The Effect of Teacher Nonverbal Expressiveness on Ratings of Teacher Effectiveness and Student Learning

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THE EFFECT OF TEACHER NONVERBAL EXPRESSIVENESS ON RATINGS OF TEACHER EFFECTIVENESS AND STUDENT LEARNING

By

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To my husband Blake: You have shown me nothing but love and support throughout this process. Thank you for believing in me.

“A song of you comes as sweet and clear as moonlight through the pines.”
-Ray Charles
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“All interactions in the learning environment have more meaning than words alone can provide.”
-Darrow & Johnson, 2009

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ABSTRACT

The purpose of this study was threefold: (1) to determine if levels of teacher expressiveness (low, medium, or high) have an effect on ratings of teacher effectiveness, lesson content, and on student learning; (2) to determine if a relationship exists between ratings of teacher nonverbal behaviors and teacher effectiveness; and (3) to determine if a relationship exists between ratings of teacher expressiveness and teacher enthusiasm in the elementary general classroom. Three scripted videos were created of the stimulus teacher presenting the same music lesson to a hypothetical class of elementary-aged children. In the videos, the stimulus teacher exhibited either low, medium, or high levels of expressive nonverbal behaviors. Participants for the first phase of the study were 160 college students who were randomly assigned to one of three video conditions. Video conditions were based on the stimulus teacher’s level of expressiveness: low ($n = 55$), medium ($n = 54$), and high ($n = 51$). After viewing the video, participants provided ratings on the teacher’s effectiveness, expressiveness, enthusiasm, nonverbal behaviors, and lesson content. Participants for the second phase of the study were 114 fourth- and fifth-grade students who were randomly assigned to the same video viewing conditions: low ($n = 42$), medium ($n = 37$), or high ($n = 35$) teacher expressiveness. Following the video viewing, participants completed a 10-question Student Learning Assessment based on the video lesson content. Results of this study revealed that levels of teacher expressiveness had a significant effect on ratings of teacher effectiveness, with higher levels of teacher expressiveness resulting in higher ratings of teacher effectiveness. Levels of teacher expressiveness did not have an effect on ratings of lesson content, or on student learning. Results also revealed that (1) higher ratings of teacher nonverbal behaviors were related to higher ratings of teacher effectiveness, and (2) participants equated teacher expressiveness with teacher enthusiasm.
CHAPTER ONE

INTRODUCTION

Every year, 7.2 million teachers are evaluated based on their performances in the classroom, and these evaluations have important implications for their futures. Many of these teachers will be rated on their effectiveness in the classroom, sometimes after only a single 10- to 15-minute observation by their principals. These evaluations can either positively or negatively affect the teachers’ careers. After receiving good teaching evaluations, teachers are sometimes rewarded with pay increases or continuing contracts; while receiving poor teaching evaluations can result in consequences such as teachers’ loss of employment or mandatory enrollment in remediation programs (Looney, 2011). Generally, it is the building principal who conducts a classroom teacher’s evaluation.

Music teachers are also evaluated by their principals, but by many other entities as well. Each time music teachers’ students perform, their teaching is evaluated by members of the audience. These audiences can include parents, colleagues, school administrators, community members, and fellow music teachers. During classroom interactions and music making experiences, students also make daily judgments regarding their teachers’ competence and effectiveness. Nevertheless, it is generally the principal’s evaluation that has the greatest impact on the future of a teacher’s career.

Music teachers are evaluated most often on what principals see happening in the classroom; however, they may be assessed on other variables as well. Some of these variables are recruitment and retention of students in the music program, students’ performance ratings at various contests, or the principal’s perception of the importance of the music program. A more recent basis for music teachers’ evaluation is how their students perform on high-stakes
standardized tests (Marzano, Toth, & Schooling, 2012). In the past, testing data were used only to evaluate the effectiveness of classroom teachers; however, many music teachers are now being evaluated on the basis of their students’ performances on music-related and various academic state tests (Goe & Holdheide, 2011). In Florida, where 7,555 music teachers are employed, state music tests have been constructed and are now being piloted (Center for Fine Arts Education, 2014). These tests are targeted for implementation in 2015 and will be used to measure student achievement of benchmarks outlined in the performing and fine arts state standards for each music course offered. The teachers of these courses will be evaluated on the basis of their students’ scores on the state tests.

**Teacher Evaluation**

*Reasons and bases for teacher evaluations.* There are many positive reasons to evaluate teachers. Evaluations can be used to identify good teaching practices for emulation, to encourage teachers to be self-reflective of their own practices, and to prompt discussions among teachers and administrators about effective teaching. Such discussions provide administrators with opportunities to communicate expectations, to provide feedback to teachers, and to solicit teachers’ suggestions for in-service development programs (White, 2014). Positive teacher evaluations can also build parents’ and community members’ confidence in the quality of education their children are receiving. The reasons given for teacher evaluation are often associated with the bases for teacher evaluation.

The two primary bases of teacher evaluations are: (1) student learning as measured by scores on standardized tests, and (2) teachers’ behaviors in the classroom. The number of school districts implementing teacher evaluation systems designed partly on student test scores has surged over the past five years (Looney, 2011). Students’ learning and their ability to perform on
high-stakes standardized tests can be affected by teacher behaviors in the classroom; however, the relationship between evaluations of quality teacher skills and student achievement scores is still unknown (Looney, 2011). For the music teachers, being evaluated based on their students’ scores’ on standardized tests is a relatively new practice.

Music teachers, like teachers in all subject areas, are often evaluated on the basis of their classroom behaviors and knowledge of their subject matter. Many principals may not be familiar with, or understand, music course content, so they must rely on other types of observations to evaluate the music teachers in their schools. Principals are quite accurate when assessing very high or very low performing teachers, regardless of course content (Jacob & Lefgren, 2008). Because teachers are evaluated through observation of what they do, and not only what they say about their subject matter, nonverbal behaviors play a crucial role in the evaluation of teacher effectiveness. Nonverbal behaviors that indicate enthusiasm and rapport with students are often the bases for teacher evaluations (Ambady & Rosenthal, 1993).

*Types and limitations of teacher observations.* Some school districts are experimenting with different formats for teacher evaluations. Traditional, full-length class observations may not be the most efficient or effective way to gather information about a teacher’s performance in the classroom. By offering scheduled observations, teachers are provided the opportunity to prepare their best teaching possible. Therefore, the observed teaching does not always accurately reflect their usual teaching practices. A popular alternative is the use of both announced and unannounced classroom observations (Daley & Kim, 2010). The addition of unannounced visits offers an evaluator the opportunity to observe a teacher in authentic teaching scenarios. Walkthroughs, or brief informal visits, are also a common method evaluators use to gather information regarding teachers’ skills. It is possible for evaluators to accurately assess teacher
effectiveness after only a brief period of observation (Ambady & Rosenthal, 1993). Brief, but frequent observations can increase a principal’s opportunities to address specific teaching skills or behaviors that warrant attention.

There are important limitations to the various types of teacher evaluations. Some administrators view prolonged or frequent observations as costly and time-intensive bureaucratic requirements. Although evaluations are often required to meet legislative mandates, some teachers receive no administrative feedback regarding the assessments of their classroom performances. Deficiencies in current evaluation systems frequently involve inconsistent criteria for teacher observations, inadequate time to provide the necessary instructional support, and insufficient evaluator training (Hallinger, Heck, & Murphy, 2014). With the addition of school-wide student achievement as a factor for evaluating teacher effectiveness, teachers are often rewarded or penalized for student achievement in subject areas they do not teach. Instead of providing the desired feedback for student growth, the subjective nature of many current evaluation methods has left teachers frustrated and disillusioned about their chosen careers (Daley & Kim, 2010).

Implications of teacher evaluations. Teacher evaluations were originally designed to provide systemic feedback for the improvement of classroom skills and teaching behaviors. With the current reward and punishment motivation scheme, the gravity of teacher evaluation has increased dramatically. Evaluations ultimately rely on the professional judgment of administrators during classroom observations. These evaluations can affect a teacher’s professional record, career prospects, reputation and longevity in the field. Appropriate use of teacher evaluations have the potential to provide improvement in the quality and accountability
of the teacher workforce; however, inappropriate use of evaluations has the potential to
demoralize effective teachers, resulting in their leaving the field of education.

Results of formal and informal evaluations can greatly influence music teachers’ sense of
self-efficacy. It is likely all teachers wish to provide a positive learning environment for their
students and to receive evaluations that reflect this goal. Teachers are one of the most influential
variable affecting student learning, and evaluations exist to provide important feedback that will
ensure all students are provided with the most effective teacher possible. Fortunately for music
teachers, researchers have identified certain variables that influence the evaluation of teacher
effectiveness. Globally, these variables can be categorized as general teaching behaviors, musical
behaviors, and personal behaviors (Teachout, 1997). Principals are most often looking for a
music teacher who is engaging, is knowledgeable of their subject matter, is enthusiastic, and who
develops rapport with their students (Ambady & Rosenthal, 1993; Jacob & Lefgren, 2008).
Although principals often use some type of detailed rubric to evaluate teachers, overall
perceptions of rapport and enthusiasm have been found to greatly influence teacher ratings of
effectiveness (Torff & Sessions, 2005).

**Nonverbal Communication in the General Classroom**

The classroom is an environment in which both teachers’ and students’ nonverbal
behaviors have important implications for learning. Knapp, Hall, and Horgan (2014) cite a
number of nonverbal behaviors that commonly occur in the classroom and influence student
learning:

1. Nonverbal cues between teachers and students signal a close or distant relationship.
2. Students avoid eye gaze with teachers to avoid participation.
3. Students’ body postures and facial expression display their interest and attention in what the teacher is saying.

4. Students’ and teachers’ dress, hair length, and adornment affect classroom interaction and learning.

5. Disciplinary enactments by teachers may manifest in negative facial expression, threatening gestures, or critical vocal tones.

6. Teachers announce they have plenty of time for student conferences, but fidget and glance at their watch when students come to see them.

7. Teachers may try to assess student comprehension and learning by visually scanning students’ facial expressions.

8. Classroom design–wall colors, space between seats, size and placement of windows–affects student participation and learning. (p. 405)

These nonverbal behaviors have the potential to affect student learning, and can increase a teacher’s credibility and rapport with students (Andersen, 1979; Andersen & Withrow, 1981; Darrow & Johnson, 2009; Johnson, Darrow, & Eason, 2008). Smiling, maintaining eye contact, and increasing proximity to students are nonverbal behaviors commonly known as immediacy behaviors. Demonstration of these behaviors is associated with positive rapport (Andersen & Andersen, 1982; Richmond, Gorham, & McCroskey, 1987).

Beyond immediacy behaviors, other nonverbal behaviors that influence effectiveness in the classroom are: kinesics, proxemics, haptics, oculistics, and vocalics (Burgoon, Buller, & Woodall, 1996; Knapp et al., 2014; McCroskey, 1972; Remland, 2009). Both kinesics and proxemics embody aspects of nonverbal communication that incorporate movement. Specifically, kinesics relates to the movement of the body or a part of the body, and may include
facial affect and gestures. Teachers who exhibit positive facial affect (e.g., smiling, raised eyebrows) receive higher effectiveness ratings from students in their classes (Richmond et al., 1987). Proxemics are nonverbal behaviors associated with the movement of the body in space. Teachers frequently use subsets of proxemics like proximity (i.e., movement toward or away from students) and gestures in the classroom. Oculsics is a subcategory of kinesics and refers specifically to eye movement. Gaze or eye contact can be used as a form of classroom management as well as a tool to increase rapport with students (Andersen, 1979; Johnson et al., 2008). Touch, or haptics, is the most powerful nonverbal message an individual can send (Richmond & McCroskey, 2000). Teachers are often discouraged from employing this nonverbal behavior; however, students have indicated an increased level of learning from teachers who used pedagogical touch (Richmond et al., 1987). In addition to movement and eye contact, teachers may use vocal communication to accompany nonverbal behaviors. Vocal inflection, known as vocalics or paralanguage, provides tonal variety in the message and often helps communicate the meaning behind nonverbal gestures.

It has often been said that actions speak louder than words. Furthermore, if the verbal and nonverbal message conflict, it is generally the nonverbal message that is received (Knapp et al., 2014). Teachers are generally aware of the words they use when teaching, but are often unaware of the extent to which their nonverbal behaviors influence the learning process. Teachers who use consistent verbal and nonverbal behaviors send messages that are more likely to be understood by their students, and in turn, create a more effective learning environment (Richmond et al., 1987). Effective teachers understand how to effectively encode and decode nonverbal behaviors in the classroom. The learning process in all classrooms is influenced by teachers’ nonverbal messages.
Nonverbal Communication in the Music Classroom

Many of the interactions that occur in the music classroom transpire through nonverbal means. Effective music educators understand how to use both verbal and nonverbal behaviors to interact with their students and to create positive learning environments. Nonverbal behaviors associated with quality music teaching include the effective use of proximity, eye contact, gestures, facial expression, and tone of voice (Madsen, 1988; Madsen, 2003; Madsen, Standley, & Cassidy, 1989; Steele, 2010; Yarbrough, 1975). Unlike the general education classroom, the music setting requires teachers to employ unique teaching techniques that are categorized as nonverbal behaviors. Instructional strategies such as teacher modeling, conducting, and pedagogical touch are forms of nonverbal communication specific to the music classroom.

