm,
> >
> >I am inquiring about the Music Teaching Styles Inventory that you have developed. I am a PhD student in Music >>Education at Temple University in Philadelphia, and am about to embark on my dissertation. Currently, I am >>conducting research on the psychological sense of community within high school choral

ensembles. I am in the >>middle of a large survey of high school choral students using the Classroom Community Survey as developed by >>Dr. Rovai. I would like to follow up this research by combining the Classroom Community Survey with the >>Music Teaching Styles Inventory. I am very interested in parsing the teacher's role in creating a classroom >>environment in which community is either present or absent. I am curious as to the correlation between teaching >>styles, as defined by your research, and levels of classroom community.
>>
>>I would like to know if I may have your permission to use the Music Teaching Styles Inventory as found in your >>text. I have your book "Music Teaching Style: Moving Beyond Tradition." If there has been any further >>development of the inventory or other pertinent research you think may be helpful, I would appreciate that >>information.
>>
> >Thank you in advance,
> >Louise L. Anderson
> >Graduate Student (Ph.D. in Music Ed)
> >Adjunct Faculty
> >Boyer College of Music and Dance
> >Temple University
> >cell: 717-940-4930
> >e-mail: Louise.Anderson@temple.edu

> >CONDITIONAL USE AGREEMENT
> >
> >For good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, I >>hereby agree that the permission granted to me by Alan Gumm to receive and utilize, without charge, the Music >>Teaching Style Inventory (MTSI), is subject to the following conditions, all of which I hereby accept and >>acknowledge:
> >
> >1. I will utilize the MTSI for research purposes only and not for commercial gain.
> >2. The MTSI, and all derivatives thereof, is and shall remain the exclusive property of Alan Gumm; Alan >>Gumm shall own all right, title and interest, including, without limitation, the copyright, in and to the MTSI.
> >3. I will not modify or create works derivative of the MTSI or permit others to do so.
> >4. I will provide Alan Gumm with a copy of any research findings arising out of my use of the MTSI and will >>cite Alan Gumm in any of my publications relating thereto.
> >5. Alan Gumm will have no obligation to provide me with any scoring services for my use of the MTSI other >>than providing the instructions to score results.
> >6. Alan Gumm will not be deemed to have made any representation or warranty, express or implied, in >>connection with the MTSI, including, but not limited to, the implied warranties of merchantability and fitness for >>a particular purpose.
> >7. My rights under this Agreement are non-transferable and non-exclusive and will be limited to a period of >>two (2) years from the date of this Agreement.
> >8. Alan Gumm immediately terminates this Agreement by giving written notice to me in the event I breach >>any of this Agreement's terms or conditions.
> >9. This Agreement may not be assigned by me without the prior written consent of Alan Gumm.
> >10. Failure by Alan Gumm to enforce any provisions of this Agreement will not be deemed a waiver of such >>provision, or any subsequent violation of the Agreement by me.
> >11. This is the entire agreement with Alan Gumm pertaining to my receipt and use of the MTSI, and only a >>written amendment signed by Alan Gumm can modify this Agreement.
> >
> >Agreed and understood:
> Louise L. Anderson

> Graduate Student (Ph.D. in Music Ed)
> Adjunct Faculty
> Boyer College of Music and Dance
> Temple University
> cell: 717-940-4930
> e-mail: Louise.Anderson@temple.edu

Permission for use of the Classroom Community Scale
(Email communication with Dr. Alfred Rovai)

From: **Alfred Rovai** <alfrrov@regent.edu>
Date: Mon, Jan 31, 2011 at 9:08 AM
Subject: RE: Sense of Classroom Community Index
To: LOUISE L ANDERSON <lesarts@temple.edu>
Cc: DEBORAH SHELDON <dsheldon@temple.edu>

Good morning, Louise.

Thanks for the update.

Yes, you may use the instrument (including an online version as you describe) provided you cite the following article (which also describes the instrument's validity and reliability characteristics).

Rovai, A. P. (2002). Development of an instrument to measure classroom community. Internet & Higher Education, 5(3), 197-211. (ERIC Document Reproduction Service No. EJ663068)

Available online at http://dx.doi.org/10.1016/S1096-7516(02)00102-1 <http://dx.doi.org/10.1016/S1096-7516%2802%2900102-1>

Best wishes,
Fred

_____

**Alfred P. Rovai, Ph.D.**
**Interim Vice President for Academic Affairs**
**Regent University**
**Phone: 757.352.4861**

**From:** LOUISE L ANDERSON [mailto:lesarts@temple.edu]
**Sent:** Monday, January 31, 2011 8:46 AM
**To:** Alfred Rovai
**Cc:** DEBORAH SHELDON
**Subject:** Re: Sense of Classroom Community Index

Hello Dr. Rovai,

I had contacted you in 2008 regarding a research project in which I wanted to use the Classroom Community Scale (CCS). I completed that project and students reported a higher overall sense of communitys as well as connectedness in their high school choir class than in their math and/or English classes. Students in one school reported a higher score for learning in choir than in their math class. No main effect was evident between males and females, or for the number of years the student had been in the choir.

I am continuing with this line of inquiry for my dissertation project. I am currently most curious about the results which suggest that students who were in choir for the first time experienced the same level of a sense of community as students who had been in choir for four years. Of all the possible independent variables, I am looking into the relationship between teaching styles and a sense of community.

I would like to use the CCS for my dissertation research and wanted to make sure that I have your permission to do so. I am considering making an online version of the survey using Google Forms. I need to think through my data collection process, though. This is one case where it may still be better to do the paper version. If I were to create the
online version, I would be sure to include all the same information as found on the paper version. I would be happy to send to you the link for the online version for your approval. High school choir students will be completing the CCS, while their teachers are completing the Music Teaching Style Inventory as developed by Dr. Alan Gumm at Central Michigan University.

I would be planning to invite subjects to participate in the project in the fall of 2011 and data collection would occur in the spring of 2012.

Dr. Deborah Sheldon is my Dissertation Chair and I have cc'd her on this email as well.

Thank you very much for your help in this matter.

Louise Anderson
Temple University
Boyer College of Music and Dance
Philadelphia, PA
cell: 717-940-4930

On Mon, Oct 27, 2008 at 11:22 AM, Alfred Rovai <alfrrov@regent.edu> wrote:
Hi Louise,

Attached is a clean copy of the present version of the instrument as well as the article I mentioned.

Best wishes.

---

Alfred P. Rovai, PhD
Professor of Education
Regent University
1000 Regent University Drive
Virginia Beach, VA 23464-9800
Office ADM-216
Phone 757.226.4861
http://www.regent.edu/acad/schedu/pdfs/vita_rovai.pdf

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# APPENDIX B

## Demographics for Participating High Schools

APPENDIX B: Demographics for Participating High Schools

| School | Number of participating ensembles | High School Population | Type of School | Locale | Free Lunch | Reduced Lunch | Race/Ethnicity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | American Indian and Alaskan | Asian and Pacific Islander | Black | Hispanic | White |
| 1 | 2 | 1789 | Public | City | 605 | 182 | 0 | 9 | 90 | 6 | 1684 |
| 2 | 1 | 789 | Public | Rural | 87 | 356 | 1 | 10 | 24 | 23 | 737 |
| 3 | 1 | 665 | Public | Suburban | 50 | 35 | 1 | 6 | 11 | 5 | 642 |
| 4 | 1 | 989 | Public | Rural | 109 | 60 | 1 | 6 | 10 | 5 | 964 |
| 5 | 1 | 1330 | Public | Town | 186 | 50 | 7 | 8 | 13 | 18 | 1280 |
| 6 | 3 | 1493 | Public | Town | 263 | 83 | 2 | 23 | 160 | 70 | 1218 |
| 7 | 1 | 1538 | Public | Suburban | 232 | 79 | 3 | 29 | 40 | 154 | 1280 |
| 8 | 2 | 1667 | Public | Suburban | 235 | 73 | 5 | 64 | 177 | 77 | 1267 |
| 9 | 1 | 620 | Public | Rural | 126 | 88 | 0 | 0 | 4 | 3 | 606 |
| 10 | 4 | 1458 | Public | Suburban | 109 | 44 | 0 | 101 | 671 | 55 | 631 |
| 11 | 1 | 402 | Public | Town | 53 | 30 | 0 | 3 | 5 | 2 | 380 |
| 12 | 1 | 418 | Public | Rural | 147 | 72 | 0 | 0 | 3 | 0 | 415 |
| 13 | 1 | 1143 | Public | Suburban | 99 | 88 | 1 | 36 | 17 | 28 | 1047 |
| 14 | 2 | 1253 | Public | Suburban | 229 | 124 | 0 | 85 | 81 | 158 | 929 |
| 15 | 1 | 371 | Public | Rural | 141 | 52 | 1 | 0 | 7 | 3 | 360 |
| 16 | 1 | 1025 | Public | Suburban | 179 | 59 | 1 | 13 | 78 | 70 | 862 |
| 17 | 1 | 881 | Public | Rural | 127 | 84 | 3 | 5 | 33 | 47 | 784 |

Continued

APPENDIX B: Demographics for Participating High Schools (Continued)

| School | Number of participating ensembles | High School Population | Type of School | Locale | Free Lunch | Reduced Lunch | Race/Ethnicity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | American Indian and Alaskan | Asian and Pacific Islander | Black | Hispanic | White |
| 18 | 1 | 776 | Public | Rural | 75 | 54 | 0 | 2 | 11 | 13 | 750 |
| 19 | 1 | 1258 | Public | Suburban | 192 | 121 | 2 | 37 | 24 | 66 | 1129 |
| 20 | 1 | 207 | Public | Rural | 32 | 31 | 1 | 0 | 1 | 1 | 204 |
| 21 | 1 | 704 | Public | Rural | 230 | 69 | 1 | 9 | 45 | 3 | 646 |
| 22 | 2 (with 2 directors) | 1993 | Public | Suburban | 9 | 0 | 5 | 82 | 204 | 570 | 1126 |
| 23 | 1 | 399 | Public | Rural | 155 | 46 | 0 | 0 | 1 | 2 | 396 |
| 24 | 2 | 2324 | Public | Suburban | 204 | 107 | 14 | 79 | 94 | 222 | 1881 |
| 25 | 1 | 468 | Private | Suburban | – | – | 0 | 2 | 4 | 4 | 458 |
| 26 | 1 | 2777 | Public | City | 1616 | 297 | 12 | 114 | 622 | 1491 | 538 |
| 27 | 1 | 1112 | Public | Suburban | 72 | 67 | 3 | 20 | 28 | 45 | 1030 |
| 28 | 1 | 802 | Private | Suburban | – | – | 0 | 32 | 18 | 45 | 707 |
| 29 | 1 | 789 | Private | Suburban | – | – | 0 | 47 | 67 | 73 | 600 |
| 30 | 1 | 473 | Public | Suburban | 67 | 26 | 0 | 7 | 32 | 4 | 430 |
| 31 | 1 | 641 | Public | Suburban | 75 | 32 | 1 | 6 | 6 | 1 | 627 |
| 32 | 1 | 3084 | Public | Suburban | 343 | 124 | 1 | 520 | 231 | 92 | 2240 |
| 33 | 3 | 745 | Public | Town | 248 | 51 | 3 | 2 | 16 | 8 | 715 |
| 34 | 1 | 1015 | Public | Suburban | 89 | 44 | 1 | 13 | 19 | 28 | 954 |

Continued

APPENDIX B: Demographics for Participating High Schools (Continued)

| School | Number of participating ensembles | High School Population | Type of School | Locale | Free Lunch | Reduced Lunch | Race/Ethnicity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | American Indian and Alaskan | Asian and Pacific Islander | Black | Hispanic | White |
| 35 | 1 | 626 | Public | Rural | 117 | 48 | 0 | 8 | 9 | 10 | 599 |
| 36 | 1 | 446 | Public | Rural | 155 | 67 | 1 | 2 | 2 | 0 | 441 |
| 37 | 3 | 1810 | Public | Suburban | 254 | 105 | 7 | 17 | 27 | 6 | 1750 |
| 38 | 1 | 1219 | Public | Rural | 178 | 91 | 4 | 5 | 16 | 32 | 1161 |
| 39 | 1 | 205 | Private | Suburban | – | – | 0 | 0 | 3 | 2 | 200 |
| 40 | 2 | 575 | Public | Suburban | 66 | 40 | 1 | 5 | 6 | 3 | 560 |
| 41 | 1 | 1450 | Public | Suburban | 161 | 67 | 2 | 61 | 136 | 136 | 1115 |

*Note*. Adapted from the National Center for Education Statistics. (2010). "School Search." Retrieved from http://nces.ed.gov/globallocator

