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A MEASUREMENT OF SELF-EFFICACY AMONG OKLAHOMA SECONDARY BAND DIRECTORS IN CONCERT, MARCHING, AND JAZZ ENSEMBLE PEDAGOGY

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A THESIS APPROVED FOR THE
SCHOOL OF MUSIC

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I would like to dedicate this thesis to my grandparents. Your example of love, family, faith, and hard work is inspiring.

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Abstract

The purpose of this study was to examine Oklahoma secondary band directors' self-efficacy toward concert, marching, and jazz ensemble pedagogy. A secondary purpose was to investigate potential relationships between directors' pedagogy self-efficacy (in each of the three ensemble settings) and their respective previous experiences. Oklahoma high school band directors who taught at OSSAA affiliated schools ($N = 395$) were invited to participate in a researcher-designed survey that included questions pertaining to their (a) school's demographics, (b) professional teaching background, and (c) preservice music teaching experiences. Participants ($N = 133$, 33.7% response rate) also were asked to identify their level of agreement to items on the Band Director Pedagogy Self-Efficacy Measure (BDPSEM). Self-efficacy beliefs in concert band pedagogy were measured to be the highest of the settings, followed by marching and jazz band pedagogy respectively. Composite self-efficacy scores between ensemble settings were significantly different from one-another. These results were indicative of participant reported preservice experiences, thus supporting Bandura's (1997) theory that self-efficacy beliefs are influenced by previous experiences. Of the four sources of self-efficacy, mastery experiences proved to have the highest correlation with self-efficacy beliefs in concert ($r = .913$) and marching ($r = .949$) pedagogy. Numerous demographic items significantly influenced band director pedagogical beliefs in more than one setting, including (a) school classification, (b) current and past inservice teaching experiences, (c) conference/workshop participation, (d) community ensemble participation, and (e) individual study.

Particular interest was given to identifying influential experiences on band director self-efficacy in jazz pedagogy, as previous studies have suggested there may be a lack of expectations and requirements in jazz settings at the undergraduate level. Nearly 70% of Oklahoma band directors reported professional experiences teaching in a jazz setting, but only 6.8% were required to participate in a jazz course during their undergraduate study. This lack of previous jazz experiences may have led to relatively low efficacious beliefs in band directors' jazz pedagogy. Considering several jazz-related experiences were found to significantly influence Oklahoma band director beliefs in jazz pedagogy (e.g., jazz theory, improvisation, jazz pedagogy), music teacher preparation programs should be designed to afford preservice music educators various opportunities to gain pedagogical experiences that have the potential to raise efficacious jazz pedagogy beliefs.

Keywords: self-efficacy, band director self-efficacy, ensemble pedagogy, jazz pedagogy, music teacher education, preservice teacher preparation, professional development

Chapter 1

Introduction

Secondary school band directors are often required to teach in numerous ensemble settings throughout their career, including concert, marching, and jazz bands. Because many instrumental music teachers serve as the only band director in their school or district, explicit knowledge of various ensemble methods, teaching techniques, and rehearsal strategies specific to various ensemble settings are necessary. Teachers gain pedagogical knowledge from three areas: (a) teachers' own K-12 learning experiences, (b) teaching experiences, and (c) teacher education and professional development programs (Friedrichsen et al., 2009). Prior to beginning their teacher preparation programs, music education students often hold much more apprenticeship of observation hours than those of other subject areas due to the amount of time spent in large ensembles, small ensembles, and private lessons over several years of school music participation (Haston & Leon-Guerrero, 2008; Lortie, 1975). However, when preservice music educators experience unsuccessful teaching, or have no involvement in certain ensemble settings, it becomes imperative that content knowledge (CK) and pedagogical content knowledge (PCK) be developed by the collegiate music education program through preservice teaching experiences (Ball, Lubienski, & Mewborn, 2001; Shulman, 1986). To insure that students obtain the proper knowledge to successfully teach upon graduation, it is common practice that field experience opportunities and content-specific methods courses be required components of undergraduate music education programs.

Music Education Teacher Preparation

Most music teacher preparation programs provide opportunities for students to develop their pedagogical knowledge and skill through courses offered in the undergraduate curricula (Schmidt, 2012). According to preservice educators, field experiences offered throughout undergraduate study are highly valued in teacher development (Conway, 2002; McDowell, 2007; Teachout, 2004). Teachout (2004) reported that students tend to place more value on field experiences than do their music teacher educator. In addition, courses outside of one's "track" (e.g., choral, instrumental) have been reported as impactful and helpful in order to broaden pedagogical ideas (Conway, 2002; McDowell, 2007). Collegiate music programs often provide further pedagogical opportunities through methods courses. Students in preservice teacher programs and practicing teachers have reported these experiences as having an impact on their PCK (Ballantyne & Packer, 2004; Gohlke, 1994; Haston & Leon-Guerrero, 2008). Many music education programs allow students to choose a specific area of focus, such as band, choir, or general music. Once a focus of study is chosen, students may take certain methods courses to better prepare them for their chosen career path (Schmidt, 2012). Students wanting to teach in a band setting commonly begin an instrumental music education course of study.

Instrumental Music Teacher Preparation

Concert band. Previous research has shown that instrumental methods courses have commonly focused on the three primary ensemble settings found in many high school band programs: concert, marching, and jazz (Hewitt & Kudor, 2013; Schmidt, 1989). Furthermore, the primary emphasis in most undergraduate music education

programs was the teaching of concert band methods. These methods courses were represented by various titles and often covered a wide range of topics, including rehearsal techniques, instrument pedagogy, and classroom management. Concert band methods were often found to be the only band ensemble methods course required for preservice teacher graduation (Wollenzien, 1999). In addition, many music education programs offer marching band methods as part of the band curriculum. In order to prepare preservice students to teach in a marching band setting, some schools offer a specialized class in marching band techniques (Tracz, 1987).

Marching band. Courses that focus on marching band techniques and instructional methods also were commonly found as components of undergraduate music education curricula (Tracz, 1987). Occasionally a requirement, Cooper (1994) and Tracz (1987) reported approximately half of high school band directors surveyed were able to take a marching methods course for undergraduate credit. Those directors who did not participate in such a course often indicated a high need for marching pedagogy instruction (Tracz, 1987). Findings from a sample of collegiate band administrators indicated that marching techniques was required at 48.0% (n = 10) of institutions, while 38.0% (n = 8) offered the course as an elective (Cooper, 1994). Hewitt and Kudor (2013) reported 13.1% (n = 37) of primary collegiate music education administrators taught a marching band course at their respective institutions, while Schmidt (1989) reported that 15.5% (n = 17) of responding collegiate music educators indicated such a course was required in the music education curriculum. Priority given to marching techniques in instrumental methods courses was reported to be low, ranking 29 out of 33 course topics. Marching band methods appeared not to be

as prevalent as concert band methods courses in the undergraduate curriculum. Although marching band methods opportunities appear to vary by institution, there are indications that jazz band techniques are even less prevalent in preservice teacher programs (Treinen, 2011).

Jazz band. The pedagogical skills and techniques used in a jazz setting are different than those found in concert and marching bands. Knowledge of appropriate literature, rhythm section techniques, jazz/stage band styles, jazz theory, and articulations account for some of these differences (Dunscomb & Hill, 2002; Jones, 2005; Lawn, 1995). Grimes (1988) observed five high school band directors in a jazz setting and noted several unique behaviors not found in concert or marching band settings, including: (a) a two-bar count-off with finger snaps on beats two and four, and (b) the use of rhythmic solfège (e.g., doo bah dit dot) in teaching articulations. These unique teaching techniques, used primarily in the jazz setting, indicate the possible need for pedagogical jazz experiences in the preservice music program.

One of the fundamental elements of jazz is the emphasis on improvisation. Although the music concept is the focus of numerous Anchor Standards in both the Creating and Performing processes of the National Core Arts Standards in Music (2014), research indicates that students have continued to struggle with improvisation in recent years (Leavell, 1996; West, 2014). Birkner (1992) and Grimes (1988) reported that public school band directors do not spend much time teaching improvisation, and instead, focus on jazz style and articulations. West (2014) suggested that directors might avoid teaching improvisation due to a lack of personal experience during their teacher preparation program. These pedagogical– and standards-based distinctions

found in jazz settings are a few of the primary reasons why some universities in the United States require a jazz credit of undergraduate music education majors.

Several studies on undergraduate jazz curricula have focused on the research of Walter Barr (1974). His jazz credit recommendations (developed through study of the best collegiate jazz schools in the United States and later adopted by the International Association of Jazz Education) for Bachelors of Music Education students included both an educator's jazz ensemble and jazz pedagogy course. These components of music teacher preparation programs would provide preservice teachers of all instrument and voice types opportunities to perform and teach jazz styles and techniques, while introducing them to literature and interpretations specific to the genre. Such courses may provide opportunities for successful experiences in jazz performance and pedagogy, which might further develop band directors' beliefs in their ability to teach in such a setting (Schmidt, 2012).

In Oklahoma and other states, researchers have found that Barr's undergraduate jazz curriculum recommendations have not been widely implemented (Balfour, 1988; Jones, 2005; Knox, 1996; Rummel, 2010; Treinen, 2011). Secondary band directors and music education professors reported a lack of jazz education requirements during undergraduate study and recommend the inclusion of jazz studies requirements for preservice music teachers. West (2014) surveyed ($N = 265$) and interviewed ($N = 2$) a sample of middle school band directors, reporting that opportunities and experiences afforded by the undergraduate music education program correlated with one's perceived ability to teach jazz. Preservice band director experiences in jazz helped prepare

directors for professional jazz teaching, indicating that jazz pedagogy is possibly unique to ensemble conducting.

Similar to many programs across the United States, instrumental music teacher preparation programs in the state of Oklahoma require specific coursework in order to prepare students for professional band teaching experiences. Although jazz programs are prevalent at the high school level in the state of Oklahoma (Kirkpatrick Foundation/Quadrant Arts Education Research, 2010), many preservice teacher programs do not require credits in a jazz course—often due to degree hour restrictions (Jones, 2005). Furthermore, several Oklahoma music education program administrators indicated a lack of sufficient undergraduate training in jazz. A majority of these respondents also "agreed" or "strongly agreed" that music education majors should be required to take at least one jazz credit. By requiring jazz courses in undergraduate music education programs, preservice teachers could receive positive learning experiences that might impact their perceived abilities to teach jazz ensembles.

Self-Efficacy

Self-efficacy lies within the larger construct of social cognitive theory (Bandura, 1997). According to Bandura, three reciprocal relationships influence human agency: behavior, cognition, and environment. Self-efficacy moderates the relationship between behavior and cognition. Within the social cognitive theory, self-efficacy is defined as one's belief in their ability to produce a certain outcome (Bandura, 1997). Because the demands of a task will differ depending on the situation, self-efficacy beliefs are context-specific, rather than a global trait.

Self-efficacy beliefs are multi-dimensional, varying in level, generality, and strength (Bandura, 1997). These dimensions are influenced by our previous experiences. For example, when an individual has a positive experience performing a task, their self-efficacy beliefs are strengthened; the converse can also be true. These positive and negative experiences contribute to four identified factors of self-efficacy beliefs: (a) mastery experience, (b) vicarious experience, (c) verbal/social persuasion, and (d) physiological state. Mastery experience—based on an individual's past successes and failures in a given situation—has been found to have the most influence on one's self-efficacy (Bandura, 1997). As such, successful mastery experiences are imperative to preservice teachers' pedagogical development due to the link between teacher self-efficacy beliefs and both student (Woolfolk Hoy & Davis, 2006) and teacher (Muijs & Reynolds, 2001) outcomes.

Teacher Self-Efficacy

Teacher self-efficacy is a measure of one's belief in their ability to influence student engagement and learning in a particular context (Woolfolk Hoy & Davis, 2006). Researchers have identified two constructs of teacher self-efficacy: personal and general (Ashton, Olejnik, Crocker, & McAuliffe, 1982). Personal teacher self-efficacy relates to one's belief in their personal teaching ability to bring about educational change. General teaching self-efficacy is a teacher's belief in the ability of our educational system to bring about student change. Most scales have been created to measure personal teacher self-efficacy in order to relate these beliefs to various student and teacher outcomes.

Findings from previous research studies have linked teacher self-efficacy with (a) student achievement (Ashton & Webb, 1986; Muijs & Reynolds, 2001; Ross, 1998), (b) student motivation (Midgley, Feldlaufer, & Eccles, 1989), and (c) students' own self-efficacy beliefs (Ross, Hogaboam-Gray, & Hannay, 2001). Woolfolk Hoy and Davis (2006) proposed a framework that linked teacher self-efficacy beliefs to various direct, indirect, and relational student outcomes. Over time, increased student beliefs and behaviors would lead to increased student outcomes. Because of the cyclical nature of self-efficacy beliefs, successful student outcomes create additional enactive mastery experiences for the teacher. These self-efficacy beliefs held by teachers may impact teacher outcomes, both inside and outside of the classroom.

Teachers with a high sense of self-efficacy showed greater ability in planning, organizing, enthusiasm, and direct teaching (Allinder, 1994; Muijs & Reynolds, 2001). These educators were more committed to teaching (Coladarci, 1992; Evans & Tribble, 1986; Trentham, Silvern, & Brogdon, 1985) and were more likely to remain in the teaching profession (Burley, Hall, Villeme, & Brockmeier, 1991; Glickman & Tamashiro, 1982) than teachers with low self-efficacy. Considering the continued focus on teacher retention in the music education field (Society for Music Teacher Education, 2014), it seems imperative to further investigate the role and development of self-efficacy in the retention of instrumental music educators.

Teacher efficacy has also been found to impact the interactions teachers have with students in the classroom setting. Greater levels of teacher self-efficacy have been correlated with behaviors, such as being less critical of student errors and working longer with students who struggle in the classroom (Ashton & Webb, 1986; Gibson &

Dembo, 1984). Teachers with high levels of efficacy were also more willing to experiment with new instructional methods to better meet the needs of their students (Cousins & Walker, 2000) and use activity-based methods in the classroom (Czerniak & Schriver-Waldon, 1991). These findings highlight the impact that teacher self-efficacy beliefs can have on both teachers' professional work and student outcomes. Studies by music educators have extended these investigations of self-efficacy into various music settings, including preservice music teacher education and music teacher professional development.

Music Education Self-Efficacy

Preservice teachers. The role of self-efficacy on preservice music teacher learning has recently become a subject of interest to music education professionals. Prichard (2013) examined the relationship among preservice music teacher self-efficacy beliefs, introductory music courses, and students' commitment to teaching. It was discovered that efficacy beliefs were found impacted by a variety of experiences, including mentoring, peer interaction, and field experience. Bergee (2002) examined the relationship between preservice music teachers' self-efficacy and classroom management, finding both direct and mediated experiences improved classroom management self-efficacy. When examining a population of preservice music teachers, Thornton & Bergee (2002) identified revealed music efficacy beliefs correlated with a students' love of teaching, love of music, and feeling skillful in. Outcome expectations, such as job security and love of the job, also played a role in their decision to become a teacher. Hargreaves, Purves, Welch, and Marshall (2007) investigated attitudes towards teaching and identity between preservice music teachers and other music majors (e.g.,

degree tracks in performance, composition, musicology). Self-efficacy in undergraduate students did not change during the nine-month study, although preservice music teachers did change their attitudes toward the profession, as a whole. These contrasting findings regarding self-efficacy measurements among preservice music educators warrant further investigations into how preservice experiences potentially impact student and professional beliefs in ability.

Practicing music educators. Professional music educator self-efficacy also has been measured in a variety of settings. Educator self-efficacy beliefs toward teaching Puerto Rican music was studied in an inservice setting (Quesada, 1992); participant self-efficacy increased with inservice teacher workshop participation. Wagoner (2011) sought to develop a measure of music teacher identity by examining music teacher self-efficacy and music teacher commitment. Four measureable behaviors relating to self-efficacy were identified for the study: (a) perseverance through adversity, (b) security in one's own abilities, (c) problem-solving abilities, and (d) setting goals and priorities in achievable ways (Wagoner, 2011). The self-efficacy measure portion of the instrument was proven to be highly reliable. In addition, music teacher self-efficacy increased with each successive level of teaching experience. These results confirm Bandura's (1997) theory that self-efficacy beliefs can develop as successful mastery experiences are obtained.

Sources of Self-Efficacy in Music

Most scales of self-efficacy capture one general construct for a particular setting (e.g., self-efficacy beliefs in teaching Puerto Rican music). Although these scales have been validated, most do not capture the influence the sources (mastery experience,

vicarious experience, physiological state, verbal persuasion) have on self-efficacy beliefs. In order to capture these influences, researchers have developed scales that reflect the four sources in a variety of settings. Usher and Pajares (2009) validated a 24-item scale to measure the sources of self-efficacy in mathematics. Items in the scale were measured to be invariant among gender, ethnicity, and ability levels in mathematics, while the scale itself aligned with various levels of fit, as recommended by Hu and Butler (1998). Consistent with Bandura (1997), mastery experience was found to have the greatest influence on self-efficacy. Because self-efficacy is context-specific, this measure could not be generalized to a music setting. As a result, Zelenak (2011) modified the scale to measure student self-efficacy in music performance. Again, mastery experience had the greatest influence on student self-efficacy and the four sources of self-efficacy also were found to have good fit with Bandura's (1997) model. Zelenak (2011) confirmed that sources of self-efficacy could be measured in a musical setting, through the use of the Music Performance Self-Efficacy Scale. Considering that self-efficacy beliefs are context-specific and not generalizable, a scale measuring the sources of band director self-efficacy seemed warranted.