An effective teacher-conductor utilizes high levels of expressive nonverbal communication to share musical ideas with ensemble members (Julian, 1989). Conducting is probably the most easily recognized example of expressive nonverbal behavior used by the teacher-conductor. The conducting gesture allows an effective teacher-conductor to communicate the desired instruction without having to verbalize (Johnson & Fredrickson, 1995; Price & Byo, 2002). Effective use of the conducting gesture in the ensemble setting can enhance the musical learning process for students by improving the pace of instruction. Although conducting gestures are an important aspect of music teachers’ nonverbal behaviors, they are not the entirety of music teachers’ nonverbal repertoire. Music teachers at every level generally model singing or playing, and utilize printed music as a visual reference.

Nonverbal behaviors play an important role in the general music classroom as well as the ensemble class. Music classes are enhanced when teachers present their lesson material with enthusiastic and engaging delivery. Music teachers who display high levels of nonverbal
expressivity are generally considered to be more effective and to have rapport with their students (Torff & Sessions, 2005). Most elementary general music teachers employ a variety of instructional strategies that necessitate an awareness of nonverbal communication. Like teacher-conductors, many elementary teachers utilize modeling, movement, and the use of visuals.

**Rationale and Purpose Statement**

Researchers have clearly defined the behaviors associated with effective teaching in the secondary music ensemble setting (Madsen, 1988; Madsen et al., 1989; Yarbrough, 1975). Much of the research on effective music teaching has focused on the teacher-conductor. There is little research on the elementary general music teacher, and what exists, has focused on the curriculum successful teachers use in the classroom, and not on the teacher behaviors necessary for effective instruction at this grade level. Therefore, the present study is an investigation of behaviors associated with effective teaching in the elementary music setting, and of elementary-aged students’ music learning.

The purpose of this study was threefold: (1) to determine if levels of teacher expressiveness (low, medium, or high) have an effect on ratings of teacher effectiveness, lesson content, and on student learning; (2) to determine if a relationship exists between ratings of teacher nonverbal behaviors and teacher effectiveness; and (3) to determine if a relationship exists between ratings of teacher expressiveness and teacher enthusiasm.
CHAPTER TWO

REVIEW OF LITERATURE

This chapter includes a review of literature in the following areas: teacher evaluation, nonverbal communication in the general classroom, and nonverbal communication in the music classroom. The literature review provides the rationale and framework for the research questions addressed in the present study. These questions are presented at the end of the chapter.

Teacher Evaluation

Philosophers, legislators, school administrators, educators, and researchers have all attempted to characterize the knowledge, instructional skills, and personal attributes that define effective teachers. The rationale for this wide-ranging attention to the attributes of effective teachers is the general belief that better teachers produce better student learning (Stronge, 2013). Improving student achievement is the cornerstone of educational reform and teacher evaluation in the United States. Students’ scores on standards-based tests and teacher quality are the two main factors directly associated with quantifying student achievement according to the No Child Left Behind Act (2002) and the Race to the Top initiative (2009). These legislative reforms require school districts to conduct teacher evaluations in order to increase teacher accountability and to improve student educational outcomes. Teachers are an integral component of a student’s education. How to appropriately evaluate teacher quality and effectiveness remains an important topic of educational research.

Purposes of and Approaches to Teacher Evaluation

As early as 1896, Katz surveyed elementary-aged students and asked his informants to describe the qualities of their best teachers. The thought was that by providing a compilation of desired teaching characteristics, benchmarks could be established and used to evaluate all
teachers (Katz, 1896). Changes in teacher evaluation coincided with changes in thought about
the teaching profession, effective teaching, and various theories related to student learning (Ellett & Teddlie, 2003). During the past four decades, the prevailing focus of teacher evaluations has been the attempt to link effective teacher behaviors to student academic achievement. The link between teacher behaviors and student achievement has prompted several methods of teacher evaluation.

Most recently, student achievement scores on standardized tests have been included in annual teacher evaluations. Students’ annual test scores are used to provide a quantifiable assessment of their learning growth. These assessments have been associated with their teachers’ instructional practices (Rockoff, 2004). A controversial model that utilizes student achievement on standardized tests to provide teacher evaluation scores is the Value-Added Model (VAM). The VAM attempts to measure a teacher’s direct influence on student achievement by eliminating other factors such as student ability, family environment, past education, and peer influence (Polikoff & Porter, 2014). This model is based on the assumption that student learning and teacher effectiveness is intricately linked. An administrator’s use of the VAM to evaluate teachers’ effectiveness indicates a belief that student learning is reliably measured by scores attained on a given test (Darling-Hammond, Beardsley, Haertel, & Rothstein, 2011).

Large-scale research studies have been conducted across the United States in an attempt to formulate a valid and reliable method of teacher evaluation. The Gates Foundation recently completed a three-year project that focused on the combination of quality teacher observations and student achievement gains. The Measures of Effective Teaching (MET) Project emphasized the importance of using classroom observations to help teachers improve student outcomes. Results from the project indicate the need for teacher evaluations to include classroom
observations that identify both the strengths and weaknesses in a teacher’s practice (Bill & Melinda Gates Foundation, 2012). Learning Sciences International also completed a long-term research study to evaluate the effectiveness of the Marzano Causal Teacher Evaluation Model (Marzano et al., 2012). Results indicated that when employed properly, the Marzano Causal Method provided an informative and positive format for teacher evaluation in the school districts in which it was piloted.

Recent research by Daley and Kim (2010) has revealed shortcomings and inconsistencies in teacher evaluations. They found that principals are often subjective and inconsistent in their evaluations and generally untrained in evaluative methods. In addition, they generally provide little feedback to teachers, and few opportunities for teachers to improve their teaching. Additionally, a survey of 15,176 teachers revealed nearly 75% had not received specific feedback on how to improve their instructional practice (Weisberg et al., 2009). An evaluation itself does not improve teaching; however, feedback and support do have the potential to affect teacher practices (Peterson, 2004). Feedback and support also have the potential to promote teacher self-efficacy.

**Teacher Efficacy and the Relationship to Student Learning**

Teacher efficacy, which typically develops during the first year of teaching, defines a teacher’s attitude regarding their ability to teach and their students’ ability to learn (Hoy & Spero, 2005). Efficacy can affect the goals a teacher makes along with the effort they invest in the profession. Ross (1994, 1998) reviewed 88 teacher efficacy studies and identified potential relationships between teachers’ self-efficacy and their teaching behaviors. The findings from his research suggest that teachers who demonstrate high levels of efficacy are more likely to: (1) learn and implement new approaches and strategies for teaching, (2) use classroom management
techniques that enhance student independence, (3) provide additional assistance to lower achieving students, (4) build students’ self-perceptions of academic skills, and (5) set attainable goals (Ross, 1994, 1998). Teachers’ beliefs about their abilities are related to their expectations of students’ achievement and motivation (Palardy & Rumberger, 2008).

Teacher expectations and attitudes toward student aptitude have been linked to students’ motivation to learn in the classroom. Teachers who convey that they care about their students have high student achievement scores (Hanushek, 1971). An effective educator understands the various contexts in which students live, work, and play in order to foster positive educational experiences (Epstein, 2001). Students can often detect a teacher’s expectation of their abilities, and have indicated that teachers who are perceived as caring increase their motivation, and in turn their efforts to achieve academically (Muller et al., 1999). In a study by Weinstein (1989), lower achieving students were perceived as receiving greater teacher concern, more negative feedback, and more work-oriented instruction, while interactions with higher achieving students were perceived as prompting higher teacher expectations, receiving special privileges, and more academic freedom.

Factors Affecting Student Learning

The factors affecting student learning are numerous. Quality teachers demonstrate a variety of personal and instructional behaviors to foster students’ academic engagement. Research suggests student-teacher interactions in the classroom and how a teacher structures the content of the class can affect student learning and teacher effectiveness (Doyle, 1981). Rockoff, Jacob, Kane, and Staiger (2008) found a combination of teachers’ intellectual (cognitive) and personal (non-cognitive) attributes are related to student achievement. Results from their study indicated variations in student achievement are linked to several teacher attributes—teacher
experience and teacher efficacy. Another specific teacher attribute that has been associated with improved student performance is teacher expectancy (Brophy, 1983).

Expectancy theory addresses how students are motivated to learn. Students are motivated when they believe their behavioral choices will lead to a desired outcome (Brophy, 1983). *Pygmalion in the Classroom* by Rosenthal and Jacobsen (1968) was a controversial study that revealed the effect of teacher expectation on student learning. The researchers hypothesized that teachers’ expectations are directly related to their students’ achievement in the classroom. Researchers have attempted to replicate these findings in other classroom contexts (Clifton & Bulcock, 1987; Palardy & Rumberger, 2008; Weinstein, 1989). In a study of first-grade students, Palardy and Rumberger (2008) found that reading achievement was lower for students when their teachers held negative expectations and attitudes toward students’ abilities to learn. Similarly, Muller (1998) found teacher expectations were of greater significance in predicting student achievement than were student expectations. Additionally, Muller’s (1998) study suggests that students’ expectations of their academic ability were strongly influenced by the expectations of their teacher. Teacher expectations can be observed in the presentation of subject matter as well as in interactions between teacher and student.

Research suggests that instructional practices employed by teachers in the classroom may influence student achievement more than the combined factors of teacher credentials, experience, and certification test scores (Hightower, Delgado, Lloyd, Wittenstein, Sellers, & Swanson., 2011; Sigler & Hiebert, 1999). Instructional practice includes the numerous teacher behaviors that engender a connection between the student and the subject matter. Research examining the instructional practices of effective teachers found consistent use of a variety of teaching approaches (Goe, 2007). The most common instructional practices observed in the classrooms of
effective teachers are direct instruction, individualized instruction, discovery methods, and hands-on learning (Stronge, et al., 2007). Effective teaching practices are generally indicative of a quality teacher.

Defining Teacher Quality

The No Child Left Behind Act (2002) stipulates that school districts hire “highly-qualified” teachers. The language in this legislation cites only teacher background characteristics as attributes of “highly-qualified” teachers; however, a limited body of research exists that links specific teacher qualifications to student achievement (Goe, 2007). Several researchers have examined the relationship between teacher characteristics and teacher effectiveness (Darling-Hammond & Youngs, 2002; Hanushek, 1997). Investigations of specific background characteristics involve teachers’ degrees, coursework, credentials, experience, certification test scores, and undergraduate institutions (Palardy & Rumberger, 2008). Hanushek (1997) concluded that only a small portion of teacher background characteristics is positively related to student learning. He found that variables positively related to student learning are teacher experience and certification; however, having these attributes does not necessarily guarantee quality teaching.

Current educational reform has focused on the need for states and school districts to ensure that all students have access to highly qualified, effective teachers. Due to the complexity of teaching and learning, there is no singular definition of teacher quality; however, various researchers have isolated the desired attributes of a quality teacher that can positively influence student achievement (Goe, 2007; Looney, 2011). In an executive summary from the National Comprehensive Center for Teacher Quality, Goe (2007) stated that:
“…teacher quality may be evidenced by teachers who possess the following characteristics: (1) qualifications and experience appropriate to grade level and subject matter, (2) high expectations for students, particularly those at risk for poor outcomes, (3) creation of a classroom environment that encourages all students to participate in worthwhile learning activities, (4) desire to help students achieve at high levels, (5) ability to motivate at-risk students to come to school and participate in class, even if their achievement scores do not show significant gains, (6) excellent skills in mentoring new teachers and acting as stabilizing forces in high-turnover schools, and (7) willingness to work diligently with students with special needs, whose test scores may not reflect teacher contributions.” (p. 1)

Effective teaching has been described as the combination of energy, enthusiasm, organization, positive self-efficacy, motivation, and knowledge of: subject matter, pedagogical approaches, and student learning theories (Brophy, 1988; Goddard, Hoy, & Woolfolk-Hoy, 2000; Marzano, 2010; Palardy & Rumberger, 2008; Woolfolk & Woolfolk, 1974, 1977). Several of these attributes of effective teachers involve the display of selected nonverbal behaviors.

The study of nonverbal behavior in the classroom has progressed over the past half-century from informal curiosity to systematic, formal investigations. Researchers have focused on several areas of nonverbal communication in the classroom: proxemics, kinesics, and paralanguage (Ambady & Rosenthal, 1993; Andersen, 1979; Simpson & Erickson, 1983; Woolfolk & Brooks, 1983; 1985). More recently, selected teacher nonverbal behaviors have been positively linked to student achievement (Babad, Avni-Babad, & Rosenthal, 2003). Teachers’ effective use of nonverbal behaviors in the classroom may increase perceptions of their quality and effectiveness.
Nonverbal Communication in the General Classroom

Within the classroom, teachers must be mindful of the encoding and decoding processes involved in nonverbal communication (Steele, 2010). In typical classroom interactions, the teacher serves most often as the sender who must encode the message in ways that are appropriate for the subject matter and for the students’ age and language competence. Students generally serve as the receivers who then decode the message and attempt to understand its meaning and significance. Misunderstanding and misinterpretation can occur at any stage during the communication process in the classroom. For example, a teacher confident in their subject matter who does not display nonverbal behaviors of confidence, such as erect posture and vocal fluency and intensity, might elicit inappropriate student assumptions about the teacher’s credibility. Teachers may also misinterpret students’ nonverbal behavior (Steele, 2010). For example, a student who does not make eye contact is often assumed to be uninterested, inattentive or bored; however, the student may have a disability that inhibits his or her ability to make appropriate eye contact (White & Gardner, 2012). Nonverbal misinterpretations have the potential to affect student learning.