# APPENDIX C

## Teacher Descriptive Statistics

APPENDIX C: Teacher Descriptive Statistics

| | Gender | # of Ensembles | Type of Ensemble(s) | Yrs. Teach. Exp. | Stage of Teaching Development |
|---|---|---|---|---|---|
| 1 | M | 1 | Concert Choir | 2 | 0-2 Self-Reflective |
| 2 | M | 1 | Concert Choir | 3 | 3-7 Broadening |
| 3 | M | 1 | Concert Choir | 4 | 3-7 Broadening |
| 4 | M | 1 | Concert Choir | 5 | 3-7 Broadening |
| 5 | M | 1 | Concert Choir | 5 | 3-7 Broadening |
| 6 | M | 1 | 9th-Grade Chorus | 10 | 8-10 Transition |
| 7 | M | 3 | Women's Chorus<br>Select Ensemble<br>Concert Choir | 13 | 10-20 Deepening Stage I |
| 8 | M | 1 | Women's Chorus | 15 | 10-20 Deepening Stage I |
| 9 | M | 1 | Concert Choir | 15 | 10-20 Deepening Stage I |
| 10 | M | 1 | Concert Choir | 17 | 10-20 Deepening Stage I |
| 11 | M | 1 | Concert Choir | 19 | 10-20 Deepening Stage I |
| 12 | M | 1 | Concert Choir | 20 | 10-20 Deepening Stage I |
| 13 | M | 1 | Concert Choir | 21 | 20+ Deepening Stage II |
| 14 | M | 1 | Concert Choir | 24 | 20+ Deepening Stage II |
| 15 | M | 2 | Women's Chorus<br>Select Ensemble | 30 | 20+ Deepening Stage II |
| 16 | M | 2 | Women's Chorus<br>Concert Choir | 31 | 20+ Deepening Stage II |
| 17 | M | 1 | Select Ensemble | 34 | 20+ Deepening Stage II |
| 18 | F | 1 | Concert Choir | 1 | 0-2 Self-Reflective |
| 19 | F | 1 | Concert Choir | 1 | 0-2 Self-Reflective |
| 20 | F | 1 | Concert Choir | 2 | 0-2 Self-Reflective |
| 21 | F | 3 | 9th-Grade Chorus<br>Women's Chorus<br>Concert Choir | 2 | 0-2 Self-Reflective |
| 22 | F | 2 | Select Ensemble<br>Concert Choir | 3 | 3-7 Broadening |
| 23 | F | 1 | Concert Choir | 3 | 3-7 Broadening |
| 24 | F | 1 | Concert Choir | 5 | 3-7 Broadening |
| 25 | F | 1 | Concert Choir | 6 | 3-7 Broadening |
| 26 | F | 1 | Concert Choir | 7 | 3-7 Broadening |
| 27 | F | 1 | Concert Choir | 7.5 | 8-10 Transition |
| 28 | F | 4 | Men's Chorus<br>Women's Chorus<br>Select Ensemble<br>Concert Choir | 13 | 10-20 Deepening Stage I |
| 29 | F | 1 | Concert Choir | 14 | 10-20 Deepening Stage I |

Continued

APPENDIX C: Teacher Descriptive Statistics (Continued)

| | Gender | # of Ensembles | Type of Ensemble(s) | Yrs. Teach. Exp. | Stage of Teaching Development |
|---|---|---|---|---|---|
| 30 | F | 1 | Concert Choir | 14.5 | 10-20 Deepening Stage I |
| 31 | F | 1 | Concert Choir | 16 | 10-20 Deepening Stage I |
| 32 | F | 2 | Women's Chorus<br>Concert Choir | 16.5 | 10-20 Deepening Stage I |
| 33 | F | 2 | Concert Choir<br>Concert Choir | 17 | 10-20 Deepening Stage I |
| 34 | F | 1 | Concert Choir | 18 | 10-20 Deepening Stage I |
| 35 | F | 2 | Concert Choir<br>Concert Choir | 18 | 10-20 Deepening Stage I |
| 36 | F | 1 | Concert Choir | 20 | 10-20 Deepening Stage I |
| 37 | F | 1 | Concert Choir | 22 | 20+ Deepening Stage II |
| 38 | F | 1 | Concert Choir | 23 | 20+ Deepening Stage II |
| 39 | F | 1 | Concert Choir | 25 | 20+ Deepening Stage II |
| 40 | F | 1 | Concert Choir | 33 | 20+ Deepening Stage II |
| 41 | F | 2 | Select Ensemble<br>Concert Choir | 33 | 20+ Deepening Stage II |
| 42 | F | 3 | Women's Chorus<br>Select Ensemble<br>Concert Choir | 37 | 20+ Deepening Stage II |

# APPENDIX D

## Student Enrollment in Ensembles

APPENDIX D: Student enrollment in Ensembles

| Type of Ensemble | Student *n* |
|---|---|
| 9th-Grade Chorus | 34 |
| 9th-Grade Chorus | 65 |
| Men's Chorus | 15 |
| Women's Chorus | 22 |
| Women's Chorus | 22 |
| Women's Chorus | 24 |
| Women's Chorus | 28 |
| Women's Chorus | 29 |
| Women's Chorus | 35 |
| Women's Chorus | 38 |
| Women's Chorus | 53 |
| Select Ensemble | 21 |
| Select Ensemble | 33 |
| Select Ensemble | 34 |
| Select Ensemble | 37 |
| Select Ensemble | 38 |
| Select Ensemble | 94 |
| Select Ensemble | 109 |

| Type of Ensemble | Student *n* |
|---|---|
| Concert Choir | 17 |
| Concert Choir | 19 |
| Concert Choir | 21 |
| Concert Choir | 23 |
| Concert Choir | 25 |
| Concert Choir | 30 |
| Concert Choir | 36 |
| Concert Choir | 37 |
| Concert Choir | 40 |
| Concert Choir | 42 |
| Concert Choir | 43 |
| Concert Choir | 43 |
| Concert Choir | 45 |
| Concert Choir | 47 |
| Concert Choir | 52 |
| Concert Choir | 56 |
| Concert Choir | 57 |
| Concert Choir | 60 |
| Concert Choir | 60 |
| Concert Choir | 61 |
| Concert Choir | 63 |
| Concert Choir | 65 |
| Concert Choir | 68 |
| Concert Choir | 76 |
| Concert Choir | 80 |
| Concert Choir | 84 |
| Concert Choir | 86 |
| Concert Choir | 86 |
| Concert Choir | 86 |
| Concert Choir | 90 |
| Concert Choir | 95 |
| Concert Choir | 108 |
| Concert Choir | 110 |
| Concert Choir | 111 |
| Concert Choir | 130 |
| Concert Choir | 150 |
| Concert Choir | 215 |
| Concert Choir | 230 |

# APPENDIX E

## Student Demographics per School and Ensemble

APPENDIX E: Student Demographics per School and Ensemble

| | | | | Participating Students | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Gender | | Grade Level | | | | Yrs. Exp. In Ensemble | | | |
| Sch | Type of Ensemble | Student *n* [a] | % response rate [b] | M *n* | F *n* | 9 *n* | 10 *n* | 11 *n* | 12 *n* | 1 *n* | 2 *n* | 3 *n* | 4 *n* |
| | Select Ensemble | 57 | 21.05 | 0 | 6 | 0 | 1 | 3 | 2 | 1 | 3 | 1 | 1 |
| 1 | Concert Choir | 38 | 12.50 | 0 | 12 | 0 | 5 | 5 | 2 | 5 | 3 | 2 | 2 |
| 2 | Concert Choir | 42 | 28.57 | 3 | 9 | 1 | 2 | 3 | 6 | 0 | 3 | 3 | 6 |
| 3 | Concert Choir | 63 | 28.57 | 5 | 22 | 2 | 7 | 7 | 11 | 2 | 15 | 4 | 6 |
| 4 | Concert Choir | 60 | 38.33 | 2 | 21 | 6 | 3 | 6 | 8 | 8 | 4 | 7 | 4 |
| 5 | Women's Chorus | 22 | 31.82 | 0 | 7 | 0 | 0 | 1 | 6 | 1 | 1 | 1 | 4 |
| 6 | Women's Chorus | 22 | 72.73 | 0 | 16 | 0 | 7 | 2 | 7 | 4 | 7 | 2 | 3 |
| | Select Ensemble | 21 | 61.90 | 7 | 6 | 0 | 6 | 2 | 5 | 4 | 4 | 2 | 3 |
| | Concert Choir | 30 | 23.33 | 0 | 7 | 4 | 1 | 2 | 0 | 7 | 0 | 0 | 0 |
| 7 | Concert Choir | 230 | 21.74 | 9 | 41 | 13 | 8 | 7 | 22 | 16 | 7 | 7 | 17 |
| 8 | Concert Choir | 47 | 89.36 | 11 | 31 | 9 | 11 | 13 | 12 | 10 | 9 | 14 | 9 |
| 9 | Women's Chorus | 53 | 13.21 | 0 | 7 | 1 | 6 | 0 | 0 | 2 | 5 | 0 | 0 |
| | Concert Choir | 76 | 18.42 | 5 | 9 | 2 | 2 | 3 | 7 | 6 | 2 | 2 | 4 |
| 10 | Men's Chorus | 15 | 26.67 | 4 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |
| | Women's Chorus | 38 | 31.58 | 0 | 12 | 12 | 0 | 0 | 0 | 12 | 0 | 0 | 0 |
| | Select Ensemble | 33 | 57.58 | 8 | 11 | 0 | 3 | 5 | 11 | 2 | 4 | 6 | 7 |
| | Concert Choir | 45 | 24.44 | 2 | 9 | 0 | 5 | 3 | 3 | 1 | 5 | 3 | 2 |
| 11 | 9th-Grade Chorus | 65 | 67.69 | 19 | 25 | 44 | 0 | 0 | 0 | 44 | 0 | 0 | 0 |
| 12 | Concert Choir | 43 | 39.53 | 6 | 11 | 4 | 6 | 5 | 2 | 1 | 2 | 8 | 6 |
| 13 | Concert Choir | 90 | 44.44 | 14 | 26 | 9 | 11 | 12 | 8 | 12 | 12 | 10 | 6 |
| 14 | Women's Chorus | 35 | 17.14 | 0 | 6 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 0 |
| | Concert Choir | 80 | 20.00 | 3 | 13 | 2 | 3 | 4 | 7 | 2 | 7 | 4 | 3 |
| 15 | Concert Choir | 37 | 24.32 | 2 | 7 | 1 | 6 | 1 | 1 | 2 | 3 | 2 | 2 |
| 16 | Concert Choir | 111 | 10.81 | 5 | 7 | 1 | 1 | 5 | 5 | 2 | 1 | 6 | 3 |
| 17 | Concert Choir | 86 | 10.47 | 2 | 7 | 3 | 1 | 3 | 2 | 4 | 3 | 2 | 0 |
| 18 | Concert Choir | 86 | 16.28 | 4 | 10 | 3 | 1 | 1 | 9 | 5 | 1 | 3 | 5 |
| 19 | Concert Choir | 84 | 44.05 | 7 | 30 | 10 | 9 | 10 | 8 | 12 | 11 | 10 | 4 |
| 20 | Concert Choir | 21 | 61.90 | 0 | 13 | 2 | 4 | 5 | 2 | 3 | 5 | 2 | 3 |
| 21 | Concert Choir | 95 | 47.37 | 14 | 31 | 12 | 18 | 1 | 14 | 17 | 19 | 2 | 7 |
| 22 | Concert Choir | 68 | 20.59 | 2 | 12 | 6 | 8 | 0 | 0 | 8 | 6 | 0 | 0 |
| | Concert Choir | 61 | 22.95 | 3 | 11 | 0 | 2 | 0 | 12 | 1 | 3 | 1 | 9 |
| 23 | Concert Choir | 56 | 26.79 | 4 | 11 | 2 | 3 | 2 | 8 | 1 | 2 | 4 | 8 |
| 24 | Women's Chorus | 28 | 60.71 | 0 | 17 | 5 | 4 | 6 | 2 | 8 | 4 | 3 | 2 |
| | Select Ensemble | 94 | 57.45 | 13 | 41 | 2 | 16 | 15 | 21 | 19 | 10 | 16 | 9 |
| 25 | Concert Choir | 19 | 31.58 | 0 | 6 | 0 | 2 | 1 | 3 | 2 | 1 | 2 | 1 |
| 26 | Concert Choir | 150 | 17.33 | 10 | 16 | 5 | 7 | 3 | 11 | 11 | 3 | 5 | 7 |