Need for the Study

It is collectively known among professional music educators in the U.S. that concert and marching bands exist as components of most public high school instrumental music programs. Jazz band remains another common instrumental ensemble, with 39.0% of high schools and 29.0% of middle schools offering such a course in the state of Oklahoma (Kirkpatrick Foundation/Quadrant Arts Education Research, 2010). Teaching these various instrumental ensembles requires band

directors to have pedagogical content knowledge specific to each setting (Dunscomb & Hill, 2002; Grimes, 1988). Despite the popularity of jazz ensembles as a public school instrumental offering, very few Oklahoma preservice music educator programs required a jazz-related course as recently as 2005 (Jones, 2005). Considering a proposed framework by Woolfolk Hoy and Davis (2006), a lack of preservice teaching experiences may have a negative impact on band director self-efficacy, student achievement (Ross, 1998), and student motivation (Midgley, Feldlaufer, & Eccles, 1989).

Researchers have investigated professional music teacher self-efficacy in relation to Puerto Rican music (Quesada, 1992) and professional teacher identity (Wagoner, 2011), in addition to validated measurements of the sources of self-efficacy in student music performance (Zelenak, 2015). However, little is known regarding secondary band directors' pedagogical self-efficacy, the sources of such beliefs, and the relationship to their preservice teaching experiences. Given that concert, marching, and jazz bands represent the most common instrumental ensemble courses in Oklahoma public schools (and possibly beyond the state), a need exists to measure secondary band directors' pedagogical self-efficacy beliefs in each of the ensemble contexts. Furthermore, an examination of these beliefs in relation to band directors' preservice teaching experiences in each setting seems warranted.

Purpose of the Study

The purpose of this study was to examine Oklahoma secondary band directors' self-efficacy in concert, marching, and jazz ensemble pedagogy. Measurements may provide the music education community with information to identify possible gaps in

professional band director preparatory experiences and beliefs in ability through various interventions. In addition, the instrument used for measurement in this study could serve as a basis for future investigations of band director self-efficacy and its sources beyond the geographic limitation of Oklahoma.

A secondary purpose of this study was to investigate potential relationships between Oklahoma secondary band directors' pedagogy self-efficacy (in each of the three ensemble settings) and their respective previous experiences. Such information may provide music educators with information on how to most effectively address low efficacious beliefs among preservice and professional band directors through experiential learning opportunities.

Because music teacher preparation programs are designed to train band directors for a wide range of possible classroom contexts, it is important that preservice band directors receive successful experiences that prepare them to teach in those ensemble settings commonly found in Oklahoma school band programs. Based on the gap in the existing professional literature, I pose the following questions regarding band director self-efficacy in various ensemble settings:

Research Questions

1. Does a significant difference exist between Oklahoma band directors' self-efficacy in concert, marching, and jazz ensemble pedagogy?
2. How do the factors of self-efficacy (mastery experience, vicarious experience, physiological state, and verbal/social persuasion) correlate with Oklahoma secondary band directors' pedagogy self-efficacy in concert, marching, and jazz band settings?

3. What relationships exist between Oklahoma band director pedagogy self-efficacy in the three ensemble settings (concert, marching, jazz) and their previous experiences (e.g., preservice experiences, professional teaching, professional development) respective of each setting?

Definitions

- **Middle School:** Students enrolled in grades 6 through 8
- **High School:** Students enrolled in grades 9 through 12
- **Secondary School:** Students enrolled in grades 9 through 12
- **Mastery Experience**: Memories of an individual's past successes or failures in an activity
- **Vicarious Experience**: The observation of others with similar characteristics to an individual
- **Verbal/Social Persuasion**: The judgments and opinions of others
- **Physiological State**: An individual's feelings and emotions towards an activity

Chapter 2

Review of Literature

The purpose of this study was to examine the sources of Oklahoma secondary band directors' self-efficacy in concert, marching, and jazz ensemble pedagogy. A secondary purpose was to investigate potential relationships between Oklahoma band directors' previous experiences and their pedagogy self-efficacy in the three primary ensemble settings (concert, marching, and jazz). The previous literature informing this study is organized into four main sections: (a) music teacher preparation, (b) theoretical framework of self-efficacy, (c) investigations into self-efficacy in education, and (d) measurements of the sources of self-efficacy.

Music Teacher Preparation

Music education programs provide a vast number of experiences (e.g., methods courses, conducting, ensembles, field experiences and techniques) in an attempt to develop preservice teachers' content knowledge (CK) and pedagogical content knowledge (PCK) (Prichard, 2013). Researchers have focused numerous investigations on preservice music educator's attitudes towards their undergraduate courses and experiences to determine what beginning teachers found most impactful as they began their professional careers (Conway, 2002; McDowell, 2007; Teachout, 2004). A common finding among these investigations was the need for more frequent and earlier field experience opportunities. Conway (2002) examined first-year music educator attitudes toward preservice music education programs. While most beginning teachers suggested their most valuable experiences came from student teaching and

undergraduate field-work in the schools, all participants believed that more coursework outside their "track" (e.g., band, orchestra, choir, etc.) should be required of music education majors to broaden ideas and teaching techniques. McDowell (2007) reported similar attitudes regarding the importance of authentic teaching experiences outside of a student's major area of study. The same undergraduate participants also valued field experiences, creating lesson plans, and writing a teaching philosophy. Although students place much importance on field experiences in their development, Teachout (2004) reported that music educators tend to place more value on course projects than do undergraduate music education students, and less weight on teacher field experiences. While preservice music educators have reported field experiences as being most impactful to their teaching, much subject and PCK is developed through required undergraduate methods courses (Schmidt, 2012).

Researchers have studied the impact that methods courses have on teachers' pedagogical knowledge in a music setting. Ballantyne and Packer (2004) surveyed teachers in their first 3 years of service and found that teachers placed a high value on their PCK skills. Teachers also indicated a desire for more training of PCK and skills during their method courses at the undergraduate level. A study of eight preservice music teachers (Gohlke, 1994) revealed participants gained pedagogical content knowledge from their methods courses. Gohlke measured the change in attitude and knowledge of participants at the beginning, midpoint, and end of a sophomore-level general music methods class. Preservice teachers applied knowledge from observing their own directors over several years, while also incorporating new skills learned in the methods course. Haston and Leon-Guerrero (2008) investigated PCK and its sources in

a study of six preservice music teachers. Students reviewed teaching episodes with the instructor and identified the source of each pedagogical action. Two participants cited the primary sources of their PCK as apprenticeship of observation hours, their cooperating teacher, and their methods course content. Another student cited intuition and methods courses equally as the source of their PCK. Based on the perceived impact of collegiate methods courses on the development of PCK and CK, music teacher preparation programs should offer, or require, specialized music education courses representative of the settings commonly found in public school instrumental music programs.

Instrumental Music Teacher Preparation

Concert band. The primary instrument ensemble in many instrumental music programs at both the collegiate and secondary level is the concert band. As a result, methods courses focused on the pedagogy of concert band instruction are commonly found in undergraduate music teacher education programs (Hewitt & Kudor, 2013). Hewitt and Kudor surveyed a sample of collegiate music educators ($N = 512$) regarding the instrumental methods offerings at their respective NASM certified institution. Respondents indicated 38.3% ($n = 108$) of music education administrators taught an *Instrumental Methods* course, while 36.9% ($n = 104$) taught a *Secondary Instrumental Methods* class, and 22.3% ($n = 63$) instructed *Band Methods*. Such methods courses were found to be listed under various titles and cover a vast array of content. The topics found to receive the highest priority in these methods courses were rehearsal techniques, lesson planning, instrumental pedagogy, classroom management, and assessment. Schmidt (1989) reported similar results in a survey of collegiate music

education administrators, finding lesson planning, evaluation, philosophy of music education, and classroom management as required topics in the preservice music teacher curriculum. Concert band methods is often the only ensemble methods course in the curriculum (Wollenzien, 1999) and frequently includes instructional, philosophical, and administrative content (Hewitt & Kudor, 2013). As the primary instrumental techniques course in many preservice music programs, music education students receive much of their PCK from experiences performing in the concert ensemble setting. However, secondary band programs often include marching and jazz ensembles as part of the curriculum, which sometimes require unique pedagogical skills. To prepare band directors for these experiences, many preservice programs offer pedagogical training in marching and jazz settings

Marching band. Marching band methods and techniques courses also are common components of undergraduate music education curricula. However, unlike the perceived importance of concert band methods, few researchers have investigated the content, attitudes, prevalence, or outcomes of marching-centric courses. Tracz (1987) surveyed collegiate (n = 112) and high school (n = 100) band directors to determine secondary school needs and the university offerings in marching band. Thirty-five percent (n = 35) of high school band directors indicated a marching band techniques course was required for degree completion, while 65.0% reported it was not a required course. Overall, half (n = 50) of the high school band directors surveyed indicated a marching band techniques course was offered for undergraduate credit at their respective institutions. Similar results regarding marching techniques courses were reported by Cooper (1994), where 51.0% (n = 62) of high school band directors

reported participation in a marching techniques course during their undergraduate study. Those who chose not to participate in a marching band techniques course indicated a high need for such experiences (Tracz, 1987). Considering the perceived importance of marching pedagogy by practicing teachers, it seems imperative that undergraduate music education curricula include courses specific to marching techniques.

Similar to high school band directors, music teacher educators indicated marching methods and techniques courses were prevalent at the collegiate level. More than half of the 112 collegiate music educators who responded indicated such a course was offered (n = 34, 54.0%), yet the course was required of instrumental music education majors by only 42.0% (n = 22) of degree programs (Tracz, 1987). The highest rated response regarding the absence of marching techniques courses was a lack of "time" (i.e., credit hours) available in the music education curriculum. Similarly, Cooper (1994) reported that college band educators indicated such a course was required at 48.0% (n = 10) of their institutions, while 38.0% (n = 8) offered marching techniques as an elective. According to findings by Tracz (1987) and Cooper (1994), some high school band directors will not take a marching methods course as part of their undergraduate program, thus possibly lacking pedagogical experience in a marching setting.

The findings from extant research draw into question the prevalence of marching band methods courses at the collegiate level. Hewitt and Kudor (2013) reported that only 13.1% (n = 37) of surveyed music teacher educators reported teaching a marching methods course. A survey by Schmidt (1989) highlighted similar findings, reporting only 15.5% (n = 17) of responding collegiate music education

programs required a marching techniques course of all students, while 26.0% (n = 29) did not offer such a course. Respondents to the Hewitt and Kudor (2013) study rated the priority of *Marching band* at 3.46 out of a scale that ranged from 1 to 8, while the topic ranked 29 out of 33. Hewitt and Kudor did suggest that the topic of marching band might be covered in other classes throughout the undergraduate curriculum, those not under the purview of their study respondents. Other explanations for the perceived lack of marching band methods courses included possible time constraints to address marching band topics, or the belief that teaching a marching ensemble is similar enough to general instrumental techniques (Hewitt & Kudor, 2013). Preservice teachers and music teacher educators have reported varying levels of collegiate marching band experiences. As a result, further investigations into preservice band director participation in marching methods seems warranted. Directors reporting few undergraduate pedagogical experiences in marching band may hold low beliefs in their ability to teach in such a setting.

Jazz band. The role of jazz in music education has been a topic of considerable interest to music education researchers. Some of the pedagogical skills and knowledge used in the jazz setting have been found to be different than that of a concert or marching band setting (Grimes, 1988). Jazz educators need specific pedagogical skills to teach improvisation, piano voicings, guitar chords, jazz articulations, drum set styles, jazz vocal techniques, jazz theory, and walking bass lines (Dunscomb & Hill, 2002; Jones, 2005; Lawn, 1995). Grimes (1988) observed teaching behaviors of jazz instructors in a high school rehearsal setting. Findings highlighted unique behaviors and rehearsal techniques not typically found in the concert band setting: (a) two-bar

count-off with finger snaps on beats two and four, (b) the use of rhythmic solfège (e.g., doo, bah, dit, dot) in teaching articulations while stopping notes with the tongue, and (c) terminology such as "locked in" and "keep the groove" (Grimes, 1988, p. 36) when discussing feel and time (West, 2014). Because these behaviors are unique to the jazz classroom, music educators may need specialized training and experiences teaching these skills to a variety of age and ability levels.

One of the distinguishing characteristics of jazz is the focus on improvisation. The renewed emphasis on creativity and improvisation in the National Association for Music Education's (NAfME) adopted National Core Arts Standards (2014) suggests that teachers must possess the ability to successfully teach such higher-order skills (Bloom, 1956). Although improvisation has long been a component of national music education standards, students continue to struggle in successfully demonstrating this music concept (Leavell, 1996; West, 2014). Rather than teaching the fundamental skills and techniques of improvisation, instrumental music teachers have been found to focus the majority of class/rehearsal time on improving jazz articulations and style (Grimes, 1988). West (2014) suggested that music educators might not be comfortable teaching improvisation due to a lack of improvisational experiences in their teacher preparation program. According to Dewey (1938, 1963), these successful and unsuccessful experiences provide valuable learning opportunities to develop one's beliefs in ability. Much of these experiences come from participation in a jazz pedagogy course, where preservice music educators have the opportunity to participate and teach in an authentic jazz setting.

Undergraduate jazz coursework. In an early study regarding collegiate jazz curricula, Barr (1974) developed a college curriculum for a jazz music degree. In addition to this program of study, Barr designed two classes in which preservice music educators could gain jazz experience: (a) Educator's Jazz Ensemble and (b) Jazz Pedagogy. The non-auditioned Educator's Jazz Ensemble was designed to include all instruments and voice types. In this laboratory ensemble, preservice music educators would perform and be exposed to the fundamental styles, notational interpretations, and stylistic considerations of jazz—reflective of possible teaching expectations in a public school setting. Barr's Jazz Pedagogy course focused exclusively on jazz rehearsal techniques for the preservice music educator. Theoretically, participating students would receive teaching experience and feedback in a jazz setting. In addition to addressing stylistic and instrumental concerns in the jazz class, students also would be afforded opportunities to teach improvisation concepts, select ability-appropriate literature, and develop their jazz history knowledge. The jazz curricular developments and recommendations set forth by Barr would serve as the foundation for later studies concerning the role of jazz in music education.

Findings from subsequent investigations of jazz and its function in the college music curriculum indicate most collegiate music schools have not met the jazz curricular recommendations set forth by Barr (Balfour, 1988; Jones, 2005; Knox, 1996; Treinen, 2011). In addition, attitudes of secondary band directors and collegiate music educators revealed a need for increased focus on jazz performance and pedagogy in instrumental music teacher preparation programs (Balfour, 1988; Knox, 1996; Jones, 2005; Rummel, 2010; Treinen, 2011). West (2014) surveyed and interviewed middle

school band directors' attitudes toward jazz band and development of jazz pedagogy, finding that experiences at the collegiate level were important to their development. Respondents indicated that playing in a college jazz band, taking a jazz pedagogy course, mentorship in jazz, and taking a college improvisation course all played positive roles in their perceived ability to teach jazz. Participants also discussed the importance of listening to and performing jazz music in order to raise their own levels of achievement in jazz pedagogy. Although instrumental methods courses might discuss jazz techniques as part of a broader curriculum, research findings suggest that perhaps a more focused attention (e.g., required jazz pedagogy courses, participation in jazz ensembles, mentoring in improvisatory techniques) is needed in music teacher preparation programs in order to successfully prepare music educators to teach jazz in a school setting.

Few researchers have studied the role of jazz in Oklahoma undergraduate music education programs. Jones (2005) surveyed 23 Oklahoma music education administrators regarding their respective undergraduate music education programs. Thirteen administrators (56.0%) indicated they did not participate in jazz courses during their own undergraduate study. Regarding jazz course offerings, 91.0% (n = 21) of schools had a jazz ensemble, 74.0% (n = 17) offered an improvisation techniques course, and jazz pedagogy was offered at 56.0% (N = 13) of the participating institutions. Four (17.0%) of the college administrators indicated a course that included some kind of jazz instruction was required of music education majors—often a component of instrumental methods and/or band methods courses. However, only one Oklahoma college required a jazz-specific class for music education majors. These

findings suggest that many Oklahoma band directors have not received specific jazz-related instruction or experiences prior to their student teaching and/or professional teaching.

Oklahoma college administrators agreed that jazz study should be included as a component of undergraduate music education curricula (Jones, 2005). In addition to the survey responses, Jones interviewed 12 music education program administrators representing both public and private schools of various sizes from several regions within the state. Despite this perceived philosophy of jazz inclusion, nine of the administrators cited no room in the curriculum for the addition of a jazz-specific course. One administrator responded with the following explanation:

> This is the balancing act that everybody struggles with. I'm sure you know the number of hours required in a music education degree. You can't add anything without taking away something else, or you have to synthesize two or three things if you add one. You have to reconfigure. You can't add things. (Jones, 2005, p. 80)

Five interviewees commented on the lack of instructional staff needed to offer such courses, while three felt that some faculty might discriminate against jazz because they felt it should not be studied seriously. One administrator stated, "I think you would be fighting many people who don't believe that jazz should be studied seriously. I think there are a lot of attitudes in the academy as far as whether jazz belongs there or not" (Jones, 2005, p. 81). When asked about the presence of jazz in their communities, all administrators confirmed the existence of jazz activities and performances. The inclusion of jazz band in the Oklahoma band culture, both at the secondary and

collegiate level, may be an indication of the communal value of such music. Although most Oklahoma music administrators and regional high school band directors appear to place value on jazz's inclusion in the band curricula (Jones, 2005), few colleges require jazz experiences from preservice music educators. As a result, many band directors may hold low beliefs in their ability to teach in a jazz setting.