Teacher Nonverbal Expressiveness Behaviors

Andersen and Withrow (1981) examined behavioral indicators of teachers’ communication style, inclusiveness, enthusiasm, and warmth (Andersen & Withrow, 1981). These behavioral indicators exist within the global concept of teacher nonverbal expressiveness. Nonverbal expressiveness is understood as the demonstration of behaviors that communicate energy, passion, and interest in teaching (Andersen & Withrow, 1981). The effective use of expressive nonverbal behaviors can positively influence a students’ relationship with their teacher and their interest in the subject matter. Within the body of literature discussing nonverbal
behaviors are several viewpoints that support the proposition that teacher nonverbal expressiveness has a positive impact on student affective learning (Witt, Wheeless, & Allen, 2004).

A teacher’s expressive style may be almost entirely described by nonverbal behaviors. An extensive body of research posits a positive relationship between teachers’ expressive style and students’ evaluations of teacher effectiveness (Andersen & Withrow, 1981; Babad et al., 2003; Worrell & Kuterbach, 2001; Perry, 1990; Murray, 1983, Ambady & Rosenthal, 1993). Characteristics of expressive teacher behavior include the use of gestures, classroom movement, vocal inflection, laughing, facial affect, and dramatic expression (Murray, 1983). Perry, Abrami, and Leventhal (1979) found that teachers who incorporate these expressive nonverbal behaviors during instruction received high ratings of teaching effectiveness. A seminal study on the effect of teacher nonverbal expressiveness, known as the “Dr. Fox” study, proposed that subject matter presented in a “dynamic” manner, involving humor, expressive speech, movement, and gesture is recalled significantly better by students than the same material presented in a “static” manner (Naftulin, Ware, & Donnelly, 1973). It is also possible that an expressive and entertaining teacher may provide little or inaccurate subject matter and still receive high ratings of effectiveness from their students (Perry, Abrami, & Leventhal, 1979; Ware & Williams, 1980). Teachers who are enthusiastic during instruction and provide engaging lesson plans through the use of expressive nonverbal behaviors are perceived as more effective (Frisby & Martin, 2010).

**Nonverbal Indicators of Teacher Enthusiasm**

Enthusiasm can be observed through a teacher’s use of nonverbal behaviors, such as eye contact, gestures, body movements, changes in vocal inflection, and facial expression (Collins, 1978). Teachers use enthusiasm to communicate an affirmative demeanor, which can improve
the attending behaviors of students in their classroom. In the research literature, enthusiasm is considered a component of teacher intensity (Madsen, 1988). Effective teachers selectively employ contrasts in intensity and enthusiasm to communicate to students the importance of the subject matter and to increase student on-task behaviors (Brophy & Good, 1986). Bettencourt, Gillett, Gall, and Hull (1983) found that when a teacher presented a topic or assignment with enthusiasm, students were more likely to adopt the same attitude toward the topic or assignment. Students also reported learning more from teachers who displayed enthusiasm than those who did not (Bettencourt et al., 1983; Brophy, 2004).

The degree to which teachers’ enthusiasm affects student achievement and interest in the subject matter may be related to the age of the teachers’ students. McKinney et al. (1983) found that secondary-age students’ achievement increases when teachers employ high levels of enthusiastic behavior; however, elementary-age students tend to learn best when teachers convey a medium level of enthusiasm. Researchers have recommended maintaining a calm, yet engaging classroom environment for elementary-aged students (McKinney et al., 1983). Extreme changes in expressive behavior may over stimulate young students. Teacher intensity, enthusiasm, and perceived warmth are teacher personality attributes associated with effective teaching (Erbes, 1983).

Enthusiasm typically depicts a teacher’s instructional approach while warmth is used to describe the interactions between teacher and student. Teacher warmth, like enthusiasm, is conveyed through nonverbal means in the classroom and has been positively associated with student learning (Voelkl, 1995). Student perceptions of teacher warmth have been linked to specific inclusive behaviors (e.g., leaning forward, smiling). Warmth is observed through a teacher’s use of close proxemics, head movement, eye contact, and smiling within the learning
environment (Reece & Whitman, 1962). Teachers who create a warm and inviting classroom provide an atmosphere conducive to learning (Stronge, Ward, Tucker, & Hindman, 2007). Voelkl (1995) found that teacher warmth is significantly related to student achievement and participation. Results of this study imply that students who perceive the classroom or teacher as cold or non-supportive withdraw from class activities and participation.

Several researchers found that perceptions of teacher warmth are not directly associated with all areas of academic achievement. Skinner, Wellborn, and Connell (1990) surveyed 200 students in grades three through six and found that perceptions of teacher warmth were indirect measures of academic achievement. Students did acquire strong vocabulary and decoding skills in reading by the end of first grade when they had teachers described as warm, responsive, and attentive to academic tasks. Higher degrees of perceived teacher warmth and supportiveness were linked with student reports of feeling happier and more engaged in class. The findings indicate that although perceptions of teacher warmth are related to student engagement, they are not always directly related to student achievement in all academic areas. When teachers display positive attitudes toward students’ learning by demonstrating warmth and enthusiasm, they do enhance feelings of closeness. In the research literature, the feeling of closeness is described as immediacy (Andersen, 1979).

**Teacher Immediacy Behaviors and Rapport**

Immediacy was termed by Albert Mehrabian (1971) and refers to behaviors that reduce the physical and/or psychological distance between people. Immediacy behaviors such as smiling, maintaining eye contact, and proximity are all nonverbal behaviors related to perceived teacher expressiveness and warmth. In the classroom context, a teacher’s immediacy behaviors can affect students’ attitudes and feelings toward the teacher and course content (Andersen,
Teachers who are educated in the effective use of immediacy behaviors generate positive interactions in the classroom, which can have a direct effect on student ratings of teacher effectiveness (Remland, 2009). Instructional immediacy occurs through both verbal and nonverbal channels of communication (Wiener & Mehrabian, 1968). Verbal immediacy focuses specifically on word usage (e.g., using students’ names), while nonverbal immediacy focuses on behaviors such as eye contact, body position, gestures, facial expression, touch, space, and vocal qualities (Andersen, 1979). Research over the past two decades has revealed highly positive associations between teachers’ nonverbal immediacy and student affinity for teachers (McCroskey & Richmond, 1992), student affective and cognitive learning (McCroskey, Sallinen, Fayer, Richmond, & Barraclough, 1996), and student motivation to learn subject content (Richmond, 1990).

Wilson and Taylor (2001) found a positive relationship between teacher-student immediacy and student attitude toward teachers. They suggested that effective teachers use immediacy behaviors as a means to build a “caring atmosphere in which students can excel” (p. 138). In the research literature, rapport has been defined as the link between teacher immediacy behaviors and student ratings of effective teaching (Jorgenson, 1992). Generally, rapport is an overall feeling between two people indicating a mutual, trusting, and prosocial bond (Frisby & Martin, 2010). In the classroom environment, rapport is the ability to relate to others in a way that creates confidence and understanding. Schaps, Lewis, and Watson (1997) reasoned that instructors who build a positive classroom environment by developing relationships with their students could increase student perceptions of being valued, known, connected, and respected. Relationships built through rapport can occur between the teacher and students, as well as between students their peers in the same classroom. A connected classroom environment is
explained as “student-to-student perceptions of a supportive and cooperative communication environment” (Dwyer, et al., 2004, p. 267). This idea focuses on the interactions that take place between peers in the classroom. In the idyllic connected classroom, strong bonds exist between teacher and students, and between students.

Building rapport allows a teacher to turn a classroom into an organized, interactive, and safe environment for learning. Rapport is an interpersonal teacher attribute that involves knowledge of students’ learning styles to teach at a more personal level (Jorgenson, 1992). Students who perceived a positive rapport with their teacher, and being in a supportive learning environment, reported liking their class, and valuing the instructor, the lesson content, and the subject matter (Frisby & Myers, 2008). Teachers who establish rapport with their students are skilled in behaviors that encourage involvement, commitment, and interest in the subject matter (Ramsden, 2003). Interest in subject matter improves the tendency for students to be engaged in academic behaviors that support learning.

**Nonverbal Influences on Student Affective Learning**

The nonverbal behaviors associated with immediacy include teachers’ use of gestures, vocal inflection, eye contact, smiling, and classroom movement (Andersen, 1979; Mehrabian, 1971). Researchers have found immediacy to be positively correlated with student affective learning, motivation, and perceptions of instructor competence (Frymier, 1994; Gorham, 1988; McCroskey, 1994). Student affective learning is defined as the positive value students attach to course content and evaluation of an instructor (McCroskey, 1994). Nonverbal teacher immediacy increases student affective learning and plays a mediating role in the reception and effectiveness of classroom strategies (Frymier, 2007). For example, when a teacher attempts to encourage students to complete their assigned reading, use of immediacy behaviors will increase the
likelihood that students will both comply with the request and have more positive feelings toward the teacher (Richmond, Lane, & McCroskey, 2006).

Teacher rapport, immediacy, warmth, and enthusiasm, all displayed through nonverbal means, have the potential to increase student engagement (Andersen, 1979). Frisby and Martin (2010) investigated the relationship between instructor-student rapport and perceived gains in affective learning. Results of their study indicated when instructors established rapport with their students through use of nonverbal immediacy behaviors; students reported gains in their affective learning, motivation, and satisfaction with the instructor and the course. Nonverbal behaviors are factors that can affect student learning, and are within the control of the teacher. Regardless of the subject matter, an engaging classroom involves student motivation, interest, effort, enthusiasm, participation, and involvement.

**Nonverbal Communication in the Music Classroom**

Researchers in the field of music education have frequently investigated factors related to teacher effectiveness. Within this body of research, specific nonverbal behaviors have been isolated as a component of effective teaching. Various experts in the field of music education have used global terms, such as teacher intensity and teacher magnitude, to describe these behaviors (Madsen, 1988; Yarbrough, 1975). These attributes, or nonverbal behaviors, include eye contact, facial expression, proximity, and vocal expressiveness (Madsen & Geringer, 1989; Madsen et al., 1989). Many of the characteristics of high teacher intensity and high teacher magnitude are generally associated with nonverbal behaviors that positively correlate with ratings of teacher effectiveness (Madsen, 2003).
Effective Music Teacher Behaviors

According to Madsen (1988), there are two elements of effective music teaching; the first is comprehensive knowledge of the subject matter, and the second is the effective delivery of the material. In a seminal study, Yarbrough (1975) identified characteristics of an effective music teacher and defined them as high-magnitude behaviors. After observing choral conductors, six operational categories were identified to differentiate between high- and low-magnitude teachers: (1) eye contact, (2) proximity, (3) volume and modulation of voice, (4) gestures, (5) facial expression, and (6) rehearsal pace. In addition to the nonverbal behaviors observed in high magnitude teachers, Madsen and Geringer (1989) added the descriptor of intensity to effective teaching. Teacher intensity is defined as “sustained control of student/teacher interaction by efficient, accurate presentation and correction of the subject matter, with enthusiastic and effective pacing” (p. 90). Finally, Madsen et al. (1989) incorporated characteristics associated with enthusiasm, attention to student involvement, planning, and confidence to teacher magnitude and intensity. The characteristics described by the researchers investigating effective music teaching can be labeled as nonverbal behaviors.

Many researchers and authors have cited effective nonverbal behaviors and communication as components of successful music teaching (Brand, 1985; Hendel, 1995; Madsen et al., 1989; Yarbrough, 1975). The awareness and development of nonverbal communication skills may be especially important for music educators. At every level of music learning, nonverbal behaviors contribute to environments that are conducive to positive student experiences (Battersby, 2009). Nonverbal behaviors, including proxemics, eye contact, and paralanguage, can easily and effectively be used for classroom management, providing feedback, and music instruction (Steele, 2010). A teacher’s instructional delivery and rapport with students
are nonverbal components of music instruction that researchers have investigated to determine their relationship to effective teaching.

**Instructional Delivery**

Various researchers have identified nonverbal behaviors as aspects of instructional approaches used by effective music teachers (Hamann, Lindbergh, & Paul, 1998; Hendel, 1995; Whitaker, 2011). In the instrumental classroom, modeling is a pedagogical approach that is often associated with effective teaching delivery (Dickey, 1991; MacLeod, 2010; Sang, 1987). Modeling is defined as the demonstration of basic musical performance behaviors, which can be considered a means of nonverbal communication in the music classroom through the removal of verbal instruction (Sang, 1987). Dickey (1992) reviewed research that investigated various types of modeling in the music classroom and concluded that modeling was an effective means of communication, and that modeling can be more effective than verbal explanations. Despite the evidence that modeling is an effective instructional tool, many secondary music teachers tend to spend more time using verbal instruction than nonverbal instruction (MacLeod, 2010; Whitaker, 2011). MacLeod (2010) defined 12 teacher behaviors, which included several nonverbal behaviors (e.g., co-verbal instruction, modeling with and without instrument, modeling with and without instrument during student performance, conducting, and pedagogical touch) to compare the instructional strategies employed by experienced band and orchestra teachers. In general, orchestra teachers engaged in more nonverbal teaching strategies than band teachers, while band teachers were observed conducting more often than orchestra teachers. Modeling and conducting are both instructional methods that require the effective use of nonverbal behaviors to communicate content-related information to students in the ensemble-based classroom.
Hamann, Baker, McAllister, and Bauer (2000) asked university music students to evaluate four short video segments of music instruction. Each teaching segment contained combinations of good and poor delivery skills, and high- and low-quality content. Participants provided responses indicating their perception of how interesting the lesson was and how much they liked the way the teacher taught the lesson. The results revealed positive assessments from student observers when the teacher displayed good delivery skills, regardless of the quality of the lesson content. In a similar study, Madsen (2003) investigated the effect of teacher delivery and content accuracy on perceptions of teacher effectiveness. One hundred and sixty-eight musicians grouped according to experience level (middle school student, high school student, undergraduate, experienced teacher) evaluated a video recording containing various combinations of accurate and inaccurate instruction and high and low teacher delivery in an elementary general music classroom. Results indicated teacher delivery influenced participants’ perceptions of teacher effectiveness more than the accuracy of instruction. The high intensity/delivery conditions with inaccurate content teaching episodes were rated higher than the low intensity/delivery with accurate content teaching episodes. These findings indicate that teacher affect and delivery may have a stronger influence on the perception of teaching effectiveness than does the accuracy of the lesson content. Effective delivery skills may also influence rapport between the teacher and students in the music classroom (Battersby, 2009).