Continued

APPENDIX E: Student Demographics per School and Ensemble (Continued)

| | | | | Participating Students | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Gender | | Grade Level | | | | Yrs. Exp. In Ensemble | | | |
| Sch | Type of Ensemble | Student *n* [a] | % response rate [b] | M *n* | F *n* | 9 *n* | 10 *n* | 11 *n* | 12 *n* | 1 *n* | 2 *n* | 3 *n* | 4 *n* |
| 27 | Concert Choir | 110 | 20.91 | 14 | 9 | 3 | 5 | 2 | 5 | 5 | 5 | 4 | 5 |
| 28 | Concert Choir | 23 | 86.96 | 9 | 11 | 3 | 1 | 4 | 12 | 13 | 2 | 2 | 3 |
| 29 | Concert Choir | 40 | 67.50 | 10 | 17 | 0 | 0 | 11 | 16 | 19 | 7 | 0 | 1 |
| 30 | Concert Choir | 43 | 58.14 | 6 | 19 | 7 | 9 | 7 | 2 | 8 | 8 | 7 | 2 |
| 31 | Concert Choir | 86 | 29.07 | 3 | 22 | 8 | 6 | 4 | 7 | 11 | 6 | 5 | 3 |
| 32 | Concert Choir | 215 | 32.09 | 18 | 51 | 0 | 16 | 18 | 35 | 27 | 23 | 16 | 3 |
| 33 | Women's Chorus | 24 | 33.33 | 0 | 8 | 1 | 6 | 1 | 0 | 2 | 5 | 1 | 0 |
| | Select Ensemble | 109 | 36.70 | 13 | 27 | 5 | 6 | 16 | 13 | 6 | 6 | 18 | 10 |
| | Concert Choir | 52 | 23.08 | 1 | 11 | 11 | 0 | 1 | 0 | 11 | 0 | 1 | 0 |
| 34 | Concert Choir | 60 | 16.67 | 2 | 8 | 2 | 2 | 2 | 4 | 4 | 2 | 1 | 3 |
| 35 | Select Ensemble | 37 | 48.65 | 5 | 13 | 0 | 7 | 3 | 8 | 2 | 8 | 3 | 5 |
| 36 | Concert Choir | 36 | 25.00 | 1 | 8 | 4 | 1 | 3 | 1 | 1 | 1 | 6 | 1 |
| 37 | 9th-Grade Chorus | 34 | 17.65 | 1 | 5 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 |
| | Women's Chorus | 29 | 48.28 | 0 | 14 | 0 | 0 | 4 | 10 | 1 | 1 | 4 | 8 |
| | Concert Choir | 65 | 32.31 | 7 | 14 | 0 | 4 | 5 | 12 | 5 | 3 | 4 | 9 |
| 38 | Concert Choir | 130 | 36.92 | 10 | 38 | 15 | 13 | 4 | 16 | 19 | 12 | 4 | 13 |
| 39 | Concert Choir | 17 | 58.82 | 4 | 6 | 0 | 4 | 3 | 3 | 3 | 3 | 3 | 1 |
| 40 | Select Ensemble | 34 | 32.35 | 3 | 8 | 0 | 0 | 2 | 9 | 0 | 1 | 2 | 8 |
| | Concert Choir | 25 | 56.00 | 1 | 13 | 0 | 0 | 10 | 4 | 2 | 1 | 9 | 2 |
| 41 | Concert Choir | 108 | 7.41 | 3 | 5 | 0 | 3 | 0 | 5 | 1 | 2 | 1 | 4 |

Note. [a] *n*=number of students enrolled in the ensemble. [b] Response rate=percent of the total ensemble enrollment of students who completed the student survey.

# APPENDIX F

Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (*n* in parenthesis)

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (*n* in parenthesis)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 1 | S | SOC | 60.50 (12) | 10.36 | — | — | — | — | 57.80 (5) | 8.82 | 59.80 (5) | 11.36 | 69.00 (2) | 12.72 |
| | | subC | 28.58 | 5.94 | — | — | — | — | 26.80 | 4.97 | 28.60 | 5.85 | 33.00 | 9.9 |
| | | subL | 31.92 | 5.24 | — | — | — | — | 31.00 | 4.69 | 31.21 | 6.45 | 36.00 | 2.82 |
| | C | SOC | 63.67 (6) | 11.99 | — | — | — | — | 57.00 (1) | — | 64.67 (3) | 13.27 | 65.60 (2) | 17.67 |
| | | subC | 29.00 | 7.92 | — | — | — | — | 25.00 | — | 28.67 | 10.01 | 31.50 | 9.19 |
| | | subL | 34.67 | 4.84 | — | — | — | — | 32.00 | — | 36.00 | 4.00 | 34.00 | 8.48 |
| 2 | C | SOC | 45.67 (9) | 10.13 | 50.33 (3) | 13.31 | 59.00 (1) | — | 37.50 (2) | 9.19 | 47.33 (3) | 11.24 | 47.67 (6) | 10.59 |
| | | subC | 25.33 | 6.08 | 29.00 | 3.60 | 30.00 | — | 22.50 | 9.19 | 27.00 | 7.81 | 26.50 | 4.50 |
| | | subL | 20.33 | 5.45 | 21.33 | 10.01 | 29.00 | — | 15.00 | 0.00 | 20.23 | 4.16 | 21.17 | 7.36 |
| 3 | C | SOC | 60.18 (22) | 14.70 | 62.00 (5) | 12.66 | 26.00 (2) | 2.82 | 63.71 (7) | 11.17 | 62.14 (7) | 9.65 | 63.73 (11) | 11.38 |
| | | subC | 29.23 | 8.07 | 30.80 | 6.76 | 11.00 | 0.00 | 32.00 | 6.58 | 30.14 | 6.04 | 30.91 | 5.73 |
| | | subL | 30.95 | 7.04 | 31.20 | 7.79 | 15.00 | 2.82 | 31.71 | 5.05 | 32.00 | 4.12 | 32.82 | 6.80 |
| 4 | C | SOC | 61.48 (21) | 10.74 | 58.00 (2) | 5.65 | 61.17 (6) | 9.80 | 65.33 (3) | 12.89 | 60.83 (6) | 12.10 | 59.88 (8) | 9.44 |
| | | subC | 29.05 | 6.53 | 28.00 | 4.24 | 29.00 | 6.51 | 30.67 | 9.71 | 29.83 | 5.91 | 27.63 | 6.23 |
| | | subL | 32.43 | 5.49 | 30.00 | 1.41 | 32.17 | 4.02 | 34.67 | 3.21 | 31.00 | 8.12 | 32.25 | 4.74 |
| 5 | W | SOC | 66.86 (7) | 6.36 | — | — | — | — | — | — | 64.00 (1) | — | 67.33 (6) | 6.83 |
| | | subC | 31.86 | 4.74 | — | — | — | — | — | — | 27.00 | — | 32.67 | 4.63 |
| | | subL | 35.00 | 2.82 | — | — | — | — | — | — | 37.00 | — | 34.67 | 2.94 |
| 6 | W | SOC | 57.88 (16) | 15.48 | — | — | — | — | 56.29 (7) | 22.70 | 56.50 (2) | 7.77 | 59.86 (7) | 8.09 |
| | | subC | 28.50 | 8.03 | — | — | — | — | 26.43 | 11.20 | 31.00 | 2.82 | 29.86 | 5.01 |
| | | subL | 29.38 | 8.12 | — | — | — | — | 29.86 | 12.03 | 25.50 | 4.95 | 30.00 | 3.21 |
| | S | SOC | 58.50 (6) | 11.58 | 63.71 (7) | 11.35 | — | — | 64.00(6) | 11.18 | 64.50 (2) | 4.95 | 56.80 (5) | 13.38 |
| | | subC | 29.50 | 7.31 | 31.86 | 6.12 | — | — | 32.33 | 5.50 | 33.50 | 4.95 | 28.80 | 8.07 |
| | | subL | 29.00 | 6.13 | 31.86 | 5.61 | — | — | 31.67 | 6.62 | 31.00 | 0.00 | 29.00 | 6.40 |

Continued

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (*n* in parenthesis) (Continued)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| | C | SOC | 53.86 (7) | 12.50 | — | — | 55.75 (4) | 12.656 | 68.00 (1) | — | 43.00 (2) | 2.82 | — | — |
| | | subC | 25.86 | 8.23 | — | — | 27.50 | .75 | 34.00 | — | 18.50 | 9.19 | — | — |
| | | subL | 28.00 | 5.85 | — | — | 28.25 | 5.90 | 34.00 | — | 24.50 | 6.36 | — | — |
| 7 | C | SOC | 55.76 (41) | 10.84 | 56.00 (9) | 17.95 | 50.44 (9) | 7.73 | 54.80 (10) | 10.96 | 50.75 (4) | 15.10 | 58.70 (27) | 13.07 |
| | | subC | 27.00 | 5.85 | 27.33 | 9.72 | 23.67 | 4.03 | 26.90 | 5.78 | 25.25 | 7.89 | 28.52 | 7.17 |
| | | subL | 28.76 | 5.61 | 28.67 | 8.63 | 26.78 | 4.76 | 27.90 | 5.97 | 25.50 | 7.55 | 30.19 | 6.33 |
| 8 | C | SOC | 63.84 (31) | 8.49 | 60.36 (11) | 9.68 | 61.17 (6) | 8.01 | 64.36 (11) | 6.84 | 63.85 (13) | 10.83 | 61.50 (12) | 9.18 |
| | | subC | 30.77 | 5.11 | 28.55 | 6.75 | 29.00 | 4.29 | 31.82 | 5.63 | 30.23 | 6.94 | 29.25 | 4.73 |
| | | subL | 33.06 | 4.04 | 31.82 | 4.70 | 32.17 | 4.35 | 32.55 | 3.04 | 33.62 | 4.44 | 32.25 | 5.08 |
| 9 | W | SOC | 59.14 (7) | 9.68 | — | — | 62.00 (1) | — | 58.67 (6) | 10.52 | — | — | — | — |
| | | subC | 25.86 | 7.19 | — | — | 30.00 | — | 25.17 | 7.62 | — | — | — | — |
| | | subL | 33.29 | 4.38 | — | — | 32.00 | — | 33.50 | 4.76 | — | — | — | — |
| | C | SOC | 60.11 (9) | 3.72 | 69.80 (5) | 8.01 | 59.50 (2) | 2.12 | 61.00 (2) | 1.41 | 62.33 (3) | 4.93 | 66.00 (7) | 9.32 |
| | | subC | 30.44 | 3.90 | 36.20 | 4.71 | 30.50 | 2.12 | 29.50 | 0.70 | 33.67 | 4.04 | 33.43 | 6.37 |
| | | subL | 29.67 | 2.82 | 33.60 | 4.03 | 29.00 | 4.24 | 31.50 | 0.70 | 28.67 | 2.30 | 32.57 | 4.23 |
| 10 | M | SOC | — | — | 61.25 (4) | 11.35 | 61.25 (4) | 11.35 | — | — | — | — | — | — |
| | | subC | — | — | 29.50 | 5.91 | 29.50 | 5.91 | — | — | — | — | — | — |
| | | subL | — | — | 31.75 | 5.43 | 31.75 | 5.43 | — | — | — | — | — | — |
| | W | SOC | 53.75 (12) | 12.96 | — | — | 53.75 (12) | 12.96 | — | — | — | — | — | — |
| | | subC | 25.08 | 8.45 | — | — | 25.08 | 8.45 | — | — | — | — | — | — |
| | | subL | 28.67 | 5.17 | — | — | 28.67 | 5.17 | — | — | — | — | — | — |
| | S | SOC | 71.64 (11) | 8.86 | 68.38 (8) | 6.65 | — | — | 68.33 (3) | 8.38 | 69.40 (5) | 7.12 | 71.18 (11) | 8.79 |
| | | subC | 34.82 | 6.14 | 34.75 | 1.98 | — | — | 35.00 | 2.64 | 34.40 | 2.96 | 34.91 | 5.95 |
| | | subL | 36.82 | 3.21 | 33.63 | 5.79 | — | — | 33.33 | 5.77 | 35.00 | 4.79 | 36.27 | 3.58 |