Self-Efficacy

Albert Bandura's social cognitive theory created the framework in which self-efficacy exists (Bandura, 1997). Within the model of social cognitive theory, self-efficacy is defined as one's belief in their ability to perform a given task. The factors of behavior, cognition, and environment—key elements of social cognitive theory—have a reciprocal relationship that influence human agency. According to Bandura, self-efficacy moderates the relationship between behavior and cognition, thus "allowing individuals to cognitively evaluate how well their abilities match the demands of the task" (Zelenak, 2011, p. 5). Consequently, self-efficacy is not a global trait, but is context-specific and can change over time (Bandura, 1997).

In addition to being context-specific, self-efficacy beliefs are multidimensional and can vary in level, generality, and strength (Bandura, 1997). By definition, level refers to the complexity of a task. For instance, a person may have high-perceived self-efficacy when performing a simple task (e.g., filling a car with gasoline). As the difficulty level increases (e.g., changing the oil), self-efficacy may decrease due to complexity of the task. Efficacy beliefs also vary in generality, meaning a person may have high efficacy beliefs in a wide range of similar tasks or domains (e.g., filling a car with gasoline; filling a lawn mower with gasoline). Finally, efficacy beliefs can differ

in strength. Weak efficacy beliefs can be easily negated when a negative experience occurs (e.g., unsuccessfully changing the oil), while strong efficacy beliefs can encourage perseverance. These three dimensions are impacted by our previous experiences and physiological state while performing a given task. Bandura defined and categorized these previous experiences and physiological state as the sources of self-efficacy.

A person's sense of self-efficacy is developed and interpreted from four sources of information: (a) enactive mastery experiences that result from previous attainments, (b) vicarious experiences attained from the observation of others with similar abilities to one's own, (c) physiological and affective states brought on by engagement in the given task, and (d) verbal/social persuasions of others regarding one's capability to perform a given task (Bandura, 1997, p. 9). The weight of each source will change depending on the domains of functioning (e.g., cognitive or physical capabilities). However, mastery experience has been found to consistently have the greatest influence on self-efficacy (Bandura, 1997, p. 80). As such, self-efficacy measurements focus on what an individual *can do,* rather than what an individual *will do*.

Most self-efficacy scales measure a general construct of one's self-efficacy in a given situation. Early efficacy studies in the area of psychology measured the effectiveness of psychotherapy on patients' beliefs in their abilities to confront phobias (Bandura, 1983). These interventions were successful in raising patients' levels of self-efficacy while simultaneously decreasing their phobias. Since these initial studies in the field of psychology, the scope of self-efficacy research has grown to include the areas of health, industry, business, and education (Maddux, 1995).

Teacher Self-Efficacy

Investigations into the self-efficacy beliefs of teachers have developed out of Bandura's social cognitive theory (Ashton & Webb, 1986; Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk Hoy, 2001). Teacher self-efficacy is a measurement of a teacher's belief in their ability to bring about change in their students; it is a self-perception and not a measure of achievement (Ross, 1998). Because of the context-specific nature of self-efficacy, teacher efficacy scales have been created to measure a wide range of beliefs, including personal teaching efficacy beliefs (Bandura, 1997; Gibson & Dembo, 1984), classroom management beliefs (Emmer, 1990), and science teaching beliefs (Riggs & Enochs, 1990). Scales have also been created to capture several dimensions associated with teaching, such as Bandura's (1997) 30-item scale used to measure instructional self-efficacy, disciplinary self-efficacy, and efficacy for various school elements (e.g., school climate, parental involvement, community involvement). A scale by Tschannen-Moran and Woolfolk Hoy (2001) was created to measure teacher efficacy in several dimensions, including student engagement, instructional strategies, and classroom management. Investigations into the effects of teacher self-efficacy beliefs have determined numerous student and teacher outcomes, thus having an impact on learning and professional disposition.

Student outcomes. The multitude of studies concerning teacher self-efficacy led researchers to propose a framework to correlate teacher self-efficacy beliefs with student outcomes (Woolfolk Hoy & Davis, 2006). In this prescribed framework, teacher self-efficacy has various direct, indirect, and relational consequences on teacher and student beliefs and behaviors. Over time, these consequential behaviors lead to

increased levels of specific student outcomes, including student achievement (Midgley, Feldlaufer, & Eccles, 1989), motivation (Ashton & Webb, 1986; Midgley, Feldlaufer, & Eccles, 1989), and their own self-efficacy beliefs (Ross, Hogaboam-Gray, & Hannay, 2001). Due to the positive impact of teacher self-efficacy on student outcomes, it seems paramount that a focus on teacher efficacy development be an integral component in teacher preparation and development.

Student achievement. Teacher self-efficacy beliefs have been found to directly impact student academic achievement. Curricular settings involving language, such as reading and social studies, have indicated a correlation between student achievement and personal teaching efficacy (Anderson, Greene, & Loewen, 1988; Ashton & Webb, 1986; Moore & Esselman, 1994; Ross, 1992; Ross, 1998; Tracz & Gibson, 1986; Watson, 1991). Ross (1998) suggested such a correlation could be due to educators' beliefs in their personal teaching abilities to develop language skills in individual students. General teaching efficacy beliefs, which are separate from personal teaching efficacy, have been related to achievement in mathematics (Ashton & Webb, 1986; Moore & Esselman, 1992; Muijs & Reynolds, 2001; Ross, 1998; Ross & Cousins, 1993; Watson, 1991). The cyclical nature of self-efficacy suggests student achievement could, in turn, raise the level of enactive mastery experience in developing a teacher's sense of efficacy (Bandura, 1997). As a teacher successfully raises student achievement, successful enactive mastery experiences are gained, resulting in higher levels of teacher self-efficacy. Thus, student achievement may improve as teacher-self-efficacy is raised.

Student motivation. Student motivation has been found to be significantly impacted by teacher self-efficacy beliefs (Ashton & Webb, 1986). A two-year study of mathematics students examined participant expectancies, perceived performance, and perceived task difficulty as they moved from elementary school to junior high school (Midgley, Feldlaufer, & Eccles, 1989). These measures were then correlated with teacher self-efficacy. Reported findings indicated that teacher self-efficacy (particularly those with low self-efficacy) had a negative impact on student expectancies, perceived performance, and motivation. Low self-efficacy beliefs can be the result of repeated failures in a task, resulting in decreased student motivation and resilience (Guskey, 1988; Ross, 1998; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Bandura (1997) suggested that motivation is influenced more by belief in ability, rather than proven ability. Therefore, it seems important to develop teacher self-efficacy in order to promote higher levels of student motivation.

Student self-efficacy. Researchers have found teacher self-efficacy to correlate with student self-efficacy beliefs. Ross, Hogaboam-Gray, and Hannay (2001) studied the relationship between teacher self-efficacy and students' computer self-efficacy, finding that a strong correlation existed. Computer self-efficacy was measured among 6–9 year old students ($N = 387$) for 11 months while the students experienced instruction from different teachers ($N = 208$ classrooms). Students moving from a low to a high efficacy teacher displayed a greater increase in computer self-efficacy ($F(1, 312) = 6.72$, $p = .010$, eta = .02) than those moving from a high to a low efficacy teacher ($F(1, 312) = 5.93$, $p = .015$, eta = .02). The researchers reported that teacher self-efficacy accounted for 9% of the variance on student computer self-efficacy.

Anderson, Greene, and Loewen (1988) similarly investigated teacher and student self-efficacy beliefs in grades 3 and 6, finding a strong relationship between the two variables. In addition, student thinking and achievement were reported to have a relationship with teachers' efficacy beliefs. The authors proposed that educators with a high sense of efficacy may hold more pragmatic and philosophical beliefs towards teaching. The framework proposed by Woolfolk Hoy and Davis (2006) suggests high efficacy beliefs in teachers can impact student self-efficacy, which can result in numerous student outcomes.

Student outcomes related to a student's sense of self-efficacy have been well documented. Students with higher efficacy beliefs were more successful in solving conceptual problems than those of equal ability, but lower efficacy beliefs (Bouffard-Bouchard, Parent, & Larivée, 1991). In addition to more efficiently managing their work time, students with higher efficacy beliefs also were found to be more persistent in solving problems. Researchers have used path analysis to explore subject-specific self-efficacy beliefs, finding student self-efficacy was predictive of student achievement in writing and mathematical domains (Pajares & Miller, 1994; Schunk, 1981; Zimmerman & Bandura, 1994). The impact that teacher self-efficacy has on student outcomes indicates proper development of such beliefs is imperative to student success. As a result, preservice educators and professional teachers should be provided with opportunities to attain successful mastery experiences to improve their self-efficacy.

Teacher outcomes. In addition to student outcomes, teacher efficacy has been found to correlate with numerous teacher outcomes related to their professional dispositions. Teachers who believe they can be effective in the classroom are more

likely to set high goals and persist through difficult problems (Ross, 1998). By holding higher confidence levels in pedagogical skills, teachers displayed greater abilities in planning, organizing, enthusiasm, and direct teaching (Allinder, 1994; Muijs & Reynolds, 2001) than did those with lower confidence levels. These educators also were more committed to teaching (Coladarci, 1992; Evans & Tribble, 1986; Trentham, Silvern, & Brogdon, 1985) and more likely to remain in the teaching profession (Burley, Hall, Villeme, & Brockmeier, 1991; Glickman & Tamashiro, 1982). Considering the continued focus on music teacher retention in music teacher education (Society for Music Teacher Education, 2014), it seems that developing high levels of teacher self-efficacy might be an affective approach to positively influencing music teacher skills, dispositions, and retention.

Teacher self-efficacy has also been found to have a positive influence on classroom interactions between teachers and their students. Teachers with higher self-efficacy levels were found to be less critical of student errors and possess a willingness to work with struggling students (Ashton & Webb, 1986). Educators also were more willing to experiment with new instructional methods to meet individual student needs (Allinder, 1994; Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, Cousins & Walker, 2000; Guskey, 1988; Stein & Wang, 1988), use cooperative learning techniques (Dutton, 1990), and implement activity-based methods in the classroom (Czerniak & Schriver-Waldon, 1991; Riggs & Enochs, 1990). Woolfolk Hoy and Davis (2006) suggest a teacher's sense of efficacy becomes even more important when teaching middle school and beyond due to the increase in subject matter difficulty and complexity. These outcomes indicate how teacher self-efficacy can positively influence

an educational community, and become more important when considering the cyclical nature of such beliefs. "Greater self-efficacy leads to greater effort and persistence, which leads to better performance, which in turn leads to greater self-efficacy" (Woolfolk Hoy & Davis, 2006, p. 119).

Music Education Self-Efficacy

Preservice music teachers. The self-efficacy beliefs of preservice music educators have been compared to a variety of variables. Prichard (2013) investigated preservice music teacher's introductory music education courses and the types of teaching experiences in the development of their efficacy beliefs and commitment to teaching. A mixed methods analysis provided evidence that efficacy beliefs are impacted by experiences (e.g., mentoring, peer interaction, field experience) in introductory undergraduate music education courses. Efficacy beliefs also shared statistically significant correlations with commitment ($r = .207$, $p < .01$) and total number of field experience hours ($r = .189$, $p < .01$). Furthermore, a principal components analysis with promax rotation revealed that teacher self-efficacy was comprised of two dimensions: personal music teaching efficacy beliefs and classroom management efficacy beliefs. Personal music teaching efficacy items related to teaching approaches and pedagogical tasks (e.g., "I am continually learning better approaches to teaching music"), while classroom management efficacy items related to a teacher's ability to manage student behavior (e.g., "I can control disruptive behavior in the music classroom"). These beliefs were reported to be developed both prior to and during the introductory music education course. If beliefs are developed prior to work at the undergraduate level and can be further impacted by collegiate coursework, it

seems imperative for preservice music education courses to either build upon or correct efficacy beliefs through thorough, sequential experiences relevant to professional music education settings.

Bergee (2002) related an increase in classroom management self-efficacy with direct (video and classroom-teaching experiences) and mediated (video experience) classroom management experiences among a sample of preservice music teachers (N = 60). All students participated in small-group discussions and mediated video lessons that focused on classroom management skills. The direct group (n = 20) then participated in field experiences for a third phase of the study. Initial measurements of self-efficacy between the direct and mediated variables showed almost identical gains in classroom management self-efficacy ($F(2, 57) = .81$, $p > .05$.). However, participants receiving mediated experiences (n = 20) did not seem to retain the heightened sense of self-efficacy as long as those that received direct experiences. Bergee concluded that mediated experiences might serve as an effective bridge between methods courses and field experiences, while also raising preservice music teachers' self-efficacy beliefs.

In addition to various undergraduate experiences, professional interest of becoming a music teacher also has been a variable of preservice music educator self-efficacy. Thornton and Bergee (2002) reported that high music efficacy beliefs correlated with preservice music teachers'(N = 242) love of teaching, love of music, and feeling skillful in music. Undergraduate students indicated outcome expectations (e.g., job security, "perks," love of the job) also played a role in their decision to become a teacher. The researchers recommended raising self-efficacy in music education students through increased musical skill achievement and exposure to a variety of

musical situations. Thus, successful experiences in various musical settings might strengthen the overall self-efficacy of preservice teachers.

Self-efficacy beliefs of preservice music educators have been compared to those of other music majors (e.g., performance, composition, musicology) regarding identity and attitude. Hargreaves, Purves, Welch, and Marshall (2007) compared the beliefs of 29 preservice music educators and 29 students from other areas of music study. Results of multiple analyses of variance (MANOVA) showed no significant differences between the two groups after a 9-month period. The researchers suggested allowing more time for change to occur and increasing the sample size in order to obtain more generalizable findings. Similarly, Jones and Parkes (2010) investigated factors attributing to undergraduate music students ($N = 143$) choice of degree track in either music education or music performance. Individuals who had strong beliefs in their teaching ability were found more likely to major in music education than music performance. In addition, music education majors expressed a desire to serve as a role model to their students, make a difference in their community, and "give back" to society. Preconceived beliefs in teaching might be a predictor of degree choice, which in turn may be impacted by future music teachers' pre-college experiences. Further study on the development of preservice teacher beliefs may be warranted in order to better understand the types of experiences teachers draw upon in their own teaching.

Professional music educators. Few researchers have investigated professional music educator self-efficacy beliefs. Quesada (1992) examined music teacher self-efficacy and willingness to teach Puerto Rican music. A researcher-developed experimental design was used to gather data at an inservice teacher workshop where 27

upper-elementary music teachers were placed into two groups. The control group received only teaching materials, while the experimental group received the teaching materials and participated in a workshop on Puerto Rican music. The survey included eight items that were intended to measure self-efficacy, each item utilizing a 5-point, Likert-type scale. Quesada reported that the self-efficacy of the experimental group (M = 29.46) was significantly higher than that of the control group (M = 24.64), although the control group also showed an increase in scores. Quesada's findings suggest individuals looking to raise self-efficacy in themselves, or others, may benefit from workshop opportunities addressing areas of need. Further study into music teacher self-efficacy beliefs may be warranted to aid music teacher educators and workshop instructors in developing the most effective teacher education programs.

A self-efficacy scale designed to measure K-12 music teacher beliefs was created by Wagoner (2011) as part of a larger construct of music teacher identity. Music teacher commitment also was measured and related to the construct. Wagoner designed a survey to measure four behaviors related to self-efficacy: (a) perseverance through adversity, (b) security in one's own abilities, (c) problem-solving abilities, and (d) setting goals and priorities in achievable ways. The Music Teacher Identity Scale (Wagoner, 2011) had a reliability of $\alpha = .81$, while the self-efficacy measure had a high reliability of $\alpha = .87$; music commitment measured at $\alpha = .67$. Through factor analysis, the two variables of efficacy and commitment were found to contribute 42.17 of the variance to the construct of identity. Wagoner also reported that statistically significant differences existed between self-efficacy and the number of years teaching—teachers in the first five years of their careers held lower self-efficacy beliefs than those with 6 or

more years of teaching experience. Wagoner's findings suggest that successful in-service teaching experiences may aid in the development of teacher self-efficacy beliefs over time.

Measurements of the Sources of Self-Efficacy

Math Education. Most self-efficacy scales are designed to capture personal self-efficacy beliefs as a one-factor construct. Although valid, these scales do not measure the four sources underlying self-efficacy beliefs (Bandura, 1997). By measuring the sources of such beliefs, researchers investigate the weight of each variable on a given situation. For example, the influence of mastery experiences on one's math self-efficacy is different than one's science self-efficacy. Prior to measuring the sources of self-efficacy in a music setting, scales were created to reflect the sources in a mathematics setting. One of the more influential measurements was the Sources of Mathematics Self-Efficacy Scale designed by Lent, Lopez, and Bieschke (1991). This measure was created using four, 10-item scales corresponding to each of the four sources of efficacy. Of the measured sources, mastery experience was found to be the best indicator of self-efficacy (R^2 change = .36, $F = 2,84$, $p < .001$), thus confirming Bandura's (1986) hypothesis regarding source influence. Mathematics ACT scores correlated with three of the four sources, while sources were also reported to be substantially interrelated at the $p < .01$ (vicarious experience) and $p < .001$ level (mastery experience, physiological state, and verbal persuasion). The success of the Lent, Lopez, and Bieschke (1991) scale led to further investigations of the sources of self-efficacy in academic settings, including middle school mathematics and music.