Rapport in the Music Classroom

Several researchers have investigated the relationship between perceptions of rapport and music teacher effectiveness (Berg & Miksza, 2010; Cevasco & Jones, 2007; Darrow & Johnson, 2009; Johnson et al., 2008; Kurkul, 2007; Whitaker, 2011). In a study comparing novice and skilled music educators, Johnson et al. (2008) found a positive relationship between participant
ratings of rapport and teaching effectiveness. Participants viewed videotapes of four different choral teachers under different observation conditions and provided evaluations based their rapport with the ensemble and perceived effectiveness. The relationship between the ratings of rapport and effectiveness was found to be .85. It is possible that these numbers were so closely aligned because the evaluators generally associated rapport with effectiveness. Participants’ cited the same behaviors (eye contact, effective use of gestures/conducting style, and perceived connection with the choir) to describe effectiveness and rapport.

Berg and Miksza (2010) identified rapport as a factor influencing teaching effectiveness, and cited its importance in preservice music education curricula. Through investigation of journals, self-evaluations, and reflections provided by undergraduate music education majors, the researchers coded entries into three categories: self, task, and student impact. The self category reflected participants’ concerns for themselves (e.g., humor, identity), the task category dealt with teaching strategy concerns (e.g., classroom management, repertoire), and the student impact codes were based on concern for student development (e.g., affective learning, motivation). Results indicated rapport and personality were the concerns most commonly cited by participants in the self category. Berg and Miksza (2010) discussed the potential influence of rapport on teaching tasks and student learning. Whitaker (2011) found a theme regarding rapport throughout student participant interviews.

Rapport has also been cited as an important factor relating to effectiveness in other areas of music, including music therapy and applied music lessons. In a study of music therapy practicum students, those who were identified as having rapport with their clients were viewed as more effective in the practicum setting (Darrow, Johnson, Mathern, & Achey, 2001). While studying the nonverbal behaviors of expert and novice music therapists, Cevasco and Jones
(2007) noted that expert music therapists used more nonverbal behaviors than novice music therapists in the same clinical settings. They determined that professional music therapists had greater facial affect and stayed in closer proximity to clients than did student music therapists. These findings suggest that use of nonverbal behaviors, particularly those defined as immediacy behaviors, may be experience related and may affect perceptions of therapist effectiveness and rapport. Darrow and Johnson (2009) also identified a relationship between nonverbal behaviors and higher ratings of rapport in the music therapy setting. Participants viewed videotaped recordings of preservice therapists and provided ratings for perceived client rapport along with comments regarding their evaluations. Results of the data analyses and evaluator comments indicated the nonverbal behaviors most important to rapport ratings and client engagement were the use of eye contact and gestures. The effective use of specific nonverbal behaviors, in addition to verbal presentations of musical knowledge, may convey higher levels of rapport and increase credibility in the music therapy setting. The one-to-one interactions of music therapists and clients are similar to the student-teacher interactions in the applied music studio setting.

An early study by Abeles (1975) revealed the necessity for applied music instructors to develop rapport with their students. The researcher created a four-factor rating scale, where rapport was one factor, to systematically evaluate applied music faculty members. Findings from this research indicated that, from the students’ perspective, rapport with the instructor was a dominant factor of successful applied music lessons. Kurkul (2007) explored nonverbal communication in the applied lesson format and the relationships among nonverbal sensitivity, nonverbal behaviors, and lesson effectiveness. Through implementation of several rating scales, major findings included a relationship between both teacher and student nonverbal sensitivity and ratings of perceived effectiveness. Specifically, students’ nonverbal sensitivity was related to
their overall ratings of lesson effectiveness and rapport with the instructor, while instructor nonverbal sensitivity was related to students’ ratings of the instructor’s teaching effectiveness. Schmitt (1976) stated that good rapport between the applied music teacher and students requires the teacher to possess sensitivity to students’ feelings and needs. Schmitt also stated that general nonverbal communication skills are necessary for establishing positive rapport. A teacher who can more accurately decode and interpret student nonverbal cues within the applied lesson setting may be more likely to establish rapport and influence perceptions of teaching effectiveness.

The Conductor-Teacher

The conductor-teacher has been the focus of much of the music research related to teacher intensity, rapport, and nonverbal communication in the classroom setting (Byo & Austin, 1994; Johnson, Fredrickson, Achey, & Gentry, 2003; VanWeelden, 2002; Whitaker, 2011). Eye contact and conductor presentation are two factors investigated recurrently within this body of research. These particular nonverbal behaviors have been found to elicit high ratings of confidence in the conductor from members within the ensemble as well as from external observers (Fredrickson, Johnson, & Robinson, 1998; Johnson, Price, & Schroeder, 2009). The role of the teacher-conductor requires music educators to rely on multiple forms of communication during instruction. A teacher-conductor’s gestural communication combines the traditional beat patterns reflecting the musical score with nonverbal behaviors that typically accompany verbal interaction (e.g., a smile to show approval, eye contact to display anticipation) (Dickey, 1992). Expressivity and musicianship can also be observed through the conducting gesture (Mann, 2014).
Researchers have found evidence to support the opinions of expert conductors who advocate a balance between nonverbal conducting behaviors and verbal instructions (Price & Byo, 2002). Conductors’ who exhibited frequent and sustained eye contact, expressive gestures, and varied facial expressions received higher effectiveness ratings (Johnson et al., 2003; Price & Winter, 1991; VanWeelden, 2002, Yarbrough, 1975). Price and Winter (1991) examined the effects of strict and expressive conducting behaviors on eighth-grade band students’ perceptions of conductor effectiveness. The strict conducting condition included minimal body movement, facial expression, expressive gestures, and group eye contact, while the expressive conducting condition included frequent body movement, expressive gestures, changes in facial expression and group eye contact. Student participants reported a significantly more positive opinion of the expressive conductor.

VanWeelden (2002) found that conductors’ facial expression, eye contact, and posture were related to perceptions of conductor effectiveness. Aspects of nonverbal behavior were explored to determine if relationships exist between visual characteristics (e.g., eye contact, facial expression, and posture) and overall ratings of conductor effectiveness. Moderate to moderately strong relationships were found between the ensemble performance ratings and conductor posture, facial expression, and overall effectiveness. Skillful nonverbal communication is an essential component of a conductor’s success, and research indicates that experienced teacher-conductors employ these expressive behaviors more often than novice teacher-conductors (Byo & Austin, 1994; Goolsby, 1999; Silvey, 2012).

**Preservice Music Education**

Nonverbal aspects of conducting such as gesture (Johnson & Fredrickson, 1995), facial expression (VanWeelden, 2002), and eye contact (Yarbrough & Price, 1981) can be developed
and improved. Typically, undergraduate music education majors complete courses that address
the development of skills necessary for effective teaching. These courses include topics relating
to pedagogy and instructional methods, as well as specific characteristics related to effective
music teaching. Teacher expressivity and nonverbal behaviors are traditionally discussed within
undergraduate conducting coursework. In a study by Silvey (2011), undergraduate music
education majors completed an Internet-based survey consisting of questions regarding their
perceived level of conducting ability and rehearsal preparedness and the extent to which their
conducting teachers devoted instructional time to specific topics. Participants indicated that
expressive skills such as facial expression, left-hand independence, and gesture were not
developed as well during their conductor preparation programs as the more technical aspects of
conducting, such as beat plane and baton technique. Because many secondary music teachers
spend a portion of each class or rehearsal engaged in conducting gestures, effective music
teaching seems to be uniquely connected to nonverbal communication skills.

Several researchers have conducted studies to determine skills and behaviors of
successful teachers in the music classroom. Whitaker (2011) examined verbal and nonverbal
teaching behaviors of high school band directors. Directors and students rated video excerpts
from a variety of traditional rehearsal scenarios (e.g., concert band rehearsal, marching band
rehearsal). The rehearsal excerpts that received the highest ratings of effectiveness from student
participants included teacher demonstration of nonverbal behaviors such as expressive
conducting and changes in facial expression. In a study by MacLeod and Napoles (2011)
preservice music education majors rated the effectiveness of teaching episodes containing
positive and negative feedback. Findings from this study indicated that student participants’
ratings of teacher delivery were the strongest predictor of participants’ perceptions of overall
teaching effectiveness. Hamann et al. (1998) investigated the relationship between participant ratings of teaching effectiveness and social skill development of preservice music education students. Results indicated that nonverbal communication skills were related to perceptions of preservice music teachers’ perceived effectiveness.

Educating preservice teachers to identify as well as to exhibit nonverbal behaviors has become an important element of the music education program (Knapp et al., 2014; Yarbrough & Madsen, 1988). Yarbrough and Madsen (1998) confirmed that preservice teachers are capable of recognizing behaviors that characterize a music teacher’s instructional accuracy, intensity, and pacing. The behaviors of secondary ensemble conductors were the focus of Yarbrough and Madsen’s study, as well as others. Effective nonverbal communication skills are important at all levels and in all areas of music instruction. Little research has been conducted in the elementary music classroom that specifically addresses the effective use of nonverbal teaching behaviors.

**The Elementary Music Classroom**

Research conducted in the elementary music classroom or involving the general music teacher has included investigations of instruction, delivery, classroom management, pedagogical approaches, and low- and high-intensity behaviors (Abril & Gault, 2005; Cassidy, 1990; Colwell, 1995; Hendel, 1995; Madsen & Cassidy, 2005; Wang & Sogin, 1997). To investigate curricular approaches, Abril and Gault (2005) compared preservice and inservice elementary educators’ perceptions of goals surrounding the elementary general music classroom. Teachers were asked to respond to a series of instructional goals related to one of five global areas: entertainment/recreation, expressive/creative, interdisciplinary, musical, and sociocultural. Results revealed a more positive mean score from preservice teachers for each goal area except the musical category, while inservice teachers assigned significantly more value on the musical
goal area. Inservice elementary educators seem to place more importance on the musical goals associated with the general music curricula.

Perceptions of activity time use has been another area of interest to researchers investigating instruction in the general music classroom. Wang and Sogin (1997) compared self-reported music class activity time use and actual time use of general music teachers. Variables observed in the study included student activities and teacher behaviors. Student activities were measured as the amount of time spent in reading, listening, describing, playing, creating, and moving to music; teacher behaviors were observed for the amount of verbal instruction or modeling. The results of this study indicated that teachers’ self-perception of their instructional time use was reported higher than what was measured. Of the activities observed, singing was perceived to occur most often, although observation results indicated singing only occurred 18.75% of the time. Observed teacher talk was high, although followed closely by modeling behaviors. Elementary general music teachers seem to incorporate a variety of musical activities to engage students during class time, but may benefit from further training on effective nonverbal approaches to decrease teacher talk.

Teacher delivery and development of effective delivery skills have been explored in the elementary general music classroom setting. Through observation and interviews of nine experienced elementary music educators, Hendel (1995) identified several characteristics associated with effective teaching. Videotapes of each teacher were observed for frequency and duration of nonverbal teacher behaviors acknowledged as high–intensity behaviors. The specific behaviors demonstrated by experienced teachers were proximity, use of instructional gesture (77%), high rates of eye contact (91%), varied vocal pitch levels and volume (86%), and changes in facial affect (approving 41%, disapproving, 4%). Many of these behaviors align with previous
high-intensity and magnitude studies in other settings (Yarbrough, 1975). From this study three practical strategies emerged for a successful elementary music classroom: (1) clearly define and firmly establish classroom procedures, (2) effective smiles and “looks” seem to make verbal reinforcement unnecessary, and (3) enthusiastic presentation and approving reinforcement seem to motivate and engage students. Student participants in this study cited “fun” more than any other attribute to describe their teacher.