Continued

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (*n* in parenthesis) (Continued)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| | C | SOC | 60.78 (9) | 10.96 | 57.00 (2) | 11.31 | — | — | 56.60 (5) | 13.16 | 66.00 (3) | 10.53 | 60.00 (3) | 4.00 |
| | | subC | 30.67 | 6.51 | 26.00 | 4.24 | — | — | 27.60 | 8.29 | 32.33 | 5.13 | 31.00 | 3.00 |
| | | subL | 30.11 | 5.23 | 31.00 | 7.07 | — | — | 29.00 | 5.83 | 33.67 | 5.50 | 29.00 | 3.60 |
| 11 | 9 | SOC | 49.56 (25) | 10.68 | 48.00 (19) | 10.68 | 48.89 (44) | 10.59 | — | — | — | — | — | — |
| | | subC | 22.76 | 5.76 | 23.00 | 5.37 | 22.86 | 5.53 | — | — | — | — | — | — |
| | | subL | 26.80 | 5.78 | 25.00 | 6.07 | 26.02 | 5.90 | — | — | — | — | — | — |
| 12 | C | SOC | 52.55 (11) | 12.49 | 62.50 (6) | 9.71 | 48.75 (4) | 10.53 | 57.17 (6) | 16.22 | 60.60 (5) | 11.48 | 56.00 (17) | 5.65 |
| | | subC | 26.91 | 6.41 | 31.50 | 6.15 | 25.00 | 4.16 | 28.83 | 8.54 | 30.80 | 6.83 | 29.00 | 1.41 |
| | | subL | 25.64 | 6.84 | 31.00 | 4.19 | 23.75 | 6.70 | 28.33 | 8.18 | 29.80 | 4.81 | 27.00 | 4.24 |
| 13 | C | SOC | 62.62 (26) | 9.47 | 58.36 (14) | 10.22 | 62.11 (9) | 6.86 | 56.91 (11) | 12.70 | 61.33 (12) | 7.72 | 65.50 (8) | 10.44 |
| | | subC | 31.08 | 5.49 | 29.07 | 5.01 | 30.56 | 3.71 | 29.00 | 7.07 | 30.17 | 4.60 | 32.37 | 5.60 |
| | | subL | 31.54 | 4.85 | 29.29 | 6.21 | 31.56 | 3.97 | 27.91 | 6.34 | 31.17 | 4.19 | 33.13 | 6.24 |
| 14 | W | SOC | 56.17 (6) | 10.57 | — | — | 51.00 (1) | — | 45.00 (2) | 4.24 | 65.60 (2) | 3.53 | 65.00 (1) | — |
| | | subC | 28.17 | 5.63 | — | — | 29.00 | — | 2150 | 3.53 | 31.50 | 0.70 | 34.00 | — |
| | | subL | 28.00 | 5.76 | — | — | 22.00 | — | 23.50 | 0.70 | 34.00 | 2.82 | 31.00 | — |
| | C | SOC | 53.23 (13) | 12.39 | 46.33 (3) | 20.10 | 51.50 (2) | 16.26 | 55.33 (3) | 20.55 | 48.00 (4) | 16.57 | 52.86 (7) | 11.03 |
| | | subC | 28.23 | 4.76 | 24.00 | 10.00 | 29.00 | 7.07 | 27.67 | 9.01 | 24.50 | 7.59 | 28.57 | 3.69 |
| | | subL | 25.00 | 8.50 | 22.33 | 10.69 | 22.50 | 9.19 | 27.67 | 11.67 | 23.50 | 9.25 | 24.29 | 8.73 |
| 15 | C | SOC | 63.00 (7) | 10.90 | 60.00 (2) | 2.82 | 40.00 (1) | — | 63.33 (6) | 3.83 | 67.00 (1) | — | 74.00 (1) | — |
| | | subC | 30.14 | 6.33 | 28.00 | 0.00 | 18.00 | — | 30.17 | 3.31 | 31.00 | — | 37.00 | — |
| | | subL | 32.86 | 4.98 | 32.00 | 2.82 | 22.00 | — | 33.17 | 1.60 | 36.00 | — | 37.00 | — |
| 16 | C | SOC | 50.57 (7) | 9.25 | 55.80 (5) | 5.26 | 42.00 (1) | — | 55.00 (1) | — | 52.80 (5) | 11.23 | 54.40 (5) | 4.03 |
| | | subC | 24.43 | 6.24 | 27.40 | 3.57 | 18.00 | — | 31.00 | — | 25.80 | 7.15 | 26.00 | 2.12 |
| | | subL | 26.14 | 4.88 | 28.40 | 4.15 | 24.00 | — | 24.00 | — | 27.00 | 6.51 | 28.40 | 2.70 |

Continued

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (n in parenthesis) (Continued)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 17 | C | SOC | 54.00 (7) | 12.06 | 66.50 (2) | 6.36 | 52.00 (3) | 10.53 | 71.00 (1) | — | 51.33 (3) | 10.97 | 65.00 (2) | 14.14 |
| | | subC | 25.43 | 7.63 | 32.50 | 2.12 | 25.67 | 6.87 | 34.00 | — | 24.33 | 8.32 | 29.50 | 10.60 |
| | | subL | 28.57 | 5.31 | 34.00 | 4.23 | 26.33 | 4.16 | 37.00 | — | 27.00 | 2.64 | 35.50 | 3.53 |
| 18 | C | SOC | 49.10 (10) | 12.13 | 54.50 (4) | 10.66 | 56.33 (3) | 18.17 | 52.00 (1) | — | 62.00 (1) | — | 47.33 (9) | 9.76 |
| | | subC | 22.70 | 6.41 | 25.00 | 5.71 | 27.33 | 8.14 | 25.00 | — | 31.00 | — | 21.00 | 4.89 |
| | | subL | 26.40 | 6.22 | 29.50 | 5.44 | 29.00 | 10.14 | 27.00 | — | 31.00 | — | 26.33 | 5.33 |
| 19 | C | SOC | 52.80 (30) | 13.35 | 54.00 (7) | 10.84 | 50.20 (10) | 18.55 | 60.00 (9) | 5.19 | 51.90 (10) | 10.86 | 50.13 (8) | 11.39 |
| | | subC | 25.13 | 6.18 | 27.43 | 7.27 | 24.40 | 9.14 | 29.67 | 3.39 | 24.80 | 7.03 | 23.38 | 5.29 |
| | | subL | 27.67 | 7.10 | 26.57 | 3.99 | 25.80 | 9.65 | 30.33 | 2.95 | 27.10 | 4.79 | 26.75 | 6.98 |
| 20 | C | SOC | 54.54 (13) | 10.54 | — | — | 52.00 (2) | 2.82 | 64.50 (4) | 7.93 | 50.20 (5) | 11.52 | 48.00 (2) | 4.23 |
| | | subC | 27.15 | 5.71 | — | — | 25.50 | 0.70 | 32.50 | 3.41 | 24.80 | 6.83 | 24.00 | 1.41 |
| | | subL | 27.38 | 5.72 | — | — | 26.50 | 2.12 | 32.00 | 4.56 | 25.40 | 6.87 | 24.00 | 2.82 |
| 21 | C | SOC | 62.13 (31) | 9.56 | 58.79 (14) | 15.69 | 66.67 (12) | 8.91 | 57.94 (18) | 11.28 | 63.00 (1) | — | 60.21 (14) | 13.72 |
| | | subC | 30.68 | 5.14 | 28.21 | 8.79 | 22.08 | 4.82 | 28.50 | 5.97 | 31.00 | — | 28.93 | 7.95 |
| | | subL | 31.45 | 5.25 | 30.57 | 7.78 | 33.58 | 4.42 | 29.44 | 6.75 | 32.00 | — | 31.29 | 6.25 |
| 22 | C | SOC | 51.67 (12) | 12.26 | 36.50 (2) | 10.09 | 48.83 (6) | 16.89 | 50 (8) | 11.86 | — | — | — | — |
| | | subC | 23.50 | 6.06 | 20.50 | 10.60 | 23.67 | 7.20 | 22.63 | 6.20 | — | — | — | — |
| | | subL | 28.17 | 6.68 | 16.00 | 8.48 | 25.17 | 10.26 | 27.38 | 6.25 | — | — | — | — |
| | C | SOC | 43.91 (11) | 13.73 | 54.00 (3) | 9.84 | — | — | 44.00 (2) | 1.41 | — | — | 46.42 (12) | 14.48 |
| | | subC | 21.55 | 7.20 | 25.33 | 8.08 | — | — | 19.50 | 4.95 | — | — | 22.83 | 7.62 |
| | | subL | 22.36 | 7.92 | 28.67 | 2.88 | — | — | 24.50 | 3.53 | — | — | 23.58 | 8.11 |

Continued

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (n in parenthesis) (Continued)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 23 | C | SOC | 66.55 (11) | 9.84 | 48.00 (4) | 23.55 | 70.50 (2) | 9.19 | 45.33 (3) | 30.28 | 71.50 (2) | 0.70 | 63.00 (8) | 8.92 |
| | | subC | 32.55 | 4.92 | 19.75 | 17.81 | 34.50 | 3.53 | 16.33 | 20.55 | 35.50 | 3.53 | 31.00 | 4.59 |
| | | subL | 34.00 | 5.58 | 28.25 | 5.90 | 36.00 | 5.65 | 29.00 | 9.84 | 36.00 | 2.82 | 32.00 | 5.23 |
| 24 | W | SOC | 56.76 (17) | 10.43 | — | — | 53.40 (5) | 8.96 | 56.00 (4) | 13.49 | 55.33 (6) | 8.93 | 71.00(2) | 0.00 |
| | | subC | 25.06 | 7.16 | — | — | 22.20 | 5.16 | 25.00 | 9.41 | 24.17 | 6.36 | 35.00 | 1.41 |
| | | subL | 31.71 | 4.38 | — | — | 31.20 | 6.01 | 31.00 | 4.24 | 31.17 | 3.60 | 36.00 | 1.41 |
| | S | SOC | 60.85 (41) | 11.14 | 56.96 (13) | 13.24 | 58.00 (2) | 2.82 | 64.19 (16) | 11.97 | 58.53 (15) | 7.91 | 57.81 (21) | 13.72 |
| | | subC | 29.10 | 6.41 | 26.92 | 8.49 | 29.00 | 1.41 | 31.50 | 6.05 | 27.67 | 5.55 | 26.95 | 8.26 |
| | | subL | 31.76 | 5.52 | 30.00 | 6.13 | 29.00 | 1.41 | 32.69 | 6.74 | 30.87 | 3.92 | 30.86 | 6.40 |
| 25 | C | SOC | 67.83 (6) | 4.26 | — | — | — | — | 70.50 (2) | 3.53 | 64.00 (1) | — | 67.33 (3) | 4.93 |
| | | subC | 32.50 | 3.83 | — | — | — | — | 33.00 | 2.82 | 29.00 | — | 33.33 | 5.03 |
| | | subL | 35.33 | 2.42 | — | — | — | — | 37.50 | 0.70 | 35.00 | — | 34.00 | 2.64 |
| 26 | C | SOC | 58.00 (16) | 17.10 | 69.30 (10) | 4.37 | 64.80 (5) | 15.41 | 65.00 (7) | 5.65 | 41.67 (3) | 1.70 | 65.18 (11) | 11.68 |
| | | subC | 27.44 | 10.16 | 34.90 | 2.18 | 32.20 | 8.61 | 32.14 | 2.79 | 17.00 | 1.66 | 31.91 | 6.67 |
| | | subL | 30.56 | 7.15 | 34.40 | 3.09 | 32.60 | 7.09 | 32.86 | 3.07 | 24.67 | 1.73 | 33.2 | 5.55 |
| 27 | C | SOC | 54.22 (9) | 11.08 | 54.00 (14) | 10.77 | 49.57 (7) | 9.01 | 56.00 (7) | 10.63 | 60.50 (2) | 0.70 | 54.86 (7) | 13.98 |
| | | subC | 27.00 | 7.03 | 27.21 | 5.57 | 24.43 | 4.19 | 28.14 | 5.55 | 31.50 | 0.70 | 27.57 | 8.24 |
| | | subL | 27.22 | 4.71 | 26.79 | 6.38 | 25.14 | 6.14 | 27.86 | 5.64 | 29.00 | 1.41 | 27.29 | 6.47 |
| 28 | C | SOC | 57.45 (11) | 9.61 | 55.22 (9) | 15.23 | 62.00 (3) | 8.18 | 46.00 (1) | — | 59.75 (4) | 7.93 | 54.83 (12) | 14.16 |
| | | subC | 26.64 | 5.76 | 25.56 | 7.90 | 30.33 | 3.78 | 19.00 | — | 27.75 | 3.59 | 25.17 | 7.66 |
| | | subL | 30.82 | 4.72 | 29.67 | 9.27 | 31.67 | 5.03 | 27.00 | — | 32.00 | 4.76 | 29.67 | 8.34 |
| 29 | C | SOC | 57.53 (17) | 8.50 | 60.10 (10) | 3.47 | — | — | — | — | 61.36 (11) | 4.80 | 56.60 (16) | 7.84 |
| | | subC | 27.35 | 5.44 | 29.70 | 2.31 | — | — | — | — | 28.82 | 4.37 | 27.81 | 4.88 |
| | | subL | 30.18 | 4.87 | 30.40 | 3.02 | — | — | — | — | 32.55 | 2.46 | 28.69 | 4.51 |