A 24-item measure of the sources of self-efficacy in middle school mathematics students (Usher & Pajares, 2009) later served as a foundation for investigations of music self-efficacy. Three phases were used to validate the measure, in order to identify survey items that best captured each of the four sources of self-efficacy. Items used for each source were also assessed and validated with 4 measures of general student math self-efficacy. Additionally, the measure was created to ensure invariance among gender, ethnicity, and ability levels in mathematics. All factor loadings in the model were significant at the $\alpha = .05$ level in addition to ranging in magnitude from .61 to .83. The scale also produced acceptable levels of fit; comparative fit index (CFI) = .96, the root mean square error of approximation (RMSEA) = .04, and the standardized root mean square residual (SRMR) = .04 (Hu & Bentler,1998). Consistent with past measures, mastery experience was the most significant indicator of self-efficacy, while vicarious experience proved to be the most difficult factor to capture quantitatively. Correlations between student achievement and vicarious experience were low, but moderate among mastery experience, physiological experience, verbal persuasion (Usher & Pajares, 2009). The validity and reliability of the Usher and Pajares scale indicates that measurements of the sources of self-efficacy in the educational field can fit Bandura's (1986) proposed model. Because of the context-specific nature of self-efficacy, results of the study are not generalizable to other educational domains or contexts. However, later studies in the field of music education would find success modifying the Usher and Pajares (2009) scale to measure self-efficacy in student musical achievement (Zelenak, 2015).

Music Education. Scales to measure the sources of self-efficacy in a musical setting have been created with varying levels of success. Wehr-Flowers (2007) designed a scale to measure self-efficacy in collegiate student jazz performance, incorporating items from previously established scales (Friedman & Bendas-Jacob, 1997; Kanter, 1977; Marx & Stapel, 2006; Midgley et. al, 2000; Sawyer & Hollis Sawyer, 2005). The scale included 161 items, 87 of which were intended to capture the sources of self-efficacy. Wehr-Flowers was unable to load the four factors from Bandura's (1986) model using confirmatory factor analysis (CFA). Similarly, Hendricks (2009) was unable to produce all four factors using a 14-item scale to measure the sources of self-efficacy in orchestra performance. However, mastery experience was reported to have the most influence on orchestral students' self-efficacy beliefs.

A music performance self-efficacy scale by Zelenak (2015) was able to successfully capture the four sources of self-efficacy among secondary music students in various ensemble types. The Music Performance Self-Efficacy Scale was modified from an existing middle-school mathematics scale by Usher and Pajares (2009). Confirmatory factor analysis was used to estimate the weight of each factor on the efficacy construct, indicating mastery experience held the most influence (StdYX = .98), followed by verbal/social persuasion (StdYX = .98), physiological state (StdYX = .83), and vicarious experience (StdYX = .75). These results were determined to be a good fit in regard to Bandura's (1986) theoretical model of source influence. MANOVA results indicated no significant differences in the weights of the sources among (a) grade level, $F(8, 564) = 1.39$, $p = .20$, V = 0.04; (b) ensemble type,

$F(4, 281) = 1.76$, $p = .14$, V = 0.02; and (c) the interaction of ensemble and grade level, $F(8, 564) = 1.89$, $p = .06$, V = 0.05. Test-retest and internal structure measurements confirmed reliability and validity of the measure, indicating the sources of self-efficacy could successfully be measured in a musical setting. Zelenak (2015) also found music aptitude to predict small increases in self-efficacy. The validation of Zelenak's scale indicates the sources of self-efficacy can successfully be measured in an academic music setting. However, due to the context-specific nature of self-efficacy beliefs, new scales will need to be created to reflect various musical settings of interest.

Need for the Study

Music educators hold beliefs in their ability to perform various pedagogical tasks. Many of these beliefs are developed through experiences in a music teacher preparation program. Varied experiences in such a program afford preservice teachers opportunities to develop successful skills and pedagogical content knowledge. Of particular focus in instrumental music education curricula are concert, marching, and jazz methods courses. These ensemble method settings reflect the instrumental offerings of many K-12 instrumental music programs in the state of Oklahoma. However, the requirements and offerings of such methods courses vary among collegiate institutions. As a result, some band directors may not have received pedagogical experiences in all three primary instrumental settings during their music teacher preparation program. A review of the literature suggests a lack of such experiences may result in low pedagogical self-efficacy beliefs in certain ensemble settings, thus impacting student achievement, motivation, and student self-efficacy. While scales have been designed to measure student self-efficacy (and its sources) in

various music performance settings, little is known regarding self-efficacy among Oklahoma band directors in concert, marching, and jazz ensemble pedagogy.

Chapter 3

Methodology

The purpose of this study was to examine Oklahoma secondary band directors' self-efficacy in concert, marching, and jazz ensemble pedagogy. In addition, I investigated potential relationships between Oklahoma band director self-efficacy in each of the three ensemble settings and their respective previous experiences.

Participants

Oklahoma secondary band directors ($N = 395$) were recruited to participate in a web-based survey. Accessing the 2014-2015 Oklahoma Secondary School Activities Association online database, 482 participating schools were identified. Using this list, I searched each school's website for the contact information of the faculty member(s) responsible for teaching band. In the event no faculty member was listed for band, a music teacher was identified. I recorded each band instructor's name, email address, and school name into an electronic database for ease of organization and subsequent email invitation.

In October of 2015, approval of all research measures and procedures was obtained from the University of Oklahoma Norman campus Institutional Review Board (see Appendix A). The initial invitation message was sent to prospective participants through the use of the email distribution feature in *Qualtrics* (Qualtrics Lab, Inc., 2015) online survey program database (see Appendix B for the initial email invitation). The email message included information pertaining to the purpose of the study and a link to the online survey. Reminder messages were sent to potential participants one week

later (see Appendix C), and again with one week remaining in the data collection period (see Appendix D).

The first page of the online survey served as the informed consent, which ensured participants that their responses would remain anonymous and that their participation in the research was voluntary (see Appendix E). After providing consent (by clicking to continue with the survey), participants were directed to the remaining survey prompts (see Appendix F). Participants' web security and confidentiality were insured by Verizon Enterprise Solutions (Qualtrics Lab, Inc., 2015).

Measurement Instrument and Design

An online survey was chosen for ease of gathering information across a large regional area (Fink, 2009), as well as "potentially yielding more complete and detailed information than paper survey methods" (Miksza, Roeder, & Biggs, 2010, p. 368). The researcher-designed survey was created using *Qualtrics* (Qualtrics Lab, Inc., 2015) through the University of Oklahoma for ease of distributing, collecting, and analyzing data. The online survey was descriptive in nature and was divided into two sections. The first section, a demographic component, was comprised of both quantitative and qualitative questions. The second section utilized a researcher-designed self-efficacy measure, which was quantitative in nature. The instrument had a total of 53 items and was developed based upon (a) previous self-efficacy measurements in education (Bandura, 2006), mathematics (Usher & Pajares, 2009), and music performance (Zelenak, 2015); (b) concerns found in professional literature relating to a lack of jazz requirements for preservice band directors (Treinen, 2011; West, 2014); (c) suggestions from professionals in the field of music education, as well as reviewers at a national

music teacher education symposium; and (d) my own teaching experiences in instrumental music education.

Section 1: Demographics. Previous self-efficacy measures in music education have focused on preservice teaching experiences (Prichard, 2013), general teacher constructs (Wagoner, 2011), and inservice teachers (Bergee, 2002), but few have related professional band director self-efficacy and preservice teaching experiences. In order to collect information regarding participants' varied preparatory experiences, a demographic component seemed warranted. Participants were asked to provide anonymous demographic information in the following three categories: (a) school demographics, (b) professional teaching background, and (c) preservice music teaching experiences. School demographic information consisted of school size and population area served (e.g., rural, urban, etc.). Information gathered on participant professional teaching background included (a) highest degree completed, (b) number of years of teaching experience, and (c) current and prior teaching settings. Participants were asked to indicate the types of preservice music teaching experiences related to undergraduate methods courses, field teaching experiences, ensemble participation, and additional experiences outside university coursework. For a complete list of the demographic survey items, please refer to Appendix F.

Section 2: Band Director Pedagogy Self-Efficacy Measure. The *Band Director Pedagogy Self-Efficacy Measure* (BDPSEM) was developed to measure the sources of a band director's self-efficacy beliefs in the areas of concert, marching, and jazz ensemble pedagogy. Based on previous research (Bandura, 1986), the following four sources were identified relating to the construct of self-efficacy: (a) mastery

experience, (b) vicarious experience, (c) verbal/social persuasion, and (d) physiological state. Three statements measured the influence of each of the four variables in each of the three identified ensemble settings, resulting in a total of 36 self-efficacy items (3 items X 4 sources X 3 ensemble settings). Statements chosen from existing scales designed to measure (a) the sources of efficacy beliefs in math students (Usher & Pajares, 2009) and (b) the sources of efficacy beliefs of student musicians (Zelenak, 2015) were modified to reflect a secondary band director setting. Statement phrasing remained consistent across prompts in each ensemble setting in an attempt to promote higher reliability of measurement (e.g., "I have had positive experiences teaching concert band in the past;" "I have had positive experiences teaching marching band in the past"). See Figure 1 for a visual model of the BDPSEM, including all 12 root statements.

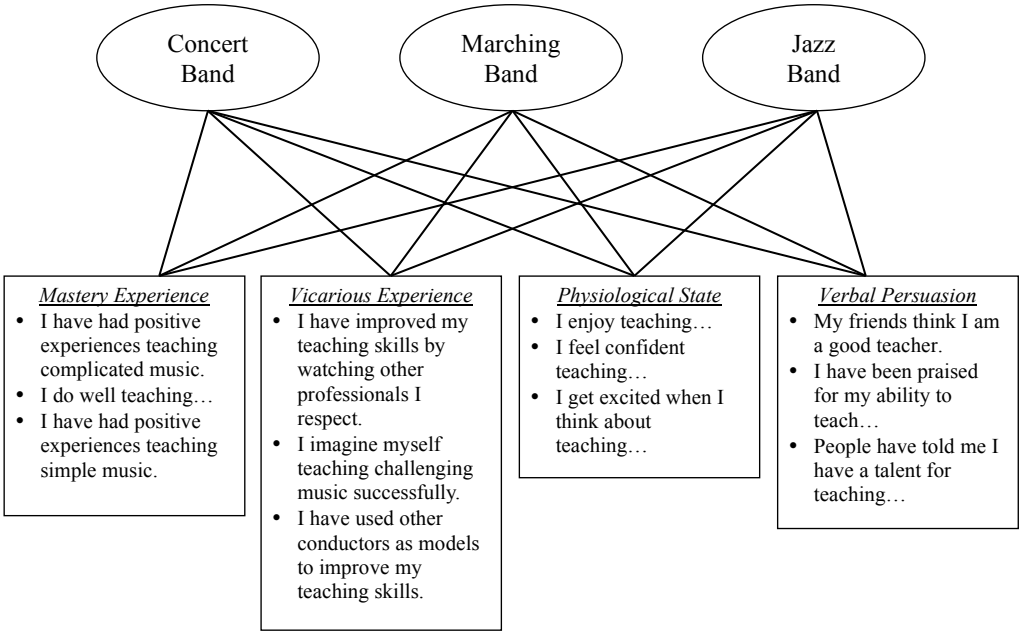

***Figure 1*. Band Director Pedagogy Self-Efficacy Measure Statements**

The 36 self-efficacy statements were randomly placed into blocks of six prompts in the online survey program. Each statement block was then presented in randomized order in an attempt to eliminate any potential order effect, ensuring reliability of participant responses. A list of all 36 self-efficacy statements is listed in Appendix F.

Procedures

In order to establish content validity, secondary band directors (outside the sample area), collegiate jazz educators, and collegiate music educators ($N = 20$) were invited to review the survey instrument. Potential pilot participants were sent a link to the online survey via email message: the response rate was 90% ($n = 18$). An open-

ended item at the end of the survey allowed participants to enter recommendations regarding survey construction, flow, clarity, etc. The following changes were made to the instrument based on professional feedback:

- A progress bar was added to the top of the survey.
- Language in the self-efficacy scale was clarified.
- A dialog box was added to the methods course item to allow participant responses outside of the provided options.
- A dialog box was added before the self-efficacy scale to explain the prompts and the similar wording of some items in the BDPSEM.

Following this initial feedback, music educator researchers offered further suggestions regarding validity of the measure at the Symposium on Music Teacher Education (Society for Music Teacher Education, 2015). Modifications made based on symposium attendees included the addition of items regarding (a) gender and (b) the population area served by the school.

Data Analysis

Survey results were downloaded from the host website as comma separated value (csv) files for ease of upload to the Statistical Package for the Social Sciences (SPSS) software. The first research question was answered using a one-way repeated measures Analysis of Variance (ANOVA). In order to answer the second research question, a Pearson product moment correlation was conducted. To answer the third research question, *t*-tests and one-way ANOVA tests were administered to determine whether significant differences exist between demographic items and pedagogical self-efficacy beliefs among the three ensemble settings.

Chapter 4

Results

The purpose of this study was to investigate Oklahoma secondary band directors' self-efficacy in concert, marching, and jazz ensemble pedagogy. A secondary purpose was to examine possible relationships between the measures of self-efficacy and teachers' respective previous experiences. High school band directors ($N = 395$) from participating schools in the Oklahoma Secondary Schools Activities Association (OSSAA) were contacted to participate in the study. Of the 138 individuals that responded to the survey, 133 were determined to be usable (33.7%). Presentation of the findings is grouped by research question. Additionally, data are presented within each group in the order that items appeared in the online survey.

Band Director Demographic Information

The first section of the survey was designed to collect demographic information about Oklahoma secondary school band directors. This section addressed Research Question 3, "What relationships exist between Oklahoma band director self-efficacy in the three ensemble settings and their respective previous experiences?" In survey item 1, 50 of 133 respondents (37.6%) indicated their school's OSSAA classification as 6A. Other responses to item 1 included 5A ($n = 13$, 9.8%), 4A ($n = 24$, 18.0%), 3A ($n = 27$, 20.3%), and 2A ($n = 19$, 14.3%). Survey item 2 addressed the population area served by the participant's school. Few respondents indicated urban ($n = 15$, 10.5%), while 49.6% ($n = 66$) and 39.8% ($n = 53$) indicated rural and suburban, respectively. Information pertaining to participant gender was collected in survey item 3, with 70.7%

(n = 94) indicating male and 29.3% (n = 39) indicating female. No respondents chose "other" for the gender item. Survey item 4 addressed participant degree completion. Of the 132 respondents, 50.8% (n = 67) indicated earning a bachelors degree and 49.2% (n = 65) a masters degree; none had received their doctorate. Most participants 83.5% (n = 111) graduated from an Oklahoma college/university (Question 5).

Survey items 6 through 9 were designed to gather information relating to participants' current teaching positions. Full-time teaching was indicated by 132 respondents (99.2%); one (0.8%) individual indicated holding a part-time position. Participants were asked to provide the number of years they had taught, including the current school year in their calculation. A majority of respondents had taught 15 years or less (n = 83, 62.4%) at the time of data collection. See Table 1 for frequencies and percentages of respondent's years of teaching experience.

Table 1

Frequencies and Percentages of Years Teaching (N = 133)

Years Teaching	Response Frequency	%
1–5	25	18.8
6–10	31	23.3
11–15	27	20.3
16–20	16	12.0
21–25	18	13.5
26–30	5	3.8
Over 30	11	8.3
Total	133	100.0

In item 8, I asked band directors to identify the ensemble settings in which they currently teach. All respondents (N = 132, 100.0%) reported teaching in a concert

ensemble setting, while 86.4% (n = 114) reported teaching in a marching setting and 43.2% (n = 57) in a jazz setting. Survey item 9 was used to determine respondents' past ensemble teaching experiences. Concert band (N = 132, 100.0%) and marching band (n = 124, 93.9%) were the most frequently cited settings, while jazz band was indicated by 68.4% (n = 91) of respondents.

Survey items 10 through 17 collected participant information regarding their preservice teaching experiences. All respondents (N = 131, 100.0%) indicated in Question 10 that they completed a concert band/instrumental methods course in college, while 76.3% (n = 100) indicated completing a marching methods course and only 27.5% (n = 36) took a course in jazz methods. Of those respondents currently teaching in a marching setting at the time of the study (n = 114), 33.3% (n = 38) reported no methods training in marching techniques. Similarly, 70.2% (n = 40) of all directors who reported teaching in a jazz setting (n = 57) did not take a jazz-specific techniques course. One respondent (0.01%) reported completing a combination wind ensemble/orchestra methods course, while another indicated that jazz was incorporated into other pedagogy courses. The 14 remaining responses (11.0%) described instrument-family techniques courses (e.g., brass class, woodwind techniques) or small ensembles (e.g., brass choir).

In Question 11, I asked participants to indicate the band settings in which they taught during their undergraduate field work (e.g., field experience placements, student teaching). Most respondents taught in a concert band setting (n = 125, 98.4%) and marching band setting (n = 74, 58.3%), while only 44 (34.6%) respondents taught in a jazz setting. In response to Question 12, a majority of band directors (n = 123, 93.2 %)

indicated that participation in a jazz-related course was not required toward successful completion of their undergraduate degree.