Teacher education programs utilize several methods to prepare students for the general music classroom. Often these approaches include teaching demonstrations within the class (e.g., teaching a lesson to peers) and fieldwork experience (e.g., teaching actual students in the school setting). Through method courses, undergraduate music education majors cultivate effective teaching strategies and behaviors. Researchers have examined the development of teacher intensity behaviors in the elementary music setting. Cassidy (1990) investigated the effect of intensity training on preservice teachers’ instruction accuracy and delivery effectiveness. In this study, 52 preservice elementary education majors taught a series of five general music lessons. Half of the participants (experimental) received four intensity training sessions with the researcher. Participants’ videotaped teaching sessions were observed and teacher behaviors were recorded as high or low intensity. Low-intensity behaviors were categorized further as poor information and/or ineffective delivery. During fieldwork teaching episodes, both groups significantly improved in the delivery aspect of teaching, and all participants also significantly increased the percentage of time engaged in high-intensity teaching. Overall, participants receiving intensity training incorporated more interactive music activities than did control participants.
Colwell (1995) completed a similar study investigating the development of teacher intensity behaviors. She examined the effect of educational setting and self-evaluation tools on the development of teacher intensity behaviors among preservice elementary education majors enrolled in a music methods course. Participants taught in one of two settings: peers in a university classroom or children in a kindergarten practicum. Self-evaluation ratings were documented through one of two media: the Continuous Digital Response Interface (CRDI) with a general evaluation form or a specific behavioral checklist. The results of the study indicated that teaching setting and the method of self-evaluation did not have an effect on the acquisition of teacher intensity behaviors; participants made significant gains in both settings.

**Rationale and Research Questions**

No research could be found on elementary music teachers’ expressiveness and its effect on perceptions of teacher effectiveness or student learning. Only one study could be found on the nonverbal behaviors of elementary general music teachers. The purpose of this study was threefold: (1) to determine if levels of teacher expressiveness (low, medium, or high) have an effect on ratings of teacher effectiveness, lesson content, and on student learning, (2) to determine if a relationship exists between ratings of teacher nonverbal behaviors and teacher effectiveness, and (3) to determine if a relationship exists between ratings of teacher expressiveness and teacher enthusiasm in the elementary general music classroom. The following research questions were asked:

(1) Do teacher demonstrations of low, medium, or high expressiveness have an effect on participants’ ratings of teacher effectiveness?

(2) Is there a relationship between participants’ frequency ratings of nonverbal behaviors and ratings of teacher effectiveness?
(3) Is there a relationship between participants’ perceptions of teacher expressiveness and enthusiasm?

(4) Do teacher demonstrations of low, medium, or high expressiveness have an effect on ratings of lesson content?

(5) Do teacher demonstrations of low, medium, or high expressiveness have an effect on student learning?
CHAPTER THREE

METHOD

Participants

Participants for the first phase of this study were 160 college students enrolled in a performance ensemble at a large comprehensive university in the Southeastern United States. The undergraduate participants included undergraduate music education majors (n = 59) and non-majors (n = 101) who were in their freshman (n = 39), sophomore (n = 28), junior (n = 40), or senior (n = 42) year of coursework. Eleven of the participants were currently working on a master’s level graduate degree. Participants were randomly assigned a priori to one of three groups based on the expressive teaching episodes: low (n = 55), medium (n = 54), and high (n = 51). Participants for the second phase of this study were 114 fourth- and fifth-grade students recruited from a local elementary school. Elementary participants were randomly assigned a priori to one of three groups based on the expressive teaching episodes: low (n = 42), medium (n = 37), and high (n = 35). The average age of the elementary participants was 9.2 years. All participants completed an informed consent form, which had been approved by the university’s institutional review board as well as the school district’s review board (see Appendix A).

Stimulus Recordings

The researcher created three videos of the same stimulus teacher exhibiting low, medium, and high levels of expressive nonverbal behaviors while presenting a music lesson to a hypothetical class of elementary-aged children. The stimulus teacher followed a lesson plan based on specific subject matter content, and scripted for specific nonverbal behaviors. The subject matter of the lesson was a brief history of jazz along with information about the various artists illustrated in the book This Jazz Man (Ehrnhardt, 2006). The stimulus teacher altered six
nonverbal behaviors in each of the three videos to portray low, medium, and high levels of expressiveness. These six behaviors were obtained from Woolfolk and Woolfolk (1974) who identified nonverbal behaviors used by highly effective teachers. Their descriptions of these nonverbal behaviors were adapted and used for the present study:

*Gestures:* Any use of the hands that is not considered conducting patterns (e.g., pointing, modeling).

*Proximity/Classroom Movements:* Any movement made toward the students in the classroom (e.g., walking away from the white board).

*Student-Directed Gaze:* Eye gaze directed toward the class, ensemble or individual (e.g., not looking at the book).

*Change in Facial Expression:* Any change of expression in the face to or from neutral or flat affect (e.g., lifted eyebrows).

*Vocal Inflection:* Any change in vocal tone, pitch or volume.

*Smiling:* Corners of the mouth turned up.

A copy of the script can been viewed in Appendix B. Instructional strategies used by the stimulus teacher, such as incorporating visuals, were common to the general music classroom and based on input from experts in the field of elementary music education (Hendel, 1995). Due to the nature of the study, videos were focused on the teacher only; therefore, no interactions between teacher and students were included in the video.

To create the low expressiveness teaching episode, the researcher scripted moments that included the stimulus teacher using little to no classroom movement, few changes in facial affect or vocal inflection, and limited use of gestures. For the medium expressiveness teaching episode, the stimulus teacher used some classroom movement, some changes in facial affect or vocal
inflection, and some use of gestures. The high expressiveness video was created using scripted moments that included consistent use of facial affect, classroom movement, vocal inflection, gestures, and student-directed gaze (eye contact).

**Materials**

The teaching episodes were recorded using two cameras, a SONY HDR-SR11 and a SONY HDR-PJ65OV. Two camera angles were used, one to the left of the teacher and one to the right. Additional audio recordings were taken simultaneously with the video recordings using a ZOOM H2 digital recorder and a Sandisk Sansa Clip lapel microphone for optimal recording quality. Following the initial recording process, all three teaching episodes (low, medium, and high expressiveness) were edited to include identical camera angle changes during the teaching episode. See Appendix B for camera angle changes within the teaching script. The following computer software was used for the editing and production of the stimulus recordings: Adobe Premiere Pro CS5.5 (video), Adobe Audition 3 (audio), and Video Enhancer by Infognition (audio and video enhancing). Stimulus recordings were shown on a SmartBoard 885ix2/UX80 screen and projector in a large classroom.

**Instructor for Stimulus Recordings**

In order to eliminate teacher differences as a confounding variable, the same stimulus teacher, a male in his mid-thirties, was used for all three video teaching episodes (low, medium, and high teacher expressiveness). The stimulus teacher had considerable acting experience, and had recently completed a course in nonverbal communication. Although male general music teachers are not as common as female general music teachers, past researchers have found no differences between male and female stimulus teachers (Ambady & Rosenthal, 1992). The stimulus teacher was provided the researcher-created script prior to the recording session to
memorize and familiarize himself with the material. The recording session occurred in a large recital hall staged as a typical elementary general music classroom. Each teaching episode was approximately six minutes in length.

**Reliability of Expressiveness Labels for Stimulus Video**

To evaluate the reliability of the labels assigned to the stimulus recordings (high, medium, and low expressiveness), a panel of four graduate music students viewed and independently labeled each teaching episode as exhibiting overall low, medium, or high expressiveness. Panel members all had public school teaching experience and had completed a course in nonverbal communication. Reliability was 100% for the assignment of low, medium, and high expressiveness labels to the stimulus videos.

**Creation of the Dependent Measure**

Evaluative statements used in the dependent measure were generated after reviewing previous research on the behaviors of effective music teachers (Madsen et al., 1989; Yarborough, 1975). The rating form included four sections with evaluative statements for the following: teacher effectiveness, use of nonverbal behaviors, lesson content appropriateness, and teacher demeanor. For teacher effectiveness, participants provided ratings on a seven-point Likert-type scale where, “1” represented “strongly disagree” with the statement “the teacher was effective” and “7” represented “strongly agree” with the statement. For the area of nonverbal behaviors, six-evaluative statements were provided regarding the observation of nonverbal behaviors. The six observed nonverbal behaviors were teacher use of gestures, classroom movement, student-directed gaze, facial expression, vocal inflection, and smiling. On a seven-point Likert-type scale, “1” represented that participants “never” observed the stated nonverbal behavior and “7” represented that they “frequently” observed the stated nonverbal behavior. Ratings were
provided for the following lesson content statements: “subject matter was age appropriate,”
“lesson objective was attained,” and “National Standards for Music Education were addressed.”
Participants rated each statement on a seven-point Likert-type scale where “1” represented
“strongly disagree” and “7” represented “strongly agree.” Finally, using a seven-point Likert-
type scale where “1” represented “strongly disagree” and “7” represented “strongly agree,”
participants rated the following two statements: “the teacher was expressive” and “the teacher
was enthusiastic.” The rating form is shown in Appendix C.

**Creation of the Student Learning Assessment**

The National Standards for Music Education (National Association for Music Education
[NAfME], 1994) and input from a teacher with ten years of experience in public school jazz
education were used to create the script and the Student Learning Assessment. The Student
Learning Assessment included ten questions of varying difficulty in a multiple-choice format
with one correct answer. The Student Learning Assessment was given to two elementary general
music specialists who agreed the information presented in the assessment was accounted for in
the scripted lesson. A pilot of the Student Learning Assessment was given to 43 volunteer fourth-
and fifth-grade students from a local elementary school to ensure that the assessment was clear
and could be completed correctly. An item analysis was completed according to Patten (1998).
Test items were revised accordingly. No test items were omitted. A copy of the Student Learning
Assessment form is provided in Appendix C.

**Procedures for Undergraduate Participants**

Undergraduate participants were randomly assigned to one of three groups: low, medium,
or high teacher expressiveness. All three groups were given the following instructions: “You will
be viewing a teaching episode of an elementary general music teacher teaching a lesson on jazz
history to fourth- and fifth-grade students. Please answer the following questions after viewing the *entire* teaching episode.” After viewing the video, participants completed the provided evaluation form rating teacher effectiveness, observed nonverbal behaviors, lesson content, and teacher demeanor. All data was collected in a typical college classroom, with the screen in the front of the room and rows of desks in the classroom.

**Procedures for Elementary-age Participants**

Three fourth-grade and three fifth-grade elementary music classes with completed consent forms were randomly assigned to view one of the three stimulus teaching episodes (low, medium, or high expressiveness). Participants were given the following instructions: “You are going to watch a video of a teacher who will talk to you about jazz music. After he finishes, please answer the questions on your worksheet.” All teaching episodes were viewed using a Promethean Board in the music classroom during the regular school day. After viewing the teaching episode, students were asked to complete the 10-question Student Learning Assessment.
CHAPTER FOUR

RESULTS

This chapter is a report of the results by research question. After each of the five research questions, the data used to answer the question are reported, followed by analyses of the data, and a final summary response to the question. An alpha level of .01 was used in all statistical comparisons.

Research Question #1

Do teacher demonstrations of low, medium, or high expressiveness have an effect on participants’ ratings of teacher effectiveness?

Participant ratings of the stimulus teacher’s effectiveness were used to address research question one. Means and standard deviations for effectiveness ratings by teaching episode (low, medium and high expressiveness) are shown in Table 1. A one-way analysis of variance revealed significant differences between participants’ ratings of effectiveness for the three teaching episodes, $F(2, 157) = 124.31, p < .001$, $\eta^2 = .61$. See Table 2. Post hoc comparisons using a Tukey HSD test indicated significant differences between participants’ effectiveness ratings for all three levels of teacher expressiveness. See Table 3 for post hoc analysis. The high expressiveness teaching episode received the highest participant ratings for teacher effectiveness ($M = 5.84, SD = .98$), while the low expressiveness teaching episode received the lowest rating for teacher effectiveness ($M = 1.98, SD = 1.06$).

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
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<th>High</th>
</tr>
</thead>
</table>

43
Table 1 – continued

<table>
<thead>
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<th>High</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Teacher Effectiveness</td>
<td>1.98</td>
<td>1.06</td>
<td>4.00</td>
</tr>
<tr>
<td>Overall Teacher Demeanor</td>
<td>1.24</td>
<td>.79</td>
<td>4.45</td>
</tr>
<tr>
<td>Enthusiasm</td>
<td>1.24</td>
<td>.51</td>
<td>4.70</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>1.24</td>
<td>1.06</td>
<td>4.19</td>
</tr>
<tr>
<td>Overall Nonverbal Behaviors</td>
<td>1.64</td>
<td>.78</td>
<td>4.46</td>
</tr>
<tr>
<td>Classroom Movement</td>
<td>1.27</td>
<td>.65</td>
<td>2.83</td>
</tr>
<tr>
<td>Gestures</td>
<td>1.55</td>
<td>.63</td>
<td>3.87</td>
</tr>
<tr>
<td>Student-directed Gaze</td>
<td>2.95</td>
<td>1.56</td>
<td>5.81</td>
</tr>
<tr>
<td>Vocal Inflection</td>
<td>1.80</td>
<td>1.16</td>
<td>5.22</td>
</tr>
<tr>
<td>Facial Affect</td>
<td>1.24</td>
<td>.47</td>
<td>4.52</td>
</tr>
<tr>
<td>Smiling</td>
<td>1.05</td>
<td>.23</td>
<td>4.52</td>
</tr>
<tr>
<td>Overall Lesson Content</td>
<td>4.83</td>
<td>1.67</td>
<td>5.31</td>
</tr>
<tr>
<td>Age-appropriate</td>
<td>3.73</td>
<td>1.81</td>
<td>4.20</td>
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<tr>
<td>Clear Objective</td>
<td>5.33</td>
<td>1.56</td>
<td>5.78</td>
</tr>
<tr>
<td>National Standards</td>
<td>5.44</td>
<td>1.63</td>
<td>5.96</td>
</tr>
</tbody>
</table>

Table 2

One-way ANOVA Table for Effectiveness Ratings Between Low, Medium, and High Expressiveness Teaching Episodes

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>395.47</td>
<td>2</td>
<td>197.73</td>
<td>124.31</td>
<td>.001</td>
<td>.61</td>
</tr>
<tr>
<td>Within</td>
<td>249.73</td>
<td>157</td>
<td>1.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>645.19</td>
<td>159</td>
<td>1.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary Response to Research Question #1

The data analyses indicate teacher demonstrations of low, medium, and high expressiveness affect participants’ ratings of teacher effectiveness, with high teacher expressiveness resulting in high ratings of effectiveness; and likewise, low teacher expressiveness resulting in low ratings of effectiveness.