Continued

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (n in parenthesis) (Continued)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 31 | C | SOC | 55.23 (22) | 12.15 | 56.33 (3) | 16.56 | 62.87 (8) | 11.61 | 53.67 (6) | 11-.3 | 50.75 (4) | 10.56 | 50.86 (7) | 13.35 |
| | | subC | 26.05 | 8.15 | 28.67 | 10.01 | 31.63 | 9.41 | 23.17 | 7.16 | 23.75 | 5.73 | 24.57 | 7.13 |
| | | subL | 29.18 | 5.34 | 27.67 | 6.80 | 31.25 | 3.45 | 30.50 | 5.08 | 27.00 | 4.96 | 26.29 | 6.94 |
| 32 | C | SOC | 60.78 (51) | 9.86 | 62.72 (18) | 8.36 | — | — | 57.63 (16) | 11.44 | 61.50 (18) | 7.12 | 62.86 | 9.35 |
| | | subC | 28.98 | 5.85 | 29.72 | 5.06 | — | — | 27.56 | 7.04 | 29.33 | 4.98 | 29.83 | 5.44 |
| | | subL | 31.80 | 4.86 | 33.00 | 3.98 | — | — | 30.06 | 5.20 | 32.17 | 3.56 | 33.03 | 4.70 |
| 33 | W | SOC | 53.88 (8) | 9.76 | — | — | 64.00 (1) | — | 52.50 (6) | 10.48 | 52.00 (1) | — | — | — |
| | | subC | 25.38 | 6.07 | — | — | 31.00 | — | 24.17 | 6.55 | 27.00 | — | — | — |
| | | subL | 28.50 | 4.14 | — | — | 33.00 | — | 28.33 | 4.17 | 25.00 | — | — | — |
| | S | SOC | 58.00 (27) | 10.15 | 54.69 (13) | 11.68 | 52.00 (5) | 6.89 | 63.67 (6) | 7.84 | 58.75 (16) | 11.66 | 53.46 (13) | 10.30 |
| | | subC | 28.56 | 5.01 | 26.69 | 5.26 | 24.40 | 5.07 | 31.17 | 3.76 | 29.06 | 5.19 | 26.46 | 4.68 |
| | | subL | 29.44 | 6.18 | 28.00 | 7.08 | 27.60 | 2.79 | 32.50 | 5.57 | 29.69 | 7.24 | 27.00 | 6.41 |
| | C | SOC | 54.09 (11) | 6.89 | 53.00 (1) | — | 53.64 (11) | 6.77 | — | — | 58.00 (1) | — | — | — |
| | | subC | 26.45 | 3.75 | 24.00 | — | 26.09 | 3.78 | — | — | 28.00 | — | — | — |
| | | subL | 27.64 | 4.05 | 29.00 | — | 27.55 | 4.00 | — | — | 30.00 | — | — | — |
| 34 | S | SOC | 56.63 (8) | 9.02 | 44.00 (2) | 9.89 | 48.00 (2) | 15.56 | 58.50 (2) | 4.95 | 54.50 (2) | 14.89 | 54.75 (4) | 10.34 |
| | | subC | 26.50 | 5.92 | 20.00 | 7.07 | 22.50 | 10.60 | 27.00 | 0.00 | 23.50 | 12.02 | 26.50 | 5.00 |
| | | subL | 30.13 | 5.19 | 24.00 | 2.82 | 25.50 | 4.95 | 31.50 | 4.95 | 31.00 | 2.82 | 28.25 | 7.13 |
| 35 | S | SOC | 69.69 (13) | 5.87 | 60.60 (5) | 9.73 | — | — | 63.57 (7) | 10.09 | 63.67 (3) | 3.05 | 71.63 (8) | 5.01 |
| | | subC | 35.00 | 3.31 | 29.00 | 6.00 | — | — | 31.86 | 6.01 | 31.67 | 5.03 | 35.25 | 3.49 |
| | | subL | 34.69 | 3.94 | 31.60 | 4.66 | — | — | 31.71 | 4.82 | 32.00 | 3.46 | 36.38 | 2.72 |
| 36 | C | SOC | 59.88 (8) | 6.89 | 49.00 (1) | — | 60.75 (4) | 10.11 | 56.00 (1) | — | 60.00 (3) | 2.00 | 49.00 (1) | — |
| | | subC | 28.25 | 4.71 | 25.00 | — | 31.00 | 4.08 | 27.00 | — | 25.00 | 4.58 | 25.00 | — |
| | | subL | 31.62 | 5.20 | 24.00 | — | 29.75 | 6.34 | 29.00 | — | 35.00 | 2.64 | 24.00 | — |

Continued

APPENDIX F: Overall Classroom Community Scale and Subscale Scores per Ensemble for Gender and Grade (*n* in parenthesis) (Continued)

| Sch. | Ens[a] | Var.[b] | Gender | | | | Grade | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | F | | M | | 9 | | 10 | | 11 | | 12 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 37 | 9 | SOC | 50.60 (5) | 8.05 | 77.00 (1) | — | 55.00 (6) | 12.96 | — | — | — | — | — | — |
| | | subC | 24.20 | 3.03 | 37.00 | — | 26.33 | 5.88 | — | — | — | — | — | — |
| | | subL | 26.40 | 6.18 | 40.00 | — | 28.67 | 7.84 | — | — | — | — | — | — |
| | W | SOC | 58.57 (14) | 13.50 | — | — | — | — | — | — | 56.75 (4) | 19.19 | 59.30 (10) | 11.77 |
| | | subC | 27.50 | 7.06 | — | — | — | — | — | — | 27.00 | 10.29 | 27.70 | 6.05 |
| | | subL | 31.07 | 7.61 | — | — | — | — | — | — | 29.75 | 8.99 | 31.60 | 7.54 |
| | C | SOC | 58.43 (14) | 12.01 | 60.86 (7) | 11.68 | — | — | 64.75 (4) | 3.30 | 50.40 (5) | 15.46 | 61/08 (12) | 10.35 |
| | | subC | 28.57 | 7.04 | 28.86 | 6.36 | — | — | 30.75 | 0.50 | 25.40 | 10.90 | 29.13 | 5.53 |
| | | subL | 29.86 | 5.53 | 32.00 | 5.80 | — | — | 34.00 | 2.94 | 25.00 | 4.58 | 31.75 | 5.15 |
| 38 | C | SOC | 53.08 (38) | 14.94 | 54.70 (10) | 11.02 | 53.00 (15) | 10.51 | 53.15 (13) | 16.39 | 48.25 (4) | 13.47 | 55.31 (16) | 16.11 |
| | | subC | 25.55 | 8.20 | 28.90 | 5.62 | 26.47 | 5.47 | 26.00 | 8.81 | 23.00 | 6.16 | 27.06 | 9.46 |
| | | subL | 27.53 | 7.46 | 25.80 | 7.00 | 26.53 | 5.89 | 27.15 | 8.34 | 25.25 | 7.63 | 28.25 | 8.12 |
| 39 | C | SOC | 46.50 (6) | 18.92 | 58.75 (4) | 3.09 | — | — | 36.25 (4) | 13.07 | 63.33 (3) | 6.50 | 59.67 (3) | 4.04 |
| | | subC | 23.67 | 11.75 | 26.25 | 2.63 | — | — | 18.25 | 10.62 | 31.00 | 4.00 | 28.33 | 4.93 |
| | | subL | 22.83 | 8.18 | 31.50 | 1.29 | — | — | 18.00 | 2.74 | 32.33 | 2.51 | 31.33 | 1.52 |
| 40 | S | SOC | 55.38 (8) | 7.23 | 63.00 (3) | 10.14 | — | — | — | — | 56.00 (2) | 12.72 | 57.78 (9) | 8.15 |
| | | subC | 25.13 | 4.91 | 31.00 | 4.58 | — | — | — | — | 24.50 | 7.77 | 27.22 | 5.16 |
| | | subL | 30.25 | 2.86 | 32.00 | 6.08 | — | — | — | — | 31.50 | 4.95 | 30.56 | 3.74 |
| | C | SOC | 56.69 (13) | 11.31 | 45.00 (1) | — | — | — | — | — | 58.30 (10) | 12.18 | 49.75 (4) | 6.29 |
| | | subC | 26.38 | 6.87 | 22.00 | — | — | — | — | — | 27.80 | 7.11 | 21.75 | 2.87 |
| | | subL | 30.31 | 5.55 | 23.00 | — | — | — | — | — | 30.50 | 5.54 | 28.00 | 6.48 |
| 41 | C | SOC | 59.00 (5) | 5.78 | 64.00 (3) | 13.07 | — | — | 62.33 (3) | 14.97 | — | — | 60.00 (5) | 4.00 |
| | | subC | 27.40 | 5.50 | 31.33 | 6.65 | — | — | 29.00 | 9.16 | — | — | 28.80 | 4.20 |
| | | subL | 31.60 | 2.30 | 32.67 | 6.65 | — | — | 33.33 | 5.85 | — | — | 31.20 | 2.95 |

*Note.* [a] Ensembles are as follows: 1 = 9th-Grade Chorus, 2 = Men's Chorus, 3 = Women's Chorus, 4 = Select Ensemble, 5 = Concert Choir.
[b] Variables are as follows: SOC = overall sense-of-community, subC = subscale of connectedness, subL = subscale of learning.

# APPENDIX G

## Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis)