Participants who indicated that they were not required to participate in a jazz-related course were then asked to indicate if they chose to do so voluntarily (Question 13). Respondents (n = 44, 33.3%) who indicated they did not participate in such a setting were then presented a separate item to identify all reasons why they elected not to participate in a jazz-related course during their undergraduate study (Question 15). A majority of those respondents (n = 27, 60.0 %) selected "not required," while 51.1 % (n = 23) indicated that their primary instrument was not included in the institution's jazz ensemble. Of the 10 respondents (22.2%) that reported "other," three clarified that a jazz ensemble (i.e., big band) was the only jazz-related course offered at their institution. Although "jazz ensemble" was to be considered (and was specified as) a jazz-related course, these responses may indicate some confusion regarding the item's phrasing. One respondent stated they had a class conflict with the one available jazz course, and another respondent did not have the prerequisites required for participation. Table 2 displays the frequencies and percentages of responses pertaining to non-participation in an undergraduate jazz setting.

Table 2

Frequencies and Percentages of Reasons Respondents Did Not Participate in an Undergraduate Jazz Course (*N* = 45)

Reason	Response Frequency	%
Not required	27	60.0
Primary instrument not included in ensemble	23	51.1
Not enough time	19	42.2
Felt a lack of skill/knowledge	10	22.2
No interest	6	13.3
Intimidated by culture	1	2.2
Other	10	22.2

Respondents who did participate in a jazz-related course during their undergraduate study (*n* = 88) were prompted to provide information about such courses (Question 14). A large majority of respondents (*n* = 82, 93.2%) identified "jazz ensemble" as a jazz course they completed during undergraduate study; jazz improvisation was the second-most identified jazz course by these respondents (*n* = 34, 25.6%). Of those participants who marked "other," courses in jazz ear training/aural skills (*n* = 2, 0.02%), jazz "history in the context of music history" (*n* = 1, 0.01%), and improvisation in brass ensemble (*n* = 1, 0.01%) were reported. One respondent indicated "other," but did not provide additional information. See Table 3 for response frequencies and percentages of the jazz courses taken by respondents during undergraduate coursework.

Table 3

Frequencies and Percentages of Jazz-Related Courses Completed During Undergraduate Study (*N* = 88)

Course	Response Frequency	%
Jazz ensemble	82	93.2
Jazz improvisation	34	38.6
Applied jazz lessons	16	18.2
Jazz history	14	15.9
Jazz theory	10	11.4
Jazz arranging	7	8.0
Jazz pedagogy	6	6.8
Jazz keyboard	3	3.4
Other	5	3.8

Question 16 addressed large ensemble participation during the undergraduate program, with participants identifying the number of semesters they participated in each ensemble setting. Instructions within the survey prompt directed participants to report marching band by season and not the semester (i.e., one season of marching band, which often continues into the spring semester, was to be counted as one semester). Eighteen respondents (13.7%) identified 7 or more years of marching band experience, thus, some respondents may not have reported accurately according to season. Results pertaining to the number of marching band semesters should be interpreted with care. See Table 4 for all frequencies and percentages of ensemble participation.

Table 4

Frequencies and Percentages of Semesters Participating in an Ensemble

Number of Semesters	Concert ($N = 133$)	Marching ($N = 131$)	Jazz Large ($N = 125$)	Jazz Combo ($N = 101$)
0	0 (0.0%)	16 (12.2%)	41 (32.8%)	70 (69.3%)
1–2	2 (1.5%)	11 (8.4%)	16 (12.8%)	16 (15.8%)
3–4	9 (6.8%)	56 (42.7%)	13 (10.4%)	6 (5.9%)
5–6	13 (9.8%)	30 (22.9%)	12 (9.6%)	3 (3.0%)
7–8	56 (42.1%)	8 (6.1%)	26 (20.8%)	4 (4.0%)
9+	53 (39.8%)	10 (7.6%)	17 (13.6%)	2 (2.0%)

Note. Each season of Marching Band was considered as one semester.

All participants were asked to provide information pertaining to additional musical experiences outside of university coursework (Question 17). "Conferences/workshops" in concert band (n = 127, 99.2%) and marching band (n = 102, 79.7%) received the most responses. Concert band experiences in professional community ensembles also received a high number of responses (n = 104, 81.3%). Jazz band experiences at "conferences/workshops" (n = 70, 54.7%) received the most responses of all the jazz ensemble options. Table 5 displays the frequencies and percentages for each additional experience outside of university coursework.

Table 5

Frequencies and Percentages of Additional Experiences Outside of University Coursework (*N* = 128)

Experiences	Concert	Marching	Jazz
Conferences/workshops	127 (99.2%)	102 (79.7%)	70 (54.7%)
School in-service	28 (21.9%)	11 (8.6%)	4 (3.1%)
Individual study	104 (81.3%)	81 (63.3%)	67 (52.3%)
Professional community ensemble	104 (81.3%)	26 (20.3%)	45 (35.2%)

Band Director Pedagogy Self-Efficacy Measure

The second section of the survey was designed to measure the sources of self-efficacy among band directors in concert, marching, and jazz band pedagogy. Each survey item represented a source of self-efficacy in one of the three ensemble settings, utilizing an 11-point scale from 0 (*strongly disagree*) to 10 (*strongly agree*). Information obtained from this section answered the following research questions: (1) Does a significant difference exist between Oklahoma band directors' self-efficacy in concert, and marching, and jazz ensemble pedagogy? and (2) How do the factors of self-efficacy (mastery experience, vicarious experience, physiological state, and verbal/social persuasion) correlate with Oklahoma secondary band directors' pedagogy self-efficacy in concert, marching, and jazz band settings?

Two respondents were identified as possible outliers. Each respondent reported their perceived ability to teach simple concert band music substantially lower than that of difficult concert band music. After analyzing their responses to mastery experience items in the other two ensemble settings, as well as additional items related to concert band, I determined these two respondents must have incorrectly answered the mastery experience item for concert band music instruction. Removing these outliers from the analysis resulted in a 5% increase of the internal reliability score for concert band mastery experience. Individual item mastery experience correlations also rose as much as 5%.

Internal item consistency. An internal item consistency analysis was used to determine if self-efficacy items reliably measured their identified sources for each ensemble setting. Overall reliability of the 36-item BDPSEM was strong ($\alpha = .92$). All source items showed acceptable fit in each of the three ensemble settings. Items used to measure sources of self-efficacy in jazz had particularly high reliability ($\alpha \geq .89$). Verbal persuasion items for all ensemble settings scored high as well—above the coefficient alpha of .90. Table 6 shows a source analysis of reliability for each ensemble setting.

Table 6

Source Reliability Using Cronbach's Alpha

Source	Concert α (*N*)	Marching α (*N*)	Jazz α (*N*)
Mastery Experience	.80 (121)	.83 (119)	.95 (121)
Vicarious Experience	.82 (120)	.85 (121)	.89 (115)
Physiological State	.90 (117)	.88 (120)	.96 (116)
Verbal Persuasion	.92 (120)	.95 (120)	.95 (121)

Sources of self-efficacy comparison. A comparison of the sources among the three ensemble settings revealed concert band pedagogy to have the highest means and lowest standard deviation among each source. Marching band consistently reflected the second-highest mean scores and standard deviations, while jazz represented the lowest means and highest standard deviations for each source of self-efficacy. Vicarious experience had the highest mean score among the four sources in both concert and marching band settings, while having the second-highest mean in the jazz setting. See Table 7 for a comparison of all means and standard deviations by self-efficacy sources across the three ensemble settings.

Table 7

Means and Standard Deviations of Sources of Self-Efficacy by Ensemble Setting

	Concert		Marching		Jazz	
Source	*M*	*SD*	*M*	*SD*	*M*	*SD*
Mastery Experience	28.96 ($N = 121$)	3.54	25.77 ($N = 119$)	6.35	21.67 ($N = 121$)	9.30
Verbal Persuasion	28.43 ($N = 120$)	4.46	24.78 ($N = 120$)	7.10	17.26 ($N = 121$)	9.69
Physiological State	29.40 ($N = 117$)	3.57	24.52 ($N = 120$)	6.63	20.35 ($N = 116$)	9.23
Vicarious Experience	30.09 ($N = 120$)	3.70	27.13 ($N = 121$)	6.39	21.57 ($N = 115$)	9.36

Concert band. All self-efficacy items in concert band pedagogy displayed higher means and lower standard deviations than corresponding items in the other two settings. Items measuring vicarious experience generally scored higher than items representing the other three sources of self-efficacy, but also had the lowest item-total correlation scores. Item-source correlations were high for all statements ($r \geq .75$), particularly for verbal persuasion items and physiological state items. Means, standard deviations, and item correlations for concert BDPSEM items are reported in Table 8.

Table 8

Concert BDPSEM Item Statistics

Source Item	*N*	Item-Source Correlation[a]	Item-Total Correlation[b]	*M*	*SD*
Mastery Experience					
25. I do well teaching…	126	.80	.80	9.62	1.28
36. …positive experiences teaching complicated music…	121	.75	.76	9.33	1.76
29. …positive experiences teaching simple…	125	.84	.88	10.02	1.22
Physiological State					
9. I enjoy teaching…	126	.93	.79	10.01	1.24
27. I get excited when I think about teaching…	123	.92	.73	9.60	1.41
20. I feel confident teaching…	120	.90	.86	9.79	1.30
Verbal Persuasion					
7. People have told me I have a talent for teaching…	124	.95	.81	9.37	1.65
6. My friends think I am a good teacher.	124	.93	.82	9.33	1.67
19. I have been praised for my ability to teach…	122	.94	.86	9.59	1.59
Vicarious Experience					
8. I imagine myself teaching challenging music successfully.	127	.78	.60	9.59	1.65
7. I have used other conductors as models to improve my teaching skills.	124	.89	.68	10.24	1.32
17. I have improved my teaching skills by watching other professionals I respect.	124	.86	.68	10.26	1.32

Note. [a] Correlation with the source of self-efficacy score (e.g., mastery experience, vicarious experience, etc.). [b] Correlation with composite ensemble self-efficacy score.

Marching band. Twelve items were used to measure the sources of marching band pedagogy self-efficacy. All individual statement means were lower than their corresponding concert band items, but higher than jazz items (e.g., I do well teaching…). Standard deviations were also higher than those for jazz, but lower than concert band. Similar to concert band, the statements with the two highest means (Item 31, $M = 9.67$; Item 14, $M = 9.37$) each measured vicarious experience. Item-source correlations for statements measuring verbal persuasion in a marching setting were high, similar to those for concert band. See Table 9 for Marching BDPSEM item statistics.

Table 9

Marching BDPSEM Item Statistics

Source Item	*N*	Item-Source Correlation[a]	Item-Total Correlation[b]	*M*	*SD*
Mastery Experience					
12. I do well teaching…	125	.90	.94	8.54	2.35
35. …positive experiences teaching complicated music…	120	.86	.90	8.00	2.92
18. …positive experiences teaching simple…	125	.73	.80	9.17	2.11
Physiological State					
24. I enjoy teaching…	121	.95	.75	7.91	2.56
28. I get excited when I think about teaching…	125	.95	.77	7.78	2.63
21. I feel confident teaching…	121	.80	.89	8.89	2.12
Verbal Persuasion					
34. People have told me I have a talent for teaching…	121	.96	.87	8.08	2.58
30. My friends think I am a good teacher.	125	.94	.90	8.38	2.33
15. I have been praised for my ability to teach…	125	.96	.86	8.29	2.59
Vicarious Experience					
3. I imagine myself teaching challenging music successfully.	124	.79	.82	8.02	2.67
14. I have used other conductors as models to improve my teaching skills.	125	.90	.70	9.37	2.47
31. I have improved my teaching skills by watching other professionals I respect.	123	.91	.71	9.67	2.22

Note. [a] Correlation with the source of self-efficacy score (e.g., mastery experience, vicarious experience, etc.). [b] Correlation with composite ensemble self-efficacy score.

Jazz band. Individual item means for jazz band pedagogy self-efficacy were lower than the corresponding item means in both marching and concert band settings (e.g., I feel confident teaching…) while standard deviations were higher. All item-source correlations were high ($r \geq .87$), as were item-total correlations ($r \geq .81$). Vicarious experience items were identified as generally having the highest mean scores. Similar to the other ensemble settings, the vicarious experience item, "I have improved my teaching skills by watching other professionals I respect," received the highest mean score of all 12 statements (see Table 10).

Table 10

Jazz BDPSEM Item Statistics

Source Item	*N*	Item-Source Correlation[a]	Item-Total Correlation[b]	*M*	*SD*
Mastery Experience					
5. I do well teaching…	123	.95	.93	6.81	3.14
4. …positive experiences teaching complicated music…	123	.98	.91	7.31	3.33
12. …positive experiences teaching simple…	125	.95	.88	7.42	3.37
Physiological State					
1. I enjoy teaching…	122	.97	.92	6.91	3.33
22. I get excited when I think about teaching…	120	.97	.92	6.82	3.15
33. I feel confident teaching…	119	.95	.92	6.57	3.16
Verbal Persuasion					
10. People have told me I have a talent for teaching…	125	.97	.87	5.69	3.42
16. My friends think I am a good teacher.	123	.93	.88	6.03	3.25
11. I have been praised for my ability to teach…	125	.97	.87	5.46	3.50
Vicarious Experience					
23. I imagine myself teaching challenging music successfully.	120	.87	.90	6.39	3.36
26. I have used other conductors as models to improve my teaching skills.	124	.94	.84	7.52	3.52
32. I have improved my teaching skills by watching other professionals I respect.	118	.92	.81	7.64	3.45

Note. [a] Correlation with the source of self-efficacy score (e.g., mastery experience, vicarious experience, etc.). [b] Correlation with composite ensemble self-efficacy score.

Post-hoc Analyses

Research question 1. Respondents ($N = 106$) were assigned a composite self-efficacy score for each ensemble setting by combining responses from all 12 items in each of the three areas (concert, marching, jazz). Composite scores were then loaded into SPSS to conduct a one-way repeated-measure analysis of variance (ANOVA) to determine whether significant differences existed between the reported self-efficacy across ensemble settings. The results of the ANOVA indicated a significant difference existed among band director self-efficacy in concert, marching, and jazz band pedagogy, Wilks's $\Lambda = .49$, $F(2, 104) = 55.32$, $p < .001$, multivariate $\eta^2 = .52$. The means and standard deviations for BDPSEM scores are presented in Table 11.

Table 11

Means and Standard Deviations for BDPSEM Total Scores ($N = 106$)

Ensemble Self-Efficacy Score	*M*	*SD*
Concert	116.97	12.75
Marching	102.52	24.18
Jazz	82.87	35.08

A post-hoc pairwise comparison was conducted to further investigate differences in ensemble pedagogy self-efficacy means. All pairwise comparisons were significant (controlling for familywise error rate across the three tests at the $p < .001$ level) when using the Holm's sequential Bonferroni procedure. Results indicated the mean self-efficacy score for concert band ($M = 116.97$, $SD = 12.75$) was significantly greater than the mean scores for marching band ($M = 102.52$, $SD = 24.18$) and jazz band

(M = 82.87, SD = 35.08). The difference between the means of marching pedagogy self-efficacy and jazz pedagogy self-efficacy were also significant. These results further suggest a significant difference exists among Oklahoma secondary band director self-efficacy in concert, marching, and jazz band pedagogy. Pairwise comparisons between the ensemble pedagogy self-efficacy scores are listed in Table 12.

Table 12

Ensemble Pairwise Comparisons (N = 106)

Ensemble (I)	Ensemble (J)	Mean Difference (I-J)	p	99.9% CI
Concert	Marching	14.45*	.00**	[6.44, 22.46]
	Jazz	34.10*	.00**	[21.76, 46.45]
Marching	Concert	-14.45*	.00**	[-22.46, -6.44]
	Jazz	19.65*	.00**	[5.84, 33.46]
Jazz	Concert	-34.10*	.00**	[-46.45, -21.76]
	Marching	-19.65*	.00**	[-33.46, -5.84]

Note. *The mean is significant at the 0.001 level. **$p < .001$

Research question 2. In order to answer Research Question 2, relationships between the sources of self-efficacy and composite self-efficacy scores in each ensemble setting were examined using Pearson product-moment correlations. Results of the analysis show that all sources of self-efficacy correlated significantly ($p < .01$) with composite self-efficacy. Mastery experience correlated highest with composite self-efficacy (r = .943), while physiological state correlated the second highest (r = .919). In general, the results suggest mastery experience correlates the most with

Oklahoma band directors' overall band ensemble pedagogy self-efficacy. Table 13 displays correlations for total BDPSEM scores and sources.

Table 13

BDPSEM Sources of Self-Efficacy Correlations (*N* = 132)

Measure	1	2	3	4	5
1. CSES	—				
2. Mastery experience	.943**	—			
3. Vicarious experience	.862**	.750**	—		
4. Physiological state	.919**	.825**	.725**	—	
5. Verbal persuasion	.878**	.791**	.642**	.723**	—

Note. ** Correlation is significant at the .01 level (2-tailed). CSES = Composite Self-Efficacy Score.

Concert band. All sources correlated at a statistically significant level with the concert band pedagogy self-efficacy measure, and among each other ($p < .01$). Concert band pedagogy self-efficacy correlated highest with mastery experience ($r = .913$), while verbal persuasion represented the second-highest correlation ($r = .881$). Results suggest that greater levels of mastery experience may indicate higher concert band pedagogy self-efficacy. See Table 14 for concert band source correlations.

Table 14

Concert Band Sources of Self-Efficacy Correlations (*N* = 132)

Measure	1	2	3	4	5
1. CCSES	—				
2. Mastery experience	.913**	—			
3. Vicarious experience	.774**	.602**	—		
4. Physiological state	.867**	.749**	.559**	—	
5. Verbal persuasion	.881**	.772**	.593**	.689**	—

Not.: ** Correlation is significant at the .01 level (2-tailed). CCSES = Composite Concert Self-Efficacy Score.