Research Question #2

Is there a relationship between participants’ frequency ratings of nonverbal behaviors and ratings of teacher effectiveness?

Participants were asked to rate the frequency of six nonverbal behaviors on a seven-point Likert-type scale where “1” represented “never” observed the behavior and “7” represented “frequently” observed the behavior. These data were used, along with ratings of teacher effectiveness, to address research question two. Pearson product-moment correlation coefficients were computed to determine if relationships exist between participants’ frequency ratings of nonverbal behaviors and ratings of teacher effectiveness. Positive correlations were found between ratings of teacher effectiveness and frequency ratings of classroom movement ($r = .81, p < .001$), gesture ($r = .83, p < .001$), change in vocal inflection ($r = .83, p < .001$), and smiling ($r$...
Significant correlations were also found for ratings of teacher effectiveness and frequency ratings of student-directed gaze \( (r = .64, p < .001) \) and change in facial affect \( (r = .78, p < .001) \). See Table 4 for all correlations.

Overall, student-directed gaze \( (M = 5.02, SD = 1.28) \), change in vocal inflection \( (M = 4.59, SD = 1.09) \), and smiling \( (M = 4.05, SD = .86) \) were the nonverbal behaviors observed most frequently by participants, while change in facial affect \( (M = 3.90, SD = 1.02) \) and classroom movement \( (M = 3.40, SD = 1.09) \) were the least frequently observed nonverbal behaviors. For the participants who observed the high expressiveness teaching episode, change in vocal inflection \( (M = 6.76, SD = .51) \) was the most frequently observed nonverbal behavior.

Participants who viewed the low expressiveness teaching episode \( (M = 2.95, SD = 1.56) \) and the medium expressiveness teaching episode \( (M = 5.81, SD = 1.26) \), student-directed gaze was the most frequently observed nonverbal behavior. Overall means and standard deviations for frequency ratings of nonverbal behaviors can be seen in Table 5. Frequency ratings of nonverbal behaviors by low, medium, and high teacher expressiveness can be seen in Figure 1.

Table 4

*Pearson Product-Moment Correlation Coefficients for Frequency Ratings of Observed Nonverbal Behaviors and Ratings of Teacher Effectiveness*

<table>
<thead>
<tr>
<th>Nonverbal Behaviors</th>
<th>( r )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Movement</td>
<td>.81</td>
</tr>
<tr>
<td>Gesture</td>
<td>.83</td>
</tr>
<tr>
<td>Student-directed Gaze</td>
<td>.64</td>
</tr>
<tr>
<td>Vocal Inflection</td>
<td>.83</td>
</tr>
<tr>
<td>Facial Affect</td>
<td>.78</td>
</tr>
<tr>
<td>Smiling</td>
<td>.82</td>
</tr>
</tbody>
</table>

Note: All values are significant, \( p < .001 \).
Table 5

Means and Standard Deviations of Nonverbal Behavior Frequency Ratings According to Teacher Expressiveness Level

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Classroom Movement</td>
<td>1.27</td>
<td>.65</td>
<td>2.83</td>
<td>1.46</td>
</tr>
<tr>
<td>Gestures</td>
<td>1.55</td>
<td>.63</td>
<td>3.87</td>
<td>1.47</td>
</tr>
<tr>
<td>Student-directed Gaze</td>
<td>2.95</td>
<td>1.56</td>
<td>5.81</td>
<td>1.26</td>
</tr>
<tr>
<td>Vocal Inflection</td>
<td>1.80</td>
<td>1.16</td>
<td>5.22</td>
<td>1.59</td>
</tr>
<tr>
<td>Facial Affect</td>
<td>1.24</td>
<td>.47</td>
<td>4.52</td>
<td>1.44</td>
</tr>
<tr>
<td>Smiling</td>
<td>1.05</td>
<td>.23</td>
<td>4.52</td>
<td>1.58</td>
</tr>
</tbody>
</table>

Figure 1. Mean frequency ratings of observed nonverbal behaviors.
Summary Response to Research Question #2

Strong positive correlations were found between participants’ ratings of teacher effectiveness and frequency ratings of nonverbal behaviors exhibited. These data indicate a relationship exists between nonverbal behaviors and teacher effectiveness, with the higher the frequency ratings of nonverbal behaviors exhibited, the higher the ratings of teacher effectiveness.

Research Question #3

Is there a relationship between participants’ perceptions of teacher expressiveness and enthusiasm?

Participant ratings for teacher expressiveness and enthusiasm for the three teaching episodes (low, medium, and high expressiveness) were used to address research question three. See Table 6 for all means and standard deviations. A Pearson product-moment correlation coefficient was computed to determine if a relationship exists between participant ratings for teacher expressiveness and enthusiasm. Results revealed a strong positive correlation between ratings for expressiveness and enthusiasm ($r = .96, p < .001$). See Table 7 for correlation results. The relationship between ratings of teacher expressiveness and teacher enthusiasm are shown in Figure 2. Although not specifically related to research question two, additional analysis indicated that participants’ ratings of teacher effectiveness were also highly correlated with ratings of teacher expressiveness ($r = .87, p < .001$) and enthusiasm ($r = .85, p < .001$). Correlations for teacher expressiveness, enthusiasm, and effectiveness can be seen in Table 7.
Table 6
Means and Standard Deviations of Participants’ Ratings of Teacher Expressiveness and Enthusiasm

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th></th>
<th>Medium</th>
<th></th>
<th>High</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>1.24</td>
<td>1.06</td>
<td>4.19</td>
<td>1.80</td>
<td>6.57</td>
<td>.70</td>
</tr>
<tr>
<td>Enthusiasm</td>
<td>1.24</td>
<td>.51</td>
<td>4.70</td>
<td>1.63</td>
<td>6.67</td>
<td>.59</td>
</tr>
</tbody>
</table>

Figure 2. Mean ratings of teacher expressiveness, enthusiasm, and effectiveness.
Table 7

*Pearson Product-Moment Correlation Coefficients for Expressiveness, Enthusiasm, and Effectiveness Ratings*

<table>
<thead>
<tr>
<th>Teacher Demeanor</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm – Expressiveness</td>
<td>.96</td>
</tr>
<tr>
<td>Enthusiasm – Effectiveness</td>
<td>.85</td>
</tr>
<tr>
<td>Expressiveness – Effectiveness</td>
<td>.87</td>
</tr>
</tbody>
</table>

Note: All values are significant, $p < .001$.

**Summary Response to Research Question #3**

A strong positive relationship was found between participants’ ratings of teacher expressiveness and enthusiasm. These data indicate participants generally equated teacher expressiveness with teacher enthusiasm.

**Research Question #4**

*Do teacher demonstrations of low, medium, or high expressiveness have an effect on ratings of lesson content?*

Participants’ were asked to rate the lesson content of a video teaching episode. These data from the three groups who were assigned to either low, medium, or high expressiveness were used to address research question four. A mixed-model two-way analysis of variance with one between and one within variable was computed to determine if significant differences exist between participants’ ratings of the three lesson content statements and the three levels of teacher expressiveness (low, medium, and high). Although unrelated to the research question, significant main effects were found between the specific lesson content ratings (age appropriate, lesson objective, and National Standards addressed), $F(2, 314) = 97.6, p < .001$, partial $\eta^2 = .38$, and
teaching expressiveness level, $F(2, 314) = 496.67, p < .001$, partial $\eta = .86$. Results of this analysis can be seen in Table 8. Scheffé post hoc analyses indicated significant differences between mean ratings for age-appropriate subject matter and National Standards addressed ($p < .001$), as well as mean ratings for age appropriate subject matter and lesson objective attainment ($p < .001$). See Table 9 for post hoc analyses.

The source that addresses the research question was the interaction between these two variables (lesson content and teacher expressiveness). There was not a significant interaction between participants’ ratings of the specific lesson content and teacher expressiveness level; however, a trend was revealed through descriptive analysis. See Table 10 for means and standard deviations for lesson content. Participants’ who viewed the high expressiveness teaching episode consistently provided the highest mean ratings for age-appropriate subject matter ($M = 4.63, SD = 1.74$), lesson objective attainment ($M = 6.04, SD = 1.23$) and National Standards addressed ($M = 6.27, SD = 1.06$), while the participants who viewed the ratings for the low expressiveness teaching episode provided the lowest mean ratings for age-appropriate subject matter ($M = 3.73, SD = 1.81$), lesson objective attainment ($M = 5.33, SD = 1.56$) and National Standards addressed ($M = 5.44, SD = 1.63$). Figure 3 displays participants’ mean ratings of specific lesson content.

Table 8

Two-way ANOVA with Repeated Measures Summary Table for Teacher Expressiveness Level and Lesson Content Ratings

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$p$</th>
<th>$\eta^2_p$</th>
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</thead>
<tbody>
<tr>
<td>Between Level (Low, Medium, High)</td>
<td>3604.71</td>
<td>2</td>
<td>1802.36</td>
<td>496.67</td>
<td>.001</td>
<td>.86</td>
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</tbody>
</table>
Table 8 – continued

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>$\eta^2_p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
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<td>3.81</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Between</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level (Low, Medium, High)</td>
<td>3604.71</td>
<td>2</td>
<td>1802.36</td>
<td>496.67</td>
<td>.001</td>
<td>.86</td>
</tr>
<tr>
<td>Error</td>
<td>598.47</td>
<td>157</td>
<td>3.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Within</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson Content</td>
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<td>Level*Content</td>
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<td>.11</td>
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<td>.001</td>
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<tr>
<td>Error</td>
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</table>

Table 9

*Post Hoc Scheffé Analyses for Lesson Content Statements*

<table>
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<tr>
<th>Lesson Content</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Age Appropriate – Lesson Plan Objective</td>
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</tr>
<tr>
<td>Age Appropriate – National Standards</td>
<td>.001</td>
</tr>
<tr>
<td>Lesson Plan Objective – National Standards</td>
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</table>

Note: $p < .001$
Table 10

Measures and Standard Deviations for Lesson Content Statements According to Teacher Expressiveness Level

<table>
<thead>
<tr>
<th></th>
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<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Age Appropriate</td>
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<td>Lesson Objective</td>
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<td>1.56</td>
<td>5.78</td>
</tr>
<tr>
<td>National Standards</td>
<td>5.44</td>
<td>1.63</td>
<td>5.96</td>
</tr>
</tbody>
</table>

Figure 3. Lesson content ratings according to expressiveness observation group.
Summary Response to Research Question #4

The degree of teacher expressiveness did influence participants’ perceptions of the stimulus lesson content. Data indicate that higher levels of teacher expressiveness resulted in generally higher ratings on statements regarding the lesson content.

Research Question #5

*Do teacher demonstrations of low, medium, or high expressiveness have an effect on student learning?*

Elementary participants were assigned to three groups and completed a 10-question Student Learning Assessment after viewing one of the three teaching episodes. Participant assessment scores from the three groups were used to address research question five. A one-way analysis of variance revealed no significant differences the scores of students who viewed the low, medium, or high teacher expressiveness videos, $F(2, 113) = .519, p = .6, \eta^2 = .001$. The student participants who watched the medium expressiveness teaching episode received the highest scores ($M = 71.35, SD = 24.94$), while the students in the high expressiveness group received the lowest scores and lowest standard deviation, indicating the least variance in scores ($M = 67.43, SD = 12.21$). Overall mean scores and standard deviations for the three groups can be seen in Table 11.

Table 11

*Means and Standard Deviations of Student Learning Assessment Scores*

<table>
<thead>
<tr>
<th>Expressiveness Level</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>42</td>
<td>69.05</td>
<td>20.34</td>
</tr>
<tr>
<td>Medium</td>
<td>37</td>
<td>71.35</td>
<td>24.94</td>
</tr>
</tbody>
</table>
Table 11 – continued

<table>
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<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>35</td>
<td>67.43</td>
<td>12.21</td>
</tr>
<tr>
<td>Total</td>
<td>114</td>
<td>69.03</td>
<td>16.39</td>
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</tbody>
</table>

**Summary Response to Research Question #5**

Teacher expressiveness did not affect student learning in the present study. The data indicate that a teacher who demonstrates a medium level of expressiveness may elicit higher levels of student achievement on content-specific assessments.
CHAPTER FIVE

DISCUSSION

The purpose of this study was threefold: (1) to determine if levels of teacher expressiveness (low, medium, or high) have an effect on ratings of teacher effectiveness, lesson content, and on student learning; (2) to determine if a relationship exists between ratings of teacher nonverbal behaviors and teacher effectiveness; and (3) to determine if a relationship exists between ratings of teacher expressiveness and teacher enthusiasm in the general elementary music classroom. Results of this study revealed that levels of teacher expressiveness had a significant effect on ratings of teacher effectiveness, with higher levels of teacher expressiveness resulting in higher ratings of teacher effectiveness. Levels of teacher expressiveness did not have an effect on ratings of lesson content, or on student learning. Results also revealed a significant relationship between ratings of teacher nonverbal behaviors and teacher effectiveness, with higher ratings of teacher nonverbal behaviors resulting in higher ratings of teacher effectiveness. Finally, the results of this study revealed that participants equated teacher expressiveness with teacher enthusiasm. This chapter includes a discussion of limitations of the present study, relevance of findings to existing literature, implications for practice, suggestions for further research, and research conclusions.