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 1 | S | SOC | 58.50 (5) | 8.81 | 57.00 (3) | 9.16 | 68.00 (2) | 7.07 | 62.50 (2) | 21.92 |
| | | subC | 26.60 | 4.98 | 28.33 | 1.73 | 32.50 | 4.95 | 30.00 | 1.14 |
| | | subL | 32.30 | 4.49 | 28.67 | 0.42 | 35.50 | 2.12 | 32.50 | 7.77 |
| | C | SOC | 57.00 (1) | — | 64.67 (3) | 13.29 | 53.00 (1) | — | 78.00 (1) | — |
| | | subC | 25.00 | — | 28.67 | 10.01 | 25.00 | — | 38.00 | — |
| | | subL | 32.00 | — | 36.00 | 4.00 | 28.00 | — | 40.00 | — |
| 2 | C | SOC | — | — | 44.67 (3) | 14.01 | 47.33 (3) | 11.24 | 47.67 (6) | 10.59 |
| | | subC | — | — | 25.00 | 7.81 | 27.00 | 7.81 | 26.50 | 4.50 |
| | | subL | — | — | 19.67 | 8.08 | 20.33 | 4.16 | 21.17 | 7.36 |
| 3 | C | SOC | 43.00 (2) | 26.87 | 63.33 (15) | 13.62 | 61.25 (4) | 12.42 | 58.83 (6) | 11.53 |
| | | subC | 20.50 | 13.4 | 31.13 | 7.71 | 29.50 | 8.34 | 28.50 | 5.08 |
| | | subL | 22.50 | 13.42 | 32.30 | 6.21 | 31.75 | 4.64 | 30.33 | 8.11 |
| 4 | C | SOC | 57.00 (8) | 11.84 | 63.25 (4) | 11.78 | 61.71 (7) | 8.86 | 66.50 (4) | 8.58 |
| | | subC | 27.13 | 6.55 | 29.75 | 7.89 | 29.29 | 5.88 | 31.25 | 6.55 |
| | | subL | 29.88 | 6.91 | 33.50 | 4.04 | 32.43 | 3.99 | 35.25 | 4.03 |
| 5 | W | SOC | 55.00 (1) | — | 67.00 (1) | — | 64.00 (1) | — | 70.50 (4) | 3.69 |
| | | subC | 24.00 | — | 32.00 | — | 27.00 | — | 35.00 | 1.82 |
| | | subL | 31.00 | — | 35.00 | — | 37.00 | — | 35.50 | 3.00 |
| 6 | W | SOC | 58.25 (4) | 8.50 | 56.29 (7) | 22.70 | 56.60 (2) | 7.77 | 62.00 (3) | 8.71 |
| | | subC | 29.00 | 5.47 | 26.43 | 11.20 | 31.00 | 2.82 | 31.00 | 5.19 |
| | | subL | 29.25 | 3.20 | 29.86 | 12.03 | 25.50 | 4.95 | 31.00 | 3.60 |
| | S | SOC | 65.00 (4) | 12.78 | 63.50 (4) | 7.50 | 59.00 (2) | 12.78 | 55.00 (2) | 16.00 |
| | | subC | 33.00 | 6.16 | 31.25 | 3.50 | 31.00 | 8.48 | 27.00 | 10.58 |
| | | subL | 32.00 | 7.87 | 32.35 | 4.11 | 28.00 | 4.24 | 28.00 | 6.92 |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| | C | SOC | 53.86 (7) | 12.50 | — | — | — | — | — | — |
| | | subC | 25.86 | 8.23 | — | — | — | — | — | — |
| | | subL | 28.00 | 5.85 | — | — | — | — | — | — |
| 7 | C | SOC | 49.94 (12) | 11.72 | 55.78 (9) | 9.66 | 49.20 (5) | 12.41 | 60.13 (24) | 12.03 |
| | | subC | 23.42 | 6.80 | 27.78 | 3.52 | 22.60 | 5.41 | 29.54 | 6.56 |
| | | subL | 26.50 | 5.69 | 28.00 | 6.51 | 26.60 | 7.23 | 30.58 | 5.84 |
| 8 | C | SOC | 62.30 (10) | 7.34 | 63.44 (9) | 6.98 | 63.36 (14) | 10.56 | 62.44 (9) | 10.40 |
| | | subC | 30.40 | 5.01 | 30.56 | 5.45 | 29.92 | 6.76 | 30.00 | 5.24 |
| | | subL | 31.90 | 4.14 | 32.89 | 2.14 | 33.43 | 4.32 | 32.44 | 5.85 |
| 9 | W | SOC | 58.00 (2) | 5.65 | 59.60 (5) | 11.48 | — | — | — | — |
| | | subC | 23.00 | 9.89 | 27.00 | 6.89 | — | — | — | — |
| | | subL | 35.00 | 4.24 | 32.60 | 4.72 | — | — | — | — |
| | C | SOC | 64.83 (6) | 7.46 | 61.00 (2) | 1.41 | 59.50 (2) | 0.70 | 65.00 (4) | 10.39 |
| | | subC | 33.33 | 5.04 | 29.50 | 0.70 | 31.50 | 2.12 | 33.25 | 7.27 |
| | | subL | 31.50 | 3.88 | 31.50 | 0.70 | 28.00 | 2.82 | 31.75 | 4.92 |
| 10 | M | SOC | 61.25 (4) | 11.35 | — | — | — | — | — | — |
| | | subC | 29.50 | 5.91 | — | — | — | — | — | — |
| | | subL | 31.75 | 5.43 | — | — | — | — | — | — |
| | W | SOC | 53.75 (12) | 12.96 | — | — | — | — | — | — |
| | | subC | 25.08 | 8.45 | — | — | — | — | — | — |
| | | subL | 28.67 | 5.17 | — | — | — | — | — | — |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| | S | SOC | 76.50 (2) | 2.12 | 63.25 (4) | 0.50 | 73.17 (6) | 5.67 | 70.00 (7) | 10.40 |
| | | subC | 37.00 | 1.41 | 33.25 | 0.50 | 36.00 | 2.96 | 34.00 | 7.37 |
| | | subL | 39.50 | 0.70 | 30.00 | 0.00 | 37.17 | 3.31 | 36.00 | 3.69 |
| | C | SOC | 60.00 (1) | — | 56.60 (5) | 13.16 | 66.00 (3) | 10.53 | 60.00 (2) | 6.56 |
| | | subC | 34.00 | — | 27.60 | 8.29 | 32.33 | 5.13 | 29.50 | 2.12 |
| | | subL | 26.00 | — | 29.00 | 5.81 | 33.67 | 5.50 | 30.50 | 3.56 |
| 11 | 9 | SOC | 47.56 (16) | 10.07 | 54.00 (11) | 10.12 | 46.82 (17) | 10.85 | — | — |
| | | subC | 22.81 | 5.60 | 25.55 | 5.10 | 21.18 | 5.35 | — | — |
| | | subL | 24.75 | 5.06 | 28.45 | 6.18 | 25.65 | 6.32 | — | — |
| 12 | C | SOC | 54.00 (1) | — | 60.50 (2) | 13.43 | 55.13 (8) | 13.44 | 56.17 (6) | 14.40 |
| | | subC | 27.00 | — | 29.50 | 7.77 | 28.13 | 7.35 | 29.00 | 6.87 |
| | | subL | 27.00 | — | 31.00 | 5.65 | 27.00 | 6.67 | 27.17 | 7.70 |
| 13 | C | SOC | 60.58 (12) | 9.43 | 60.92 (12) | 11.72 | 57.80 (10) | 6.52 | 68.17 (6) | 9.80 |
| | | subC | 30.17 | 4.01 | 30.67 | 6.94 | 27.60 | 4.32 | 34.83 | 2.92 |
| | | subL | 30.42 | 6.00 | 30.25 | 5.20 | 30.20 | 4.05 | 33.33 | 7.03 |
| 14 | W | SOC | 46.50 (2) | 6.36 | 56.60 (2) | 12.02 | 65.60 (2) | 3.53 | — | — |
| | | subC | 24.00 | 7.07 | 29.00 | 7.07 | 31.50 | 0.70 | — | — |
| | | subL | 22.50 | 0.70 | 27.50 | 4.95 | 34.00 | 2.82 | — | — |
| | C | SOC | 51.50 (2) | 16.26 | 53.29 (7) | 18.97 | 49.75 (4) | 6.55 | 52.00 (3) | 9.53 |
| | | subC | 29.00 | 7.07 | 26.43 | 8.24 | 27.25 | 2.87 | 29.00 | 2.64 |
| | | subL | 22.50 | 9.12 | 26.86 | 10.80 | 22.50 | 5.80 | 23.00 | 8.88 |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 15 | C | SOC | 52.50 (2) | 17.67 | 64.00 (3) | 4.39 | 70.50 (2) | 4.95 | 61.50 (2) | 4.95 |
| | | subC | 24.50 | 9.19 | 30.33 | 4.93 | 34.00 | 4.24 | 29.50 | 2.12 |
| | | subL | 28.00 | 8.48 | 33.67 | 0.57 | 36.50 | 0.70 | 32.00 | 2.82 |
| 16 | C | SOC | 48.00 (2) | 8.48 | 55.00 (1) | — | 53.67 (6) | 10.27 | 53.33 (3) | 4.93 |
| | | subC | 21.50 | 4.95 | 31.00 | — | 26.17 | 6.46 | 25.67 | 2.51 |
| | | subL | 26.50 | 3.53 | 24.00 | — | 27.50 | 5.95 | 27.67 | 3.51 |
| 17 | C | SOC | 56.75 (4) | 12.81 | 56.33 (3) | 10.03 | 57.50 (2) | 3.53 | — | — |
| | | subC | 27.75 | 6.94 | 24.67 | 11.24 | 29.00 | 2.82 | — | — |
| | | subL | 29.00 | 6.32 | 31.67 | 7.09 | 28.50 | 0.70 | — | — |
| 18 | C | SOC | 58.80 (5) | 13.29 | 52.00 (1) | — | 46.67 (3) | 5.85 | 44.60 (5) | 10.11 |
| | | subC | 28.20 | 5.97 | 25.00 | — | 22.00 | 3.46 | 19.00 | 4.89 |
| | | subL | 30.60 | 7.63 | 27.00 | — | 24.67 | 2.51 | 25.60 | 5.68 |
| 19 | C | SOC | 50.58 (12) | 17.03 | 56.09 (11) | 9.06 | 53.20 (10) | 11.41 | 51.50 (4) | 13.10 |
| | | subC | 24.92 | 8.38 | 27.45 | 5.27 | 25.10 | 7.35 | 23.50 | 5.56 |
| | | subL | 25.67 | 8.99 | 28.64 | 4.36 | 28.10 | 5.10 | 28.00 | 7.95 |
| 20 | C | SOC | 58.67 (3) | 11.71 | 59.00 (5) | 6.74 | 52.00 (2) | 18.38 | 44.67 (3) | 6.50 |
| | | subC | 29.00 | 6.08 | 29.60 | 4.77 | 24.50 | 10.60 | 23.00 | 2.00 |
| | | subL | 29.67 | 5.68 | 29.40 | 4.82 | 27.50 | 7.77 | 21.67 | 4.50 |
| 21 | C | SOC | 66.06 (17) | 8.75 | 57.89 (19) | 11.23 | 65.00 (2) | 2.82 | 56.57 (7) | 17.13 |
| | | subC | 32.53 | 4.63 | 28.37 | 5.89 | 31.00 | 0.00 | 27.43 | 10.67 |
| | | subL | 33.53 | 4.58 | 29.53 | 6.69 | 34.00 | 2.82 | 29.14 | 6.86 |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 11 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 22 | C | SOC | 48.88 (8) | 14.25 | 50.33 (6) | 14.02 | — | — | — | — |
| | | subC | 23.13 | 6.31 | 23.00 | 7.12 | — | — | — | — |
| | | subL | 25.75 | 8.84 | 27.33 | 7.23 | — | — | — | — |
| | C | SOC | 47.00 (1) | — | 48.33 (3) | 7.57 | 48.00 (1) | — | 45.00 (9) | 16.49 |
| | | subC | 24.00 | — | 2300 | 7.00 | 30.00 | — | 21.11 | 7.97 |
| | | subL | 23.00 | — | 25.33 | 2.88 | 18.00 | — | 23.89 | 9.22 |
| 23 | C | SOC | 32.00 (1) | — | 70.50 (2) | 9.19 | 59.75 (4) | 10.34 | 64.00 (8) | 17.49 |
| | | subC | 6.00 | — | 34.50 | 3.53 | 30.50 | 5.26 | 30.00 | 11.79 |
| | | subL | 26.00 | — | 36.00 | 5.65 | 29.25 | 6.18 | 34.00 | 5.85 |
| 24 | W | SOC | 53.25 (8) | 8.77 | 55.00 (4) | 14.07 | 59.00 (3) | 6.14 | 71.00 (2) | 0.00 |
| | | subC | 23.00 | 5.45 | 22.50 | 10.14 | 27.33 | 3.78 | 35.00 | 1.41 |
| | | subL | 30.25 | 5.14 | 32.50 | 4.12 | 31.67 | 2.51 | 36.00 | 1.41 |
| | S | SOC | 60.32 (19) | 11.48 | 63.10 (10) | 14.05 | 59.31 (16) | 9.14 | 56.56 (9) | 14.16 |
| | | subC | 28.32 | 7.88 | 31.30 | 6.98 | 28.12 | 5.97 | 27.11 | 6.82 |
| | | subL | 32.00 | 4.71 | 32.00 | 7.83 | 31.19 | 3.58 | 29.44 | 8.04 |
| 25 | C | SOC | 70.50 (2) | 3.56 | 73.00 (1) | — | 64.50 (2) | 0.70 | 64.00 (1) | — |
| | | subC | 34.50 | 4.95 | 35.00 | — | 31.50 | 3.53 | 28.00 | — |
| | | subL | 36.00 | 1.41 | 38.00 | — | 33.00 | 2.82 | 36.00 | — |
| 26 | C | SOC | 64.55 (11) | 10.88 | 62.00 (3) | 6.08 | 52.00 (5) | 23.69 | 66.43 (7) | 13.74 |
| | | subC | 31.82 | 6.41 | 31.00 | 2.64 | 23.30 | 14.55 | 32.71 | 7.56 |
| | | subL | 32.73 | 4.90 | 31.00 | 3.46 | 28.80 | 9.20 | 33.71 | 6.60 |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| 27 | C | SOC | 49.57 (7) | 8.01 | 56.00 (7) | 10.63 | 54.75 (4) | 7.08 | 57.20 (5) | 16.27 |
| | | subC | 24.43 | 4.19 | 28.14 | 5.55 | 28.75 | 4.03 | 28.20 | 9.83 |
| | | subL | 25.14 | 6.14 | 27.86 | 5.64 | 26.00 | 3.55 | 29.00 | 7.07 |
| 28 | C | SOC | 57.31 (13) | 9.34 | 61.00 (2) | 9.89 | 56.00 (2) | 5.65 | 50.00 (3) | 26.93 |
| | | subC | 26.08 | 6.84 | 29.00 | 2.82 | 25.50 | 3.58 | 25.00 | 10.81 |
| | | subL | 31.23 | 4.28 | 32.00 | 7.07 | 30.50 | 2.12 | 25.00 | 16.46 |
| 29 | C | SOC | 59.26 (19) | 7.50 | 56.00 (7) | 6.21 | — | — | 61.00 (1) | — |
| | | subC | 28.32 | 4.69 | 27.43 | 4.86 | — | — | 32.00 | — |
| | | subL | 30.95 | 4.20 | 28.57 | 4.35 | — | — | 29.00 | — |
| 30 | C | SOC | 47.38 (8) | 12.80 | 50.88 (8) | 16.48 | 59.43 (7) | 19.84 | 59.00 (2) | 7.07 |
| | | subC | 23.00 | 7.217 | 25.50 | 8.29 | 29.29 | 11.88 | 28.00 | 1.41 |
| | | subL | 24.38 | .05 | 25.37 | 8.86 | 30.14 | 8.35 | 31.00 | 5.65 |
| 31 | C | SOC | 57.73 (11) | 15.87 | 51.50 (6) | 9.26 | 51.80 (5) | 9.44 | 60.33 (3) | 5.50 |
| | | subC | 28.64 | 10.15 | 22.00 | 6.35 | 24.60 | 5.32 | 29.67 | 4.93 |
| | | subL | 29.09 | 6.92 | 29.50 | 4.32 | 27.20 | 4.32 | 30.67 | 3.51 |
| 32 | C | SOC | 59.00 (27) | 11.39 | 63.09 (23) | 8.11 | 61.69 (16) | 7.50 | 66.00 (3) | 8.54 |
| | | subC | 28.33 | 6.81 | 19.52 | 4.85 | 29.81 | 4.72 | 30.67 | 5.50 |
| | | subL | 30.67 | 5.16 | 33.57 | 4.17 | 31.88 | 3.99 | 35.33 | 3.05 |
| 33 | W | SOC | 61.00 (2) | 4.24 | 51.40 (5) | 11.32 | 52.00 (1) | — | — | — |
| | | subC | 29.50 | 2.12 | 23.40 | 7.02 | 27.00 | — | — | — |
| | | subL | 31.50 | 2.12 | 28.00 | 4.58 | 25.00 | — | — | — |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| | S | SOC | 54.17 (6) | 7.08 | 57.83 (5) | 18.19 | 59.72 (18) | 7.82 | 53.00 (10) | 11.17 |
| | | subC | 26.17 | 4.62 | 28.83 | 7.67 | 29.39 | 3.88 | 25.90 | 5.32 |
| | | subL | 28.00 | 2.75 | 29.00 | 11.20 | 30.33 | 4.95 | 27.10 | 7.12 |
| | C | SOC | 53.64 (11) | 6.77 | — | — | 58.00(1) | — | — | — |
| | | subC | 26.09 | 3.78 | — | — | 28.00 | — | — | — |
| | | subL | 27.55 | 4.00 | — | — | 30.00 | — | — | — |
| 34 | S | SOC | 54.00 (4) | 12.05 | 54.50 (2) | 10.60 | 44.00 (1) | — | 57.33 (3) | 1.73 |
| | | subC | 26.00 | 7.61 | 27.00 | 0.00 | 15.00 | — | 26.33 | 0.93 |
| | | subL | 28.00 | 4.54 | 27.50 | 10.60 | 29.00 | — | 31.00 | 0.78 |
| 35 | S | SOC | 65.00 (2) | 8.48 | 65.75 (8) | 10.67 | 68.67 (3) | 6.65 | 69.40 (5) | 4.39 |
| | | subC | 33.00 | 1.41 | 33.00 | 6.32 | 33.67 | 5.77 | 33.80 | 3.70 |
| | | subL | 32.00 | 7.07 | 32.75 | 4.74 | 35.00 | 4.58 | 35.60 | 2.40 |
| 36 | C | SOC | 49.00 (1) | — | 74.00 (1) | — | 57.83 (6) | 4.57 | 58.00 (1) | — |
| | | subC | 25.00 | — | 37.00 | — | 28.17 | 1.47 | 20.00 | — |
| | | subL | 24.00 | — | 37.00 | — | 29.67 | 4.41 | 38.00 | — |
| 37 | 9 | SOC | 55.00 (6) | 12.91 | — | — | — | — | — | — |
| | | subC | 26.33 | 5.88 | — | — | — | — | — | — |
| | | subL | 28.67 | 7.84 | — | — | — | — | — | — |
| | W | SOC | 73.00 (1) | — | 45.00 (1) | — | 57.25 (4) | 18.80 | 59.13 (8) | 11.39 |
| | | subC | 35.00 | — | 22.00 | — | 25.50 | 11.61 | 28.25 | 4.43 |
| | | subL | 38.00 | — | 23.00 | — | 31.75 | 7.80 | 30.88 | 8.06 |