Marching band. Similar to the previous source reports, marching band self-efficacy scores correlated significantly with all sources ($p < .01$). The two sources that correlated most with the composite marching band self-efficacy scores were mastery experience ($r = .949$) and verbal persuasion ($r = .916$). Table 15 displays the results of the marching band sources of self-efficacy correlation analysis.

Table 15

Marching Band Sources of Self-Efficacy Correlations ($N = 132$)

Measure	1	2	3	4	5
1. CMSES	—				
2. Mastery experience	.949**	—			
3. Vicarious experience	.865**	.781**	—		
4. Physiological state	.883**	.768**	.691**	—	
5. Verbal persuasion	.916**	.878**	.680**	.732**	—

Note. ** Correlation is significant at the .01 level (2-tailed). CMSES = Composite Marching Self-Efficacy Score.

Jazz band. All sources of self-efficacy for jazz band pedagogy were significantly correlated with composite jazz self-efficacy scores ($p < .01$). Different from previous ensemble results, physiological state correlated highest with the ensemble self-efficacy scale ($r = .958$), while mastery experience correlated the second highest ($r = .946$). Analysis of the sources of jazz band pedagogy self-efficacy also resulted in mastery experience and physiological state correlating at a high level ($r = .900$), though not statistically significant. These results may indicate those directors with high levels of mastery experience also hold positive physiological beliefs in their ability to teach jazz. See Table 16 for results of the jazz sources of self-efficacy correlation analysis.

Table 16

Jazz Band Sources of Self-Efficacy Correlations (*N* = 132)

Measure	1	2	3	4	5
1. CJSES	—				
2. Mastery experience	.946**	—			
3. Vicarious experience	.934**	.851**	—		
4. Physiological state	.958**	.900**	.866**	—	
5. Verbal persuasion	.911**	.787**	.787**	.827**	—

Note: ** Correlation is significant at the .01 level (2-tailed). CJSES = Composite Jazz Self-Efficacy Score.

Research question 3. Relationships between band director self-efficacy scores and their reported undergraduate and professional experiences (i.e., various demographic information collected in Part 1 of the survey) were determined through a series of *t*-tests and one-way ANOVA tests.

Concert band. Analysis of concert band experiences and band director self-efficacy in concert band pedagogy produced few significant results, due to respondents having similar experiences (e.g., completion of concert methods, concert band field experience). Of the variables analyzed through *t*-tests (i.e., variables with two categories), only individual study was found to significantly influence self-efficacy scores ($df = 106$, $t = -2.25$, $p = .03$). Refer to Table 17 for concert band *t*-test results.

Table 17

Concert Demographic t-Test Results

Variable	*N*	*t*	*p*	95% CI
Gender	—	—	—	—
Degree	110	-1.32	.19	[-7.98, 1.61]
Grad Oklahoma	110	-0.80	.43	[-9.13, 3.88]
Employment status	110	0.47	.64	[-19.34, 31.50]
Currently teaching	—	—	—	—
Taught in past	—	—	—	—
Methods course	—	—	—	—
Field experience	106	0.20	.85	[-16.53, 20.05]
Conference/workshop	106	-0.09	.93	[-26.55, -24.17]
Inservice	107	-4.56	.65	[-7.40, 4.64]
Individual study	108	-2.25	.03*	[-12.94, -0.81]
Community band participation	108	-0.90	.37	[-8.28, -3.12]

Note. Dash denotes variable is constant. *$p < .05$.

Items with three or more categories were analyzed utilizing a one-way ANOVA test. Population setting (e.g., urban, rural, and suburban), years of teaching, and semesters of ensemble participation resulted in no statistically significant differences being found. However, a statistically significant difference existed between band director school classification and their concert band pedagogy self-efficacy. Serving as the independent variable, school classification included 5 levels, based on school enrollment: 6A, 5A, 4A, 3A, and 2A. The combined concert band pedagogy self-efficacy score represented the dependent variable. A one-way ANOVA indicated a statistically significant difference existed, $F(4, 105) = 2.77$, $p = .03$, $\eta^2 = .10$, observed power = .744. See Table 18 for ANOVA results.

Table 18

Concert Demographic ANOVA Results

Variable	*N*	*F*	*p*	Partial Eta Squared
Classification	132	2.77	.03*	.10
Population setting	109	0.16	.85	—
Years teaching	132	0.36	.90	—
Semesters of ensemble	132	1.63	.17	—

Note. Partial eta squared not figured for items with $p > .05$. *$p < .05$.

A post-hoc test, utilizing the Bonferroni method for its ability to adjust for the specified confidence interval, was conducted to evaluate pairwise differences among the school classification means. Band director mean scores in the 3A classification were higher than mean scores for all other classifications; mean scores for 6A were the second highest. The only statistically significant difference between band director scores by school classification was between those for teachers at 3A and 2A schools (13.34, p = .02).

Marching band. Overall scores for band director self-efficacy in marching band pedagogy related with several demographic items, including professional teaching experiences and three professional development variables (e.g., conference/workshop, individual study, and community band participation). Particularly strong differences of mean self-efficacy scores were found between those with past marching band teaching experience (n = 111, M = 106.0) and those without past marching band teaching experience (n = 5, M = 37.4). Since the number of respondents without marching band experience is relatively low, these results should be interpreted with care. Experiences

in community marching bands had the largest impact on self-efficacy scores of the professional development items (mean difference = -15.96, $p = .01$) while individual study also had a significant impact on scores. See Table 19 for marching band *t*-test results.

Table 19

Marching Demographic t-Test Results

Variable	*N*	*t*	*p*	95% CI
Gender	116	1.64	.10	[-1.62, 17.31]
Degree	116	1.80	.07	[-0.78. 16.42]
Grad Oklahoma	116	-1.17	.24	[-18.64, 4.77]
Employment status	116	1.41	.16	[-13.41, 80.07]
Currently teaching	116	-4.12	.00*	[-60.06, -8.70]
Taught in past	116	-7.86	.00*	[-85.88, -1.32]
Methods course	114	-1.86	.07	[-20.00, 0.63]
Field experience	112	-0.23	.82	[-10.12, 8.02]
Conference/workshop	112	-3.22	.00*	[-39.60, -8.49]
Inservice	113	-1.86	.07	[-29.78, 0.96]
Individual study	114	-2.82	.01*	[-23.66, -4.03]
Community band participation	115	-2.82	.01*	[-27.16, -4.76]

Note. *$p < .05$.

Similar to the results in the concert band setting, no significant differences were found between marching band pedagogy self-efficacy and population, years of teaching, or semesters of ensemble participation. However, a one-way ANOVA revealed there were significant differences between band director school classification and marching band self-efficacy scores, $F(4, 111) = 2.65$, $p = .04$, $\eta^2 = .08$, observed power = .09. Results of the marching band ANOVA tests are displayed in Table 20.

Table 20

Marching Demographic ANOVA Results

Variable	*N*	*F*	*p*	Partial Eta Squared
Classification	115	2.65	.04*	.09
Population setting	115	0.24	.79	—
Years teaching	115	0.42	.87	—
Semesters of ensemble	114	1.47	.21	—

Note. Partial eta squared not figured for items with $p > .05$. *$p < .05$.

After a significant ANOVA *F* test, a Dunnett's *C* test was conducted on all pairwise comparisons. The following groups were found to be significantly different ($p < .05$): (a) 5A and 3A (mean difference = 21.20), and (b) 5A and 2A (mean difference = 24.70). In summary, class 5A band directors had statistically higher marching pedagogy self-efficacy scores than 3A and 2A band directors.

Jazz band. Many variables significantly impacted self-efficacy scores in jazz pedagogy. Of the items measured, past teaching experience had the largest influence on jazz self-efficacy ($df = 110$, $t = -10.06$, $p < .01$), while those currently teaching jazz also held significantly higher self-efficacy beliefs than their counterparts ($df = 111$, $t = -5.65$, $p < .01$). Independent samples *t*-tests also revealed that three of four professional development items (conference/workshop, individual study, and community band participation) had significant influence on band director self-efficacy. See Table 21 for jazz *t*-test results related to demographic information.

Table 21

Jazz Demographic t-Test Results

Variable	*N*	*t*	*p*	95% CI
Gender	113	2.79	.01*	[5.79, 34.34]
Degree	113	0.28	.78	[-11.31, 15.03]
Grad Oklahoma	113	0.48	.63	[-13.31, 21.88]
Employment status	113	-0.16	.87	[-76.09, 64.59]
Currently teaching	111	-5.65	.00*	[-43.51, -0.91]
Taught in past	113	-10.06	.00*	[-64.88, -3.52]
Methods course	111	-2.10	.04*	[-30.39, -0.83]
Field experience	109	-4.97	.00*	[-48.70, -9.24]
Conference/workshop	110	-5.35	.00*	[-45.55, -0.87]
Inservice	111	-1.98	.05	[-79.72, 0.15]
Individual study	112	-3.95	.00*	[-36.75, -2.21]
Community band participation	106	-5.74	.00*	[-47.66, -3.18]

Note. $*p < .05$.

A one-way ANOVA between the number of semesters in a jazz ensemble (i.e., big band) and band director self-efficacy scores in jazz pedagogy indicated statistically significant differences as well, $F(5, 101) = 6.07$, $p = .00$, $\eta^2 = .23$, observed power = .99. A post-hoc test, utilizing the Bonferroni method, was used to calculate an ensemble semester pairwise comparison. Significant differences existed between (a) 0 and 5–6 semesters, (b) 0 and 7–8 semesters, and (c) 0 and 9+ semesters. Band directors with 5 or more semesters of jazz ensemble participation exhibited a statistically significant higher level of self-efficacy than those without jazz ensemble experience. A Dunnett's *C* post-hoc test was then used to analyze pairwise comparisons of participation in a jazz combo. One statistically significant difference was revealed between 0 semesters and 3–4 semesters of participation ($p < .05$, mean difference = 31.78). Post-hoc analysis requires all variables to have 2 or more responses, thus the

item "9+" was discarded for pairwise analytical purposes in the jazz combo setting. See Table 22 for ANOVA results of all demographic variables related to jazz.

Table 22

Jazz Demographic ANOVA Results

Variable	*N*	*F*	*p*	Partial Eta Squared
Classification	132	0.35	.84	—
Population setting	132	0.06	.94	—
Years teaching	132	0.31	.93	—
Semesters of ensemble	107	6.07	.00*	.23
Semesters of combo	85	3.72	.01*	.16

Note. Partial eta squared not figured for items with $p > .05$. *$p < .05$.

Demographic information pertaining to jazz course participation during undergraduate teacher preparation also was gathered and analyzed. A statistically significant difference was found between jazz self-efficacy beliefs and most demographic variables, including improvisation ($N = 77$, $t = -2.43$, $p = .02$) and theory ($N = 77$, $t = -5.77$, $p = .00$). Participation in a jazz-related course also had a significant influence on jazz self-efficacy scores ($N = 77$, $t = -4.43$, $p = .00$). Table 23 displays undergraduate jazz course participation *t*-test results.

Table 23

Jazz Undergraduate Course Participation t-Test Results

Variable	*N*	*t*	*p*	95% CI
Course required	112	-2.29	.04*	[-32.59, -1.05]
Course participation	112	-4.43	.00*	[-42.76, -16.33]
Ensemble	77	-0.99	.32	[-44.22, 14.82]
Arranging	77	-2.26	.03*	[-52.64, -3.36]
Improvisation	77	-2.43	.02*	[-32.54, -3.24]
Theory	77	-5.77	.00*	[-48.49, -22.55]
Pedagogy	77	-2.15	.04*	[-59.91, -2.23]
History	77	-1.86	.07	[-38.14, 1.33]
Applied lessons	77	-3.23	.00*	[-46.63, -11.06]
Keyboard	77	-1.55	.12	]-80.68, 9.93]
Other	77	-0.99	.33	[-44.12, 14.92]

Note. *$p < .05$.

Summary

Results of this study indicated statistically significant differences between Oklahoma secondary band directors' self-efficacy in concert, marching, and jazz band pedagogy. Mean scores in concert band pedagogy self-efficacy were significantly higher than the other two ensemble settings, while self-efficacy in marching band pedagogy was significantly higher than self-efficacy in jazz band pedagogy. Among the four measured sources of self-efficacy, mastery experience correlated the highest with composite ensemble self-efficacy, concert band self-efficacy, and marching band self-efficacy. Physiological state correlated the highest with jazz band self-efficacy scores.

T-tests and one-way ANOVA tests were used to determine significant relationships among band director demographic information and ensemble self-efficacy scores. School classification and individual study were among the demographic

variables that significantly impacted concert band pedagogy self-efficacy. Self-efficacy beliefs in marching band pedagogy were found to be influenced by school classification, professional teaching experiences, conference/workshop attendance, individual study, and community band participation. Jazz band pedagogy self-efficacy was found to be significantly influenced by numerous demographic variables, including gender, professional teaching experiences, undergraduate experiences, conference/workshop attendance, individual study, and community ensemble participation. In addition, respondents who reported participation in an undergraduate jazz course held significantly higher beliefs in their ability to teach jazz than those who chose not to participate in such a setting.

Chapter 5

Discussion

The purpose of this study was to examine Oklahoma secondary band directors' self-efficacy in concert, marching, and jazz ensemble pedagogy. A secondary purpose of this study was to investigate potential relationships between Oklahoma band directors' pedagogy self-efficacy (in each of the three ensemble settings) and their respective previous experiences. Results of the study may provide the music education community with information to address possible gaps in professional band director preparatory experiences and beliefs in ability through various interventions. Band directors at Oklahoma high schools, registered with the Oklahoma Secondary School Activities Association (OSSAA), were invited to participate in an online survey. The survey was used to collect demographic information pertaining to band directors' professional and undergraduate experiences, in addition to their ensemble pedagogy self-efficacy.

Self-Efficacy in Ensemble Pedagogy

In this study, band director self-efficacy in concert band pedagogy was determined to be the highest among the three ensemble environments, followed by marching band and jazz band respectively; differences between self-efficacy of each ensemble setting were statistically significant. Educator self-efficacy has been found to influence student achievement, student motivation, and student self-efficacy, as well as teacher disposition and classroom culture (Woolfolk Hoy & Davis, 2006). Based upon the previous research, Oklahoma band directors with low self-efficacy in a specific

ensemble pedagogy may be negatively affecting student achievement, motivation, and efficacious beliefs in such a setting. Future music education researchers should investigate how band director self-efficacy might impact student performance achievement, self-efficacy, motivation, and teacher disposition in various instrumental ensembles.

Three commonly found instrumental music ensembles in the state of Oklahoma are concert, marching, and jazz bands (Kirkpatrick Foundation/Quadrant Arts Education Research, 2010). When asked to report the ensemble settings in which they taught, 68.4% (n = 91) of band directors in this study indicated teaching experiences in a jazz setting. Despite this high percentage of jazz teaching requirements by Oklahoma public school band directors, only 6.8% (n = 9) of respondents were required to take a jazz-related course during college. Oklahoma collegiate music educators have revealed concerns regarding a lack of training in jazz settings at their respected institutions, in addition to believing at least one jazz credit should be required for graduation from a music education program (Jones, 2005). Such requirements could provide meaningful jazz experiences for preservice band directors, raising their efficacious beliefs as a result (Bandura, 1997). It is not surprising that band director self-efficacy in jazz pedagogy was found to be significantly lower than beliefs in the other ensemble settings. Music teacher education program administrators in Oklahoma may need to assess jazz-related opportunities and requirements at their individual institutions in order to better prepare band directors for the most probable classroom settings.

Sources of Self-Efficacy

Sources of band director self-efficacy in ensemble pedagogy were somewhat consistent among concert, marching, and jazz band. Among the four sources (mastery experience, physiological state, vicarious experience, verbal persuasion), mastery experience had the highest correlation with self-efficacy in concert and marching band pedagogy, while vicarious experience had the lowest correlation. Findings were consistent with those from previous investigations on the sources of self-efficacy (Bandura, 1997; Usher & Pajares, 2009; Zelenak, 2011) in which mastery experience correlated highest and vicarious experience correlated lowest. It is recommended that confirmatory factor analysis (CFA) procedures be used in future research to determine the weight each source has on band director pedagogy in concert and marching band settings. Relationships could then be examined with band director experiences to find patterns among highly efficacious educators, while also providing music education program administrators information to assess their program efficacy.

Jazz band self-efficacy varied from the other ensemble settings, resulting in physiological state having the highest correlation with the ensemble self-efficacy score; verbal persuasion had the lowest correlation. Physiological state has previously been identified to be the third-best indicator of one's self-efficacy (Usher & Pajares, 2009; Zelenak, 2015). Although the strength of the sources may differ among settings, mastery experience is typically the best predictor of self-efficacy beliefs (Bandura, 1997; Usher & Pajares, 2009). Zelenak (2015) created a measure to investigate student performance self-efficacy, using at least 5 items to measure each source, finding proper fit with Bandura's (1997) proposed model of source influence. Since mastery

experience did not correlate the strongest with jazz pedagogy self-efficacy, future researchers might consider expanding the number of items measuring the sources of self-efficacy, as well as the number of participants. Such modifications to the measure may provide better source fit with Bandura's recommended model.