Limitations of the Present Study

One possible limitation of the present study involves the creation of the stimulus videos. The teaching videos used in this study included the stimulus teacher presenting a lesson to a hypothetical class of elementary-aged children. This decision limited the ability of the stimulus teacher to engage in traditional classroom interactions. The lack of student-teacher interactions may have influenced participants’ ratings of certain nonverbal behaviors (e.g., classroom
movement, student-directed gaze) and ratings regarding the age-appropriateness of the subject matter. Another aspect of the stimulus video creation that may have limited the results of this study was the placement of the video cameras. With the camera location, it was difficult for the stimulus teacher to engage in the full range of classroom movement. Additionally, the side-angle views may have made it difficult at times for participants to determine changes in student-directed gaze.

Another possible limitation of the present study relates to the student learning assessment. The students were not administered a pre-test, therefore previous knowledge of the lesson content was not accounted for in this study. One additional factor that may have limited the results of the student learning phase of this study was the expressiveness level of the student participants’ school music teacher. The teacher at the school used for this study, although a master music teacher with National Board Certification, might be described as having low to medium affect. The participants’ in this study may have adapted to their regular music teacher’s delivery style, and therefore, found it easier to relate with the behaviors presented in the low and medium expressiveness teaching episodes.

**Relationship of Findings to Extant Literature**

The stimulus teacher for this study exhibited nonverbal behaviors identified by Woolfolk and Woolfolk (1974) as those associated with effective teaching in the general classroom. These nonverbal expressive behaviors have also been described in previous research as high-magnitude or high-intensity behaviors of effective secondary ensemble teachers (Madsen et al., 1989; Yarbrough, 1975). Modeling, gestures, and facial affect are nonverbal behaviors that have been found to elicit high ratings of ensemble conductors (Byo, 1990; Dickey, 1992; Johnson et al., 2000; Price & Winter, 1991; Silvey, 2011). The nonverbal behaviors exhibited during the high
expressiveness episode by the stimulus teacher in the present study were those recommended by previous researchers. These specific nonverbal behaviors may be considered indicative of effective teaching, regardless of the subject matter content or students’ age.

Music teachers, including those in the elementary general classroom, who use high levels of expressiveness are considered not only to be effective (Hamann et al., 1998; Hendel, 1995; Madsen, 1988; Madsen, 2003; Madsen et al., 1989; Yarborough, 1975), but also to have greater rapport with their students (Darrow & Johnson, 2009; Johnson et al., 2008; Whitaker, 2011). Rapport is developed through the effective use of specific nonverbal behaviors called immediacy behaviors (Remland, 2009). An effective teacher will display instructional immediacy through behaviors such as smiling, student-directed gaze, and proximity. The stimulus teacher for this study displayed such immediacy behaviors, which previous researchers have found to be indicators of teacher rapport and enthusiasm (Darrow & Johnson, 2009; Johnson et al., 2008). These attributes of teacher demeanor can increase student participation and enhance perceptions of teaching effectiveness (Frisby & Martin, 2010).

The findings of the current study suggest that a general music teacher who exhibits high levels of enthusiasm and expressiveness will receive high ratings of teaching effectiveness. These findings, along with those of Johnson and Darrow (2009), identify attributes of effective teachers: enthusiasm, expressiveness, and rapport. In addition to teacher attributes associated with effective teaching, specific nonverbal behaviors have also been associated with effective teaching. Findings of the present study support those of Yarbrough (1975) and Brand (1985) who identified eye contact, proximity, facial expression, gestures, and vocal inflection as nonverbal behaviors that contribute to effective teaching. The findings of the present study, in their entirety, may indicate that elementary music teachers who possess certain teacher attributes (e.g.,
enthusiasm, expressiveness) and who exhibit specific nonverbal behaviors (e.g., eye contact, proximity, facial expression, gestures, vocal inflection) are likely to be perceived as effective.

The conducting gesture is the nonverbal behavior most closely associated with music teaching (Byo, 1990; Mann, 2014; Napoles, 2014; Whitaker, 2011). However, other instructional gestures (e.g., modeling) have been cited in previous literature as a common method of nonverbal communication in the music setting (MacLeod, 2010). A teacher commonly uses gesture to emphasize important information during a lecture, or in the music setting, as a model for proper technique. For the present study, gesture was an important component of participant ratings for teacher effectiveness, but was not the most frequently observed nonverbal behavior.

Facial affect is a nonverbal behavior commonly associated with enthusiasm and immediacy in the classroom. The importance of facial affect has been cited in several seminal studies on effective teaching behaviors (Andersen, 1979; Collins, 1978; Madsen, 1988; Madsen & Geringer, 1989; Madsen et al., 1989). The stimulus teacher in the present study altered several facial features (e.g., eyes, eyebrows, mouth) to vary his expressiveness level. Participants who viewed him in the high teacher expressiveness episode rated his effectiveness higher than participants who viewed him in the medium and low teacher expressiveness episodes. Voelkl (1995) also reported that changes in teacher affect not only increase perceived effectiveness, but also increase student participation and perceptions of teacher warmth.

Eye contact has been identified by many authors as essential to good classroom teaching (Knapp et al., 2014; Remland, 2009). In the present study, student-directed gaze was the nonverbal behavior observed most frequently overall. The high effectiveness ratings associated with frequent observations of student-directed gaze corroborate with previous literature emphasizing the importance of eye contact to improve perceptions of effective teaching
(Fredrickson et al., 1998; Johnson et al., 2009; Madsen, 1988; Yarbrough, 1975). Overall, the second most frequently observed behavior was changes in vocal inflection. Variations in vocal pitch, rate, and intensity are nonverbal behaviors often associated with features of teacher delivery. Teachers who varies their volume and pacing during delivery are often viewed as dynamic and expressive (Murray, 1983). Similar to the findings of the classic “Dr. Fox” study (Naftulin et al., 1973) as well as follow up studies (Madsen, 2003; Perry et al., 1979; Ware & Williams, 1980), results of the present study indicate the stimulus teacher’s degree of vocal inflection influenced participants’ perceptions of his teaching effectiveness. Participants’ ratings of vocal inflection and teacher effectiveness support the idea that how we present our subject matter as music educators is as important, if not more important, than what we are presenting.

In the present study, the stimulus teacher’s level of expressiveness did not affect student learning. This finding contradicts the results of previous studies, which suggest that nonverbal teaching behaviors associated with rapport can increase student learning outcomes (Kurkul, 2007; Schmitt, 1979; Torff & Sessions, 2005). However, research carried out in elementary classrooms has indicated young students may be distracted when teachers consistently display high levels of affect (McKinney et al., 1983). In the present study, student participants who viewed the medium teacher expressiveness episode received slightly higher scores on the Student Learning Assessment. This finding may indicate that students’ learn best when teachers avoid expressivity extremes (e.g., no affect, consistently high affect). Frequent changes between high and low teacher expressiveness may provide the balance necessary to engage the elementary-aged learner. Perhaps the naturally active nature of young children is better served by a teacher whose disposition is calm and serene.
Implications for Practice

The results of the present study have important implications for music teacher education. Based on the results of this study, inservice and preservice music teachers would benefit from: (1) understanding the types and functions of nonverbal teacher behaviors, (2) developing comfort with exhibiting these behaviors, (3) understanding when to modulate levels of expressiveness, and (4) understanding the relationship between nonverbal behaviors and perceptions of enthusiasm. An important function of nonverbal behavior in the classroom, though not investigated in the present study, is teachers’ understanding of how students’ use nonverbal behaviors to communicate subject matter comprehension, or lack thereof. Future researchers may wish to investigate this critical function of nonverbal behaviors in the classroom, as well as others suggested below.

Suggestions for Future Research

Limited research exists that addresses teaching behaviors of effective elementary general music teachers; therefore, findings from the current study warrant further investigation. While research clearly supports the use of specific nonverbal teacher behaviors found in secondary ensemble settings, researchers have not yet fully identified these teacher behaviors in the elementary general music classroom. Specifically, such research would establish a broader understanding of how nonverbal behaviors relate to teacher effectiveness within the elementary music classroom. Further research is needed to examine more fully whether a relationship exists between teacher expressivity and student learning.

Future researchers may wish to examine the effect of teacher expressivity on student learning by employing both pre- and post-tests to more accurately assess achievement gains. Researchers may also wish to examine the specific nonverbal behaviors that may influence
student learning. It may be beneficial to conduct future research in an actual elementary classroom, rather than the hypothetical classroom used in the present study. It might also be beneficial to examine the nonverbal behaviors of novice versus expert elementary general music teachers.

Finally, future researchers may wish to examine experienced teachers’ use of nonverbal behaviors during sequential patterns of instruction and in various pedagogical approaches commonly used in the elementary classroom. An understanding of the relationship between nonverbal behaviors and these various aspects of effective teaching may increase the likelihood that teachers will exhibit those behaviors conducive to student learning. It is important to continue this line of research in the elementary setting in hopes that all young students are afforded the most effective elementary music teacher possible. Highly effective music teachers at the elementary level increase the likelihood students will continue in music and matriculate into programs at the secondary level.

**Conclusions**

Results of the present study indicate the important role nonverbal behaviors play in judgments of teacher effectiveness. Nonverbal behaviors can be taught and learned. Through instruction and practice, music teachers can employ the use of eye contact, facial expressions, and body movements to facilitate positive classroom interactions and to engage students at all levels of music learning. While preservice music educators acquire the music and instructional skills necessary to become effective teachers, they might also attend to their development of specific nonverbal skills. Indeed, if all teachers were knowledgeable of the specific nonverbal behaviors associated with effective teaching, they may be more reflective of their own expressive behaviors in the classroom.
The elementary school is possibly the only setting in which music teachers reach every student. Elementary music teachers who are passionate about their subject matter and enthusiastic in their instructional delivery have the capacity to positively influence their students’ attitudes toward music. Cruickshank, Jenkins, and Metcalf (2003) defined an effective teacher as someone who is “…genuinely excited about the work that they do…” (p. 329). Teachers can demonstrate excitement for teaching through their use of nonverbal behaviors. Therefore, it is important for teachers to develop an awareness of, and to improve their use of, specific nonverbal behaviors that increase perceptions of teaching effectiveness and enthusiasm. Music teachers are now being evaluated on their teaching behaviors, as well as their students’ learning, both of which have the possibility to be positively influenced by teachers’ effective use of nonverbal behaviors.
APPENDIX A

HUMAN SUBJECTS APPROVAL AND CONSENT FORMS

Office of the Vice President For Research
Human Subjects Committee

APPROVAL MEMORANDUM (for change in research protocol)

Date: 11/01/2013
To: Julia Heath
Address: 
Dept: MUSIC SCHOOL
From: Thomas L. Jacobson, Chair
Re: Use of Human subjects in Research
Project entitled: The effect of teacher nonverbal expressiveness on ratings of teacher effectiveness and student learning

The application that you submitted to this office in regard to the requested change/amendment to your research protocol for the above-referenced project has been reviewed and approved.

Please be reminded that if the project has not been completed by 08/25/2014, you must request renewed approval for continuation of the project.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Alice-Ann Darrow Advisor
HSC NO. 2013.11633
Teaching Observation Study

My name is Julia Heath, and I am a Ph.D. student from the College of Music at Florida State University. You are invited to be in a research study about ratings of general music educators’ teaching effectiveness. I am asking that you take part because you are currently a general music educator. Please read this form and ask any questions you may have before indicating whether you want to take part in this study or not.

The study: The purpose of this study is to investigate general music teachers’ effectiveness when teaching. Results are anticipated to show if certain factors or a combination of factors affect ratings of teaching episodes. You will be asked to videotape during your regular teaching schedule. You will be taped for no more than 45 minutes. There will be no script given for your teaching. No students will be visible or identifiable in the videos. Your name will not be identifiable in any results of this project that may be published. Every effort will be made to protect your identity.

Risks and benefits: The only possible risk associated with this study is the use of video recordings. It is not possible to ensure complete anonymity, however every opportunity to protect your name and affiliation will be taken. There are no additional risks or benefits in this study to you if you take part in the study. The participants will not be identified in any portion of this study.

Compensation: There is no compensation for this study.

Confidentiality: The records of this study will be kept confidential, to the extent permitted by law. No identifiable information will be collected. All data collected in this study will be anonymous, and participants will not be identifiable in any future reporting of results. Research data will be kept in a locked cabinet and a secured office.