Continued

APPENDIX G: Overall Classroom Community Scale and Subscale Scores per Ensemble for Years of Experience (*n* in parenthesis) (Continued)

| Sch | Ens[a] | Var.[b] | Years of Experience in Ensemble | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1 | | 2 | | 3 | | 4 | |
| | | | *M* | *SD* | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| | C | SOC | 55.80 (5) | 13.30 | 64.00 (3) | 3.60 | 54.75 (4) | 13.88 | 61.56 (9) | 11.99 |
| | | subC | 25.20 | 7.08 | 30.67 | 0.57 | 28.50 | 9.71 | 30.00 | 6.28 |
| | | subL | 30.60 | 6.30 | 33.33 | 3.21 | 26.25 | 4.19 | 31.56 | 5.94 |
| 38 | C | SOC | 53.47 (19) | 9.81 | 51.83 (12) | 16.65 | 56.00 (4) | 20.41 | 54.00 (13) | 16.58 |
| | | subC | 26.79 | 5.17 | 25.92 | 9.19 | 27.00 | 10.61 | 25.54 | 9.56 |
| | | subL | 26.68 | 5.42 | 25.92 | 8.84 | 29.00 | 10.10 | 28.46 | 8.01 |
| 39 | C | SOC | 32.00 (3) | 12.16 | 57.33 (3) | 7.63 | 63.33 (3) | 6.50 | 56.00 (1) | — |
| | | subC | 14.00 | 7.81 | 30.33 | 4.01 | 31.00 | 4.00 | 25.00 | — |
| | | subL | 18.00 | 4.57 | 27.00 | 7.93 | 32.33 | 2.51 | 31.00 | — |
| 40 | S | SOC | — | — | 65.00 (1) | — | 52.50 (2) | 7.77 | 57.75 (8) | 8.71 |
| | | subC | — | — | 30.00 | — | 23.50 | 6.36 | 27.12 | 5.51 |
| | | subL | — | — | 35.00 | — | 29.00 | 1.41 | 30.62 | 3.99 |
| | C | SOC | 59.50 (2) | 9.19 | 61.00 (1) | — | 57.00 (9) | 12.53 | 44.50 (2) | 0.70 |
| | | subC | 24.00 | 8.48 | 28.00 | — | 27.22 | 7.54 | 22.00 | 0.00 |
| | | subL | 35.50 | 0.70 | 33.00 | — | 29.78 | 5.44 | 22.00 | 0.70 |
| 41 | C | SOC | 50.00 (1) | — | 68.50 (2) | 14.8i | 62.00 (1) | — | 56.38 (8) | 8.64 |
| | | subC | 21.00 | — | 22.00 | 8.48 | 30.00 | — | 28.88 | 5.84 |
| | | subL | 29.00 | — | 25.50 | 6.36 | 32.00 | — | 32.00 | 4.00 |

*Note.* [a] Ensembles are as follows: 1 = 9th-Grade Chorus, 2 = Men's Chorus, 3 = Women's Chorus, 4 = Select Ensemble, 5 = Concert Choir. [b] Variables are as follows: SOC = overall sense-of-community, subC = subscale of connectedness, subL = subscale of learning.

# APPENDIX H

Skewness and Kurtosis for Student Independent Variables for SOC, subC, and subL

Appendix H:
Skewness and Kurtosis for Student Independent Variables for SOC, subC, and subL

| Variable | | SOC | | subC | | subL | |
|---|---|---|---|---|---|---|---|
| | *n* | Skew. | Kurt. | Skew. | Kurt. | Skew. | Kurt. |
| Gender | | | | | | | |
| Female | 833 | − .57 | .37 | −.54 | .08 | −.72 | .53 |
| Male | 275 | −.76 | .50 | −.88 | 1.07 | −.88 | .96 |
| Grade | | | | | | | |
| 9 | 228 | −.26 | −.02 | −.21 | −.48 | −.44 | .30 |
| 10 | 258 | −.84 | .91 | −.83 | .74 | −.92 | 1.05 |
| 11 | 235 | −.85 | .93 | −.83 | .67 | −.92 | 1.27 |
| 12 | 387 | −.59 | .30 | −.63 | .32 | −.83 | .66 |
| Yrs. Exp. | | | | | | | |
| 1 | 357 | −.53 | .24 | −.53 | .19 | −.66 | .44 |
| 2 | 278 | −.80 | 1.08 | −.80 | .40 | −.92 | .15 |
| 3 | 242 | −.50 | .23 | −.50 | .31 | −.57 | .20 |
| 4 | 231 | .21 | 80 | .76 | .57 | −.90 | .64 |
| Ensemble | | | | | | | |
| 9th-Grade Chorus | 50 | .52 | .34 | .58 | .27 | .05 | −.28 |
| Men's Chorus | 4 | −1.51 | 2.07 | −1.55 | 2.23 | −1.47 | 1.91 |
| Women's Chorus | 87 | −1.00 | 2.11 | −.77 | .09 | −1.10 | 2.88 |
| Select Ensemble | 161 | −.61 | .41 | −.75 | .99 | −.78 | .97 |
| Concert Choir | 806 | −.66 | .42 | −.67 | .45 | −.79 | .62 |

*Note*. SOC = Overall sense-of-community, subC = subscale of connectedness, subL = subscale of learning.

# APPENDIX I

Two-way ANOVA Results for Student Dependent Variable for SOC, subC, and subL

Appendix I

Two-way ANOVA Results for Student Dependent Variable for SOC [a]

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 13141.780[b] | 66 | 199.118 | 1.371 | .029 |
| Intercept | 413266.443 | 1 | 413266.443 | 2846.039 | .000 |
| gender | 92.762 | 1 | 92.762 | .639 | .424 |
| grade | 317.508 | 3 | 105.836 | .729 | .535 |
| yrsExp | 314.185 | 3 | 104.728 | .721 | .539 |
| EnsType | 1114.625 | 4 | 278.656 | 1.919 | .105 |
| gender * grade | 332.095 | 3 | 110.698 | .762 | .515 |
| gender * yrsExp | 303.132 | 3 | 101.044 | .696 | .555 |
| gender * EnsType | 134.327 | 2 | 67.164 | .463 | .630 |
| grade * yrsExp | 977.187 | 9 | 108.576 | .748 | .665 |
| grade * EnsType | 353.711 | 6 | 58.952 | .406 | .875 |
| yrsExp * EnsType | 395.108 | 8 | 49.388 | .340 | .950 |
| gender * grade * yrsExp | 489.448 | 7 | 69.921 | .482 | .848 |
| gender * grade * EnsType | 114.013 | 3 | 38.004 | .262 | .853 |
| gender * yrsExp * EnsType | 317.034 | 4 | 79.258 | .546 | .702 |
| grade * yrsExp * EnsType | 689.472 | 7 | 98.496 | .678 | .691 |
| gender * grade * yrsExp * EnsType | 74.279 | 1 | 74.279 | .512 | .475 |
| Error | 151161.118 | 1041 | 145.208 | | |
| Total | 3842017.000 | 1108 | | | |
| Corrected Total | 164302.898 | 1107 | | | |

*Note*. [a] SOC = sense-of-community. [b] R Squared = .080 (Adjusted R Squared = .022)

Appendix I (continued)

Two-way ANOVA Results for Student Dependent Variable for subC [a]

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 4572.652[b] | 66 | 69.283 | 1.519 | .006 |
| Intercept | 93089.366 | 1 | 93089.366 | 2040.890 | .000 |
| gender | 1.919 | 1 | 1.919 | .042 | .838 |
| grade | 83.180 | 3 | 27.727 | .608 | .610 |
| yrsExp | 145.923 | 3 | 48.641 | 1.066 | .362 |
| EnsType | 606.800 | 4 | 151.700 | 3.326 | .010 |
| gender * grade | 111.140 | 3 | 37.047 | .812 | .487 |
| gender * yrsExp | 26.284 | 3 | 8.761 | .192 | .902 |
| gender * EnsType | 35.141 | 2 | 17.571 | .385 | .680 |
| grade * yrsExp | 562.184 | 9 | 62.465 | 1.369 | .197 |
| grade * EnsType | 143.441 | 6 | 23.907 | .524 | .790 |
| yrsExp * EnsType | 217.070 | 8 | 27.134 | .595 | .783 |
| gender * grade * yrsExp | 324.307 | 7 | 46.330 | 1.016 | .418 |
| gender * grade * EnsType | 20.864 | 3 | 6.955 | .152 | .928 |
| gender * yrsExp * EnsType | 81.764 | 4 | 20.441 | .448 | .774 |
| grade * yrsExp * EnsType | 531.790 | 7 | 75.970 | 1.666 | .114 |
| gender * grade * yrsExp * EnsType | 29.183 | 1 | 29.183 | .640 | .424 |
| Error | 47482.243 | 1041 | 45.612 | | |
| Total | 911790.000 | 1108 | | | |
| Corrected Total | 52054.895 | 1107 | | | |

*Note*. [a] SubC = subscale of connectedness. [b] R Squared = .088 (Adjusted R Squared = .030)

Appendix I (continued)

Two-way ANOVA Results for Student Dependent Variable for subL[a]

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 3089.114[b] | 66 | 46.805 | 1.188 | .150 |
| Intercept | 114076.770 | 1 | 114076.770 | 2895.408 | .000 |
| gender | 67.994 | 1 | 67.994 | 1.726 | .189 |
| grade | 84.941 | 3 | 28.314 | .719 | .541 |
| yrsExp | 42.271 | 3 | 14.090 | .358 | .784 |
| EnsType | 171.823 | 4 | 42.956 | 1.090 | .360 |
| gender * grade | 85.715 | 3 | 28.572 | .725 | .537 |
| gender * yrsExp | 152.033 | 3 | 50.678 | 1.286 | .278 |
| gender * EnsType | 43.391 | 2 | 21.695 | .551 | .577 |
| grade * yrsExp | 139.790 | 9 | 15.532 | .394 | .938 |
| grade * EnsType | 84.262 | 6 | 14.044 | .356 | .906 |
| yrsExp * EnsType | 148.827 | 8 | 18.603 | .472 | .876 |
| gender * grade * yrsExp | 25.709 | 7 | 3.673 | .093 | .999 |
| gender * grade * EnsType | 74.181 | 3 | 24.727 | .628 | .597 |
| gender * yrsExp * EnsType | 162.930 | 4 | 40.733 | 1.034 | .389 |
| grade * yrsExp * EnsType | 34.192 | 7 | 4.885 | .124 | .997 |
| gender * grade * yrsExp * EnsType | 10.345 | 1 | 10.345 | .263 | .608 |
| Error | 41014.578 | 1041 | 39.399 | | |
| Total | 1025229.000 | 1108 | | | |
| Corrected Total | 44103.692 | 1107 | | | |

*Note*. [a] SubL = subscale of learning. [b] R Squared = .070 (Adjusted R Squared = .011)