Gender

Although differences between gender and self-efficacy beliefs were not significant in concert or marching band settings, statistically significant differences were found between male and female self-efficacy in jazz pedagogy. The mean score for males in jazz self-efficacy was 20 points higher than that of females ($p = .01$), suggesting males hold higher self-efficacy beliefs towards jazz pedagogy than females. Men were also more likely to participate in a jazz-related course during their undergraduate degree. Wehr-Flowers (2006) found similar correlations between gender and jazz self-efficacy, reporting that females had less efficacious beliefs towards improvisation, less confidence, and were more anxious toward improvisation than their male counterparts. One reason females may have less efficacious feelings in jazz pedagogy is that they have less access to jazz studies due to their instrument choices—another factor that was found to be highly correlated with gender (Delzell, 1993). In the current study, 62.0% of females who did not participate in an undergraduate jazz course identified that their primary instrument was not included in jazz ensemble. Delzell (1993) also suggested that females who lack access to jazz studies may limit their potential to be hired for a high school band position where responsibilities include teaching a jazz ensemble. Based upon the findings of this and previous studies, it seems there may be obstacles preventing female preservice band directors from receiving

equal opportunities to their male counterparts in the jazz setting. Further research into the relationships between female identity, access to jazz courses, and self-efficacy in a jazz setting seems warranted.

Professional Teaching Experiences

In the present study, band directors' efficacious beliefs in a given ensemble setting were higher when they reported professional experiences in that same setting. Statistically significant correlations were found between professional teaching experiences and ensemble self-efficacy in both marching and jazz band settings. Band directors who had no prior marching or jazz band teaching experience had significantly lower self-efficacy in ensemble pedagogy than their counterparts. Participants who were teaching in a specific ensemble setting at the time of the study also had higher levels of self-efficacy than those who were not teaching in such a setting, particularly in marching and jazz. Because band director self-efficacy was higher among those who held pedagogical experiences than those who did not, it seems imperative that preservice educators receive authentic-context learning (ACL) activities at the collegiate level to prepare them to teach in ensemble settings commonly found in Oklahoma. ACL activities aim to provide future educators with experiences found within professional practice, and have been highly valued by in-service teachers (Bauer & Berg, 2001; Conway, 2002; Teachout, 1997) and preservice teachers alike (Schmidt, 2012). Since most participants reported teaching in a jazz setting during their professional career (and directors with pedagogical jazz experience held significantly higher efficacious beliefs), preservice music educators should be afforded ACL activities in jazz settings along with concert and marching band.

School Classification

Statistically significant differences were found between band director school classification and their self-efficacy in concert and marching band pedagogy. Directors at 3A schools (those ranking 129–256 in student populations) held the highest self-efficacy beliefs in the concert band setting, and were significantly higher than those at the 2A classification (those with student populations ranking below 256). Concerning marching band self-efficacy, scores for directors teaching at the 5A classification (schools ranking 33–64 in student populations) were significantly higher than those teaching at 3A and 2A classifications. Although the amount of time spent teaching in specific ensemble settings was not collected, band directors at larger schools may spend more time teaching primarily in a band environment, rather than several music settings (e.g., choir, elementary music, etc.)—a teaching situation more commonly found in smaller schools where fewer music teachers exist. In such a case, band directors may be required to teach a larger number of music specializations. Researchers have noted that while music educators in smaller districts may serve multiple schools (Hicks, 2010), they are also more likely to have responsibilities outside the music classroom, including driving a school bus, advise non-music clubs, coach an athletic program, and teach courses in other academic areas (Isbell, 2005; Poliniak, 2009). This time away from the music classroom suggests band directors in smaller schools may not be receiving as many mastery experiences as their colleagues at larger high schools, possibly resulting in less efficacious beliefs in their pedagogical ability. Relationships between school size, music-teaching settings, the number of schools educators serve, and self-efficacy should be considered by future researchers.

Professional Development

Each ensemble setting had at least one professional development item significantly impact band director self-efficacy; individual study proved particularly impactful. Although school in-service experiences had no significant influence on self-efficacy in any ensemble setting, participation in conferences/workshops was indicative of strong self-efficacy beliefs in marching and jazz settings. Quesada (1992) found similar relationships among workshop attendees, reporting statistically significant differences in music educator self-efficacy towards teaching Puerto Rican music after participating in a workshop on said content area. Additionally, elementary band directors' attitudes and comfort levels toward comprehensive musicianship were found to increase after attending workshops focused on the topic (Parkes, 1988). Workshops have long been used to raise one's efficacy in identified areas of need (Fullan & Pomfret, 1977). Although jazz seems to be a high area of need for pedagogical growth of Oklahoma band directors (based on the reported self-efficacy beliefs), it is interesting to note that respondents reported less jazz workshop experiences than the other ensemble settings. However, those directors who attended jazz workshops held significantly higher self-efficacy beliefs than those without such experiences. Based on the findings of this and previous studies, practicing music teachers who desire to raise their self-efficacy in a specific area of ensemble pedagogy might consider attending conferences and/or workshops targeting their field of need.

Participation in professional/community bands had a significant influence on self-efficacy in marching and jazz band pedagogy. The experience of performing in such an ensemble, as well as observing rehearsal techniques from a player perspective,

may impact band directors' pedagogical beliefs. West (2014) found that playing in an ensemble was of great importance to middle school band directors' attitudes toward jazz pedagogy. Participation in such ensembles has the potential to influence the sources related to self-efficacy in ensemble pedagogy, particularly vicarious experiences. Through these opportunities, band directors are able to relate their own teaching abilities to those of the professional/community ensemble conductor. Schunk (1987) suggested individuals also cognitively adjust their beliefs by comparing their experiences to the model's successes and failures. Band directors wanting to further develop their self-efficacy in marching and/or jazz settings should seek out related performance experiences, such as those afforded to them through participation in professional or community ensembles.

Undergraduate Experiences

Oklahoma band directors indicated a large portion of their professional and preservice experiences took place in a concert band setting; fewer experiences were in a marching setting and even less in a jazz setting. Reported demographic information suggests band director self-efficacy is influenced by their previous undergraduate experiences, as theorized by Bandura (1997). Investigated undergraduate experiences common among the three ensemble settings included ensemble methods, field work, and ensemble participation. Because respondents possessed such a high number of shared experiences in the concert and marching band environment at the undergraduate level, statistically significant differences between ensembles and variables may have been minimized. Conversely, band directors held a relatively low number of shared experiences in a jazz setting but numerous variables were found to be statistically

significant. Administrators of Oklahoma music teacher preparation programs wishing to raise the efficacious beliefs of their preservice band directors might consider examining their program offerings and requirements. Curricular development could provide preservice educators with opportunities to receive further pedagogical mastery experiences in instrumental ensemble settings, thus raising their pedagogical efficacious beliefs.

Methods courses. All respondents identified participation in a concert band methods course, thus statistical differences in the concert band setting could not be analyzed. In regard to marching band pedagogy, band directors who did not participate in a marching band techniques course have previously reported a high need for such experience (Tracz, 1987). However, results from the current study indicated no significant relationship between participation in a marching methods course and self-efficacy in a marching setting. A lack of significant difference should not be interpreted as a sign of course effectiveness, but rather an indicator that directors may hold a high number of similar experiences in a given setting—as opposed to a jazz setting, where respondents might share fewer experiences. This premise seemed to be supported by findings from the present study, where only 27.5% of respondents indicated participating in a jazz methods course, yet significantly higher self-efficacy beliefs in jazz were identified among respondents who participated in a jazz methods course. Analysis also indicated 70.2% of band directors currently teaching in a jazz setting did not participate in a jazz-specific techniques course at the undergraduate level. Oklahoma music teacher educators have placed high importance on jazz methods courses in the past (Jones, 2005), possibly due to the high percentage of band directors

who teach in such a setting. Methods courses may play an important role in the development of efficacious beliefs, especially if individuals have a low number of previous experiences in a particular setting. Music teacher educators identifying low efficacious beliefs among their students may wish to examine the method course offerings, requirements, and content of their respected undergraduate curriculum dedicated to particular ensemble pedagogy.

Ensemble participation. The number of semesters participating in an ensemble did not have a significant impact on band director self-efficacy in concert or marching settings. Although not all results were statistically significant, band directors with at least one semester of jazz ensemble participation indicated more efficacious beliefs than those without similar jazz ensemble participation. Further analysis in this study revealed that five or more semesters in a large jazz ensemble had a significant, positive influence on band directors' jazz pedagogy self-efficacy beliefs. Analysis of jazz combo participation indicated 3–4 semesters had a statistically significant influence on self-efficacy in jazz pedagogy as well. These findings support those by West (2014) who reported that participation in collegiate jazz ensembles had a significant influence on band directors' pedagogical development. Although participation in jazz ensembles may not provide mastery experiences in pedagogy, they likely expose students to professional teaching (i.e., vicarious experiences in pedagogy), improvisation, theory, various styles, and repertoire unique to the jazz setting (Dunscomb & Hill, 2002; Jones, 2005; Lawn, 1995). Most Oklahoma collegiate music programs offer a jazz ensemble, but barriers such as required curricular coursework (Jones, 2005) or instrument choice (McKeage, 2004) can prevent interested students from participating. Because

efficacious beliefs were found to be positively influenced by jazz ensemble participation in this study, music teacher educators should ensure all preservice teachers—regardless of instrument or voice type—are afforded opportunities to participate in a jazz ensemble during their undergraduate study.

Field work. Band directors held a high number of experiences in a field setting (e.g., student teaching, field experience placements), with nearly all respondents reporting such experiences in a concert band setting. In addition, over half of band directors reported field training in a marching band setting and less than half taught in a jazz setting. Experiences in the field did not result in significantly different efficacy scores in concert or marching pedagogy, but individuals who reported field experiences in jazz band held significantly higher efficacious beliefs in jazz pedagogy than those who did not receive such experiences. Prichard (2013) found a correlation between preservice music teacher efficacy beliefs and the total number of field experience hours. In order to raise self-efficacy beliefs in particular ensemble pedagogy, it seems warranted that experiences teaching in a specified setting during field work could influence preservice music educators' jazz pedagogy self-efficacy—particularly if they have no prior background teaching or performing in such an ensemble. Since a majority of Oklahoma secondary band directors reported teaching in a jazz setting throughout the course of their careers, it seems imperative that music teacher educators and cooperating teachers seek out opportunities for preservice educators to teach in an authentic public school jazz setting during the teacher preparation program.

Jazz coursework. Respondents who participated in jazz-related courses during their undergraduate teacher preparation program held significantly higher self-efficacy

beliefs in jazz pedagogy when compared to those without similar experiences. Of the 125 respondents, 64.0% (n = 80) voluntarily enrolled in a jazz course, although they were not required to do so. Only nine (6.8%) of 133 respondents indicated an undergraduate jazz course was required at their respected institution. Individuals who were required to participate in a jazz course also held significantly higher self-efficacy in jazz pedagogy. Oklahoma music education program administrators have expressed concerns regarding insufficient training in jazz settings (Jones, 2005)—concerns that appear to be supported by the self-efficacy results of the present study. Additional analysis by Jones (2005) revealed that band directors believed music education majors should be required to take at least one jazz credit during undergraduate study.

Demographic information of undergraduate jazz courses (collected from those who indicated participation in such a course) was analyzed in regard to their affect on jazz pedagogy self-efficacy. Jazz theory had the largest significant influence on self-efficacy beliefs, followed by applied jazz lessons, jazz improvisation, jazz arranging, and jazz pedagogy respectively. Ciorba (2009) suggested jazz theory, as well as self-efficacy (to a lesser extent), could also influence jazz improvisation achievement. Jazz course participation at the undergraduate level—particularly collegiate jazz band, jazz pedagogy, and improvisation—has been correlated with one's perceived ability to teach jazz (West, 2014).

Band directors who elected not to participate in a jazz course at the undergraduate level (n = 45) were asked to provide a rationale for their response. Of the options provided, over 20% (n = 27) indicated they chose note to participate because it was not a requirement of the music teacher preparation program. A high number of

respondents also identified that their primary instrument was not included in the collegiate jazz ensemble and/or they felt there was not enough time for participation. Only 4.5% of respondents indicated they had no interest, suggesting barriers may be hindering preservice band directors from participating in jazz-related courses.

Music teacher education program administrators should explore opportunities for their students to gain jazz experiences—particularly in the areas of jazz theory, improvisation, and pedagogy—in order to positively influence efficacious beliefs in jazz pedagogy. A possible option for jazz curriculum development could be the adoption of Barr's (1974) educator jazz ensemble—an experience that has not been widely implemented since its design (Balfour, 1988; Knox, 1996; Jones, 2005; Rummel, 2010; Treinen, 2011). Such a course would provide music education students of all instrument and voice types experiences in performing, teaching, interpretation, and improvisation. If preservice band directors are not required to participate in a jazz course, then music education administrators should work with colleagues to insure all interested students have an opportunity to receive experiences in a jazz setting, particularly since such ensembles are prevalent in Oklahoma secondary schools.

Implications for Music Education

Self-efficacy in pedagogy. The findings of this study indicate Oklahoma secondary band director self-efficacy in jazz band pedagogy to be lowest of the three measured ensemble settings. According to Bandura's (1997) theory of self-efficacy, this would suggest band directors may be receiving a higher number of successful professional and preservice experiences in concert and marching ensemble settings than in jazz ensemble settings. Many of these ensemble experiences were reported to take

place in an undergraduate degree program (e.g., enrollment in methods courses, performance in instrumental ensembles). Reported differences in the number of experiences among band directors could be attributed to individual expectations/requirements of music teacher preparation programs—curricula designed to best prepare instrumental music educators for success in the public school music classroom. Almost all respondents indicated experiences in both concert and marching band settings, but only 66.7% reported participation in a jazz-related course at the undergraduate level; 6.8 % indicated a jazz-related course was required. Considering almost 70% of secondary band directors in the state of Oklahoma reported teaching jazz band during their career, music education program administrators may want to revisit the requirements and opportunities afforded preservice band directors to gain successful pedagogical experiences in a jazz setting. Such a change may result in increased levels of efficacious beliefs in jazz ensemble pedagogy. Considering Ross's (1998) suggested influence of teacher self-efficacy on student experience, higher self-efficacy in jazz pedagogy among band directors may impact student achievement, student motivation, and teacher disposition in the jazz band setting.

Mastery experiences. Among the four measured sources, mastery experience was found to have the highest correlation with composite pedagogy self-efficacy, concert band pedagogy self-efficacy, and marching band pedagogy self-efficacy; mastery experience was the second highest correlated source of efficacy in jazz pedagogy. Bandura (1997) asserted these successful and unsuccessful experiences have the most influence on one's efficacious beliefs, therefore providing successful mastery opportunities in concert, marching, and jazz band settings may result in higher self-

efficacy in pedagogy. Specific teaching episodes found to significantly influence self-efficacy in marching and jazz band pedagogy included past and present professional teaching experiences. Music education programs frequently provide preservice band directors with student teaching and field work as a part of ACL experiences (Paul, 1998; Paul et al., 2001). Band directors who reported such training in marching and jazz settings were found to hold significantly higher pedagogical self-efficacy beliefs than their counterparts. Because marching and jazz settings are commonly found in the state of Oklahoma, music teacher educators should explore ways for preservice students to gain more mastery experiences in these settings, which in turn may raise directors' efficacious beliefs.

Professional development opportunities should be considered as another effective means of advancing efficacious beliefs. Reported experiences in individual study was indicative of significantly strong efficacy beliefs in all three ensemble settings, while several experiences significantly influenced efficacy in marching and jazz settings (e.g., participation in a community or professional ensemble, attending a conference/workshop). Professional development may present band directors with important vicarious, verbal, and physiological experiences that have been recorded as influential factors in efficacy beliefs (Bandura, 1997). Band directors interested in developing their efficacy in various ensemble pedagogies should consider participating in conference, ensemble, and individual study opportunities in the related ensemble setting.

Undergraduate jazz courses. Particular interest was given to investigating the affects of jazz-related courses on band director efficacy beliefs in jazz pedagogy.

Respondents who participated in jazz courses, both as a requirement or voluntarily, held significantly higher efficacious beliefs than those without jazz-related experiences. Particular courses that significantly influenced efficacy beliefs included applied jazz lessons, jazz theory, jazz improvisation, and jazz pedagogy. Although Jones (2005) reported difficulty in changing undergraduate program requirements for jazz-related courses, music teacher educators should investigate opportunities to provide a variety of jazz-related experiences in existing undergraduate curricula. By encouraging students to participate in jazz courses or experience jazz pedagogy topics in existing coursework (e.g., a unit of an instrumental methods course), individuals would be afforded curricular opportunities that may strengthen their efficacious beliefs in jazz pedagogy.

Recommendations & Limitations

The results of this study are specific to band director self-efficacy in pedagogical settings found in the state of Oklahoma and should be generalized with care. However, because overall reliability of the Band Director Pedagogy Self Efficacy Measure (BDPSEM) was strong ($\alpha = .92$), future researchers should feel confident utilizing it as a measure for comparing band director self-efficacy in concert, marching, and jazz pedagogy. Prompts pertaining to each individual ensemble setting (e.g., concert, marching, or jazz) could also be used as an independent, 12-item measure of efficacy in pedagogy among preservice or practicing band directors.

Sources of self-efficacy. Sources measuring self-efficacy in concert and marching band pedagogy reflected similar correlations reported in prior research (Usher & Pajares, 2009; Zelenak, 2015). However, source measurements of jazz band pedagogy self-efficacy differed from previous studies where mastery experience had the

strongest relationship. I hypothesize this was caused by only including 3 items to measure each source in the jazz setting. Zelenak (2015) used a minimum of 5 items to measure an individual source, finding good fit with prior measurements (Bandura, 1986; Hu & Bentler, 1998). Future researchers wishing to investigate the sources of self-efficacy in ensemble pedagogy, particularly in jazz, should consider using a minimum of 5 items (aligned with previous measurements) to measure each source in an attempt to improve fit.