Voluntary Participation: To participate in this study, you must be at least 18 years old. You participation in this study is completely voluntary. Your decision whether or not to take part will not affect your current or future relationship with Florida State University. If you decide not to participate in this study, your decision will not have any negative consequences. If you decide to take part, you are free to stop the study at any time. You may skip any session that you do not feel comfortable completing. You are also free to withdraw at any time without affecting your relationship with Florida State University. The researcher for this study is Julia Heath who is overseen by Dr. Alice-Ann Darrow, the faculty advisor for this study. You may reach Dr. Darrow at ______________. You may reach Julia Heath at ______________. Please feel free to ask any questions you have now, or at any point in the future. If you have any questions or concerns about your rights as a research subject, you may contact the FSU Institutional Review Board (IRB) at ______________ or you may access their website at http://www.research.fsu.edu. You will be given a copy of this consent form for your records.

_____ I ACCEPT this offer to participate in the teacher observation study.

Your name (print): ______________________________________________

Your signature: __________________________________________________

Date:___________________________

HSC # 2013.10966
January 6, 2014

Ms. Julia D. Heath

Dear Ms. Heath;

The Leon County Schools Research Review Board has determined that the findings of your proposed study could be pertinent to our efforts and so we are initially consenting to your request for the research mentioned above. Conditions are:

- **Clarification** – Communication between you and Leon County Schools' personnel, regarding this study, are considered an integral part of this initial consent and subsequent approval.
- **Principal's Consent** – Initial consent by the Research Review Board does not in itself constitute permission to carry out the research. You may now contact principals of the schools in your study. The principal has the final decision relative to research at each school. It is your responsibility to return, to this office, the enclosed “Principal's Consent for Research Participation,” signed by the principal(s) of the school(s) to be involved, prior to the start of any research.
- **Clearance** – Leon County Schools is under contract with Florida State University regarding researchers. You are required to contact Jessica Waters [ ] who will work with you to obtain security clearance, including fingerprinting, and proof of health and liability insurance. Ms. Waters will inform Leon County Schools when your clearance is complete.
- **Approval** – Once your signed Principal's Consent forms and clearance are in place, then you will receive approval for this study. Then your name will be included in the weekly listing of individuals approved to enter the respective school(s). Notify us when you are finished with data collection and you no longer need to be in the schools.
- **Time Period** – Your data collection period from January 20 through February 28, 2014. Should you desire to extend for the next school year, you must submit a Progress Report form; available on the LCS web site. If you intend significant changes or amendments to the procedures or design, you must resubmit the Request for Research form.
- **Submit Results** – Leon County Schools is interested in your research partly due to the potential benefit the district may receive from your findings; therefore, we expect that you will send this office an executive summary with purpose, methods, results and discussion directly after concluding your study. We will place this information in our on-line research library.

We look forward to receiving your results.

Sincerely,

Linda M. Dean, Ph.D., Chairman, Research Review Board
C: Peggy Youngblood, and principal at Springwood

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**Building the Future Together**

No person shall on the basis of gender, marital status, sexual orientation, race, religion, national origin, age, color or disability be denied employment, receipt of services, access to or participation in school activities or programs if qualified to receive such services, or otherwise be discriminated against or placed in a hostile environment in any educational program or activity including those receiving Federal financial assistance, except as provided by law.

66
Leon County Schools
Principal's Consent for Research

Principal Investigator: J. D. Heath

Topic of Study: Teachable Nonverbal Expressiveness

I met with the above-named researcher and we have discussed the research proposal as stated by the LCS Research Board. I hereby give my permission to conduct the research as proposed in my school.

<table>
<thead>
<tr>
<th>Participating School(s)</th>
<th>Signature of Principal(s)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest Elem</td>
<td>11/14/14</td>
<td></td>
</tr>
</tbody>
</table>

Complete the approval process, this form must be returned to the Chairperson, Research Review Board, Program Monitoring & Evaluation Services PRIOR to the start of any research.

Verify this list is complete and that any significant amendments to this research will be first approved by Research Advisory Board Chairperson and the principal(s) at the above school site(s).

<table>
<thead>
<tr>
<th>Signature of Principal Investigator</th>
<th>Date</th>
<th>Program Monitoring &amp; Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11/14/14</td>
<td></td>
</tr>
</tbody>
</table>
Principal Consent

By signing this form, ________________________________ voluntarily agrees to allow (School Name) students to participate in the study entitled The Effect of Teacher Nonverbal Expressiveness on Ratings of Teacher Effectiveness and Student Learning, conducted by Julia D. Heath, a doctoral candidate from Florida State University.

This study will occur during the month of February 2014. The study will happen during class time, with no obstruction to regular class practice. The study should take 15 minutes to complete and will be conducted on school property. Students from fifth grade classes will watch one brief video and complete a questionnaire based on the content taught in the video. The primary researcher has proper clearance through Leon County School Board. Participation in this study is voluntary. The results of the research may be published, but names will not be used. Information obtained during the course of the study will remain confidential, to the extent allowed by law.

If you have any questions concerning this research study, please e-mail the primary researcher at [redacted] or her supervising professor Dr. Alice-Ann Darrow at [redacted]. If you have any questions about this research, you may contact the Chair of the Florida State University Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at [redacted] or you may access their website at www.fsu.research.edu.

Principal Signature ______________ Date ______________

HSC # 2013.11633
Music Teacher Consent

By signing this form, ________________________________ voluntarily agrees to allow students in the fifth grade music classes to participate in the study entitled The Effect of Teacher Nonverbal Expressiveness on Ratings of Teacher Effectiveness and Student Learning, conducted by Julia D. Heath, a doctoral candidate from Florida State University.

This study will occur during the month of February 2014. The study will happen during class time, with no obstruction to regular class practice. The study should take 15 minutes to complete and will be conducted on school property. Students from fifth grade classes will watch one brief video and complete a questionnaire based on the content taught in the video. The primary researcher has proper clearance through Leon County School Board. Participation in this study is voluntary. The results of the research may be published, but names will not be used. Information obtained during the course of the study will remain confidential, to the extent allowed by law.

If you have any questions concerning this research study, please e-mail the primary researcher at [redacted] or her supervising professor Dr. Alice-Ann Darrow at [redacted] If you have any questions about this research, you may contact the Chair of the Florida State University Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at [redacted] or you may access their website at www.fsu.research.edu.

Music Teacher Signature     Date

HSC # 2013.11633
APPENDIX B

STIMULUS VIDEO MATERIALS

Stimulus Video Script (with Camera Angles):

A = Camera A, B = Camera B, Az = Camera A Zoom, Bz = Camera B Zoom

(A) So far, we have learned about many different kinds of music. We have listened to classical and popular music, but today let’s talk about another style of music.

(B) We are going to learn about jazz music and a few of the people who created jazz music here in the United States. Before we read a book that tells us about some of the important jazz musicians, (A) we must first understand what is so special about jazz music. (B) Jazz was created here in America over 100 years ago! Specifically, the home of jazz music is New Orleans, Louisiana. New Orleans is known as a melting pot of many different cultures and many different kinds of music. (A) You can still visit the city today and hear some of the best jazz musicians in the world. This music developed from the music of African American slaves. (Bz) While working, slaves would sing songs to pass the time and these songs were known as “work songs.” (B) Work songs were not the only kind of music that influenced jazz. (A) Ragtime, which was the popular music of the early 1900’s in addition to gospel and blues music, also led to the development of jazz. Working songs, ragtime, blues, and gospel are all types of music that influenced what we now call jazz music. (B) What makes jazz music different from all the other kinds of music we listen to is something called improvisation. (A) Improvisation is when the performer makes up the music on the spot! (Bz) The music is not written out ahead of time, its spontaneous! This important element of performance makes jazz music unique. (B) Now that we have a better understanding of how jazz music developed, (Bz) lets read a book about the different kinds of musicians who make up a jazz big band!

(B) This jazz man, he plays one. He plays rhythm with his thumb, with a snap, snap, snazzy-snap! Give the man a hand, this jazz man scats with the band.

This jazz man, he plays two, he makes music with his shoes, with a tap-tap, shuffle-slap, give the man a hand, this jazz man stomps with the band.

This jazz man, he plays three plays congas tween his knees, with a bippity-bop, poppity-pop give the man a hand, this jazz man pounds with the band.
This jazz man, he plays four, he conducts ‘em through the score, with a one, and-a two, and-a-
give the man a hand, this jazz man, he leads the band.
This jazz man, he plays five, (A) he plays bebop, he plays jive, with a beedle-di-bop, bebop, give
the man a hand, (B) this jazz man blows with the band.
This jazz man, he plays six, he plays solos with his sticks, with a bomp-bomp, bubbuda-bomp
give the man a hand, (A) this jazz man beats with the band.
This jazz man, he plays seven, he plays notes that rise to heaven, with a toot-toot, doodly-doot,
(Az) give the man a hand, this jazz man wails with the band.
(A) This jazz man, he plays eight, he plays keys-all eighty eight, with a tink-plink, plinkle-dink,
give the man a hand, (Az) this jazz man swings with the band.
(B) This jazz man, he plays nine, he plucks strings that sound divine, with a thump-thump,
dumple-thump, give the man a hand, this jazz man jams with the band.
These jazz men, they play ten, we beg them to play again, with an (Bz) encore, we want more
give them all a hand, (B) these jazz men make one great band.

(Bz) Let’s go back and talk about three of the most prominent pioneers in jazz music. (A) Jazz
man number one, Louis Armstrong, is considered the “father of jazz.” Louis Armstrong, who
was from New Orleans, was known as the first famous soloist who transformed jazz by
improvising on his trumpet and using scat singing. (Bz) He also starred in movies and was
known for his distinct, raspy voice. (A) Duke Ellington was a gifted pianist from Washington
D.C. In this book, he is jazz man number four who is known as the most famous jazz composer
and big band leader. (B) Duke wrote musical pieces for each of the musicians in his big band.
(A) Jazz man number five, Charlie Parker, was a legendary jazz saxophone soloist from Kansas
City, Kansas. (B) Not only was Charlie Parker a famous soloist, he also helped create a new style
of jazz music called bebop. (Bz) Now let’s listen to some examples from these famous jazz
musicians.
APPENDIX C

DEPENDENT MEASURE RATING FORM

AND STUDENT ASSESSMENT

*Rating Form*

For this study, you will be evaluating one teaching episode of an elementary general music educator. At the conclusion of the teaching episode, please rate each evaluation statement on the provided 7-point Likert-type scale. Please notice that “1” indicates that you observed the behavior “Never” during the teaching episode, and “7” indicates that you observed the behavior “Frequently” during the teaching episode. For the overall rating of teacher enthusiasm, expressiveness, and effectiveness notice that “1” indicates that you “Strongly Disagree” with that statement and “7” indicates that you “Strongly Agree” with that statement.

Please evaluate and assign ratings to all statements to the best of your ability based on the observed teaching episode by circling one answer. The blank space at the bottom is for you to provide written comments on the teaching episode after you rate the evaluation statements. Please read the rating form below to familiarize yourself with the evaluation statements. You will have 2 minutes after the teaching episode to circle your ratings and provide written comments. If you have any questions, please ask at this time.

I AM: MALE FEMALE

MY MAJOR IS: MUSIC ED OTHER:__________________________

MY YEAR IN SCHOOL: FRESH. SOPH. JUNIOR SENIOR GRAD

MY PRIMARY INSTRUMENT IS: CHORAL INSTRUMENTAL

<table>
<thead>
<tr>
<th>Nonverbal Behaviors</th>
<th>Never</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher engaged in classroom movement.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher used gestures.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher engaged in student-directed gaze.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher used vocal inflection.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher changed facial affect.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher smiled.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Content</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The subject matter was age-appropriate for 4th &amp; 5th grade students.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher had a clear lesson objective.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>The teacher addressed the National Standard for Music Education, understanding music in relation to history and culture.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher Demeanor</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, the teacher was enthusiastic.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Overall, the teacher was expressive.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Effectiveness</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, the teacher was effective.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Comments about the teaching episode: ________________________________________________________________

Participant#_____ Level#_____
Circle one:  I am a BOY  I am a GIRL  #: ____Level:____

For each question below, circle the best answer.

1. Jazz was born in what country?
   a. England
   b. United States
   c. Japan
   d. Canada

2. Jazz improvisation is ____________________________.
   a. playing music that is composed ahead of time
   b. playing music that is created spontaneously
   c. playing music the same way every time
   d. boring because you always know how it’s going to sound

3. Jazz was born about _______________ years ago.
   a. 400
   b. 300
   c. 200
   d. 100

4. Jazz was born in what city?
   a. New York
   b. Los Angeles
   c. Chicago
   d. New Orleans

5. One special element of jazz is ________________.
   a. sheet music
   b. solos
   c. improvisation
   d. big band
6. The music that led up to and eventually became jazz included  
____________________.
   a. work songs
   b. blues and gospel music
   c. ragtime and work songs
   d. work songs, blues, gospel, and ragtime

7. The first great jazz soloist was cornet/trumpet player,  
__________________.
   a. Louis Armstrong
   b. Sidney Bechet
   c. Herbie Hancock
   d. Wynton Marsalis

8. The father of “be-bop” is considered to be  
__________________.
   a. Lester Young
   b. Charlie Parker
   c. Louis Armstrong
   d. John Coltrane

9. The man known as one of the greatest jazz composers is  
__________________.
   a. Charlie Parker
   b. Dizzy Gillespie
   c. Duke Ellington
   d. Count Basie

10. A group of jazz musicians are called  _________________.
   a. soloists
   b. big band
   c. orchestra
   d. concert band
REFERENCES


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