# APPENDIX J

## Inter-Item Correlations for MTSI Teaching Styles

APPENDIX J: Inter-Item Correlations for MTSI Teaching Styles

| MTSI Dimension | Item | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Assertive Teaching | | | | | | |
| Item 2 | .26 | | | | | |
| Item 3 | .23 | .14 | | | | |
| Item 4 | .20 | .07 | .27 | | | |
| Item 5 | .45 | .20 | .29 | .27 | | |
| Item 6 | .13 | .15 | .35 | .62 | .28 | |
| Item 7 | .46 | .27 | .06 | .34 | .20 | .17 |
| Nonverbal Motivation | | | | | | |
| Item 2 | .51 | | | | | |
| Item 3 | .11 | .29 | | | | |
| Item 4 | .42 | .34 | .19 | | | |
| Item 5 | .03 | .10 | .32 | .28 | | |
| Item 6 | .04 | .11 | .22 | .20 | .23 | |
| Item 7 | -.15 | -.01 | .11 | .15 | .28 | .30 |
| Time Efficiency | | | | | | |
| Item 2 | .28 | | | | | |
| Item 3 | .39 | .41 | | | | |
| Item 4 | .17 | .02 | .44 | | | |
| Item 5 | .49 | .35 | .56 | .22 | | |
| Item 6 | .20 | .17 | .50 | .19 | .30 | |
| Item 7 | .37 | .47 | .23 | .09 | .30 | .35 |
| Positive Learning Environment | | | | | | |
| Item 2 | .59 | | | | | |
| Item 3 | .15 | .26 | | | | |
| Item 4 | .25 | .15 | .21 | | | |
| Item 5 | .19 | .26 | .02 | .44 | | |
| Item 6 | .60 | .55 | .04 | .24 | .27 | |
| Item 7 | .12 | .14 | .06 | .13 | .39 | .25 |
| Group Dynamics | | | | | | |
| Item 2 | .48 | | | | | |
| Item 3 | .28 | .07 | | | | |
| Item 4 | .41 | .47 | .27 | | | |
| Item 5 | .16 | .03 | .40 | .15 | | |
| Item 6 | .11 | .41 | .09 | .50 | .39 | |
| Item 7 | .33 | .51 | .23 | .64 | .26 | .51 |

Continued

APPENDIX J: Inter-Item Correlations for MTSI Teaching Styles (Continued)

| MTSI Dimension | Item | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Music Concept Learning | | | | | | |
| Item 2 | .39 | | | | | |
| Item 3 | .36 | .41 | | | | |
| Item 4 | .43 | .19 | .31 | | | |
| Item 5 | .19 | .14 | .38 | .44 | | |
| Item 6 | .30 | .44 | .47 | .32 | .41 | |
| Item 7 | .41 | .44 | .28 | .60 | .45 | .61 |
| Artistic Music Performance | | | | | | |
| Item 2 | .19 | | | | | |
| Item 3 | .54 | .27 | | | | |
| Item 4 | .27 | .09 | .19 | | | |
| Item 5 | .09 | .10 | .15 | .02 | | |
| Item 6 | .40 | .16 | .08 | .31 | .21 | |
| Item 7 | .36 | .41 | .60 | .20 | .31 | .26 |
| Student Independence | | | | | | |
| Item 2 | .53 | | | | | |
| Item 3 | .26 | .33 | | | | |
| Item 4 | .38 | .25 | .40 | | | |
| Item 5 | .26 | .28 | .12 | .38 | | |
| Item 6 | .67 | .35 | .15 | .51 | .34 | |
| Item 7 | .54 | .56 | .46 | .42 | .48 | .45 |

# APPENDIX K

## Music Teaching Style Inventory Descriptive Statistics

APPENDIX K: Music Teaching Style Inventory Descriptive Statistics

| | Gender | Yrs. Teach. Exp. | Stage of Teaching Development | AT[a] *M* | NM *M* | TE *M* | PLE *M* | GD *M* | MCL *M* | AMP *M* | SI *M* | Breadth[b] *M* | Depth[c] *M* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | F | 3 | 3-7 Broadening | 4.00 | 4.00 | 4.57 | 4.57 | 2.86 | 3.14 | 2.43 | 2.86 | 4.29 | 2.82 |
| 2 | F | 2 | 0-2 Self-Reflective | 3.29 | 3.43 | 3.43 | 4.71 | 2.14 | 3.14 | 3.71 | 2.86 | 3.71 | 2.96 |
| 3 | F | 22 | 20+ Deepening Stage II | 3.29 | 3.71 | 4.00 | 3.43 | 3.14 | 3.29 | 3.00 | 3.14 | 3.61 | 3.14 |
| 4 | F | 23 | 20+ Deepening Stage II | 4.57 | 3.43 | 4.14 | 4.43 | 2.86 | 3.14 | 3.57 | 3.00 | 4.14 | 3.14 |
| 5 | M | 15 | 10-20 Deepening Stage I | 3.14 | 3.71 | 4.43 | 4.00 | 3.14 | 3.57 | 3.29 | 3.57 | 3.82 | 3.39 |
| 6 | F | 37 | 20+ Deepening Stage II | 3.29 | 3.43 | 4.29 | 4.00 | 3.14 | 3.29 | 3.29 | 2.71 | 3.75 | 3.11 |
| 7 | F | 6 | 3-7 Broadening | 4.00 | 3.71 | 4.86 | 4.43 | 2.29 | 3.57 | 4.00 | 3.14 | 4.25 | 3.25 |
| 8 | M | 31 | 20+ Deepening Stage II | 3.14 | 3.71 | 4.00 | 3.43 | 2.14 | 3.00 | 2.71 | 2.86 | 3.57 | 2.68 |
| 9 | F | 18 | 10-20 Deepening Stage I | 3.43 | 3.71 | 4.57 | 4.43 | 2.57 | 3.57 | 3.57 | 3.29 | 4.04 | 3.25 |
| 10 | F | 13 | 10-20 Deepening Stage I | 3.14 | 3.57 | 4.14 | 4.00 | 3.43 | 3.43 | 3.00 | 3.71 | 3.71 | 3.39 |
| 11 | M | 10 | 8-10 Transition | 4.14 | 4.43 | 4.57 | 4.71 | 3.00 | 4.43 | 4.00 | 3.71 | 4.46 | 3.79 |
| 12 | F | 14.5 | 10-20 Deepening Stage I | 4.29 | 2.86 | 3.86 | 3.86 | 1.86 | 1.86 | 1.71 | 1.86 | 3.71 | 1.82 |
| 13 | F | 7.5 | 8-10 Transition | 3.43 | 3.71 | 4.29 | 3.86 | 3.86 | 3.00 | 3.57 | 2.86 | 3.82 | 3.32 |
| 14 | F | 16.5 | 10-20 Deepening Stage I | 3.71 | 3.71 | 4.29 | 4.00 | 3.29 | 3.57 | 3.86 | 3.29 | 3.93 | 3.50 |
| 15 | M | 21 | 20+ Deepening Stage II | 4.14 | 3.71 | 4.43 | 4.00 | 4.00 | 4.00 | 3.71 | 4.00 | 4.07 | 3.93 |
| 16 | M | 19 | 10-20 Deepening Stage I | 4.29 | 4.43 | 4.43 | 3.86 | 2.14 | 3.86 | 4.14 | 3.57 | 4.25 | 3.43 |
| 17 | F | 33 | 20+ Deepening Stage II | 3.86 | 3.43 | 3.86 | 4.29 | 2.71 | 3.57 | 3.14 | 3.14 | 3.86 | 3.14 |
| 18 | M | 17 | 10-20 Deepening Stage I | 4.14 | 4.14 | 4.14 | 3.86 | 3.57 | 4.00 | 3.29 | 3.86 | 4.07 | 3.68 |
| 19 | F | 25 | 20+ Deepening Stage II | 3.86 | 3.43 | 4.57 | 4.57 | 2.86 | 4.14 | 3.29 | 3.43 | 4.11 | 3.43 |
| 20 | F | 14 | 10-20 Deepening Stage I | 3.86 | 3.57 | 4.29 | 4.43 | 2.43 | 3.43 | 3.29 | 3.86 | 4.04 | 3.25 |
| 21 | F | 5 | 3-7 Broadening | 4.71 | 3.71 | 4.14 | 4.86 | 2.71 | 3.14 | 3.57 | 4.29 | 4.36 | 3.43 |
| 22 | F | 17 | 10-20 Deepening Stage I | 3.57 | 3.29 | 4.00 | 4.14 | 3.29 | 3.14 | 3.71 | 3.14 | 3.75 | 3.32 |
| 23 | F | 18 | 10-20 Deepening Stage I | 3.86 | 3.57 | 4.29 | 4.00 | 3.00 | 3.57 | 3.57 | 3.29 | 3.93 | 3.36 |
| 24 | M | 5 | 3-7 Broadening | 4.43 | 4.00 | 4.14 | 4.71 | 2.71 | 3.43 | 3.29 | 4.00 | 4.32 | 3.36 |
| 25 | M | 30 | 20+ Deepening Stage II | 3.29 | 3.43 | 5.00 | 4.43 | 2.43 | 3.14 | 2.86 | 2.86 | 4.04 | 2.82 |

Continued

APPENDIX K: Music Teaching Style Inventory Descriptive Statistics (Continued)

| | Gender | Yrs. Teach. Exp. | Stage of Teaching Development | AT[a] *M* | NM *M* | TE *M* | PLE *M* | GD *M* | MCL *M* | AMP *M* | SI *M* | Breadth[b] *M* | Depth[c] *M* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | F | 1 | 0-2 Self-Reflective | 3.86 | 3.43 | 4.29 | 4.43 | 2.71 | 4.00 | 3.86 | 3.71 | 4.00 | 3.57 |
| 27 | M | 24 | 20+ Deepening Stage II | 4.43 | 5.00 | 5.00 | 4.71 | 3.86 | 4.14 | 4.29 | 4.14 | 4.79 | 4.11 |
| 28 | M | 15 | 10-20 Deepening Stage I | 4.29 | 4.71 | 4.86 | 4.57 | 2.43 | 4.00 | 3.43 | 3.14 | 4.61 | 3.25 |
| 29 | M | 20 | 10-20 Deepening Stage I | 4.14 | 3.86 | 4.71 | 4.71 | 2.57 | 3.57 | 3.57 | 3.14 | 4.36 | 3.21 |
| 30 | F | 20 | 10-20 Deepening Stage I | 3.43 | 3.14 | 4.00 | 4.43 | 2.57 | 3.14 | 2.86 | 2.86 | 3.75 | 2.86 |
| 31 | M | 5 | 3-7 Broadening | 2.43 | 3.71 | 4.29 | 3.71 | 2.43 | 3.29 | 3.86 | 3.00 | 3.54 | 3.14 |
| 32 | F | 7 | 3-7 Broadening | 3.71 | 4.00 | 4.14 | 4.00 | 3.00 | 3.29 | 3.29 | 3.29 | 3.96 | 3.21 |
| 33 | M | 4 | 3-7 Broadening | 3.57 | 3.57 | 4.71 | 4.57 | 2.29 | 4.00 | 3.71 | 3.57 | 4.11 | 3.39 |
| 34 | M | 13 | 10-20 Deepening Stage I | 3.14 | 3.86 | 4.00 | 4.57 | 2.86 | 3.57 | 3.71 | 3.29 | 3.89 | 3.36 |
| 35 | M | 2 | 0-2 Self-Reflective | 4.29 | 3.43 | 4.14 | 4.43 | 2.57 | 3.14 | 3.29 | 3.14 | 4.07 | 3.04 |
| 36 | M | 34 | 20+ Deepening Stage II | 4.14 | 4.57 | 5.00 | 5.00 | 3.43 | 4.43 | 4.00 | 4.00 | 4.68 | 3.96 |
| 37 | F | 16 | 10-20 Deepening Stage I | 3.57 | 3.57 | 4.86 | 4.71 | 2.43 | 3.00 | 3.43 | 2.86 | 4.18 | 2.93 |
| 38 | F | 2 | 0-2 Self-Reflective | 4.29 | 3.86 | 4.71 | 4.00 | 3.57 | 4.00 | 4.00 | 4.00 | 4.21 | 3.89 |
| 39 | F | 1 | 0-2 Self-Reflective | 3.86 | 3.71 | 3.71 | 4.29 | 2.71 | 3.29 | 3.57 | 3.00 | 3.89 | 3.14 |
| 40 | M | 3 | 3-7 Broadening | 3.29 | 3.00 | 3.57 | 3.43 | 2.43 | 2.57 | 3.14 | 2.43 | 3.32 | 2.64 |
| 41 | F | 33 | 20+ Deepening Stage II | 4.14 | 4.71 | 5.00 | 4.57 | 3.86 | 4.14 | 4.00 | 4.00 | 4.61 | 4.00 |
| 42 | F | 3 | 3-7 Broadening | 4.00 | 3.43 | 4.14 | 4.29 | 2.14 | 3.00 | 3.57 | 2.86 | 3.96 | 2.89 |

*Note*. AT=Assertive Teaching, NM=Nonverbal Motivation, TE=Time Efficiency, PLE=Positive Learning Environment, GD=Group Dynamics, MCL=Music Concept Learning, APM=Artistic Music Performance, SI=Student Independence.

[a] Scores for each teaching style range from 0 – 5. [b] Grouping of the dimensions Assertive Teaching, Nonverbal Motivation, Time Efficiency, Positive Learning Environment. [c] Grouping of the dimensions Group Dynamics, Music Concept Learning, Artistic Music Performance, Student Independence.