Sources of self-efficacy were analyzed utilizing a Pearson product moment correlation. Researchers investigating the sources of efficacy beliefs in other academic settings have used Confirmatory Factor Analysis (CFA) as a means to analyze the influence of various sources on composite self-efficacy (Usher & Pajares, 2009; Zelenak, 2015). General rules for determining the sample size needed to carry out a CFA include, but are not limited to (a) $N \geq 200$, and (b) ratio of N to the number of variables in a model p, $N/p \geq 10$ (Marsh, Hau, Balla, & Grayson, 1998). Due to the relatively low number of respondents in this study ($N = 133$), it was determined CFA would not be an appropriate analysis. Future researchers should consider acquiring a larger sample size in order to utilize CFA measurement techniques in their investigation of self-efficacy and its sources in band ensemble pedagogy.

School classification. Although school classification had a significant influence on efficacious beliefs in both marching and jazz settings, additional relationships might be found between self-efficacy, school classification, and time spent teaching in specific musical settings. Researchers have reported that music educators in smaller districts may teach in multiple buildings and settings (Hicks, 2010), while also being more likely

to have teaching responsibilities outside the music classroom (Isbell, 2005; Poliniak, 2009). With potentially less teaching responsibilities in a band setting, directors in smaller districts may not be receiving as many mastery experiences in band as directors at larger districts. Such a difference in experiences may cause a difference between efficacious beliefs of large and small school band directors. Future investigations into the relationships among school classification, the number of schools music educators serve, the amount of different music settings, and self-efficacy seem warranted.

While this study only surveyed secondary band directors, future researchers should consider measuring efficacious beliefs among middle and elementary school band directors, as well. Directors at these schools may hold different levels of self-efficacy beliefs than secondary directors because of varying pedagogical experiences (e.g., student abilities, ensembles offered in curriculum), resulting in different professional needs toward improving self-efficacy in ensemble pedagogy.

Geographic location. Due to the geographic location of survey respondents (i.e., all respondents were from the state of Oklahoma), readers should be careful to generalize findings among band directors from other states. Each state (including the public schools, colleges/universities, professional music education organizations) possesses a unique ensemble culture, as well as musical expectations (e.g., contests, festivals, etc.). While marching band may be an important part of the Oklahoma instrumental music culture, mariachi, fiddle, or other instrumental ensembles may play larger roles in other states. As a result, college methods course curricula commonly found in one state may differ from those at institutions across the U.S, thus affecting instrumental music teachers' efficacious beliefs. In an attempt to gather information

that is generalizable to other states and regions, future researchers should examine self-efficacy in ensemble pedagogy from (a) other, or larger, geographic regions; and (b) various instrumental ensemble settings, in an attempt to determine how variables are similar or different than those found in Oklahoma.

Competition. Although the current study did not include a prompt to determine band directors' participation in band competitions, such a variable may have a significant influence on self-efficacy. Possible increases in time spent preparing for competition may result in higher amounts of mastery experiences in any given band setting, thus affecting directors' efficacious beliefs in pedagogy for that ensemble. Future researchers may wish to investigate the possible influence competition has on band director self-efficacy.

Workplace demographics. Further demographic variables should be examined to determine their possible influence on self-efficacy, as well as combinations of variables used in this and future studies. For instance, band directors were not asked to identify the number of other directors in their school or district. Band directors who share pedagogical time with other educators may hold a high number of vicarious experiences from watching their colleagues teach. However, these same individuals may not be afforded as many mastery experiences as directors who serve as the sole instrumental music teacher in their school or district, thus influencing their efficacious beliefs (specifically, mastery experience) in particular settings. Similarly, respondents in future studies should be asked to identify other music settings (e.g., elementary, choir, music technology, etc.) and the number of schools in which they teach. Individuals who teach in multiple music settings and/or schools may hold lower

efficacious beliefs in ensemble pedagogy as a result of dedicating more time toward teaching and preparation in other music areas.

Undergraduate demographics. For the purposes of this study, band directors were asked to identify whether or not a jazz course was required of their undergraduate music teacher preparation program. Although I asked respondents to identify how many semesters they participated in each of the three large band ensembles (concert, marching, and jazz), no questions were included to determine whether ensemble participation or methods courses were required in a concert or marching band setting. Information obtained regarding all methods course requirements could reveal further relationships between program requirements and ensemble pedagogy efficacy.

Instructions within this survey asked directors to report marching band by season and not the semester (i.e., one season of marching band was to be counted as one semester). Yet, a relatively high number of respondents (13.7%) identified 7 or more years of marching band experience. Due to the unlikely nature that such a large percentage of respondents spent 7 or more years in an undergraduate marching band, I determined that some participants may not have accurately reported their experience in college marching band. Thus, results pertaining to the number of marching band semesters (specifically, correlations between marching band experience and self-efficacy variables) should be interpreted with care. Future researchers should consider improved clarity of survey instructions and prompts when collecting information pertaining to the number of semesters participating in ensemble courses that meet year-round.

Concluding Statement

Efficacious beliefs are developed and influenced by one's previous experiences. Practicing band directors in the state of Oklahoma gain many of these experiences through ensemble participation, professional teaching episodes, professional development, methods courses, and undergraduate field work. Undergraduate music education programs provide many of these experiences through required coursework to best prepare future band directors for success in Oklahoma band settings. Although concert, marching, and jazz have been identified as common band settings within the state of Oklahoma, very few preservice band directors are required to complete a jazz-related course for graduation, resulting in some practicing band directors not receiving jazz experiences at the undergraduate level. Considering self-efficacy in jazz band pedagogy has been identified as significantly lower than those in concert and marching settings—and band directors who participated in a jazz course held significantly higher efficacious beliefs than their counterparts—Oklahoma music education administrators are encouraged to examine their jazz-related curricular expectations and opportunities. Band directors who receive such experiences may feel more efficacious towards teaching jazz, and thus possibly raising student experiences and outcomes in the jazz ensemble setting.

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Appendix A: University of Oklahoma IRB Approval Letter

The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Approval of Initial Submission – Exempt from IRB Review – AP01

Date: October 14, 2015 **IRB#:** 6042

Principal Investigator: Bradley Regier **Approval Date:** 10/13/2015

Exempt Category: 2

Study Title: A Measurement of the sources of self-efficacy among Oklahoma secondary band directors in jazz, concert, and marching ensemble pedagogy

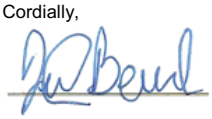
On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,



Fred Beard, Ph.D.
Vice Chair, Institutional Review Board

Appendix B: Recruitment Email

Dear Participant,

My name is Bradley Regier, and I am currently working on my Masters of Music Education at the University of Oklahoma. My thesis, supervised by Dr. Christopher Baumgartner, concerns secondary band director self-efficacy in concert, marching, and jazz pedagogy. This survey aims to measure the sources of band director self-efficacy in ensemble settings while also relating responses to preservice teaching experiences.

This study has been approved by the University of Oklahoma Institutional Review Board. The survey will take approximately 8 minutes to complete. Participation is completely voluntary, and would be greatly appreciated. Your identity will be in no way connected to your responses once the survey is submitted. The University of Oklahoma is an Equal Opportunity Institution.

The survey can be accessed by clicking the link below.

https://ousurvey.qualtrics.com/jfe/preview/SV_5cI2LlOpXJIZJK5

Thank you for your time. Please feel free to contact me if you have any questions.

Sincerely,

Bradley J. Regier

316-737-2256
bregier@ou.edu

Appendix C: First Reminder Message

Greetings once again!

Please accept this reminder regarding my research study on band director self-efficacy. Below is my previous message that includes a description of the research project and a link to the survey, which will be active until Sunday evening.

If you have already responded to the survey, I thank you for your time! Your participation is greatly appreciated.

Sincerely,
Bradley J. Regier

Appendix D: Final Reminder Message

Greetings once again,

If you have already responded to my survey regarding band director self-efficacy, I thank you very much. Your time and efforts are greatly appreciated!

If you have not yet responded, please accept this final reminder as an invitation to participate. I have listed my initial message below, which includes a description of the research project and a link to the online survey. **The survey will only remain active through the end of this month.** Thank you for your consideration!

Sincerely,
Bradley J. Regier

Appendix E: Informed Consent Form

University of Oklahoma
Institutional Review Board
Informed Consent to Participate in a Research Study

Project Title: A Measurement of the Sources of Self-efficacy Among Secondary Band Directors in Jazz, Concert, and Marching Ensemble Pedagogy

Principal Investigator: Bradley J. Regier

Department: Music

You are being asked to volunteer for this research study. This study is being conducted at The University of Oklahoma Norman campus. You were selected as a possible participant because you are a secondary band director currently employed in the state of Oklahoma.
Please read this form and ask any questions that you may have before agreeing to take part in this study.

Purpose of the Study
The purpose of this study is to examine the relationships between band director self-efficacy in concert, marching, and jazz ensemble pedagogy. A secondary purpose was to relate these self-efficacy measures with band directors' preservice music teacher preparation.

Number of Participants
Approximately 600

Procedures
If you agree to be in this study, you will be asked to complete an online survey regarding unidentifiable demographic information and beliefs in your ability to carry out certain pedagogical tasks.

Length of the Survey

The survey will take approximately 10 minutes to complete.

Risks of being in the study

None

Benefits of being in the study are

None

Compensation

You will not be reimbursed for your time and participation in this study.

Confidentiality

There will be no information included that will make it possible to identify you. Research records will be stored securely and only approved researchers will have access to the records.There are organizations that may inspect and/or copy your research records for quality assurance and data analysis. These organizations include the OU Institutional Review Board.

Voluntary Nature of the Study

Participation in this study is voluntary. If you withdraw or decline participation, you will not be penalized or lose benefits or services unrelated to the study. If you decide to participate, you may decline to answer any question and may choose to withdraw at any time.

Waivers of Elements of Confidentiality

You will not be asked to provide your name or school affiliation. The data you provide will be retained in anonymous form. Once you submit your survey responses, there will be no way to match your identity with your responses.

Contacts and Questions

If you have concerns or complaints about the research, the researcher(s) conducting this study can be contacted at the following phone numbers and email addresses: Bradley Regier 316-737-2256, bregier@ou.edu; Dr. Christopher Baumgartner 419-410-0162, cbaumgartner@ou.edu.

Contact the researcher(s) if you have questions, or if you have experienced a research-related injury. If you have any questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than individuals on the research team or if you cannot reach the research team, you may contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb.ou.edu. This study was approved by the University of Oklahoma Institutional Review Board on 10/13/2015. IRB # 6042. Please print a copy of this page for your records. Statement of Consent I have read the above information. I have asked questions and have received satisfactory answers. I consent to participate in the study.

☐ I agree to the above terms and consent to participate in the study

☐ I do NOT agree to the above terms.

Appendix F: Online Survey

Section 1: Demographic Information

What is your school's Oklahoma state music classification (OSSAA)?

- ❍ 6A
- ❍ 5A
- ❍ 4A
- ❍ 3A
- ❍ 2A

What population area does your school serve?

- ❍ Urban
- ❍ Suburban
- ❍ Rural

Please provide your gender. (Not required. Previous studies have found relationships between self-efficacy beliefs and gender.)

- ❍ Male
- ❍ Female
- ❍ Other (please specify) _____

Highest degree completed:

- ❍ Bachelors
- ❍ Masters
- ❍ Doctorate

Did you graduate from an Oklahoma college/university?

- ❍ Yes
- ❍ No

What is your current employment status?

- ❍ Full-time teacher
- ❍ Part-time teacher
- ❍ Other (please specify) _____

How many years have you taught, including full and part-time positions? (Include this current school year)

- ❍ 1-5 years
- ❍ 6-10 years
- ❍ 11-15 years
- ❍ 16-20 years
- ❍ 21-25 years
- ❍ 26-30 years
- ❍ Over 30 years

In which ensemble settings do you currently teach? (mark all that apply)

- ❑ Concert Band
- ❑ Marching Band
- ❑ Jazz Band

In which ensemble settings have you taught in the past? (mark all that apply)

- ❑ Concert Band
- ❑ Marching Band
- ❑ Jazz Band

Which band-related methods courses did you complete during your undergraduate coursework? (mark all that apply)

- ❑ Concert Band/Instrumental
- ❑ Marching Band
- ❑ Jazz
- ❑ Other (please specify) _____

Which band-related settings did you teach in during your undergraduate field work

(e.g., student teaching)? (mark all that apply)

- ❑ Concert Band
- ❑ Marching Band
- ❑ Jazz Band

Was participation in a jazz-related course (e.g., jazz methods or arranging, jazz

ensemble, etc.) a requirement of your undergraduate degree?

- ❍ Yes
- ❍ No

Answer if Was participation in a jazz-related course (e.g., jazz methods or arraning, jazz ensemble, etc.)… No Is selected

Did you participate in any jazz-related courses during your undergraduate degree?

- ❍ Yes
- ❍ No

If No is Selected, Then Skip to Why did you not participate in a jazz…

Answer If Was participation in a jazz-related course (e.g., jazz methods or arranging, jazz ensemble, etc.)…Yes Is Selected or Did you participate in any jazz-related courses during your undergraduate degree? Yes Is Selected

Which jazz-related coursework did you complete during your undergraduate degree?

(mark all that apply)

- ❑ Jazz Ensemble/Combo
- ❑ Jazz Arranging/Composition
- ❑ Jazz Improvisation
- ❑ Jazz Theory
- ❑ Jazz Pedagogy
- ❑ Jazz History
- ❑ Applied Jazz Lessons
- ❑ Jazz Keyboard
- ❑ Other (please specify) _____

Answer If Did you participate in any jazz-related courses during your undergraduate degree? No Is Selected

Why did you not participate in a jazz-related course during your undergraduate study?

(mark all that apply)

- ❑ Not a requirement
- ❑ No interest
- ❑ Not enough time
- ❑ Felt a lack of skill/knowledge
- ❑ Intimidated by jazz culture
- ❑ Primary instrument not included in jazz ensemble
- ❑ Other (please specify) _____

How many semesters did you participate in the following ensembles during your undergraduate program?

	0	1-2	3-4	5-6	7-8	9+
Concert Band	❍	❍	❍	❍	❍	❍
Marching Band (consider each season as one semester)	❍	❍	❍	❍	❍	❍
Jazz Large Ensemble/Big Band	❍	❍	❍	❍	❍	❍
Jazz Combo	❍	❍	❍	❍	❍	❍

Where have you received additional experiences outside of university coursework in concert, marching, and jazz? (mark all that apply)

	Concert	Marching	Jazz
Conferences/Workshops	❑	❑	❑
School Inservice	❑	❑	❑
Individual Study	❑	❑	❑
Professional/Community Ensemble (e.g., community orchestra, drum corps, community big band)	❑	❑	❑

In the next section, a number of teaching behaviors will be presented multiple times to reflect various ensemble settings.

Section 2: Band Director Pedagogy Self-Efficacy Measure

Rate your current level of agreement for each statement using the scale below.

	Strongly Disagree 0	1	2	3	4	5	6	7	8	9	Strongly Agree 10
People have told me I have a talent for teaching concert band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I enjoy teaching jazz band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I imagine myself teaching challenging marching band shows successfully.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have had positive experiences teaching jazz band music in the past.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I do well teaching jazz band music.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
My friends think I am a good concert band teacher.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Rate your current level of agreement for each statement using the scale below.

	Strongly Disagree 0	1	2	3	4	5	6	7	8	9	Strongly Agree 10
I have used other conductors as models to improve my concert band teaching skills.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I imagine myself teaching challenging concert band music successfully.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I enjoy teaching concert band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
People have told me I have a talent for teaching jazz band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have been praised for my ability to teach jazz band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have had positive experiences teaching simple jazz band music in the past.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Rate your current level of agreement for each statement using the scale below.

	Strongly Disagree 0	1	2	3	4	5	6	7	8	9	Strongly Agree 10
I do well teaching marching band shows.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have used other conductors as models to improve my marching band teaching skills.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have been praised for my ability to teach marching band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
My friends think I am a good jazz band teacher.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have improved my concert band teaching skills by watching other professionals I respect.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have had positive experiences teaching simple marching band music in the past.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Rate your current level of agreement for each statement using the scale below.

	Strongly Disagree 0	1	2	3	4	5	6	7	8	9	Strongly Agree 10
I have been praised for my ability to teach concert band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I feel confident teaching concert band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I feel confident teaching marching band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I get excited when I think about teaching jazz band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I imagine myself teaching challenging jazz band music successfully.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I enjoy teaching marching band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Rate your current level of agreement for each statement using the scale below.

	Strongly Disagree 0	1	2	3	4	5	6	7	8	9	Strongly Agree 10
I do well teaching concert band music.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have used other conductors as models to improve my jazz band teaching skills.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I get excited when I think about teaching concert band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I get excited when I think about teaching marching band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have had positive experiences teaching simple concert band music in the past.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
My friends think I am a good marching band teacher.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Rate your current level of agreement for each statement using the scale below.

	Strongly Disagree 0	1	2	3	4	5	6	7	8	9	Strongly Agree 10
I have improved by marching band teaching skills by watching other professionals I respect.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have improved my jazz band teaching skills by watching other professionals I respect.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I feel confident teaching jazz band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
People have told me I have a talent for teaching marching band.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have had positive experiences teaching complicated marching band shows in the past.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
I have had positive experiences teaching complicated concert band music in the past.	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